Navy_CLEAN_PFAS_FOIA_request_covers.indd

NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Level 4 Data Report, Electronic Data Deliverable, Data Validation Report, Sample Location Report, SDG 20I227

NS

Treasure Island, CA

April 2021

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889

Date: 10-26-2020
EMAX Batch No.: 201227

Attn: Sevda Aleckson

NOREAS
16361 Scientific Way
Irvine, CA 92618

Subject: Laboratory Report
Project: TREASURE ISLAND, IR SITE 6

Enclosed is the Laboratory report for samples received on 09/25/20.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
06-MW25-0920	I227-01	09/21/20	WATER	PFCS
06-MW26-0920	I227-02	09/21/20	WATER	PFCS
06-MW30-0920	I227-03	09/21/20	WATER	PFCS
06-MW31-0920	I227-04	09/21/20	WATER	PFCS
06-MW31-0920 DUP	I227-05	09/21/20	WATER	PFCS
06-MW32-0920	I227-06	09/21/20	WATER	PFCS
06-MW33-0920	I227-07	09/21/20	WATER	PFCS
06-MW34-0920	I227-08	09/21/20	WATER	PFCS
06-MW35-0920	I227-09	09/21/20	WATER	PFCS
06-MW36-0920	I227-10	09/21/20	WATER	PFCS
QCFB-092120	I227-11	09/21/20	WATER	PFCS
HP01	I227-12	09/22/20	WATER	PFCS
HP02	I227-13	09/22/20	WATER	PFCS
HP03	I227-14	09/22/20	WATER	PFCS
HP03 DUP	I227-15	09/22/20	WATER	PFCS
HP04	I227-16	09/23/20	WATER	PFCS
HP05	I227-17	09/23/20	WATER	PFCS
HP06	I227-18	09/23/20	WATER	PFCS
HP07	I227-19	09/23/20	WATER	PFCS
HP08	I227-20	09/23/20	WATER	PFCS
HP08 DUP	I227-21	09/23/20	WATER	PFCS
HP09	I227-22	09/22/20	WATER	PFCS
HP10	I227-23	09/22/20	WATER	PFCS
HP11	I227-24	09/22/20	WATER	PFCS
HP12	I227-25	09/23/20	WATER	PFCS
HP13	I227-26	09/23/20	WATER	PFCS
QCFB-092220	I227-27	09/22/20	WATER	PFCS
QCFB-092320	I227-28	09/23/20	WATER	PFCS
06-MW30-0920MS	I227-03M	09/21/20	WATER	PFCS
06-MW30-0920MSD	I227-03S	09/21/20	WATER	PFCS
HP13MS	I227-26M	09/23/20	WATER	PFCS
HP13MSD	I227-26S	09/23/20	WATER	PFCS

Note: PFCS was subcontracted to Bureau Veritas.

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all TNI & DOD requirements unless noted in the Case Narrative.

NELAP Accredited Certificate Number CA002912018-15
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
California ELAP Accredited Certificate Number 2672

NOREAS
Environmental Engineering and Science

CHAIN-OF-CUSTODY RECORD

20I227

COC No. TI-036

PAGE 1 of 3

Project Name/No:	Former Naval Station Treasure Island, San Francisco, CA	**Purchase Order No.**	17023
Project Location:	IR Site 6 - 2020 PFAS 3Q20 Event	**Laboratory Name:**	EMAX, Inc.
Company Name:	NOREAS, Inc.	**Laboratory Contact:**	Richard Beauvil
Address:	16361 Scientific Way Irvine, CA 92618	**Laboratory Address:**	1835 W. 205th Street Torrance, CA 90501
Project Manager:	Hamlet Hamparsumian	**Laboratory Phone:**	(310) 618-8889, ext. 118
Phone/Fax No.	(949) 877-3720		
Project Contact:	Ryley Robitaille	**Airbill No.**	COURIER
Contact Phone:	(714) 273-5132		

Laboratory SDG No:

ANALYSES REQUIRED

	Sample ID	Sampling Location	Date	Time	Matrix	QC Level (3/4)	Unpreserved	Preserved	# of Containers	PFAS Table B-15 Compliant												MS/MSD
1	06-MW25-0920	06-MW25	9/21/2020	1118	W	3	2	-	2	X												
2	06-MW26-0920	06-MW26	9/21/2020	1115	W	3	2	-	2	X												
3	06-MW30-0920	06-MW30	9/21/2020	1253	W	3	6	-	6	X												X
4	06-MW31-0920	06-MW31	9/21/2020	1051	W	4	2	-	2	X												
5	06-MW31-0920 DUP	06-MW31	9/21/2020	1056	W	3	2	-	2	X												
6	06-MW32-0920	06-MW32	9/21/2020	1015	W	4	2	-	2	X												
7	06-MW33-0920	06-MW33	9/21/2020	1025	W	3	2	-	2	X												
8	06-MW34-0920	06-MW34	9/21/2020	0935	W	3	2	-	2	X												
9	06-MW35-0920	06-MW35	9/21/2020	0950	W	3	2	-	2	X												
10	06-MW36-0920	06-MW36	9/21/2020	1218	W	3	2	-	2	X												
11	QCFB-092120	Field Blank	9/21/2020	1430	W	3	2	-	2	X												
12	HP01	HP01	9/22/2020	1356	W	3	2	-	2	X												

Special Instructions: All analytical and QC requirements specified in the Final Sampling and Analysis Plan (May 2017) must be followed.
PFAS Free Water Lot Number C0M1921

Turnaround Time: □ *24 HR* □ *48 HR* □ *72 HR*
X STANDARD *OR* □ _____

Matrix: W: Groundwater or Drinking water; S: Soil; W: Waste

Sampler(s) Name(s): Michael Price

Relinquished By (signature):	Date 9/25/2020	Received By (signature): Keith Stout	Date 9-25-20
Company NOREAS, Inc.	Time 0900	Company Emax	Time 0900
Relinquished By (signature): Keith Stout	Date 9-25-20	Received By (signature) Jenessa Nakagawa	Date 09/25/20
Company Emax	Time 1305	Company EMAX	Time 1305

Sample Condition Upon Receipt (For Laboratory Use)

Cooler Temp (°C): 4.2

Sample Condition: □ **Intact** □ **Broken**

Cooler Seal: □ **Intact** □ **Broken**

DISTRIBUTION: White - Laboratory; Blue - Project File

NOREAS
Environmental Engineering and Science

CHAIN-OF-CUSTODY RECORD

20I227

COC No. TI-036
PAGE 2 of 3

Project Name/No:	Former Naval Station Treasure Island, San Francisco, CA	Purchase Order No.	17023
Project Location:	IR Site 6 - 2020 PFAS 3Q20 Event	Laboratory Name:	EMAX, Inc.
Company Name:	NOREAS, Inc.	Laboratory Contact:	Richard Beauvil
Address:	16361 Scientific Way Irvine, CA 92618	Laboratory Address:	1835 W. 205th Street Torrance, CA 90501
Project Manager:	Hamlet Hamparsumian	Laboratory Phone:	(310) 618-8889, ext. 118
Phone/Fax No.	(949) 877-3720		
Project Contact:	Ryley Robitaille	Airbill No.	COURIER
Contact Phone:	(714) 273-5132		

Laboratory SDG No:

ANALYSES REQUIRED

	Sample ID	Sampling Location	Date	Time	Matrix	QC Level (3/4)	Unpreserved	Preserved	# of Containers	PFAS Table B-15 Compliant	MS/MSD
13	HP02	HP02	9/22/2020	1429	W	3	2	-	2	X	
14	HP03	HP03	9/22/2020	1530	W	4	2	-	2	X	
15	HP03 Dup	HP03 Dup	9/22/2020	1535	W	3	2	-	2	X	
16	HP04	HP04	9/23/2020	1239	W	3	2	-	2	X	
17	HP05	HP05	9/23/2020	1114	W	3	2	-	2	X	
18	HP06	HP06	9/23/2020	0955	W	3	2	-	2	X	
19	HP07	HP07	9/23/2020	0925	W	3	2	-	2	X	
20	HP08	HP08	9/23/2020	1518	W	4	2	-	2	X	
21	HP08 Dup	HP08 Dup	9/23/2020	1523	W	3	2	-	2	X	
22	HP09	HP09	9/22/2020	1059	W	3	2	-	2	X	
23	HP10	HP10	9/22/2020	1208	W	3	2	-	2	X	
24	HP11	HP11	9/22/2020	1124	W	4	2	-	2	X	

Special Instructions: All analytical and QC requirements specified in the Final Sampling and Analysis Plan (May 2017) must be followed.
PFAS Free Water Lot Number C0M1921

Turnaround Time: □ *24 HR* □ *48 HR* □ *72 HR*
X STANDARD *OR* □ _____

Sampler(s) Name(s): Michael Price

Matrix: W: Groundwater or Drinking water; S: Soil; W: Waste

Relinquished By (signature):	Date 9/25/2020	Received By (signature) Keith Stout	Date 9-25-20
Company NOREAS, Inc.	Time 0900	Company Emax	Time
Relinquished By (signature): Keith Stout	Date 9-25-20	Received By (signature) Jenessa Nakagawa	Date 09/25/20
Company Emax	Time 1305	Company	Time 1305

Sample Condition Upon Receipt (For Laboratory Use)
Cooler Temp (°C):
Sample Condition: □ **Intact** □ **Broken**
Cooler Seal: □ **Intact** □ **Broken**

DISTRIBUTION: White - Laboratory; Blue - Project File

NOREAS
Environmental Engineering and Science

CHAIN-OF-CUSTODY RECORD

201227

COC No. TI-036

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Project Name/No:	Former Naval Station Treasure Island, San Francisco, CA	**Purchase Order No.**	17023
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Company Name:	NOREAS, Inc.	**Laboratory Contact:**	Richard Beauvil
Address:	16361 Scientific Way Irvine, CA 92618	**Laboratory Address:**	1835 W. 205th Street Torrance, CA 90501
Project Manager:	Hamlet Hamparsumian	**Laboratory Phone:**	(310) 618-8889, ext. 118
Phone/Fax No.	(949) 877-3720		
Project Contact:	Ryley Robitaille	**Airbill No.**	COURIER
Contact Phone:	(714) 273-5132		

Laboratory SDG No:

ANALYSES REQUIRED

	Sample ID	Sampling Location	Date	Time	Matrix	QC Level (3/4)	Unpreserved	Preserved	# of Containers	PFAS Table B-15 Compliant	MS/MSD
25	HP12	HP12	9/23/2020	0930	W	3	2	-	2	X	
26	HP13	HP13	9/23/2020	1411	W	3	6	-	6	X	X
27	QCFB-092220	Field Blank	9/22/2020	1500	W	3	2	-	2	X	
28	QCFB-092320	Field Blank	9/23/2020	1400	W	3	2	-	2	X	

Special Instructions: All analytical and QC requirements specified in the Final Sampling and Analysis Plan (May 2017) must be followed.
PFAS Free Water Lot Number C0M1921

Turnaround Time: □ *24 HR* □ *48 HR* □ *72 HR*
X STANDARD *OR* □ _____

Matrix: W: Groundwater or Drinking water; S: Soil; W: Waste

Sampler(s) Name(s): Michael Price

Relinquished By (signature):	Date 9/25/2020	Received By (signature): Keith Stout	Date 9-25-20
Company NOREAS, Inc.	Time 0900	Company Emax	Time 0900
Relinquished By (signature): Keith Stout	Date 9-25-20	Received By (signature) Jenessa Nakagawa	Date 09/25/20
Company Emax	Time 1305	Company EMAX	Time 1305

Sample Condition Upon Receipt (For Laboratory Use)

Cooler Temp (°C):

Sample Condition: □ **Intact** □ **Broken**

Cooler Seal: □ **Intact** □ **Broken**

DISTRIBUTION: White - Laboratory; Blue - Project File

SAMPLE RECEIPT FORM 1

Reference: EMAX-SM02 Rev.11
Form: SM02F1

Type of Delivery	Airbill / Tracking Number	ECN 201227
☐ Fedex ☐ UPS ☐ GSO ☐ Others		Recipient Jenessa Nakagawa
☑ EMAX Courier ☐ Client Delivery		Date 09/25/2020 Time 1305

COC INSPECTION

☑ Client Name	☑ Client PM/FC	☑ Sampler Name	☑ Sampling Date/Time	☑ Sample ID	☑ Matrix
☑ Address	☑ Tel # / Fax #	☑ Courier Signature	☑ Analysis Required	☑ Preservative (if any)	☑ TAT
Safety Issues (if any)	☐ High concentrations expected	☐ From Superfund Site	☐ Rad screening required		

Note:

PACKAGING INSPECTION

Container	☑ Cooler	☐ Box	☐ Other		
Condition	☐ Custody Seal	☐ Intact	☐ Damaged		
Packaging	☐ Bubble Pack	☐ Styrofoam	☐ Popcorn	☐ Sufficient	☐ _____
Temperatures (Cool, ≤6 °C but not frozen)	☐ Cooler 1_____ °C	☐ Cooler 2_____ °C	☑ Cooler 3 4.2 °C	☐ Cooler 4_____ °C	☐ Cooler 5_____ °C
	☐ Cooler 6_____ °C	☐ Cooler 7_____ °C	☐ Cooler 8_____ °C	☐ Cooler 9_____ °C	☐ Cooler 10_____ °C
Thermometer:	*A - S/N 19238146 4*	*B - S/N 200291755*	*C - S/N 200291756*	*D - S/N 14025267*	

Comments: ☐ **Temperature is out of range. PM was informed IMMEDIATELY.**

Note:

DISCREPANCIES

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action

9/28/20

9/29/20

☐ pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

NOTES/OBSERVATIONS:

LEGEND:

Code	Description- Sample Management
D1	Analysis is not indicated in _____
D2	Analysis mismatch COC vs label
D3	Sample ID mismatch COC vs label
D4	Sample ID is not indicated in _____
D5	Container -[improper] [leaking] [broken]
D6	Date/Time is not indicated in _____
D7	Date/Time mismatch COC vs label
D8	Sample listed in COC is not received
D9	Sample received is not listed in COC
D10	No initial/date on corrections in COC/label
D11	Container count mismatch COC vs received
D12	Container size mismatch COC vs received

Code	Description-Sample Management
D13	Out of Holding Time
D14	Bubble is >6mm
D15	No trip blank in cooler
D16	Preservation not indicated in _____
D17	Preservation mismatch COC vs label
D18	Insufficient chemical preservative
D19	Insufficient Sample
D20	No filtration info for dissolved analysis
D21	No sample for moisture determination
D22	_____
D23	_____
D24	_____

☐ **Continue to next page.**

Code	Description-Sample Management
R1	Proceed as indicated in ☐ COC ☐ Label
R2	Refer to attached instruction
R3	Cancel the analysis
R4	Use vial with smallest bubble first
R5	Log-in with latest sampling date and time+1 min
R6	Adjust pH as necessary
R7	Filter and preserved as necessary
R8	_____
R9	_____
R10	_____
R11	_____
R12	_____

REVIEWS:

Sample Labeling Jenessa Nakagawa
Date 09/25/2020 9/28/20

SRF
Date 9/28/20

PM
Date 9/29/20

LABORATORY REPORT FOR

NOREAS

TREASURE ISLAND, IR SITE 6

PFCS

SDG#: 20I227

Prepared for: EMAX Laboratories Inc.

Project: TREASURE ISLAND, IR SITE 6

Analytical Data Package
(Level IV)

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

Bureau Veritas Job #: C0P6559

Bureau Veritas Canada (2019) Inc.
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.bvlabs.com

Table of Contents

Bureau Veritas Canada (2019)
Inc.
6740 Campobello Rd.
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5. Initial Calibration

6. Continuing Calibration

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I hereby certify that to the best of my knowledge all analytical data presented in this report:

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

Review Performed By:

Bureau Veritas Canada (2019) Inc.
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.bvlabs.com

Glossary of Terms

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1.0 Project Narrative

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Bureau Veritas Laboratories Job: C0P6559

Sample Analysis

Samples were initially pre-screened and estimated concentrations were obtained so that appropriate sample volumes could be extracted on QC batches 6981801 (2020/10/05) & 6981810 (2020/10/05). Due to high concentrations, the following samples were analyzed for selected analytes using reduced sample extraction volumes:

NTX288	06-MW25-0920	*All target parameters* [1]
NTX289	06-MW26-0920	*Perfluorooctanesulfonic acid (PFOS)*
NTX291	06-MW31-0920	*Perfluorohexanoic acid (PFHxA), Perfluorohexanesulfonic acid (PFHxS), & Perfluorooctanesulfonic acid (PFOS)*
NTX292	06-MW31-0920DUP	*Perfluorohexanoic acid (PFHxA), Perfluorohexanesulfonic acid (PFHxS), & Perfluorooctanesulfonic acid (PFOS)*
NTX293	06-MW32-0920	*All target parameters* [1]
NTX294	06-MW33-0920	*Perfluorohexanesulfonic acid (PFHxS), Perfluorooctanoic acid (PFOA) & Perfluorooctanesulfonic acid (PFOS)*
NTX295	06-MW34-0920	*Perfluorooctanesulfonic acid (PFOS)*
NTX296	06-MW35-0920	*Perfluorooctanesulfonic acid (PFOS)*
NTX307	HP08	*Perfluorohexanesulfonic acid (PFHxS) & Perfluorooctanesulfonic acid (PFOS)*
NTX308	HP08 DUP	*Perfluorohexanesulfonic acid (PFHxS) & Perfluorooctanesulfonic acid (PFOS)*

Detection limits were adjusted accordingly.
[1] Due to high concentrations of select parameters, sample was analyzed at more than one dilution resulting in elevated limits of detection (LOD) for non-detects. The lowest LOD was used for reporting non-detects.

Manual Integrations

Due to poor automated integration, manual integration was performed for selected analytes in the following sample(s):

BV Sample ID	Client Sample ID	Parameter	Manual Integration (MI) Code
NTX288	06-MW25-0920	Perfluorooctanoic acid (PFOA)	MI-f
NTX289	06-MW26-0920	Perfluorooctanoic acid (PFOA)	MI-f
NTX290	06-MW30-0920	Perfluorooctanoic acid (PFOA)	MI-f
NTX291	06-MW31-0920	Perfluorooctanoic acid (PFOA)	MI-f
NTX292	06-MW31-0920DUP	Perfluorooctanoic acid (PFOA)	MI-f
NTX293	06-MW32-0920	Perfluorooctanoic acid (PFOA)	MI-f
NTX294	06-MW33-0920	Perfluorooctanoic acid (PFOA)	MI-f
NTX295	06-MW34-0920	Perfluorooctanoic acid (PFOA)	MI-f
NTX296	06-MW35-0920	Perfluorooctanoic acid (PFOA)	MI-f
NTX297	06-MW36-0920	Perfluorooctanoic acid (PFOA)	MI-f
NTX299	HP01	Perfluorooctanoic acid (PFOA)	MI-f
NTX300	HP02	Perfluorooctanoic acid (PFOA)	MI-f

NTX303	HP04	Perfluorooctanoic acid (PFOA)	MI-f
NTX304	HP05	Perfluorohexanesulfonic acid (PFHxS)	MI-c
NTX305	HP06	Perfluorooctanoic acid (PFOA)	MI-f
NTX306	HP07	Perfluorooctanoic acid (PFOA)	MI-f
NTX307	HP08	Perfluorooctanoic acid (PFOA)	MI-f
NTX308	HP08 DUP	Perfluorooctanoic acid (PFOA)	MI-f
NTX309	HP09	Perfluorooctanoic acid (PFOA)	MI-f
NTX311	HP11	Perfluorooctanoic acid (PFOA)	MI-f
NTX312	HP12	Perfluorooctanoic acid (PFOA)	MI-f
NTX313	HP13	Perfluorooctanoic acid (PFOA)	MI-f
MS/MSD QC batch 6981801	N/A	Perfluorooctanoic acid (PFOA)	MI-f
MS/MSD QC batch 6981810	N/A	Perfluorooctanoic acid (PFOA)	MI-f

MI-a: Peak missed by automated integration due to a slight shift in retention time.

MI-b: Misidentification of peak by the integration software.

MI-c: Noisy baseline resulting in the automated integration of negative peak(s).

MI-d: Noisy baseline resulting in poor automated baseline construction and the integration of area (noise) not associated with recognized analyte peak area.

MI-e: Matrix interference peak partially co-eluting with analyte peak and area incorporated by automated integration.

MI-f: Integration of PFAS branched isomer peak(s) not incorporated by automated integration. All identified branched and linear isomer peaks integrated and areas summed.

MI-g: Peak missed by automated integration due to noisy baseline.

Extracted Internal Standard Analytes

The extracted internal standard analytes (EIS) $^{13}C_2$-Perfluorohexanoic acid ($^{13}C_2$-PFHxA), $^{13}C_4$-Perfluoroheptanoic acid ($^{13}C_4$-PFHpA), $^{13}C_4$-Perfluorooctanoic acid ($^{13}C_4$-PFOA), $^{13}C_3$-Perfluorobutanesulfonic acid ($^{13}C_3$-PFBS), $^{18}O_2$-Perfluorohexanesulfonic acid ($^{18}O_2$-PFHxS), $^{13}C_4$-Perfluorooctanesulfonic acid ($^{13}C_4$-PFOS), $^{13}C_5$-Perfluorononanoic acid ($^{13}C_5$-PFNA), $^{13}C_2$-Perfluorodecanoic acid ($^{13}C_2$-PFDA), $^{13}C_2$-Perfluoroundecanoic acid ($^{13}C_2$-PFUnA), $^{13}C_2$-Perfluorododecanoic acid ($^{13}C_2$-PFDoA) and $^{13}C_2$-Perfluorotetradecanoic acid ($^{13}C_2$-PFTeDA) are used to quantify native Perfluorohexanoic acid (PFHxA), Perfluoroheptanoic acid (PFHpA), Perfluorooctanoic acid (PFOA), Perfluorobutanesulfonic acid (PFBS), Perfluorohexanesulfonic acid (PFHxS), Perfluorooctanesulfonic acid (PFOS), Perfluorononanoic acid (PFNA), Perfluorodecanoic acid (PFDA) & Perfluorodecanesulfonic acid (PFDS), Perfluoroundecanoic acid (PFUnA), Perfluorododecanoic acid (PFDoA), Perfluorotridecanoic acid (PFTrDA) & Perfluorotetradecanoic acid (PFTeDA) respectively. The recoveries observed for selected extracted internal standard analytes were below the defined lower control limit (LCL) for the following samples:

NTX314	QCFB-092220	*All EIS identified above*
NTX315	QCFB-092320	*$^{13}C_3$-PFBS*

These samples were re-extracted and re-analyzed for the associated native analytes on QC batch 6985934 (2020/10/07). Acceptable extracted internal standard analyte recoveries were obtained on re-analysis for all samples except $^{13}C_3$-PFBS in sample NTX 314, QCFB-092220.

The extracted internal standard analytes (EIS) D_3-Methylperfluorooctanesulfonamide (D_3-MeFOSA) and D_5-Ethylperfluorooctanesulfonamide (D_5-EtFOSA) are used to quantify native Methylperfluorooctane sulfonamide (MeFOSA) and Ethylperfluorooctane sulfonamide (EtFOSA) respectively. Client approval was obtained for a variance to Table B-15 (QC Check - Extracted Internal Standard Analytes) of DoD/DOE QSM Version 5.3 to modify the requirement for re-extraction and re-analysis of field samples should these EIS recoveries exceed 50-150%, allowing for recovery limits of 25-150%.

Mass Calibration

LCMS04 QC Batches 6983448 & 6985934

Mass calibration was completed on September 1, 2020 to original equipment manufacturer's specifications. Mass accuracy was verified following the instrument manufacturer's instructions for mass calibration verification using the instrument manufacturer's recommended standards.

LCMS05 QC Batches 6981801 & 6981810

Mass calibration was completed on August 28, 2020 to original equipment manufacturer's specifications. Mass accuracy was verified following the instrument manufacturer's instructions for mass calibration verification using the instrument manufacturer's recommended standards.

Quantitation of PFAS

Many PFAS (e.g. PFOS) have several isomeric forms that may show up as separate or partially-merged peaks in the analytical chromatograms. These peaks will be integrated and the areas summed such that the result represents the concentration of the sum of the linear and branched isomers, per USEPA 537.1 (2018). Instrumentation is calibrated using certified quantitative standards containing only the linear isomer for all target analytes, except Perfluorooctane sulfonic acid (PFOS) and Perfluorohexane sulfonic acid (PFHxS), which are calibrated using certified branched and linear isomer mixtures. For Perfluorooctanoic acid (PFOA) a quantitative branched and linear standard is not available, however, branched isomers can be identified by analyzing a qualitative standard that includes both branched and linear isomers to determine retention times, transitions and ion ratios. Quantitate samples by integrating the total response (i.e. accounting for peaks that are identified as linear and branched isomers in the standard) and relying on the initial calibration that used the linear isomer quantitative standard. If qualitative standards containing both the branched and linear isomers cannot be purchased (i.e. only linear isomer is available) only the linear isomer shall be quantitated in samples. As certified quantitative reference material(s) containing both linear and branched isomer become available commercially, they will be incorporated into the method.

Data Qualifiers

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

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

Precision and Bias

Water – Standard Analysis

	Aqueous (µg/L)

Analytes	Abbreviation	Average Concentration (n=9) (ā)	Spike Concentration (µg/L) (T)	Bias (%) (B)	Standard Deviation (σ)	Precision (%)
Perfluorohexanoic acid	PFHxA	0.021	0.02	4.4	0.0018	8.8
Perfluoroheptanoic acid	PFHpA	0.020	0.02	1.1	0.0025	13
Perfluorooctanoic acid	PFOA	0.020	0.02	2.2	0.0017	8.7
Perfluorononanoic acid	PFNA	0.020	0.02	1.7	0.0018	9.0
Perfluorodecanoic acid	PFDA	0.020	0.02	1.1	0.0014	7.0
Perfluoroundecanoic acid	PFUnA	0.019	0.02	-4.4	0.0020	10
Perfluorododecanoic acid	PFDoA	0.020	0.02	0.56	0.0028	14
Perfluorotridecanoic acid	PFTrDA	0.022	0.02	8.3	0.0023	12
Perfluorotetradecanoic acid	PFTeDA	0.020	0.02	0.56	0.0024	12
Perflurobutane sulfonic acid	PFBS	0.021	0.02	2.8	0.0022	11
Perfluorohexane sulfonic acid	PFHxS	0.020	0.02	-0.56	0.0015	7.7
Perfluorooctane sulfonic acid	PFOS	0.021	0.02	2.8	0.0019	9.4
Methylperfluorooctanesulfonamide	MeFOSA	0.018	0.02	-11	0.0026	13
Ethylperfluorooctanesulfonamide	EtFOSA	0.017	0.02	-14	0.0023	12

Bias is expressed as a percentage of the value of the standard: %B = [100 (ā - T)] / T
Precision is expressed as a percentage of the spiked value: %RSD = (σ/T)*100

Adam Robinson
Adam.Robinson@bureauveritas.com
Office 905 817 5700, ext. 7064057

PROJECT NARRATIVE

Bureau Veritas
Client Project #: TREASURE ISLAND, IR SITE 6

Client: EMAX Laboratories Inc
Client Project: TREASURE ISLAND, IR SITE 6

I. SAMPLE RECEIPT/ANALYSIS

a) Sample Listing

Bureau Veritas ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Date Run	Initial Calibration
PFAS in water by SPE/LC-MS/MS						
NTX288	06-MW25-0920	2020/09/21	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX289	06-MW26-0920	2020/09/21	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX290	06-MW30-0920	2020/09/21	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX291	06-MW31-0920	2020/09/21	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX292	06-MW31-0920 DUP	2020/09/21	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX293	06-MW32-0920	2020/09/21	2020/10/01	2020/10/05	2020/10/06	2020/09/01
NTX294	06-MW33-0920	2020/09/21	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX295	06-MW34-0920	2020/09/21	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX296	06-MW35-0920	2020/09/21	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX297	06-MW36-0920	2020/09/21	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX298	QCFB-092120	2020/09/21	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX299	HP01	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX300	HP02	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX301	HP03	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX302	HP03 DUP	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX303	HP04	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX304	HP05	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX305	HP06	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX306	HP07	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX307	HP08	2020/09/23	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX308	HP08 DUP	2020/09/23	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX309	HP09	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX310	HP10	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX311	HP11	2020/09/22	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX312	HP12	2020/09/23	2020/10/01	2020/10/06	2020/10/07	2020/09/01
NTX313	HP13	2020/09/23	2020/10/01	2020/10/04	2020/10/05	2020/08/28
NTX314	QCFB-092220	2020/09/22	2020/10/01	2020/10/06	2020/10/07	2020/09/01
NTX315	QCFB-092320	2020/09/23	2020/10/01	2020/10/04	2020/10/05	2020/09/01

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

b) Shipping Problems: none encountered

c) Documentation Problems: none encountered

II. SAMPLE PREP:

No problems encountered

III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis

a) Hold Times: all within recommended hold times

b) Instrument Calibration: all within control limits

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

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

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

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

Rozi Dufour

Project Manager- Site Assessment and Remediation/ Ultra Trace

2020/10/23
Date

2. Sample Management Records

Bureau Veritas Canada (2019)
Inc.
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.bvlabs.com

2.1 Sample Custody

Bureau Veritas Canada (2019)
Inc.
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.bvlabs.com

Bureau Veritas Laboratories

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel # 310-618-8889 FAX# 310-618-0818
Email info@emaxlabs.com

PO NUMBER:
SAMPLE STORAGE
EMAX CONTROL NO. 201227 (1)
PROJECT CODE: NO_1904_

CLIENT: NOREAS
PROJECT: TREASURE ISLAND, IR SITE 6
COORDINATOR
TEL FAX EMAIL
SEND REPORT TO: RICHARD BEAUVIL (RBEAUVIL@EMAXLABS.COM)
COMPANY: EMAX
ADDRESS
EMAX PM

MATRIX CODE: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PF=Pure Products; AR=Air; O=WATER
PRESERVATIVE CODE: IC = Ice; HC = HCl; HN=HNO3; SH=NaO3; ST=Na2S2O3; ZA=Zinc Acetate; HS=H2SO4

ANALYSIS REQUIRED: PFAS BY 537M; MS/MSD

TAT: ☐ Rush __24__hrs. ☐ Rush __48_hrs ☐ Rush_72_hrs ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☑ __ days Standard

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	PFAS BY 537M	MS/MSD	COMMENTS
1	06-MW25-0920	06-MW25	9/21/2020	11:18	1	125 ML	POLY	GW	3	X	X		201227-01
2	06-MW26-0920	06-MW26	9/21/2020	11:15	1	125 ML	POLY	GW	3	X	X		201227-02
3	06-MW30-0920	06-MW30	9/21/2020	12:53	3	125 ML	POLY	GW	3	X	X	X	201227-03 MS/MSD
4	06-MW31-0920	06-MW31	9/21/2020	10:51	1	125 ML	POLY	GW	4	X	X		201227-04
5	06-MW31-0920 DUP	06-MW31	9/21/2020	10:56	1	125 ML	POLY	GW	3	X	X		201227-05
6	06-MW32-0920	06-MW32	9/21/2020	10:15	1	125 ML	POLY	GW	4	X	X		201227-06
7	06-MW33-0920	06-MW33	9/21/2020	10:25	1	125 ML	POLY	GW	3	X	X		201227-07
8	06-MW34-0920	06-MW34	9/21/2020	9:35	1	125 ML	POLY	GW	3	X	X		201227-08
9	06-MW35-0920	06-MW35	9/21/2020	9:50	1	125 ML	POLY	GW	3	X	X		201227-09
0	06-MW36-0920	06-MW36	9/21/2020	12:18	1	125 ML	POLY	GW	3	X	X		201227-10

Instructions
DATA PACKAGE: LEVEL 4 DoD QSM 5.3
EDD NEDD/EDF
SAMPLER
COURIER/AIRBILL

Cooler # | Temp. (°C)

Sample #s: MAXXAM/BVLABS (FEDEX Depot) 299 Cayuga Rd Cheektowaga, NY 14225 USA

RELINQUISHED BY	Date	Time	RECEIVED BY	Cooler #	Temp. (°C)
[signature]	09/30/20	16:55	[signature] 2021/10/01	1832	3.9 3.0 3.8
					4.1 3.7 3.8

Attn: Stephanie Pollen
800-668-0639

NOTICE: ... resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not ... posal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

01-Oct-20 13:32
Lori Dufour
C0P6559
URE ENV-1348

C. S Reset/Intact

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel # : 310-618-8889 FAX#: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE

EMAX CONTROL NO. 20I227 (2)

PROJECT CODE: NO_1904

CLIENT NOREAS

PROJECT TREASURE ISLAND, IR SITE 6

COORDINATOR

TEL FAX EMAIL

SEND REPORT TO RICHARD BEAUVIL (RBEAUVIL@EMAXLABS.COM)

COMPANY EMAX

ADDRESS

EMAX PM

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaO3
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H2SO4
O= WATER	

ANALYSIS REQUIRED: PFAS BY 537M; MS/MSD

TAT:
- ☐ Rush __24__hrs.
- ☐ Rush __48_hrs
- ☐ Rush_72_hrs
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☑ __ days Standard

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
1	QCFB-0920	QCFB	9/21/2020	14:30	1	125 ML	POLY	GW	3	X	20I227-11
2	HP01	HP01	9/22/2020	13:56	1	125 ML	POLY	GW	3	X	20I227-12
3	HP02	HP02	9/22/2020	14:29	1	125 ML	POLY	GW	3	X	20I227-13
4	HP03	HP03	9/22/2020	15:30	1	125 ML	POLY	GW	4	X	20I227-14
5	HP03 DUP	HP03	9/22/2020	15:35	1	125 ML	POLY	GW	3	X	20I227-15
6	HP04	HP04	9/23/2020	12:39	1	125 ML	POLY	GW	3	X	20I227-16
7	HP05	HP05	9/23/2020	11:14	1	125 ML	POLY	GW	3	X	20I227-17
8	HP06	HP06	9/23/2020	9:55	1	125 ML	POLY	GW	3	X	20I227-18
9	HP07	HP07	9/23/2020	9:25	1	125 ML	POLY	GW	3	X	20I227-19
10	HP08	HP08	9/23/2020	15:18	1	125 ML	POLY	GW	4	X	20I227-20

Instructions

DATA PACKAGE: LEVEL 4 DoD QSM 5.3

EDD: NEDD/EDF

SAMPLER

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
	09/30/20	16:55	

Cooler #	Temp (°C)

Sample #s

MAXXAM/BVLABS (FEDEX Depot)
299 Cayuga Rd
Cheektowaga, NY 14225
USA
Attn: Stephanie Pollen
800-668-0639

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel # : 310-618-8889 FAX#: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:
SAMPLE STORAGE:

EMAX CONTROL NO. 201227 (3)
PROJECT CODE: NO_1904

CLIENT: NOREAS
PROJECT: TREASURE ISLAND, IR SITE 6
COORDINATOR:
TEL: FAX: EMAIL:
SEND REPORT TO: RICHARD BEAUVIL (RBEAUVIL@EMAXLABS.COM)
COMPANY: EMAX
ADDRESS:
EMAX PM:

MATRIX CODE: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PP=Pure Products; AR=Air; O= WATER

PRESERVATIVE CODE: IC = Ice; HC = HCl; HN=HNO3; SH=NaO3; ST=Na2S2O3; ZA=Zinc Acetate; HS=H2SO4

ANALYSIS REQUIRED: PFAS BY 537M; MS/MSD

TAT:
- ☐ Rush __24__hrs.
- ☐ Rush __48_hrs
- ☐ Rush_72_hrs
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☑ __ days Standard

LAB	SAMPLE ID / CLIENT	LOCATION	DATE	TIME	CONTAINER NO.	CONTAINER SIZE	CONTAINER TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	PFAS BY 537M	MS/MSD	COMMENTS
1	HP08 DUP	HP08	9/23/2020	15:23	1	125 ML	POLY	GW	3	X	X		201227-21
2	HP09	HP09	9/22/2020	10:59	1	125 ML	POLY	GW	3	X	X		201227-22
3	HP10	HP10	9/22/2020	12:08	1	125 ML	POLY	GW	3	X	X		201227-23
4	HP11	HP11	9/22/2020	11:24	1	125 ML	POLY	GW	4	X	X		201227-24
5	HP12	HP12	9/23/2020	9:30	1	125 ML	POLY	GW	3	X	X		201227-25
6	HP13	HP13	9/23/2020	14:11	3	125 ML	POLY	GW	3	X	X	X	201227-26 MS/MSD
7	QCFB-092220	Field Blank	9/22/2020	15:00	1	125 ML	POLY	GW	3	X	X		201227-27
8	QCFB-092320	Field Blank	9/23/2020	14:00	1	125 ML	POLY	GW	3	X	X		201227-28
9													
10													

Instructions
DATA PACKAGE: LEVEL 4 DoD QSM 5.3
EDD: NEDD/EDF

SAMPLER:
COURIER/AIRBILL:

RELINQUISHED BY	Date	Time	RECEIVED BY
[signature]	9/30/20	16:55	

Cooler #	Temp (°C)	Sample #s
		MAXXAM/BVLABS (FEDEX Depot)
		299 Cayuga Rd
		Cheektowaga, NY 14225
		USA
		Attn: Stephanie Pollen
		800-668-0639

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

3. Analytical Results

Bureau Veritas Canada (2019)
Inc.
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.bvlabs.com

3.1 Summary Report

Bureau Veritas Canada (2019)
Inc.
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.bvlabs.com

Your P.O. #: 20I227
Your Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your C.O.C. #: 20I227

Attention: Richard Beauvil

EMAX Laboratories Inc
1835 W 205th St
Torrance, CA
USA 90501

Report Date: 2020/10/23
Report #: R6381659
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0P6559
Received: 2020/10/01, 13:32

Sample Matrix: Ground Water
Samples Received: 28

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
PFAS in water by SPE/LC-MS/MS (1)	27	2020/10/04	2020/10/05	CAM SOP-00894	EPA 537 m
PFAS in water by SPE/LC-MS/MS (1)	1	2020/10/06	2020/10/07	CAM SOP-00894	EPA 537 m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Per- and polyfluoroalkyl substances (PFAS) identified as surrogates on the certificate of analysis represent the extracted internal standard.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Your P.O. #: 20I227
Your Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your C.O.C. #: 20I227

Attention: Richard Beauvil

EMAX Laboratories Inc
1835 W 205th St
Torrance, CA
USA 90501

Report Date: 2020/10/23
Report #: R6381659
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0P6559
Received: 2020/10/01, 13:32

Encryption Key

Lori Dufour
Project Manager
23 Oct 2020 14:28:26

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Stephanie Pollen, Account Manager, Ultra Trace Analysis
Email: Stephanie.Pollen@bvlabs.com
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Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX288				NTX289				
Sampling Date		2020/09/21 11:18				2020/09/21 11:15				
COC Number		20I227				20I227				
	UNITS	06-MW25-0920	DL	LOD	LOQ	06-MW26-0920	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
Perfluorohexanoic acid (PFHxA)	ug/L	1.6 (1)	0.011	0.028	0.040	0.28	0.0061	0.016	0.023	6981810
Perfluoroheptanoic acid (PFHpA)	ug/L	0.40 (2)	0.013	0.028	0.040	0.16	0.0077	0.016	0.023	6981810
Perfluorooctanoic acid (PFOA)	ug/L	1.1 (1)	0.010	0.028	0.040	0.65	0.0058	0.016	0.023	6981810
Perfluorononanoic acid (PFNA)	ug/L	0.046 (2)	0.010	0.028	0.040	0.014 J	0.0059	0.016	0.023	6981810
Perfluorodecanoic acid (PFDA)	ug/L	0.012 J (2)	0.0078	0.028	0.040	0.0056 J	0.0045	0.016	0.023	6981810
Perfluoroundecanoic acid (PFUnA)	ug/L	0.028 U (2)	0.012	0.028	0.040	0.016 U	0.0071	0.016	0.023	6981810
Perfluorododecanoic acid (PFDoA)	ug/L	0.032 U (2)	0.016	0.032	0.040	0.018 U	0.0092	0.018	0.023	6981810
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.028 U (2)	0.013	0.028	0.040	0.016 U	0.0074	0.016	0.023	6981810
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.028 U (2)	0.014	0.028	0.040	0.016 U	0.0078	0.016	0.023	6981810
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.10 (2)	0.011	0.028	0.040	0.028	0.0064	0.016	0.023	6981810
Perfluorohexanesulfonic acid(PFHxS)	ug/L	1.3 (1)	0.0088	0.028	0.040	0.67	0.0051	0.016	0.023	6981810
Perfluorooctanesulfonic acid (PFOS)	ug/L	10 (3)	0.11	0.28	0.40	2.1 (4)	0.057	0.14	0.20	6981810
EtFOSA	ug/L	0.032 U (2)	0.014	0.032	0.080	0.018 U	0.0081	0.018	0.046	6981810
MeFOSA	ug/L	0.032 U (2)	0.016	0.032	0.080	0.018 U	0.0090	0.018	0.046	6981810
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	103				104				6981810
13C2-Perfluorododecanoic acid	%	95				99				6981810
13C2-Perfluorohexanoic acid	%	97				104				6981810
13C2-perfluorotetradecanoic acid	%	95				97				6981810
13C2-Perfluoroundecanoic acid	%	102				104				6981810
13C3-Perfluorobutanesulfonic acid	%	104				104				6981810
13C4-Perfluoroheptanoic acid	%	104				106				6981810
13C4-Perfluorooctanesulfonic acid	%	104				105				6981810
13C4-Perfluorooctanoic acid	%	101				105				6981810

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x).
(2) Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (2x).
(3) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (20x).
(4) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX288				NTX289				
Sampling Date		2020/09/21 11:18				2020/09/21 11:15				
COC Number		20I227				20I227				
	UNITS	06-MW25-0920	DL	LOD	LOQ	06-MW26-0920	DL	LOD	LOQ	QC Batch
13C5-Perfluorononanoic acid	%	108				110				6981810
18O2-Perfluorohexanesulfonic acid	%	107				108				6981810
D3-MeFOSA	%	75				70				6981810
D5-EtFOSA	%	69				66				6981810

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

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX290				NTX291				
Sampling Date		2020/09/21 12:53				2020/09/21 10:51				
COC Number		20I227				20I227				
	UNITS	06-MW30-0920	DL	LOD	LOQ	06-MW31-0920	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
Perfluorohexanoic acid (PFHxA)	ug/L	0.013 J	0.0053	0.014	0.020	1.3 (1)	0.053	0.14	0.20	6981810
Perfluoroheptanoic acid (PFHpA)	ug/L	0.014 U	0.0067	0.014	0.020	0.55	0.0067	0.014	0.020	6981810
Perfluorooctanoic acid (PFOA)	ug/L	0.035	0.0050	0.014	0.020	0.45	0.0050	0.014	0.020	6981810
Perfluorononanoic acid (PFNA)	ug/L	0.014 U	0.0051	0.014	0.020	0.052	0.0051	0.014	0.020	6981810
Perfluorodecanoic acid (PFDA)	ug/L	0.014 U	0.0039	0.014	0.020	0.0079 J	0.0039	0.014	0.020	6981810
Perfluoroundecanoic acid (PFUnA)	ug/L	0.014 U	0.0062	0.014	0.020	0.014 U	0.0062	0.014	0.020	6981810
Perfluorododecanoic acid (PFDoA)	ug/L	0.016 U	0.0080	0.016	0.020	0.016 U	0.0080	0.016	0.020	6981810
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.014 U	0.0064	0.014	0.020	0.014 U	0.0064	0.014	0.020	6981810
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.014 U	0.0068	0.014	0.020	0.014 U	0.0068	0.014	0.020	6981810
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.0063 J	0.0056	0.014	0.020	0.16	0.0056	0.014	0.020	6981810
Perfluorohexanesulfonic acid(PFHxS)	ug/L	0.034	0.0044	0.014	0.020	5.0 (1)	0.044	0.14	0.20	6981810
Perfluorooctanesulfonic acid (PFOS)	ug/L	0.067	0.0057	0.014	0.020	1.7 (1)	0.057	0.14	0.20	6981810
EtFOSA	ug/L	0.016 U	0.0070	0.016	0.040	0.016 U	0.0070	0.016	0.040	6981810
MeFOSA	ug/L	0.016 U	0.0078	0.016	0.040	0.016 U	0.0078	0.016	0.040	6981810
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	110				110				6981810
13C2-Perfluorododecanoic acid	%	97				101				6981810
13C2-Perfluorohexanoic acid	%	109				108				6981810
13C2-perfluorotetradecanoic acid	%	92				95				6981810
13C2-Perfluoroundecanoic acid	%	104				107				6981810
13C3-Perfluorobutanesulfonic acid	%	103				99				6981810
13C4-Perfluoroheptanoic acid	%	111				112				6981810
13C4-Perfluorooctanesulfonic acid	%	110				116				6981810
13C4-Perfluorooctanoic acid	%	110				109				6981810
13C5-Perfluorononanoic acid	%	111				113				6981810
18O2-Perfluorohexanesulfonic acid	%	106				109				6981810
D3-MeFOSA	%	65				62				6981810
D5-EtFOSA	%	63				55				6981810

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

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX292					NTX293				
Sampling Date		2020/09/21 10:56					2020/09/21 10:15				
COC Number		20I227					20I227				
	UNITS	06-MW31-0920 DUP	DL	LOD	LOQ	QC Batch	06-MW32-0920	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters											
Perfluorohexanoic acid (PFHxA)	ug/L	1.3 (1)	0.053	0.14	0.20	6981810	1.8 (2)	0.027	0.070	0.10	6981810
Perfluoroheptanoic acid (PFHpA)	ug/L	0.56	0.0070	0.015	0.021	6981810	0.98 (3)	0.034	0.070	0.10	6981810
Perfluorooctanoic acid (PFOA)	ug/L	0.44	0.0053	0.015	0.021	6981810	1.2 (2)	0.025	0.070	0.10	6981810
Perfluorononanoic acid (PFNA)	ug/L	0.054	0.0054	0.015	0.021	6981810	0.070 J (3)	0.026	0.070	0.10	6981810
Perfluorodecanoic acid (PFDA)	ug/L	0.0083 J	0.0041	0.015	0.021	6981810	0.070 U (3)	0.020	0.070	0.10	6981810
Perfluoroundecanoic acid (PFUnA)	ug/L	0.015 U	0.0065	0.015	0.021	6981810	0.070 U (3)	0.031	0.070	0.10	6981810
Perfluorododecanoic acid (PFDoA)	ug/L	0.017 U	0.0084	0.017	0.021	6981810	0.080 U (3)	0.040	0.080	0.10	6981810
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.015 U	0.0067	0.015	0.021	6981810	0.070 U (3)	0.032	0.070	0.10	6981810
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.015 U	0.0071	0.015	0.021	6981810	0.070 U (3)	0.034	0.070	0.10	6981810
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.16	0.0059	0.015	0.021	6981810	0.13 (3)	0.028	0.070	0.10	6981810
Perfluorohexanesulfonic acid(PFHxS)	ug/L	5.0 (1)	0.044	0.14	0.20	6981810	5.9 (4)	0.22	0.70	1.0	6981810
Perfluorooctanesulfonic acid (PFOS)	ug/L	1.8 (1)	0.057	0.14	0.20	6981810	23 (4)	0.29	0.70	1.0	6981810
EtFOSA	ug/L	0.017 U	0.0074	0.017	0.042	6981810	0.080 U (3)	0.035	0.080	0.20	6983448
MeFOSA	ug/L	0.017 U	0.0082	0.017	0.042	6981810	0.080 U (3)	0.039	0.080	0.20	6983448
Surrogate Recovery (%)											
13C2-Perfluorodecanoic acid	%	111				6981810	110				6981810
13C2-Perfluorododecanoic acid	%	101				6981810	101				6981810
13C2-Perfluorohexanoic acid	%	108				6981810	95				6981810
13C2-perfluorotetradecanoic acid	%	96				6981810	106				6981810
13C2-Perfluoroundecanoic acid	%	109				6981810	109				6981810
13C3-Perfluorobutanesulfonic acid	%	102				6981810	108				6981810
13C4-Perfluoroheptanoic acid	%	114				6981810	111				6981810
13C4-Perfluorooctanesulfonic acid	%	113				6981810	99				6981810
13C4-Perfluorooctanoic acid	%	111				6981810	111				6981810

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).
(2) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (5x).
(3) Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (5x).
(4) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (50x).

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX292					NTX293				
Sampling Date		2020/09/21 10:56					2020/09/21 10:15				
COC Number		20I227					20I227				
	UNITS	06-MW31-0920 DUP	DL	LOD	LOQ	QC Batch	06-MW32-0920	DL	LOD	LOQ	QC Batch
13C5-Perfluorononanoic acid	%	110				6981810	115				6981810
18O2-Perfluorohexanesulfonic acid	%	110				6981810	98				6981810
D3-MeFOSA	%	57				6981810	34 (1)				6983448
D5-EtFOSA	%	54				6981810	31 (1)				6983448

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) A variance to the extracted internal standard (EIS) recovery criteria of 50-150% has been granted; allowing for recovery limits of 25-150% for this parameter.

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX294				NTX295				
Sampling Date		2020/09/21 10:25				2020/09/21 09:35				
COC Number		20I227				20I227				
	UNITS	06-MW33-0920	DL	LOD	LOQ	06-MW34-0920	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
Perfluorohexanoic acid (PFHxA)	ug/L	0.95	0.0053	0.014	0.020	0.24	0.0061	0.016	0.023	6981810
Perfluoroheptanoic acid (PFHpA)	ug/L	0.47	0.0067	0.014	0.020	0.088	0.0077	0.016	0.023	6981810
Perfluorooctanoic acid (PFOA)	ug/L	1.2 (1)	0.050	0.14	0.20	0.20	0.0058	0.016	0.023	6981810
Perfluorononanoic acid (PFNA)	ug/L	0.041	0.0051	0.014	0.020	0.010 J	0.0059	0.016	0.023	6981810
Perfluorodecanoic acid (PFDA)	ug/L	0.010 J	0.0039	0.014	0.020	0.016 U	0.0045	0.016	0.023	6981810
Perfluoroundecanoic acid (PFUnA)	ug/L	0.014 U	0.0062	0.014	0.020	0.016 U	0.0071	0.016	0.023	6981810
Perfluorododecanoic acid (PFDoA)	ug/L	0.016 U	0.0080	0.016	0.020	0.018 U	0.0092	0.018	0.023	6981810
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.014 U	0.0064	0.014	0.020	0.016 U	0.0074	0.016	0.023	6981810
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.014 U	0.0068	0.014	0.020	0.016 U	0.0078	0.016	0.023	6981810
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.069	0.0056	0.014	0.020	0.039	0.0064	0.016	0.023	6981810
Perfluorohexanesulfonic acid(PFHxS)	ug/L	1.9 (1)	0.044	0.14	0.20	0.92	0.0051	0.016	0.023	6981810
Perfluorooctanesulfonic acid (PFOS)	ug/L	7.0 (1)	0.057	0.14	0.20	2.4 (1)	0.057	0.14	0.20	6981810
EtFOSA	ug/L	0.016 U	0.0070	0.016	0.040	0.018 U	0.0081	0.018	0.046	6981810
MeFOSA	ug/L	0.016 U	0.0078	0.016	0.040	0.018 U	0.0090	0.018	0.046	6981810
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	109				105				6981810
13C2-Perfluorododecanoic acid	%	103				95				6981810
13C2-Perfluorohexanoic acid	%	105				102				6981810
13C2-perfluorotetradecanoic acid	%	99				95				6981810
13C2-Perfluoroundecanoic acid	%	108				102				6981810
13C3-Perfluorobutanesulfonic acid	%	106				104				6981810
13C4-Perfluoroheptanoic acid	%	110				108				6981810
13C4-Perfluorooctanesulfonic acid	%	109				108				6981810
13C4-Perfluorooctanoic acid	%	106				105				6981810
13C5-Perfluorononanoic acid	%	114				108				6981810
18O2-Perfluorohexanesulfonic acid	%	109				106				6981810
D3-MeFOSA	%	71				54				6981810
D5-EtFOSA	%	70				52				6981810

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

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX296				NTX297	NTX298				
Sampling Date		2020/09/21 09:50				2020/09/21 12:18	2020/09/21 14:30				
COC Number		20I227				20I227	20I227				
	UNITS	06-MW35-0920	DL	LOD	LOQ	06-MW36-0920	QCFB-092120	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters											
Perfluorohexanoic acid (PFHxA)	ug/L	0.25	0.0058	0.015	0.022	0.096	0.014 U	0.0053	0.014	0.020	6981810
Perfluoroheptanoic acid (PFHpA)	ug/L	0.14	0.0074	0.015	0.022	0.053	0.014 U	0.0067	0.014	0.020	6981810
Perfluorooctanoic acid (PFOA)	ug/L	0.19	0.0055	0.015	0.022	0.062	0.014 U	0.0050	0.014	0.020	6981810
Perfluorononanoic acid (PFNA)	ug/L	0.026	0.0056	0.015	0.022	0.0053 J	0.014 U	0.0051	0.014	0.020	6981810
Perfluorodecanoic acid (PFDA)	ug/L	0.015 U	0.0043	0.015	0.022	0.014 U	0.014 U	0.0039	0.014	0.020	6981810
Perfluoroundecanoic acid (PFUnA)	ug/L	0.015 U	0.0068	0.015	0.022	0.014 U	0.014 U	0.0062	0.014	0.020	6981810
Perfluorododecanoic acid (PFDoA)	ug/L	0.018 U	0.0088	0.018	0.022	0.016 U	0.016 U	0.0080	0.016	0.020	6981810
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.015 U	0.0070	0.015	0.022	0.014 U	0.014 U	0.0064	0.014	0.020	6981810
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.015 U	0.0075	0.015	0.022	0.014 U	0.014 U	0.0068	0.014	0.020	6981810
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.033	0.0062	0.015	0.022	0.020 J	0.014 U	0.0056	0.014	0.020	6981810
Perfluorohexanesulfonic acid(PFHxS)	ug/L	1.0	0.0048	0.015	0.022	0.49	0.014 U	0.0044	0.014	0.020	6981810
Perfluorooctanesulfonic acid (PFOS)	ug/L	3.4 (1)	0.057	0.14	0.20	0.75	0.014 U	0.0057	0.014	0.020	6981810
EtFOSA	ug/L	0.018 U	0.0077	0.018	0.044	0.016 U	0.016 U	0.0070	0.016	0.040	6981810
MeFOSA	ug/L	0.018 U	0.0086	0.018	0.044	0.016 U	0.016 U	0.0078	0.016	0.040	6981810
Surrogate Recovery (%)											
13C2-Perfluorodecanoic acid	%	112				110	116				6981810
13C2-Perfluorododecanoic acid	%	98				102	104				6981810
13C2-Perfluorohexanoic acid	%	111				114	111				6981810
13C2-perfluorotetradecanoic acid	%	100				99	105				6981810
13C2-Perfluoroundecanoic acid	%	107				112	108				6981810
13C3-Perfluorobutanesulfonic acid	%	109				111	105				6981810
13C4-Perfluoroheptanoic acid	%	113				116	112				6981810
13C4-Perfluorooctanesulfonic acid	%	117				113	114				6981810
13C4-Perfluorooctanoic acid	%	113				113	113				6981810
13C5-Perfluorononanoic acid	%	116				115	116				6981810
18O2-Perfluorohexanesulfonic acid	%	109				116	111				6981810
D3-MeFOSA	%	66				52	86				6981810
D5-EtFOSA	%	64				51	79				6981810

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

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX299		NTX300	NTX301	NTX302				
Sampling Date		2020/09/22 13:56		2020/09/22 14:29	2020/09/22 15:30	2020/09/22 15:35				
COC Number		20I227		20I227	20I227	20I227				
	UNITS	HP01	QC Batch	HP02	HP03	HP03 DUP	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
Perfluorohexanoic acid (PFHxA)	ug/L	0.0055 J	6981810	0.014 U	0.014 U	0.014 U	0.0053	0.014	0.020	6981801
Perfluoroheptanoic acid (PFHpA)	ug/L	0.014 U	6981810	0.014 U	0.014 U	0.014 U	0.0067	0.014	0.020	6981801
Perfluorooctanoic acid (PFOA)	ug/L	0.044	6981810	0.015 J	0.0066 J	0.0059 J	0.0050	0.014	0.020	6981801
Perfluorononanoic acid (PFNA)	ug/L	0.014 U	6981810	0.0066 J	0.014 U	0.014 U	0.0051	0.014	0.020	6981801
Perfluorodecanoic acid (PFDA)	ug/L	0.014 U	6981810	0.014 U	0.014 U	0.014 U	0.0039	0.014	0.020	6981801
Perfluoroundecanoic acid (PFUnA)	ug/L	0.014 U	6981810	0.014 U	0.014 U	0.014 U	0.0062	0.014	0.020	6981801
Perfluorododecanoic acid (PFDoA)	ug/L	0.016 U	6981810	0.016 U	0.016 U	0.016 U	0.0080	0.016	0.020	6981801
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.014 U	6981810	0.014 U	0.014 U	0.014 U	0.0064	0.014	0.020	6981801
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.014 U	6981810	0.014 U	0.014 U	0.014 U	0.0068	0.014	0.020	6981801
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.012 J	6981810	0.024	0.0062 J	0.0058 J	0.0056	0.014	0.020	6981801
Perfluorohexanesulfonic acid(PFHxS)	ug/L	0.099	6981810	0.011 J	0.012 J	0.011 J	0.0044	0.014	0.020	6981801
Perfluorooctanesulfonic acid (PFOS)	ug/L	0.21	6981810	0.14	0.063	0.061	0.0057	0.014	0.020	6981801
EtFOSA	ug/L	0.016 U	6981810	0.016 U	0.016 U	0.016 U	0.0070	0.016	0.040	6981801
MeFOSA	ug/L	0.016 U	6981810	0.016 U	0.016 U	0.016 U	0.0078	0.016	0.040	6981801
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	107	6981810	84	90	91				6981801
13C2-Perfluorododecanoic acid	%	68	6981810	81	79	85				6981801
13C2-Perfluorohexanoic acid	%	106	6981810	93	89	93				6981801
13C2-perfluorotetradecanoic acid	%	63	6981810	71	75	78				6981801
13C2-Perfluoroundecanoic acid	%	96	6981810	86	86	88				6981801
13C3-Perfluorobutanesulfonic acid	%	106	6981810	90	87	90				6981801
13C4-Perfluoroheptanoic acid	%	110	6981810	93	90	94				6981801
13C4-Perfluorooctanesulfonic acid	%	114	6981810	89	87	91				6981801
13C4-Perfluorooctanoic acid	%	110	6981810	93	89	91				6981801
13C5-Perfluorononanoic acid	%	112	6981810	91	90	95				6981801
18O2-Perfluorohexanesulfonic acid	%	108	6981810	92	88	87				6981801
D3-MeFOSA	%	65	6981810	55	56	57				6981801
D5-EtFOSA	%	56	6981810	53	49 (1)	53				6981801

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) A variance to the extracted internal standard (EIS) recovery criteria of 50-150% has been granted; allowing for recovery limits of 25-150% for this parameter.

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX303	NTX304	NTX305				
Sampling Date		2020/09/22 12:39	2020/09/22 11:14	2020/09/22 09:55				
COC Number		20I227	20I227	20I227				
	UNITS	HP04	HP05	HP06	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters								
Perfluorohexanoic acid (PFHxA)	ug/L	0.0069 J	0.014 U	0.014 U	0.0053	0.014	0.020	6981801
Perfluoroheptanoic acid (PFHpA)	ug/L	0.014 U	0.014 U	0.014 U	0.0067	0.014	0.020	6981801
Perfluorooctanoic acid (PFOA)	ug/L	0.013 J	0.0057 J	0.026	0.0050	0.014	0.020	6981801
Perfluorononanoic acid (PFNA)	ug/L	0.014 U	0.014 U	0.014 U	0.0051	0.014	0.020	6981801
Perfluorodecanoic acid (PFDA)	ug/L	0.014 U	0.014 U	0.014 U	0.0039	0.014	0.020	6981801
Perfluoroundecanoic acid (PFUnA)	ug/L	0.014 U	0.014 U	0.014 U	0.0062	0.014	0.020	6981801
Perfluorododecanoic acid (PFDoA)	ug/L	0.016 U	0.016 U	0.016 U	0.0080	0.016	0.020	6981801
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.014 U	0.014 U	0.014 U	0.0064	0.014	0.020	6981801
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.014 U	0.014 U	0.014 U	0.0068	0.014	0.020	6981801
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.014 U	0.0070 J	0.0094 J	0.0056	0.014	0.020	6981801
Perfluorohexanesulfonic acid(PFHxS)	ug/L	0.021	0.0079 J	0.042	0.0044	0.014	0.020	6981801
Perfluorooctanesulfonic acid (PFOS)	ug/L	0.053	0.042	0.093	0.0057	0.014	0.020	6981801
EtFOSA	ug/L	0.016 U	0.016 U	0.016 U	0.0070	0.016	0.040	6981801
MeFOSA	ug/L	0.016 U	0.016 U	0.016 U	0.0078	0.016	0.040	6981801
Surrogate Recovery (%)								
13C2-Perfluorodecanoic acid	%	85	92	86				6981801
13C2-Perfluorododecanoic acid	%	81	84	82				6981801
13C2-Perfluorohexanoic acid	%	89	93	90				6981801
13C2-perfluorotetradecanoic acid	%	77	80	79				6981801
13C2-Perfluoroundecanoic acid	%	86	89	84				6981801
13C3-Perfluorobutanesulfonic acid	%	87	93	90				6981801
13C4-Perfluoroheptanoic acid	%	90	95	91				6981801
13C4-Perfluorooctanesulfonic acid	%	88	96	87				6981801
13C4-Perfluorooctanoic acid	%	92	95	90				6981801
13C5-Perfluorononanoic acid	%	89	94	91				6981801
18O2-Perfluorohexanesulfonic acid	%	85	94	86				6981801
D3-MeFOSA	%	58	56	57				6981801
D5-EtFOSA	%	55	54	55				6981801

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

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX306				NTX307				
Sampling Date		2020/09/22 09:25				2020/09/23 15:18				
COC Number		20I227				20I227				
	UNITS	HP07	DL	LOD	LOQ	HP08	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
Perfluorohexanoic acid (PFHxA)	ug/L	0.33	0.0061	0.016	0.023	0.26	0.0053	0.014	0.020	6981801
Perfluoroheptanoic acid (PFHpA)	ug/L	0.11	0.0077	0.016	0.023	0.088	0.0067	0.014	0.020	6981801
Perfluorooctanoic acid (PFOA)	ug/L	0.37	0.0058	0.016	0.023	0.75	0.0050	0.014	0.020	6981801
Perfluorononanoic acid (PFNA)	ug/L	0.0096 J	0.0059	0.016	0.023	0.0089 J	0.0051	0.014	0.020	6981801
Perfluorodecanoic acid (PFDA)	ug/L	0.016 U	0.0045	0.016	0.023	0.014 U	0.0039	0.014	0.020	6981801
Perfluoroundecanoic acid (PFUnA)	ug/L	0.016 U	0.0071	0.016	0.023	0.014 U	0.0062	0.014	0.020	6981801
Perfluorododecanoic acid (PFDoA)	ug/L	0.018 U	0.0092	0.018	0.023	0.016 U	0.0080	0.016	0.020	6981801
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.016 U	0.0074	0.016	0.023	0.014 U	0.0064	0.014	0.020	6981801
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.016 U	0.0078	0.016	0.023	0.014 U	0.0068	0.014	0.020	6981801
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.019 J	0.0064	0.016	0.023	0.028	0.0056	0.014	0.020	6981801
Perfluorohexanesulfonic acid(PFHxS)	ug/L	0.89	0.0051	0.016	0.023	1.6 (1)	0.044	0.14	0.20	6981801
Perfluorooctanesulfonic acid (PFOS)	ug/L	0.81	0.0066	0.016	0.023	1.2 (1)	0.057	0.14	0.20	6981801
EtFOSA	ug/L	0.018 U	0.0081	0.018	0.046	0.016 U	0.0070	0.016	0.040	6981801
MeFOSA	ug/L	0.018 U	0.0090	0.018	0.046	0.016 U	0.0078	0.016	0.040	6981801
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	86				86				6981801
13C2-Perfluorododecanoic acid	%	78				79				6981801
13C2-Perfluorohexanoic acid	%	90				89				6981801
13C2-perfluorotetradecanoic acid	%	73				72				6981801
13C2-Perfluoroundecanoic acid	%	84				84				6981801
13C3-Perfluorobutanesulfonic acid	%	89				87				6981801
13C4-Perfluoroheptanoic acid	%	91				90				6981801
13C4-Perfluorooctanesulfonic acid	%	86				85				6981801
13C4-Perfluorooctanoic acid	%	89				87				6981801
13C5-Perfluorononanoic acid	%	90				87				6981801
18O2-Perfluorohexanesulfonic acid	%	89				86				6981801
D3-MeFOSA	%	51				56				6981801
D5-EtFOSA	%	49 (2)				57				6981801

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was adjusted accordingly (10x).
(2) A variance to the extracted internal standard (EIS) recovery criteria of 50-150% has been granted; allowing for recovery limits of 25-150% for this parameter.

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX308				NTX309				
Sampling Date		2020/09/23 15:23				2020/09/22 10:59				
COC Number		20I227				20I227				
	UNITS	HP08 DUP	DL	LOD	LOQ	HP09	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
Perfluorohexanoic acid (PFHxA)	ug/L	0.28	0.0058	0.015	0.022	0.069	0.0058	0.015	0.022	6981801
Perfluoroheptanoic acid (PFHpA)	ug/L	0.092	0.0074	0.015	0.022	0.029	0.0074	0.015	0.022	6981801
Perfluorooctanoic acid (PFOA)	ug/L	0.79	0.0055	0.015	0.022	0.11	0.0055	0.015	0.022	6981801
Perfluorononanoic acid (PFNA)	ug/L	0.010 J	0.0056	0.015	0.022	0.0058 J	0.0056	0.015	0.022	6981801
Perfluorodecanoic acid (PFDA)	ug/L	0.015 U	0.0043	0.015	0.022	0.015 U	0.0043	0.015	0.022	6981801
Perfluoroundecanoic acid (PFUnA)	ug/L	0.015 U	0.0068	0.015	0.022	0.015 U	0.0068	0.015	0.022	6981801
Perfluorododecanoic acid (PFDoA)	ug/L	0.018 U	0.0088	0.018	0.022	0.018 U	0.0088	0.018	0.022	6981801
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.015 U	0.0070	0.015	0.022	0.015 U	0.0070	0.015	0.022	6981801
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.015 U	0.0075	0.015	0.022	0.015 U	0.0075	0.015	0.022	6981801
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.028	0.0062	0.015	0.022	0.016 J	0.0062	0.015	0.022	6981801
Perfluorohexanesulfonic acid(PFHxS)	ug/L	1.6 (1)	0.044	0.14	0.20	0.68	0.0048	0.015	0.022	6981801
Perfluorooctanesulfonic acid (PFOS)	ug/L	1.1 (1)	0.057	0.14	0.20	0.59	0.0063	0.015	0.022	6981801
EtFOSA	ug/L	0.018 U	0.0077	0.018	0.044	0.018 U	0.0077	0.018	0.044	6981801
MeFOSA	ug/L	0.018 U	0.0086	0.018	0.044	0.018 U	0.0086	0.018	0.044	6981801
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	84				85				6981801
13C2-Perfluorododecanoic acid	%	80				78				6981801
13C2-Perfluorohexanoic acid	%	89				88				6981801
13C2-perfluorotetradecanoic acid	%	78				70				6981801
13C2-Perfluoroundecanoic acid	%	87				82				6981801
13C3-Perfluorobutanesulfonic acid	%	90				85				6981801
13C4-Perfluoroheptanoic acid	%	92				90				6981801
13C4-Perfluorooctanesulfonic acid	%	90				84				6981801
13C4-Perfluorooctanoic acid	%	90				86				6981801
13C5-Perfluorononanoic acid	%	92				88				6981801
18O2-Perfluorohexanesulfonic acid	%	90				83				6981801
D3-MeFOSA	%	58				50				6981801
D5-EtFOSA	%	56				50				6981801

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

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX310	NTX311		NTX312				
Sampling Date		2020/09/22 12:08	2020/09/22 11:24		2020/09/23 09:30				
COC Number		20I227	20I227		20I227				
	UNITS	HP10	HP11	QC Batch	HP12	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters									
Perfluorohexanoic acid (PFHxA)	ug/L	0.014 U	0.10	6981801	0.074	0.0053	0.014	0.020	6981801
Perfluoroheptanoic acid (PFHpA)	ug/L	0.014 U	0.025	6981801	0.012 J	0.0067	0.014	0.020	6981801
Perfluorooctanoic acid (PFOA)	ug/L	0.014 U	0.095	6981801	0.072	0.0050	0.014	0.020	6981801
Perfluorononanoic acid (PFNA)	ug/L	0.014 U	0.0055 J	6981801	0.0078 J	0.0051	0.014	0.020	6981801
Perfluorodecanoic acid (PFDA)	ug/L	0.014 U	0.014 U	6981801	0.014 U	0.0039	0.014	0.020	6981801
Perfluoroundecanoic acid (PFUnA)	ug/L	0.014 U	0.014 U	6981801	0.014 U	0.0062	0.014	0.020	6981801
Perfluorododecanoic acid (PFDoA)	ug/L	0.016 U	0.016 U	6981801	0.016 U	0.0080	0.016	0.020	6981801
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.014 U	0.014 U	6981801	0.014 U	0.0064	0.014	0.020	6981801
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.014 U	0.014 U	6981801	0.014 U	0.0068	0.014	0.020	6981801
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.014 U	0.034	6981801	0.014 J	0.0056	0.014	0.020	6981801
Perfluorohexanesulfonic acid(PFHxS)	ug/L	0.014 U	0.60	6981801	0.33	0.0044	0.014	0.020	6981801
Perfluorooctanesulfonic acid (PFOS)	ug/L	0.014 U	0.27	6981801	0.44	0.0057	0.014	0.020	6981801
EtFOSA	ug/L	0.016 U	0.016 U	6981801	0.016 U	0.0070	0.016	0.040	6985934
MeFOSA	ug/L	0.016 U	0.016 U	6981801	0.016 U	0.0078	0.016	0.040	6985934
Surrogate Recovery (%)									
13C2-Perfluorodecanoic acid	%	84	87	6981801	71				6981801
13C2-Perfluorododecanoic acid	%	79	81	6981801	66				6981801
13C2-Perfluorohexanoic acid	%	92	87	6981801	82				6981801
13C2-perfluorotetradecanoic acid	%	76	76	6981801	53				6981801
13C2-Perfluoroundecanoic acid	%	81	84	6981801	69				6981801
13C3-Perfluorobutanesulfonic acid	%	77	88	6981801	86				6981801
13C4-Perfluoroheptanoic acid	%	93	88	6981801	82				6981801
13C4-Perfluorooctanesulfonic acid	%	88	87	6981801	80				6981801
13C4-Perfluorooctanoic acid	%	92	88	6981801	78				6981801
13C5-Perfluorononanoic acid	%	91	89	6981801	75				6981801
18O2-Perfluorohexanesulfonic acid	%	92	85	6981801	80				6981801
D3-MeFOSA	%	50	55	6981801	61				6985934
D5-EtFOSA	%	49 (1)	52	6981801	58				6985934

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) A variance to the extracted internal standard (EIS) recovery criteria of 50-150% has been granted; allowing for recovery limits of 25-150% for this parameter.

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX313		NTX314		NTX315				
Sampling Date		2020/09/23 14:11		2020/09/22 15:00		2020/09/23 14:00				
COC Number		20I227		20I227		20I227				
	UNITS	HP13	QC Batch	QCFB-092220	QC Batch	QCFB-092320	DL	LOD	LOQ	QC Batch
Miscellaneous Parameters										
Perfluorohexanoic acid (PFHxA)	ug/L	0.020	6981801	0.014 U	6985934	0.014 U	0.0053	0.014	0.020	6981801
Perfluoroheptanoic acid (PFHpA)	ug/L	0.014 U	6981801	0.014 U	6985934	0.014 U	0.0067	0.014	0.020	6981801
Perfluorooctanoic acid (PFOA)	ug/L	0.028	6981801	0.014 U	6985934	0.014 U	0.0050	0.014	0.020	6981801
Perfluorononanoic acid (PFNA)	ug/L	0.014 U	6981801	0.014 U	6985934	0.014 U	0.0051	0.014	0.020	6981801
Perfluorodecanoic acid (PFDA)	ug/L	0.014 U	6981801	0.014 U	6985934	0.014 U	0.0039	0.014	0.020	6981801
Perfluoroundecanoic acid (PFUnA)	ug/L	0.014 U	6981801	0.014 U	6985934	0.014 U	0.0062	0.014	0.020	6981801
Perfluorododecanoic acid (PFDoA)	ug/L	0.016 U	6981801	0.016 U	6985934	0.016 U	0.0080	0.016	0.020	6981801
Perfluorotridecanoic acid (PFTRDA)	ug/L	0.014 U	6981801	0.014 U	6985934	0.014 U	0.0064	0.014	0.020	6981801
Perfluorotetradecanoic acid(PFTEDA)	ug/L	0.014 U	6981801	0.014 U	6985934	0.014 U	0.0068	0.014	0.020	6981801
Perfluorobutanesulfonic acid (PFBS)	ug/L	0.0058 J	6981801	0.014 U	6985934	0.014 U	0.0056	0.014	0.020	6985934
Perfluorohexanesulfonic acid(PFHxS)	ug/L	0.12	6981801	0.014 U	6985934	0.014 U	0.0044	0.014	0.020	6981801
Perfluorooctanesulfonic acid (PFOS)	ug/L	0.19	6981801	0.014 U	6985934	0.014 U	0.0057	0.014	0.020	6981801
EtFOSA	ug/L	0.016 U	6981801	0.016 U	6985934	0.016 U	0.0070	0.016	0.040	6981801
MeFOSA	ug/L	0.016 U	6981801	0.016 U	6985934	0.016 U	0.0078	0.016	0.040	6981801
Surrogate Recovery (%)										
13C2-Perfluorodecanoic acid	%	87	6981801	113	6985934	75				6981801
13C2-Perfluorododecanoic acid	%	84	6981801	104	6985934	66				6981801
13C2-Perfluorohexanoic acid	%	94	6981801	114	6985934	80				6981801
13C2-perfluorotetradecanoic acid	%	79	6981801	96	6985934	66				6981801
13C2-Perfluoroundecanoic acid	%	86	6981801	110	6985934	67				6981801
13C3-Perfluorobutanesulfonic acid	%	92	6981801	49 (1)	6985934	84				6985934
13C4-Perfluoroheptanoic acid	%	93	6981801	116	6985934	82				6981801
13C4-Perfluorooctanesulfonic acid	%	90	6981801	91	6985934	67				6981801
13C4-Perfluorooctanoic acid	%	92	6981801	121	6985934	84				6981801
13C5-Perfluorononanoic acid	%	90	6981801	122	6985934	84				6981801
18O2-Perfluorohexanesulfonic acid	%	92	6981801	75	6985934	59				6981801
D3-MeFOSA	%	53	6981801	76	6985934	55				6981801

DL = Detection Limit
LOD = Limit of Detection
LOQ = Limit of Quantitation
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Extracted internal standard analyte recovery was below the defined lower control limit (LCL). Laboratory spiked water resulted in satisfactory recovery of the extracted internal standard analyte. When considered together, these QC data suggest that matrix interferences may be increasing the variability of the associated native analyte result (Perfluorobutane sulfonic acid - PFBS). Insufficient sample remaining for re-analysis.

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

RESULTS OF ANALYSES OF GROUND WATER

BV Labs ID		NTX313		NTX314		NTX315				
Sampling Date		2020/09/23 14:11		2020/09/22 15:00		2020/09/23 14:00				
COC Number		20I227		20I227		20I227				
	UNITS	HP13	QC Batch	QCFB-092220	QC Batch	QCFB-092320	DL	LOD	LOQ	QC Batch
D5-EtFOSA	%	53	6981801	76	6985934	50				6981801

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

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EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

TEST SUMMARY

BV Labs ID: NTX288 **Collected:** 2020/09/21
Sample ID: 06-MW25-0920 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX289 **Collected:** 2020/09/21
Sample ID: 06-MW26-0920 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX290 **Collected:** 2020/09/21
Sample ID: 06-MW30-0920 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX291 **Collected:** 2020/09/21
Sample ID: 06-MW31-0920 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX292 **Collected:** 2020/09/21
Sample ID: 06-MW31-0920 DUP **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX293 **Collected:** 2020/09/21
Sample ID: 06-MW32-0920 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6983448	2020/10/05	2020/10/06	Lovelpreet Thind

BV Labs ID: NTX294 **Collected:** 2020/09/21
Sample ID: 06-MW33-0920 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

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BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

TEST SUMMARY

BV Labs ID: NTX295
Sample ID: 06-MW34-0920
Matrix: Ground Water
Collected: 2020/09/21
Shipped:
Received: 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX296
Sample ID: 06-MW35-0920
Matrix: Ground Water
Collected: 2020/09/21
Shipped:
Received: 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX297
Sample ID: 06-MW36-0920
Matrix: Ground Water
Collected: 2020/09/21
Shipped:
Received: 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX298
Sample ID: QCFB-092120
Matrix: Ground Water
Collected: 2020/09/21
Shipped:
Received: 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX299
Sample ID: HP01
Matrix: Ground Water
Collected: 2020/09/22
Shipped:
Received: 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981810	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX300
Sample ID: HP02
Matrix: Ground Water
Collected: 2020/09/22
Shipped:
Received: 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX301
Sample ID: HP03
Matrix: Ground Water
Collected: 2020/09/22
Shipped:
Received: 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

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EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

TEST SUMMARY

BV Labs ID: NTX302 **Collected:** 2020/09/22
Sample ID: HP03 DUP **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX303 **Collected:** 2020/09/22
Sample ID: HP04 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX304 **Collected:** 2020/09/22
Sample ID: HP05 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX305 **Collected:** 2020/09/22
Sample ID: HP06 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX306 **Collected:** 2020/09/22
Sample ID: HP07 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX307 **Collected:** 2020/09/23
Sample ID: HP08 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX308 **Collected:** 2020/09/23
Sample ID: HP08 DUP **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

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EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

TEST SUMMARY

BV Labs ID: NTX309 **Collected:** 2020/09/22
Sample ID: HP09 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX310 **Collected:** 2020/09/22
Sample ID: HP10 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX311 **Collected:** 2020/09/22
Sample ID: HP11 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX312 **Collected:** 2020/09/23
Sample ID: HP12 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6985934	2020/10/06	2020/10/07	Adnan Khan

BV Labs ID: NTX313 **Collected:** 2020/09/23
Sample ID: HP13 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

BV Labs ID: NTX314 **Collected:** 2020/09/22
Sample ID: QCFB-092220 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6985934	2020/10/06	2020/10/07	Adnan Khan

BV Labs ID: NTX315 **Collected:** 2020/09/23
Sample ID: QCFB-092320 **Shipped:**
Matrix: Ground Water **Received:** 2020/10/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFAS in water by SPE/LC-MS/MS	LCMS	6981801	2020/10/04	2020/10/05	Patrick Yu Peng Li

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GENERAL COMMENTS

Sample NTX293, PFAS in water by SPE/LC-MS/MS: Test repeated.
Sample NTX312, PFAS in water by SPE/LC-MS/MS: Test repeated.
Sample NTX315, PFAS in water by SPE/LC-MS/MS: Test repeated.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
6981801	YPL	Matrix Spike(NTX313)	13C2-Perfluorodecanoic acid	2020/10/05		83	%	50 - 150
			13C2-Perfluorododecanoic acid	2020/10/05		77	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/05		86	%	50 - 150
			13C2-perfluorotetradecanoic acid	2020/10/05		75	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/05		81	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/05		85	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/05		86	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2020/10/05		86	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/05		88	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/05		86	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/05		84	%	50 - 150
			D3-MeFOSA	2020/10/05		57	%	50 - 150
			D5-EtFOSA	2020/10/05		56	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/05		108	%	72 - 129
			Perfluoroheptanoic acid (PFHpA)	2020/10/05		111	%	72 - 130
			Perfluorooctanoic acid (PFOA)	2020/10/05		108	%	71 - 133
			Perfluorononanoic acid (PFNA)	2020/10/05		106	%	69 - 130
			Perfluorodecanoic acid (PFDA)	2020/10/05		103	%	71 - 129
			Perfluoroundecanoic acid (PFUnA)	2020/10/05		100	%	69 - 133
			Perfluorododecanoic acid (PFDoA)	2020/10/05		96	%	72 - 134
			Perfluorotridecanoic acid (PFTRDA)	2020/10/05		99	%	65 - 144
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/05		98	%	71 - 132
			Perfluorobutanesulfonic acid (PFBS)	2020/10/05		108	%	72 - 130
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/05		112	%	68 - 131
			Perfluorooctanesulfonic acid (PFOS)	2020/10/05		109	%	65 - 140
			EtFOSA	2020/10/05		85	%	67 - 135
			MeFOSA	2020/10/05		89	%	68 - 141
6981801	YPL	Matrix Spike DUP(NTX313)	13C2-Perfluorodecanoic acid	2020/10/05		88	%	50 - 150
			13C2-Perfluorododecanoic acid	2020/10/05		84	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/05		92	%	50 - 150
			13C2-perfluorotetradecanoic acid	2020/10/05		79	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/05		86	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/05		87	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/05		92	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2020/10/05		91	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/05		91	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/05		92	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/05		90	%	50 - 150
			D3-MeFOSA	2020/10/05		55	%	50 - 150
			D5-EtFOSA	2020/10/05		55	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/05		104	%	72 - 129
			Perfluoroheptanoic acid (PFHpA)	2020/10/05		107	%	72 - 130
			Perfluorooctanoic acid (PFOA)	2020/10/05		107	%	71 - 133
			Perfluorononanoic acid (PFNA)	2020/10/05		103	%	69 - 130
			Perfluorodecanoic acid (PFDA)	2020/10/05		105	%	71 - 129
			Perfluoroundecanoic acid (PFUnA)	2020/10/05		106	%	69 - 133
			Perfluorododecanoic acid (PFDoA)	2020/10/05		107	%	72 - 134
			Perfluorotridecanoic acid (PFTRDA)	2020/10/05		112	%	65 - 144
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/05		109	%	71 - 132
			Perfluorobutanesulfonic acid (PFBS)	2020/10/05		110	%	72 - 130
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/05		110	%	68 - 131

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Bureau Veritas Laboratories Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorooctanesulfonic acid (PFOS)	2020/10/05		106	%	65 - 140
			EtFOSA	2020/10/05		118	%	67 - 135
			MeFOSA	2020/10/05		126	%	68 - 141
6981801	YPL	MS/MSD RPD	Perfluorohexanoic acid (PFHxA)	2020/10/05	3.2		%	30
			Perfluoroheptanoic acid (PFHpA)	2020/10/05	3.6		%	30
			Perfluorooctanoic acid (PFOA)	2020/10/05	0.93		%	30
			Perfluorononanoic acid (PFNA)	2020/10/05	3.0		%	30
			Perfluorodecanoic acid (PFDA)	2020/10/05	2.3		%	30
			Perfluoroundecanoic acid (PFUnA)	2020/10/05	5.3		%	30
			Perfluorododecanoic acid (PFDoA)	2020/10/05	11		%	30
			Perfluorotridecanoic acid (PFTRDA)	2020/10/05	12		%	30
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/05	11		%	30
			Perfluorobutanesulfonic acid (PFBS)	2020/10/05	1.6		%	30
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/05	2.2		%	30
			Perfluorooctanesulfonic acid (PFOS)	2020/10/05	2.6		%	30
			EtFOSA	2020/10/05	32 (1)		%	30
			MeFOSA	2020/10/05	34 (1)		%	30
6981801	YPL	Spiked Blank	13C2-Perfluorodecanoic acid	2020/10/05		92	%	50 - 150
			13C2-Perfluorododecanoic acid	2020/10/05		86	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/05		94	%	50 - 150
			13C2-perfluorotetradecanoic acid	2020/10/05		81	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/05		91	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/05		93	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/05		95	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2020/10/05		93	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/05		95	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/05		95	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/05		94	%	50 - 150
			D3-MeFOSA	2020/10/05		59	%	50 - 150
			D5-EtFOSA	2020/10/05		56	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/05		104	%	72 - 129
			Perfluoroheptanoic acid (PFHpA)	2020/10/05		107	%	72 - 130
			Perfluorooctanoic acid (PFOA)	2020/10/05		107	%	71 - 133
			Perfluorononanoic acid (PFNA)	2020/10/05		104	%	69 - 130
			Perfluorodecanoic acid (PFDA)	2020/10/05		105	%	71 - 129
			Perfluoroundecanoic acid (PFUnA)	2020/10/05		105	%	69 - 133
			Perfluorododecanoic acid (PFDoA)	2020/10/05		104	%	72 - 134
			Perfluorotridecanoic acid (PFTRDA)	2020/10/05		107	%	65 - 144
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/05		107	%	71 - 132
			Perfluorobutanesulfonic acid (PFBS)	2020/10/05		104	%	72 - 130
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/05		103	%	68 - 131
			Perfluorooctanesulfonic acid (PFOS)	2020/10/05		107	%	65 - 140
			EtFOSA	2020/10/05		112	%	67 - 135
			MeFOSA	2020/10/05		111	%	68 - 141
6981801	YPL	Method Blank	13C2-Perfluorodecanoic acid	2020/10/05		92	%	50 - 150
			13C2-Perfluorododecanoic acid	2020/10/05		83	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/05		93	%	50 - 150
			13C2-perfluorotetradecanoic acid	2020/10/05		82	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/05		87	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/05		88	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/05		94	%	50 - 150

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			13C4-Perfluorooctanesulfonic acid	2020/10/05		91	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/05		92	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/05		92	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/05		89	%	50 - 150
			D3-MeFOSA	2020/10/05		57	%	50 - 150
			D5-EtFOSA	2020/10/05		55	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluoroheptanoic acid (PFHpA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorooctanoic acid (PFOA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorononanoic acid (PFNA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorodecanoic acid (PFDA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluoroundecanoic acid (PFUnA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorododecanoic acid (PFDoA)	2020/10/05	0.016 U, LOD=0.016		ug/L	
			Perfluorotridecanoic acid (PFTRDA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorobutanesulfonic acid (PFBS)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorooctanesulfonic acid (PFOS)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			EtFOSA	2020/10/05	0.016 U, LOD=0.016		ug/L	
			MeFOSA	2020/10/05	0.016 U, LOD=0.016		ug/L	
6981810	YPL	Matrix Spike(NTX290)	13C2-Perfluorodecanoic acid	2020/10/05		110	%	50 - 150
			13C2-Perfluorododecanoic acid	2020/10/05		103	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/05		109	%	50 - 150
			13C2-perfluorotetradecanoic acid	2020/10/05		96	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/05		108	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/05		108	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/05		113	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2020/10/05		112	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/05		114	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/05		113	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/05		110	%	50 - 150
			D3-MeFOSA	2020/10/05		59	%	50 - 150
			D5-EtFOSA	2020/10/05		60	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/05		102	%	72 - 129
			Perfluoroheptanoic acid (PFHpA)	2020/10/05		102	%	72 - 130
			Perfluorooctanoic acid (PFOA)	2020/10/05		101	%	71 - 133
			Perfluorononanoic acid (PFNA)	2020/10/05		101	%	69 - 130
			Perfluorodecanoic acid (PFDA)	2020/10/05		103	%	71 - 129

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluoroundecanoic acid (PFUnA)	2020/10/05		101	%	69 - 133
			Perfluorododecanoic acid (PFDoA)	2020/10/05		99	%	72 - 134
			Perfluorotridecanoic acid (PFTRDA)	2020/10/05		105	%	65 - 144
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/05		100	%	71 - 132
			Perfluorobutanesulfonic acid (PFBS)	2020/10/05		103	%	72 - 130
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/05		103	%	68 - 131
			Perfluorooctanesulfonic acid (PFOS)	2020/10/05		102	%	65 - 140
			EtFOSA	2020/10/05		107	%	67 - 135
			MeFOSA	2020/10/05		112	%	68 - 141
6981810	YPL	Matrix Spike DUP(NTX290)	13C2-Perfluorodecanoic acid	2020/10/05		112	%	50 - 150
			13C2-Perfluorododecanoic acid	2020/10/05		103	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/05		109	%	50 - 150
			13C2-perfluorotetradecanoic acid	2020/10/05		93	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/05		108	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/05		107	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/05		113	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2020/10/05		113	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/05		114	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/05		114	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/05		114	%	50 - 150
			D3-MeFOSA	2020/10/05		63	%	50 - 150
			D5-EtFOSA	2020/10/05		59	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/05		103	%	72 - 129
			Perfluoroheptanoic acid (PFHpA)	2020/10/05		104	%	72 - 130
			Perfluorooctanoic acid (PFOA)	2020/10/05		102	%	71 - 133
			Perfluorononanoic acid (PFNA)	2020/10/05		102	%	69 - 130
			Perfluorodecanoic acid (PFDA)	2020/10/05		102	%	71 - 129
			Perfluoroundecanoic acid (PFUnA)	2020/10/05		101	%	69 - 133
			Perfluorododecanoic acid (PFDoA)	2020/10/05		100	%	72 - 134
			Perfluorotridecanoic acid (PFTRDA)	2020/10/05		111	%	65 - 144
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/05		103	%	71 - 132
			Perfluorobutanesulfonic acid (PFBS)	2020/10/05		104	%	72 - 130
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/05		102	%	68 - 131
			Perfluorooctanesulfonic acid (PFOS)	2020/10/05		101	%	65 - 140
			EtFOSA	2020/10/05		111	%	67 - 135
			MeFOSA	2020/10/05		107	%	68 - 141
6981810	YPL	MS/MSD RPD	Perfluorohexanoic acid (PFHxA)	2020/10/05	1.2		%	30
			Perfluoroheptanoic acid (PFHpA)	2020/10/05	1.1		%	30
			Perfluorooctanoic acid (PFOA)	2020/10/05	0.18		%	30
			Perfluorononanoic acid (PFNA)	2020/10/05	1.2		%	30
			Perfluorodecanoic acid (PFDA)	2020/10/05	0.63		%	30
			Perfluoroundecanoic acid (PFUnA)	2020/10/05	0.052		%	30
			Perfluorododecanoic acid (PFDoA)	2020/10/05	0.87		%	30
			Perfluorotridecanoic acid (PFTRDA)	2020/10/05	5.4		%	30
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/05	2.9		%	30
			Perfluorobutanesulfonic acid (PFBS)	2020/10/05	0.83		%	30
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/05	1.8		%	30
			Perfluorooctanesulfonic acid (PFOS)	2020/10/05	0.18		%	30
			EtFOSA	2020/10/05	2.8		%	30
			MeFOSA	2020/10/05	4.5		%	30
6981810	YPL	Spiked Blank	13C2-Perfluorodecanoic acid	2020/10/05		111	%	50 - 150

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			13C2-Perfluorododecanoic acid	2020/10/05		108	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/05		111	%	50 - 150
			13C2-perfluorotetradecanoic acid	2020/10/05		104	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/05		113	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/05		111	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/05		117	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2020/10/05		117	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/05		114	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/05		116	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/05		114	%	50 - 150
			D3-MeFOSA	2020/10/05		85	%	50 - 150
			D5-EtFOSA	2020/10/05		85	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/05		104	%	72 - 129
			Perfluoroheptanoic acid (PFHpA)	2020/10/05		103	%	72 - 130
			Perfluorooctanoic acid (PFOA)	2020/10/05		105	%	71 - 133
			Perfluorononanoic acid (PFNA)	2020/10/05		103	%	69 - 130
			Perfluorodecanoic acid (PFDA)	2020/10/05		107	%	71 - 129
			Perfluoroundecanoic acid (PFUnA)	2020/10/05		101	%	69 - 133
			Perfluorododecanoic acid (PFDoA)	2020/10/05		101	%	72 - 134
			Perfluorotridecanoic acid (PFTRDA)	2020/10/05		103	%	65 - 144
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/05		101	%	71 - 132
			Perfluorobutanesulfonic acid (PFBS)	2020/10/05		105	%	72 - 130
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/05		103	%	68 - 131
			Perfluorooctanesulfonic acid (PFOS)	2020/10/05		105	%	65 - 140
			EtFOSA	2020/10/05		107	%	67 - 135
			MeFOSA	2020/10/05		110	%	68 - 141
6981810	YPL	Method Blank	13C2-Perfluorodecanoic acid	2020/10/05		106	%	50 - 150
			13C2-Perfluorododecanoic acid	2020/10/05		102	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/05		109	%	50 - 150
			13C2-perfluorotetradecanoic acid	2020/10/05		96	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/05		108	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/05		106	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/05		112	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2020/10/05		110	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/05		108	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/05		111	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/05		106	%	50 - 150
			D3-MeFOSA	2020/10/05		84	%	50 - 150
			D5-EtFOSA	2020/10/05		83	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluoroheptanoic acid (PFHpA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorooctanoic acid (PFOA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorononanoic acid (PFNA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorodecanoic acid (PFDA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluoroundecanoic acid (PFUnA)	2020/10/05	0.014 U, LOD=0.014		ug/L	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorododecanoic acid (PFDoA)	2020/10/05	0.016 U, LOD=0.016		ug/L	
			Perfluorotridecanoic acid (PFTRDA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorobutanesulfonic acid (PFBS)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			Perfluorooctanesulfonic acid (PFOS)	2020/10/05	0.014 U, LOD=0.014		ug/L	
			EtFOSA	2020/10/05	0.016 U, LOD=0.016		ug/L	
			MeFOSA	2020/10/05	0.016 U, LOD=0.016		ug/L	
6983448	LOV	Spiked Blank	D3-MeFOSA	2020/10/06		64	%	50 - 150
			D5-EtFOSA	2020/10/06		68	%	50 - 150
			EtFOSA	2020/10/06		101	%	67 - 135
			MeFOSA	2020/10/06		104	%	68 - 141
6983448	LOV	Spiked Blank DUP	D3-MeFOSA	2020/10/06		67	%	50 - 150
			D5-EtFOSA	2020/10/06		73	%	50 - 150
			EtFOSA	2020/10/06		106	%	67 - 135
			MeFOSA	2020/10/06		108	%	68 - 141
6983448	LOV	RPD	EtFOSA	2020/10/06	5.5		%	30
			MeFOSA	2020/10/06	3.7		%	30
6983448	LOV	Method Blank	D3-MeFOSA	2020/10/06		47 (2)	%	50 - 150
			D5-EtFOSA	2020/10/06		48 (2)	%	50 - 150
			EtFOSA	2020/10/06	0.016 U, LOD=0.016		ug/L	
			MeFOSA	2020/10/06	0.016 U, LOD=0.016		ug/L	
6985934	AKH	Spiked Blank	13C2-Perfluorodecanoic acid	2020/10/07		95	%	50 - 150
			13C2-Perfluorododecanoic acid	2020/10/07		91	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/07		99	%	50 - 150
			13C2-perfluorotetradecanoic acid	2020/10/07		86	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/07		91	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/07		94	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/07		94	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2020/10/07		92	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/07		99	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/07		98	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/07		90	%	50 - 150
			D3-MeFOSA	2020/10/07		74	%	50 - 150
			D5-EtFOSA	2020/10/07		77	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/07		90	%	72 - 129
			Perfluoroheptanoic acid (PFHpA)	2020/10/07		92	%	72 - 130
			Perfluorooctanoic acid (PFOA)	2020/10/07		91	%	71 - 133
			Perfluorononanoic acid (PFNA)	2020/10/07		90	%	69 - 130
			Perfluorodecanoic acid (PFDA)	2020/10/07		90	%	71 - 129
			Perfluoroundecanoic acid (PFUnA)	2020/10/07		93	%	69 - 133
			Perfluorododecanoic acid (PFDoA)	2020/10/07		89	%	72 - 134

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorotridecanoic acid (PFTRDA)	2020/10/07		91	%	65 - 144
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/07		92	%	71 - 132
			Perfluorobutanesulfonic acid (PFBS)	2020/10/07		90	%	72 - 130
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/07		92	%	68 - 131
			Perfluorooctanesulfonic acid (PFOS)	2020/10/07		94	%	65 - 140
			EtFOSA	2020/10/07		91	%	67 - 135
			MeFOSA	2020/10/07		95	%	68 - 141
6985934	AKH	Spiked Blank DUP	13C2-Perfluorodecanoic acid	2020/10/07		91	%	50 - 150
			13C2-Perfluorododecanoic acid	2020/10/07		88	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/07		98	%	50 - 150
			13C2-perfluorotetradecanoic acid	2020/10/07		83	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/07		90	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/07		95	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/07		95	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2020/10/07		93	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/07		100	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/07		98	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/07		93	%	50 - 150
			D3-MeFOSA	2020/10/07		70	%	50 - 150
			D5-EtFOSA	2020/10/07		69	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/07		90	%	72 - 129
			Perfluoroheptanoic acid (PFHpA)	2020/10/07		89	%	72 - 130
			Perfluorooctanoic acid (PFOA)	2020/10/07		88	%	71 - 133
			Perfluorononanoic acid (PFNA)	2020/10/07		87	%	69 - 130
			Perfluorodecanoic acid (PFDA)	2020/10/07		92	%	71 - 129
			Perfluoroundecanoic acid (PFUnA)	2020/10/07		89	%	69 - 133
			Perfluorododecanoic acid (PFDoA)	2020/10/07		88	%	72 - 134
			Perfluorotridecanoic acid (PFTRDA)	2020/10/07		90	%	65 - 144
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/07		91	%	71 - 132
			Perfluorobutanesulfonic acid (PFBS)	2020/10/07		86	%	72 - 130
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/07		85	%	68 - 131
			Perfluorooctanesulfonic acid (PFOS)	2020/10/07		90	%	65 - 140
			EtFOSA	2020/10/07		97	%	67 - 135
			MeFOSA	2020/10/07		92	%	68 - 141
6985934	AKH	RPD	Perfluorohexanoic acid (PFHxA)	2020/10/07	0.28		%	30
			Perfluoroheptanoic acid (PFHpA)	2020/10/07	2.8		%	30
			Perfluorooctanoic acid (PFOA)	2020/10/07	3.1		%	30
			Perfluorononanoic acid (PFNA)	2020/10/07	3.6		%	30
			Perfluorodecanoic acid (PFDA)	2020/10/07	1.8		%	30
			Perfluoroundecanoic acid (PFUnA)	2020/10/07	3.8		%	30
			Perfluorododecanoic acid (PFDoA)	2020/10/07	0.55		%	30
			Perfluorotridecanoic acid (PFTRDA)	2020/10/07	0.65		%	30
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/07	0.96		%	30
			Perfluorobutanesulfonic acid (PFBS)	2020/10/07	5.4		%	30
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/07	7.1		%	30
			Perfluorooctanesulfonic acid (PFOS)	2020/10/07	4.2		%	30
			EtFOSA	2020/10/07	6.5		%	30
			MeFOSA	2020/10/07	2.4		%	30
6985934	AKH	Method Blank	13C2-Perfluorodecanoic acid	2020/10/07		91	%	50 - 150
			13C2-Perfluorododecanoic acid	2020/10/07		84	%	50 - 150
			13C2-Perfluorohexanoic acid	2020/10/07		93	%	50 - 150

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			13C2-perfluorotetradecanoic acid	2020/10/07		80	%	50 - 150
			13C2-Perfluoroundecanoic acid	2020/10/07		87	%	50 - 150
			13C3-Perfluorobutanesulfonic acid	2020/10/07		92	%	50 - 150
			13C4-Perfluoroheptanoic acid	2020/10/07		94	%	50 - 150
			13C4-Perfluorooctanesulfonic acid	2020/10/07		93	%	50 - 150
			13C4-Perfluorooctanoic acid	2020/10/07		97	%	50 - 150
			13C5-Perfluorononanoic acid	2020/10/07		93	%	50 - 150
			18O2-Perfluorohexanesulfonic acid	2020/10/07		88	%	50 - 150
			D3-MeFOSA	2020/10/07		66	%	50 - 150
			D5-EtFOSA	2020/10/07		67	%	50 - 150
			Perfluorohexanoic acid (PFHxA)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			Perfluoroheptanoic acid (PFHpA)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			Perfluorooctanoic acid (PFOA)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			Perfluorononanoic acid (PFNA)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			Perfluorodecanoic acid (PFDA)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			Perfluoroundecanoic acid (PFUnA)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			Perfluorododecanoic acid (PFDoA)	2020/10/07	0.016 U, LOD=0.016		ug/L	
			Perfluorotridecanoic acid (PFTRDA)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			Perfluorotetradecanoic acid(PFTEDA)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			Perfluorobutanesulfonic acid (PFBS)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			Perfluorohexanesulfonic acid(PFHxS)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			Perfluorooctanesulfonic acid (PFOS)	2020/10/07	0.014 U, LOD=0.014		ug/L	
			EtFOSA	2020/10/07	0.016 U, LOD=0.016		ug/L	
			MeFOSA	2020/10/07	0.016 U, LOD=0.016		ug/L	

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

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

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

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

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

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

(2) A variance to the extracted internal standard (EIS) recovery criteria of 50-150% has been granted; allowing for recovery limits of 25-150% for this parameter.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Bureau Veritas Laboratories Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

BV Labs Job #: C0P6559
Report Date: 2020/10/23

EMAX Laboratories Inc
Client Project #: TREASURE ISLAND, IR SITE 6
Site Location: SITE 6(T10000006825)
Your P.O. #: 20I227

VALIDATION SIGNATURE PAGE

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

Colm McNamara, Senior Analyst, Liquid Chromatography

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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METHOD 537 Modified

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

Bureau Veritas Canada (2019)
Inc.
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.bvlabs.com

3.2 Sample Chromatograms

Bureau Veritas Canada (2019)
Inc.
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.bvlabs.com

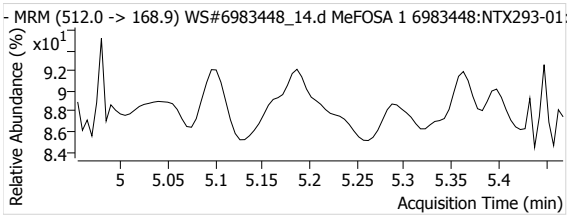
Quantitative Analysis Report

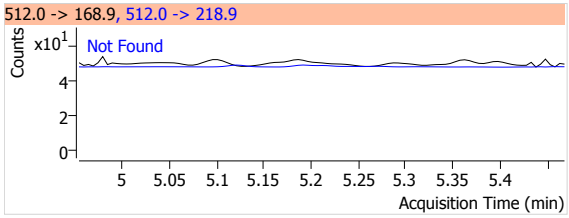
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	6983448:NTX293-01:5x	**Data File**	WS#6983448_14.d
Type	Sample	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-F3
Acq. Date-Time	2020/10/06 1:56:45 PM	**Dil.**	0.1
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
D3-MeFOSA	µg/L	--	33.9168	--	2054	5.22	60		--	--	--	--
D5-EtFOSA	µg/L	--	31.3182	--	1637	5.35	40		--	--	--	--

MeFOSA 1





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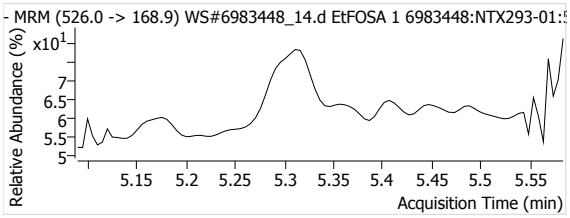

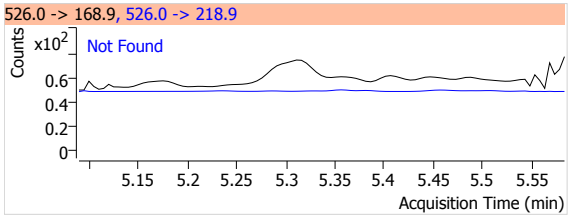

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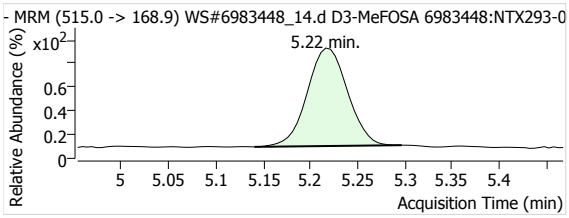

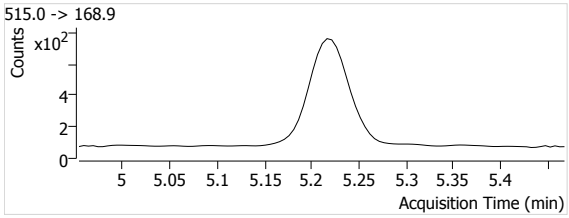

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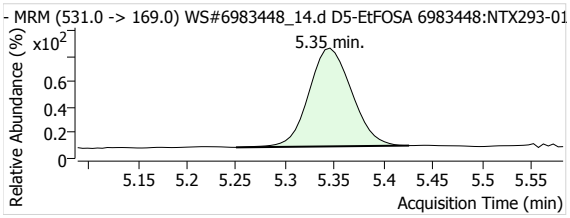

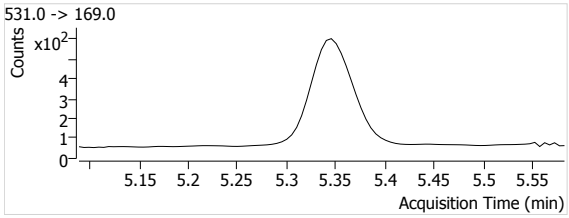

Quantitative Analysis Report

Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

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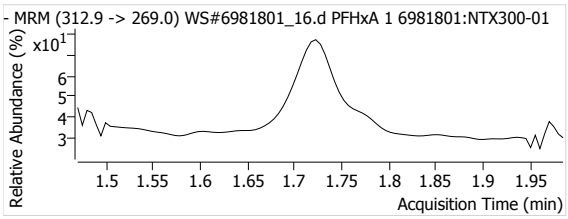
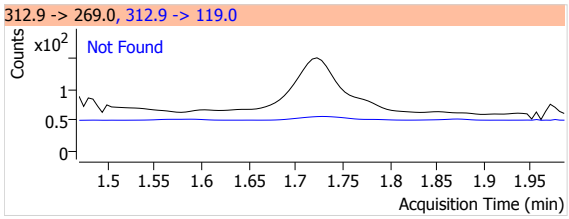
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B5
Acq. Date-Time	2020/10/05 2:28:32 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	0.0000	--	244	2.16	4	0.0210	39	2.17	7	16.0
PFOA 1	µg/L	--	0.0148	--	1433	2.63	26	0.1126	354	2.63	73	24.7
PFNA 1	µg/L	--	0.0066	--	691	3.06	14	0.0683	108	3.06	13	15.6
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	197	4.09	3	0.0220	20	4.09	6	10.2
PFTrDA 1	µg/L	--	0.0000	--	201	4.36	6	0.0313	14	4.35	16	7.0
PFTeDA 1	µg/L	--	0.0000	--	202	4.59	5	0.0314	15	4.59	11	7.4
PFBS 1	µg/L	--	0.0242	--	950	1.40	38	0.2086	354	1.40	46	37.3
PFHxS 1	µg/L	--	0.0113	--	276	2.08	35	0.1185	114	2.07	96	41.5
PFOS 1	µg/L	--	0.1443	--	2715	2.88	68	1.1359	1266	2.88	188	46.6
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	93.4077	--	13730	1.72	1009		--	--	--	--
13C4-PFHpA	µg/L	--	93.1369	--	11630	2.16	955		--	--	--	--
13C4-PFOA	µg/L	--	93.2879	--	12717	2.63	1225		--	--	--	--
13C5-PFNA	µg/L	--	91.2808	--	10113	3.06	737		--	--	--	--
13C2-PFDA	µg/L	--	84.0269	--	8259	3.45	396		--	--	--	--
13C2-PFUnA	µg/L	--	85.5329	--	9093	3.78	758		--	--	--	--
13C2-PFDoA	µg/L	--	81.3629	--	8967	4.09	337		--	--	--	--
13C2-PFTeDA	µg/L	--	71.4238	--	6431	4.58	595		--	--	--	--
13C3-PFBS	µg/L	--	90.1068	--	4554	1.39	437		--	--	--	--
18O2-PFHxS	µg/L	--	91.5028	--	2326	2.12	506		--	--	--	--
13C4-PFOS	µg/L	--	89.4461	--	2390	2.93	424		--	--	--	--
D3-MeFOSA	µg/L	--	55.4135	--	1950	5.24	73		--	--	--	--
D5-EtFOSA	µg/L	--	53.3509	--	2229	5.36	31		--	--	--	--

PFHxA 1





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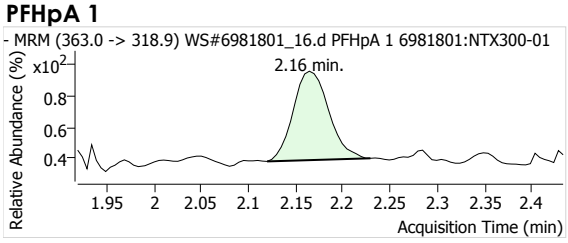

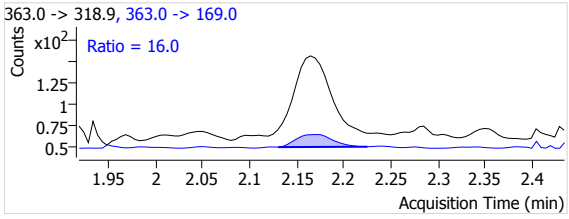

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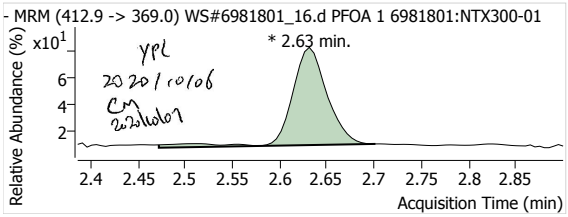

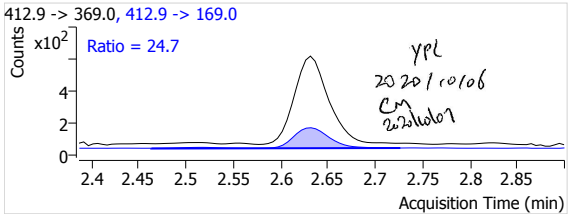

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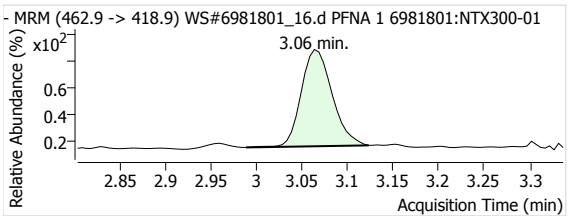

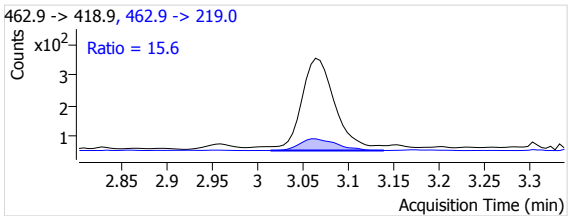

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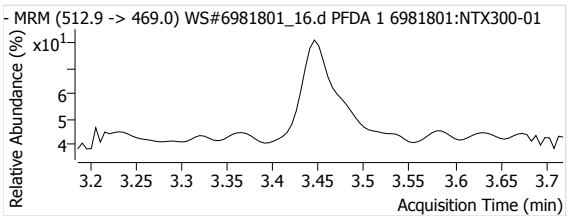

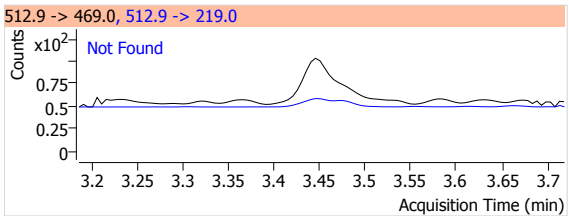

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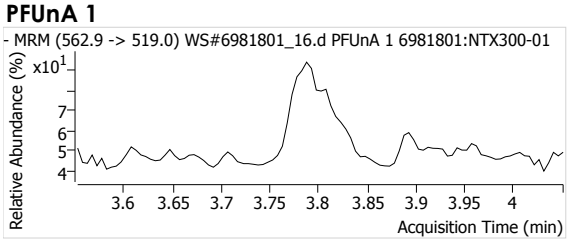

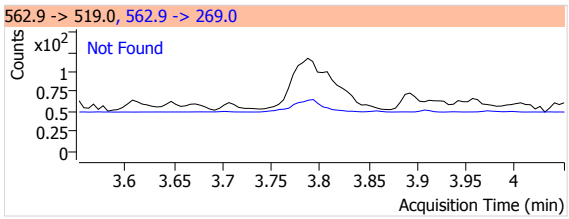

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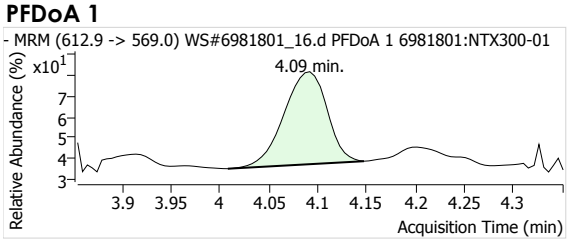
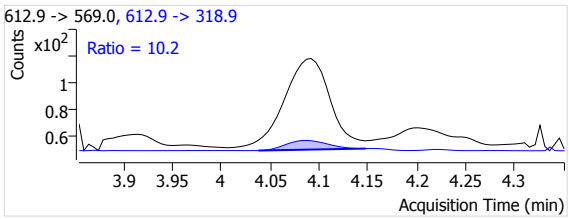
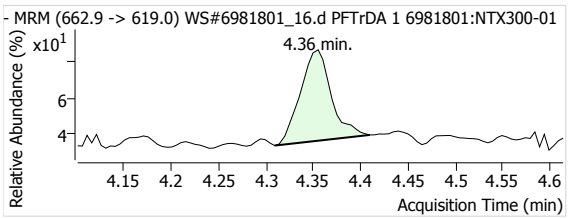
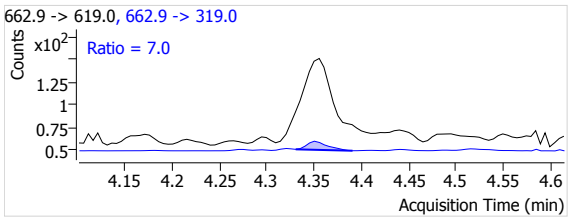




PFTrDA 1





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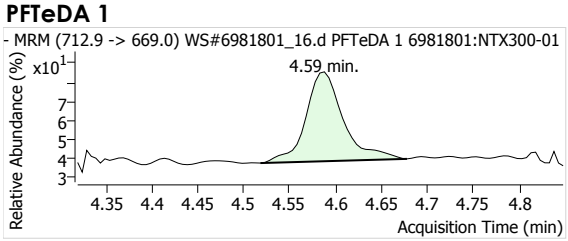

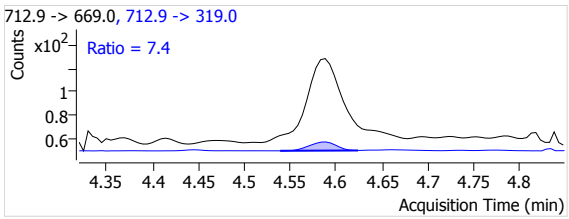

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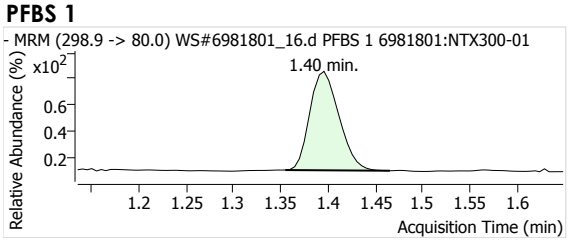

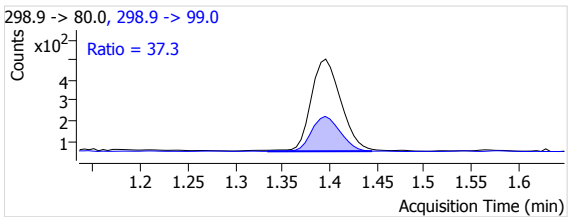

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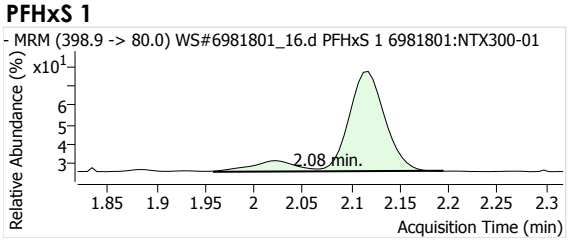

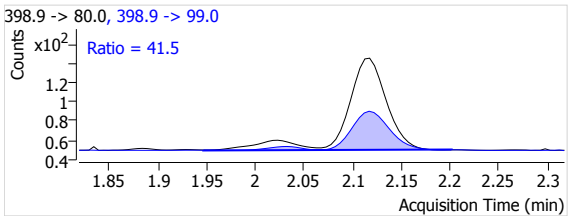

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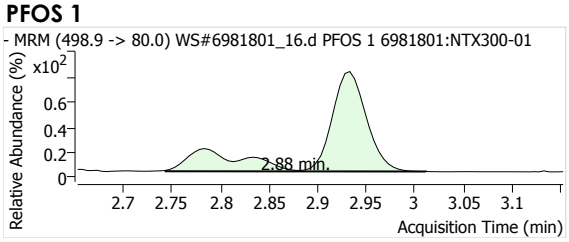

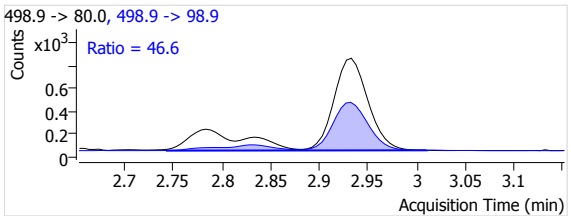

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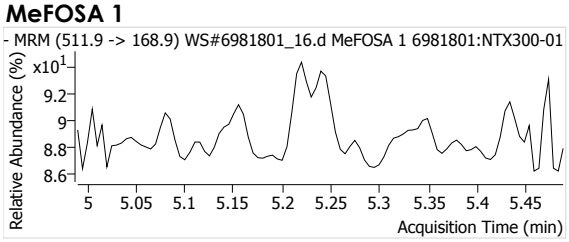

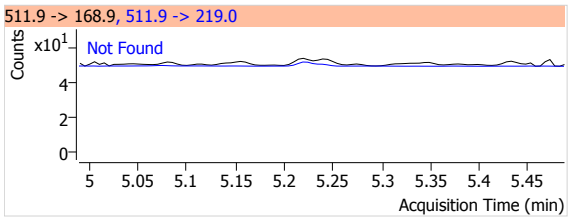

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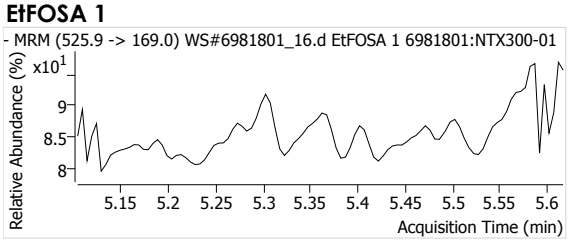

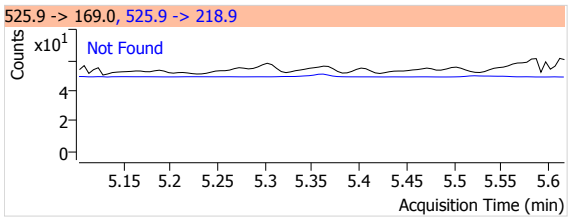

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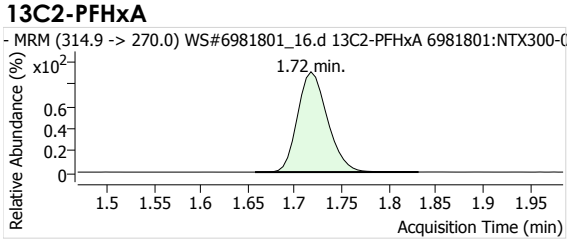

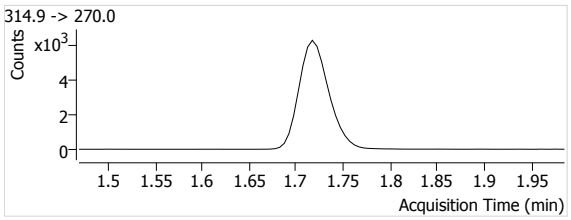

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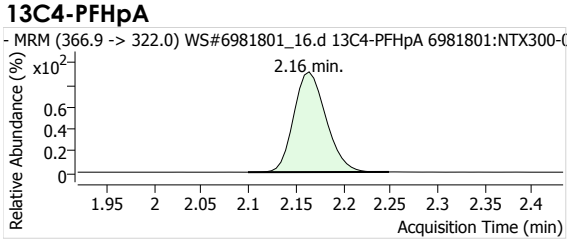

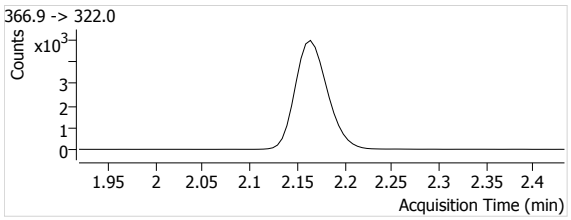

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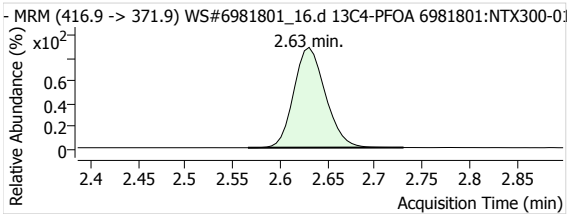

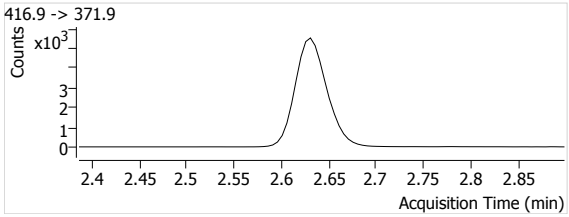

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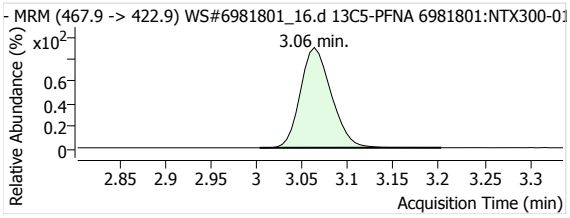

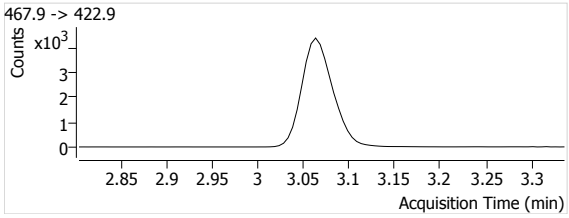

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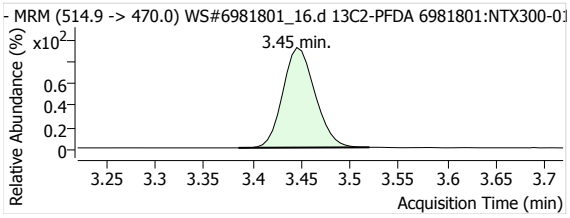

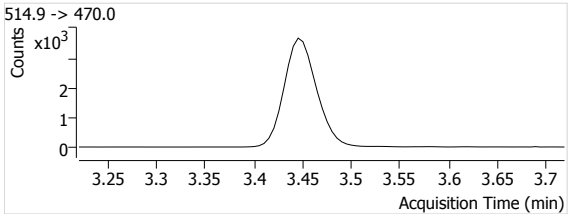

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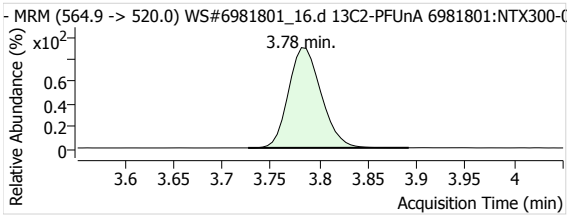

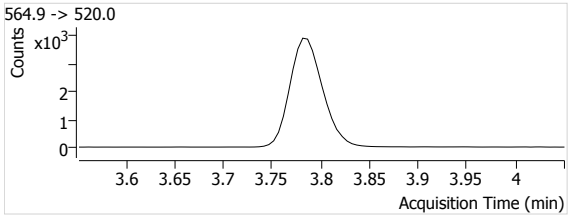

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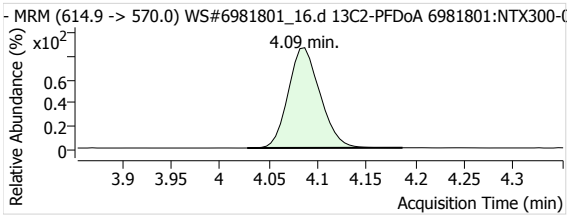

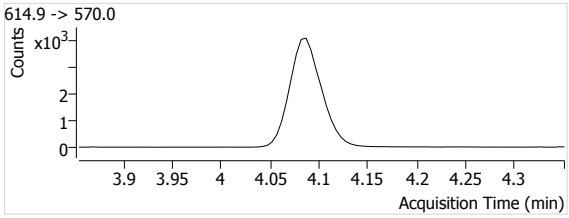

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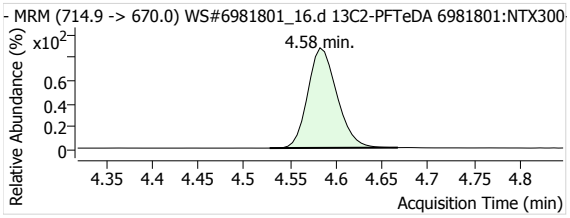

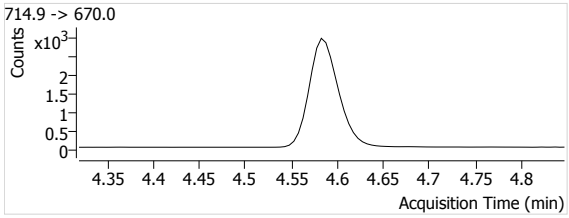

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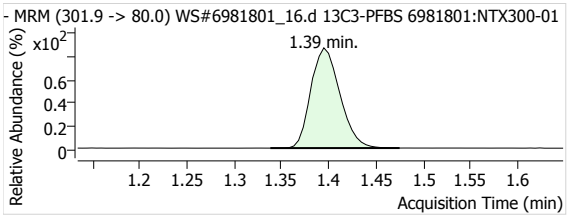

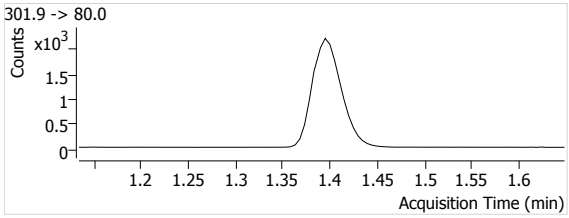

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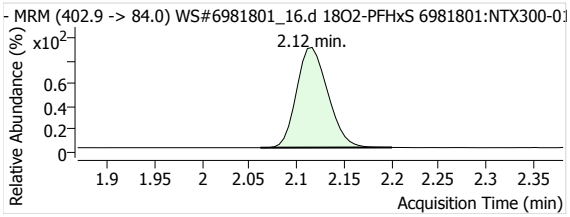

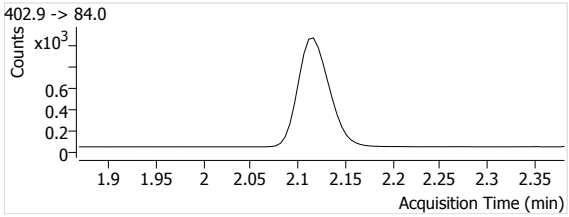

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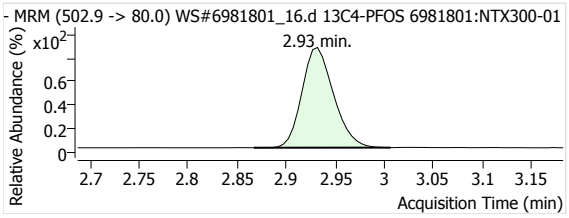

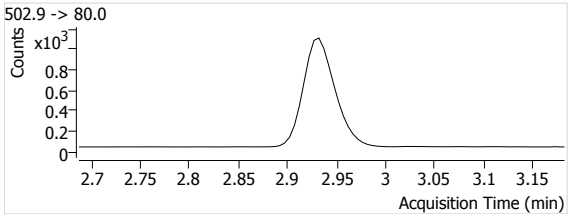

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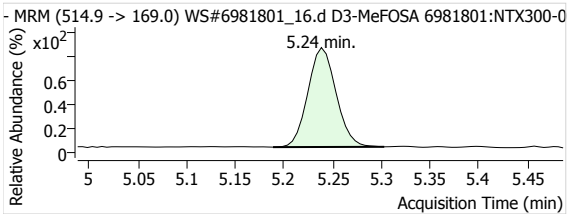

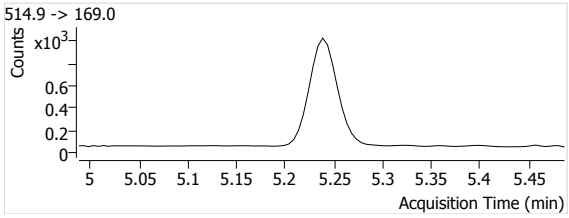

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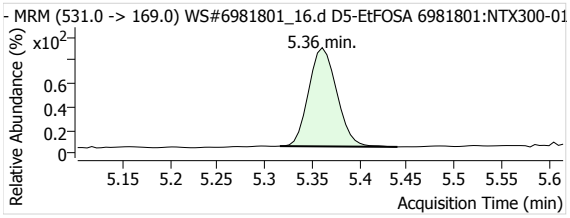
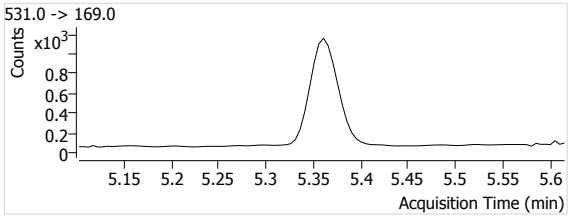




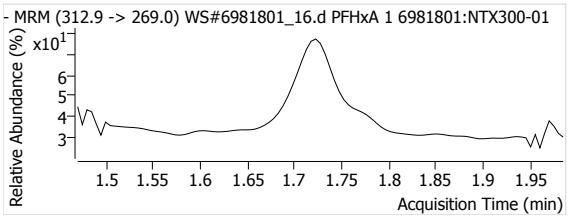
Quantitative Analysis Report

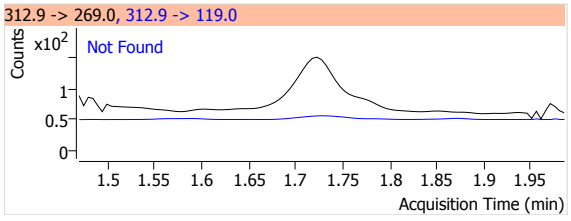
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX300-01	**Data File**	WS#6981801_16.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B5
Acq. Date-Time	2020/10/05 2:28:32 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

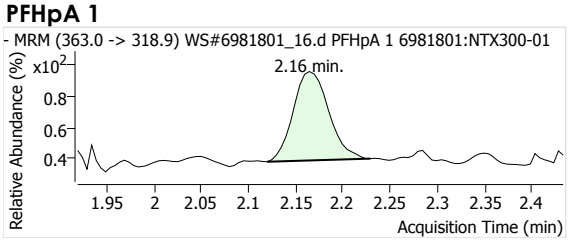
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	0.0000	--	244	2.16	4	0.0210	39	2.17	7	16.0
PFOA 1	µg/L	--	0.0138	--	1346	2.63	26	0.1058	330	2.63	28	24.5
PFNA 1	µg/L	--	0.0066	--	691	3.06	14	0.0683	108	3.06	13	15.6
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	197	4.09	3	0.0220	20	4.09	6	10.2
PFTrDA 1	µg/L	--	0.0000	--	201	4.36	6	0.0313	14	4.35	16	7.0
PFTeDA 1	µg/L	--	0.0000	--	202	4.59	5	0.0314	15	4.59	11	7.4
PFBS 1	µg/L	--	0.0242	--	950	1.40	38	0.2086	354	1.40	46	37.3
PFHxS 1	µg/L	--	0.0113	--	276	2.08	35	0.1185	114	2.07	96	41.5
PFOS 1	µg/L	--	0.1443	--	2715	2.88	68	1.1359	1266	2.88	188	46.6
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	93.4077	--	13730	1.72	1009		--	--	--	--
13C4-PFHpA	µg/L	--	93.1369	--	11630	2.16	955		--	--	--	--
13C4-PFOA	µg/L	--	93.2879	--	12717	2.63	1225		--	--	--	--
13C5-PFNA	µg/L	--	91.2808	--	10113	3.06	737		--	--	--	--
13C2-PFDA	µg/L	--	84.0269	--	8259	3.45	396		--	--	--	--
13C2-PFUnA	µg/L	--	85.5329	--	9093	3.78	758		--	--	--	--
13C2-PFDoA	µg/L	--	81.3629	--	8967	4.09	337		--	--	--	--
13C2-PFTeDA	µg/L	--	71.4238	--	6431	4.58	595		--	--	--	--
13C3-PFBS	µg/L	--	90.1068	--	4554	1.39	437		--	--	--	--
18O2-PFHxS	µg/L	--	91.5028	--	2326	2.12	506		--	--	--	--
13C4-PFOS	µg/L	--	89.4461	--	2390	2.93	424		--	--	--	--
D3-MeFOSA	µg/L	--	55.4135	--	1950	5.24	73		--	--	--	--
D5-EtFOSA	µg/L	--	53.3509	--	2229	5.36	31		--	--	--	--

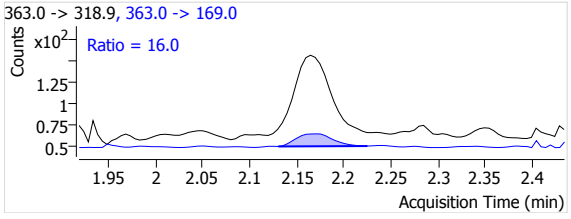
PFHxA 1



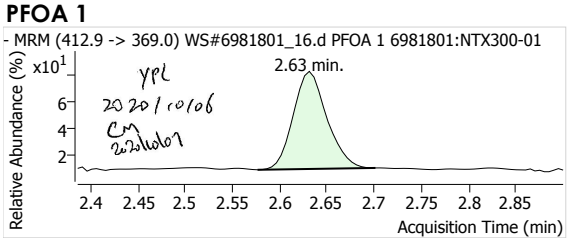


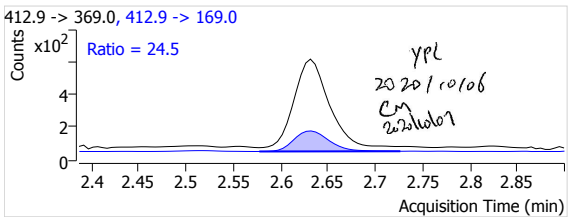
PFHpA 1





PFOA 1





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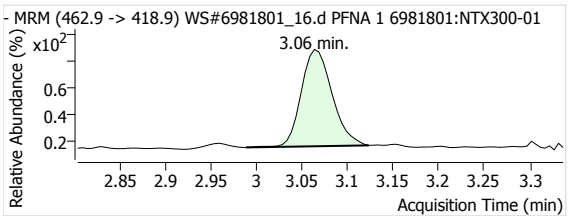

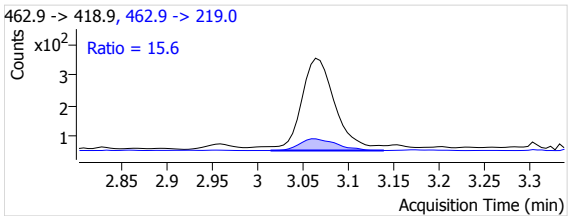

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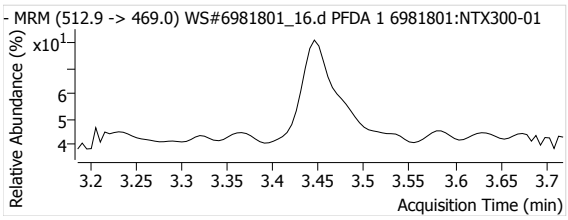

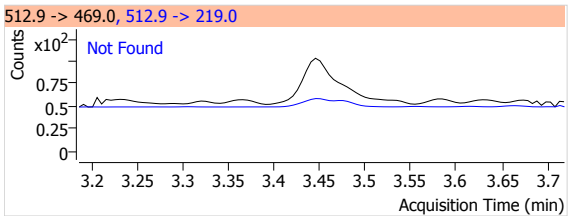

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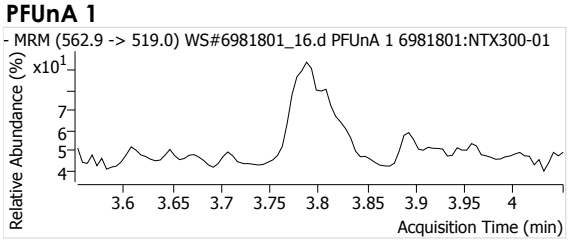

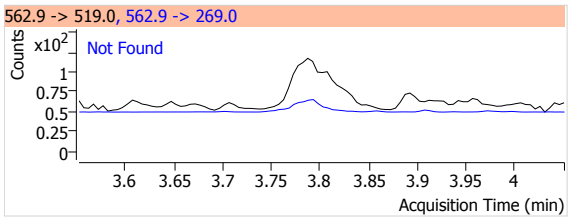

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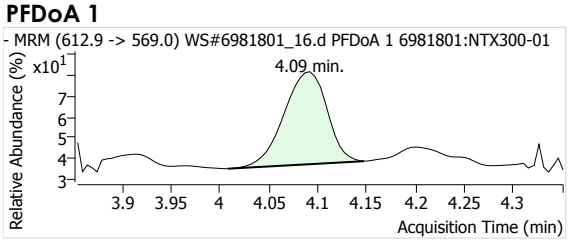

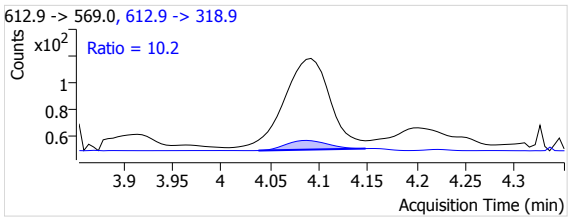

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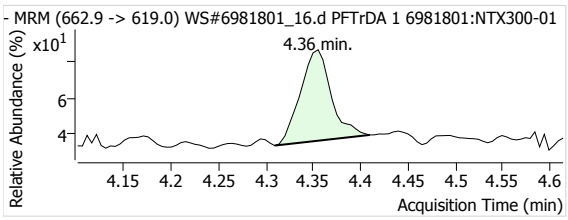

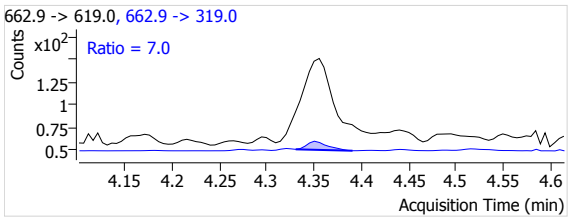

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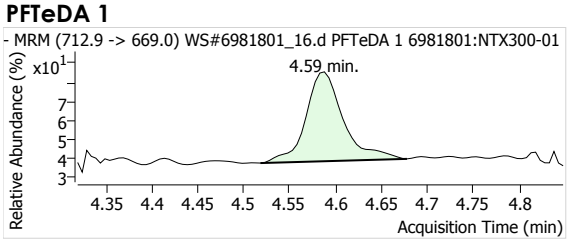

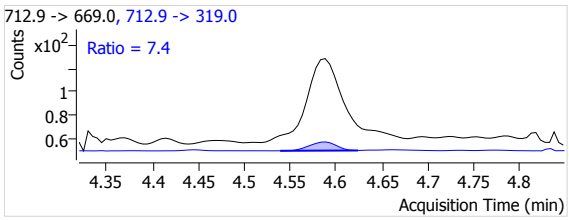

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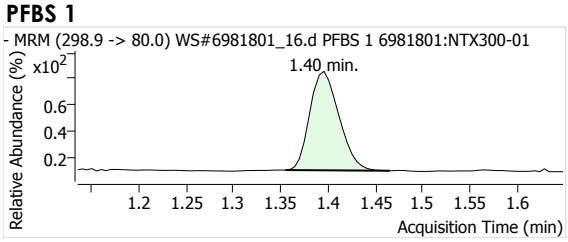
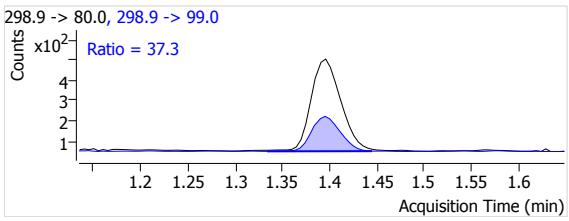
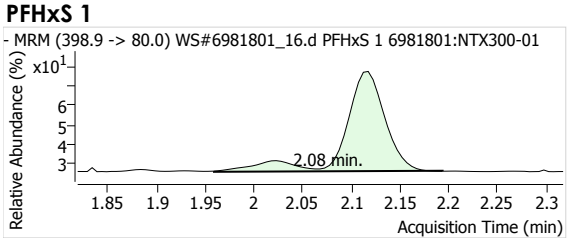
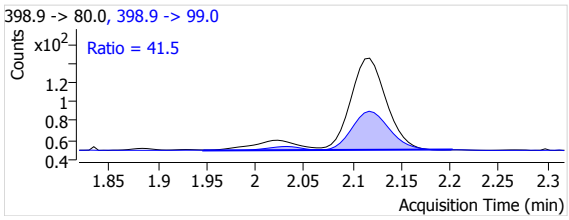




PFHxS 1





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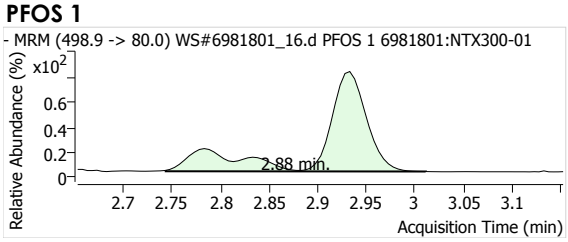

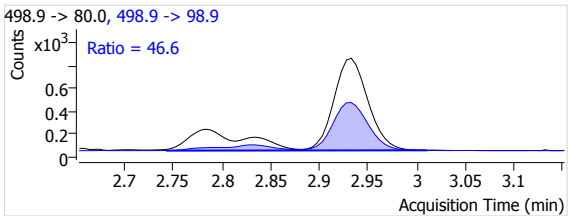

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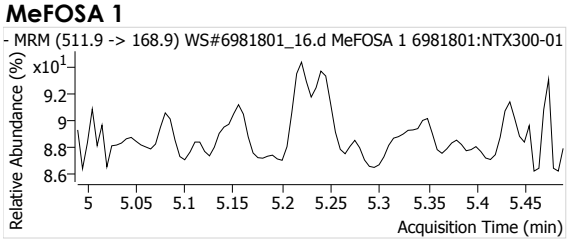

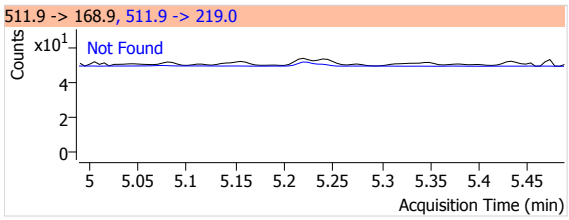

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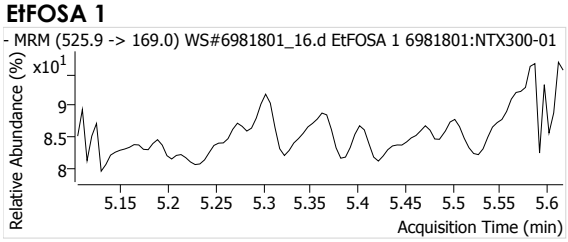

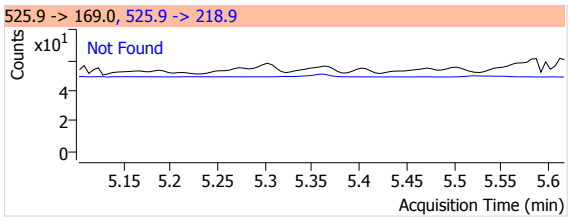

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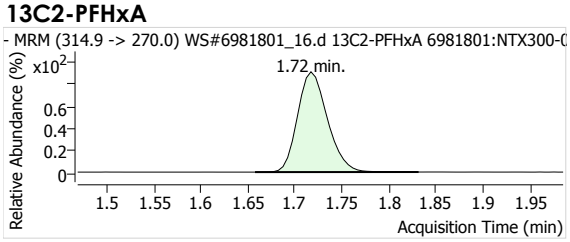

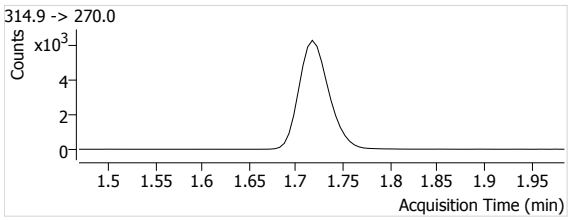

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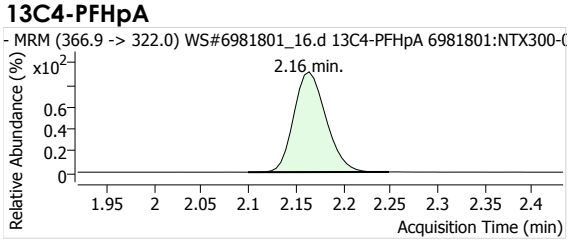

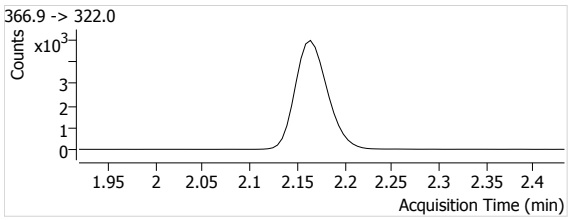

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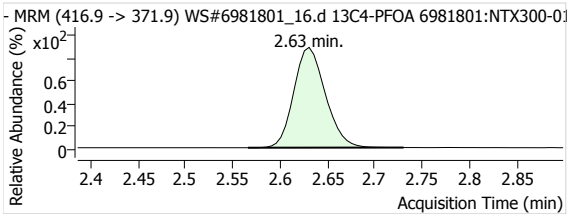

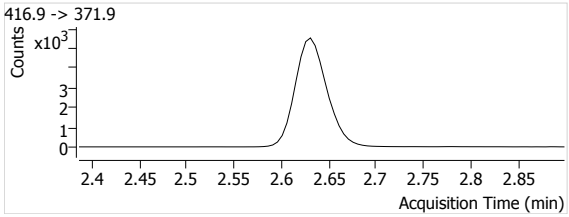

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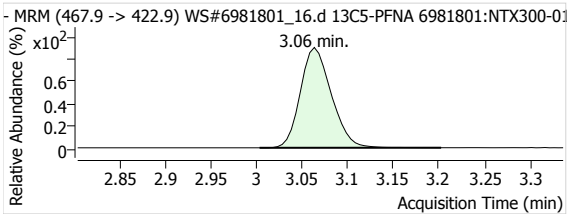

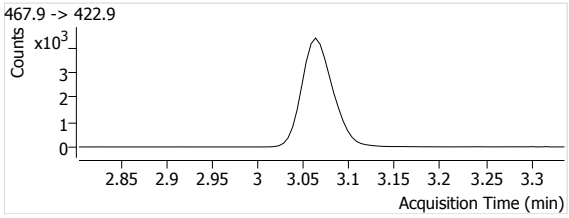

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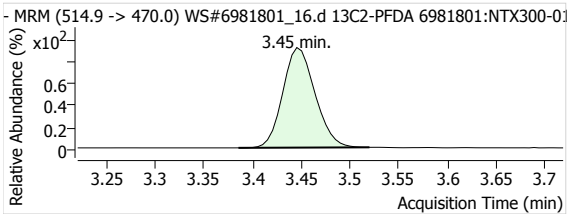

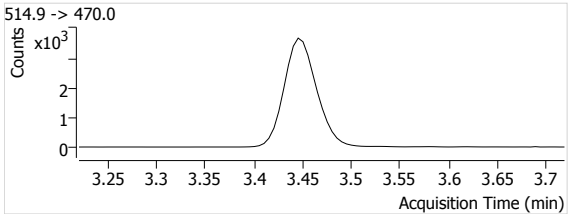

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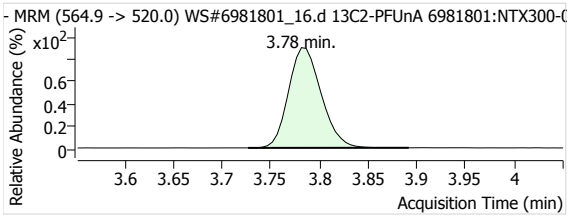

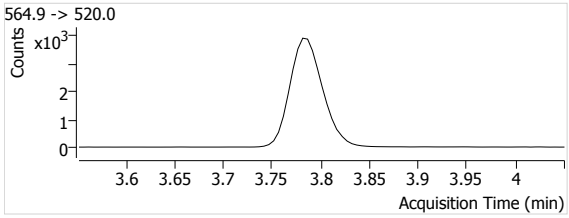

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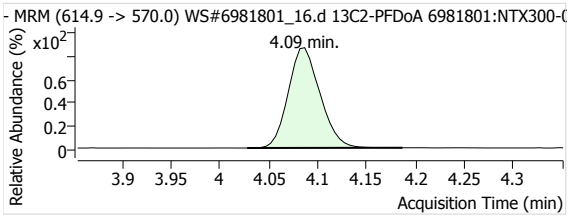

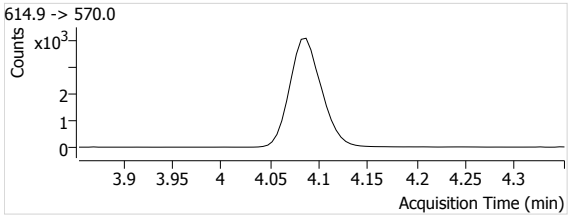

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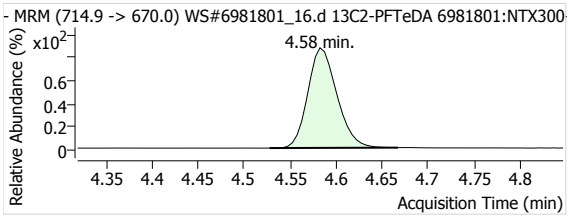

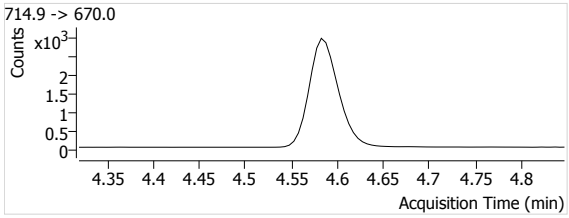

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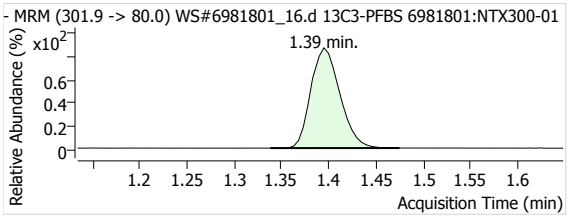

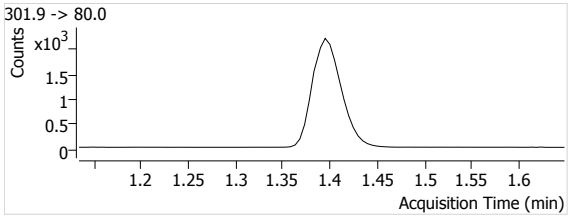

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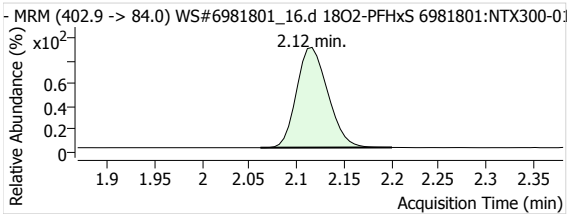

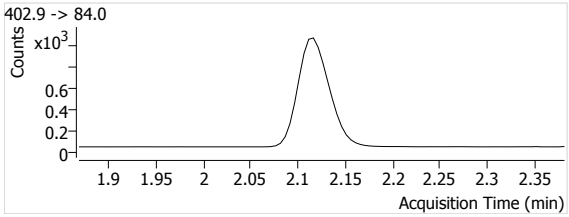

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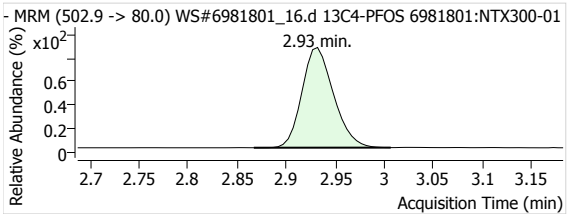

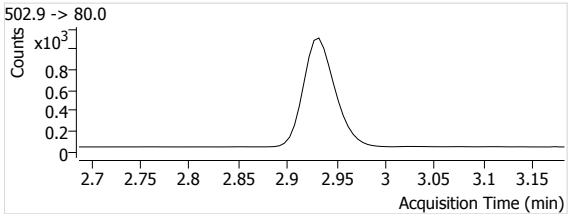

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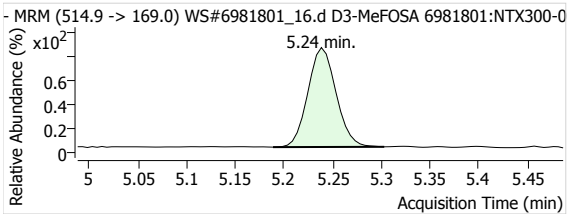

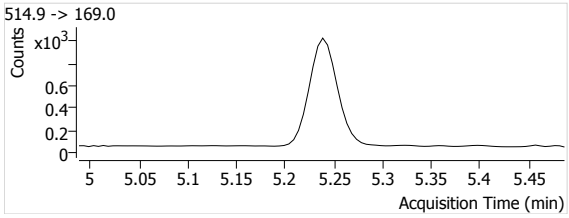

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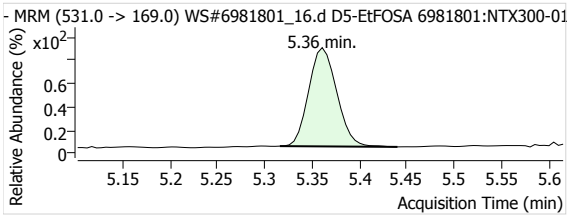
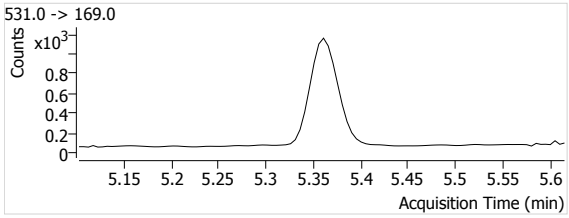




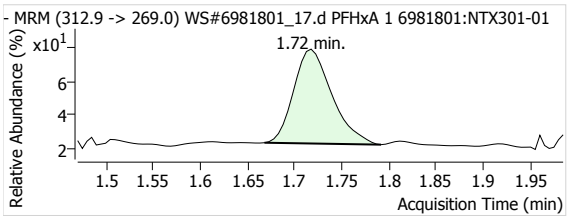
Quantitative Analysis Report

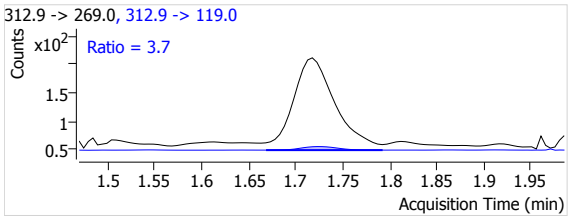
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX301-01	**Data File**	WS#6981801_17.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B6
Acq. Date-Time	2020/10/05 2:35:32 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0013	--	427	1.72	7	0.0325	16	1.72	4	3.7
PFHpA 1	µg/L	--	0.0000	--	258	2.16	5	0.0229	45	2.17	8	17.4
PFOA 1	µg/L	--	0.0066	--	724	2.63	14	0.0596	192	2.63	15	26.5
PFNA 1	µg/L	--	0.0020	--	333	3.06	9	0.0333	56	3.07	4	16.8
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	176	4.09	3	0.0201	19	4.09	5	10.8
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	0.0000	--	201	4.58	4	0.0298	8	4.60	4	4.0
PFBS 1	µg/L	--	0.0062	--	279	1.40	23	0.0633	107	1.40	18	38.4
PFHxS 1	µg/L	--	0.0122	--	283	2.08	99	0.1266	136	2.07	117	48.0
PFOS 1	µg/L	--	0.0626	--	1180	2.88	63	0.5050	623	2.88	135	52.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	89.4959	--	13155	1.72	1421		--	--	--	--
13C4-PFHpA	µg/L	--	90.1257	--	11254	2.16	676		--	--	--	--
13C4-PFOA	µg/L	--	89.1432	--	12152	2.63	1176		--	--	--	--
13C5-PFNA	µg/L	--	90.2518	--	9999	3.06	782		--	--	--	--
13C2-PFDA	µg/L	--	89.9481	--	8841	3.45	412		--	--	--	--
13C2-PFUnA	µg/L	--	85.6646	--	9107	3.79	445		--	--	--	--
13C2-PFDoA	µg/L	--	79.3576	--	8746	4.09	560		--	--	--	--
13C2-PFTeDA	µg/L	--	74.9223	--	6746	4.58	511		--	--	--	--
13C3-PFBS	µg/L	--	87.2378	--	4409	1.39	551		--	--	--	--
18O2-PFHxS	µg/L	--	87.9229	--	2235	2.12	799		--	--	--	--
13C4-PFOS	µg/L	--	87.4626	--	2337	2.93	639		--	--	--	--
D3-MeFOSA	µg/L	--	56.0955	--	1974	5.24	77		--	--	--	--
D5-EtFOSA	µg/L	--	49.4974	--	2068	5.36	47		--	--	--	--

PFHxA 1





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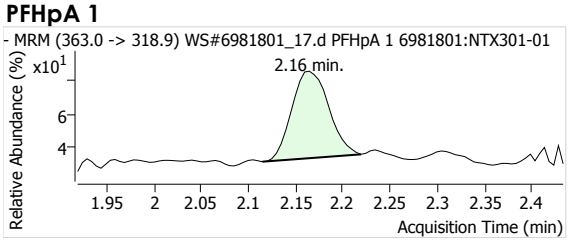

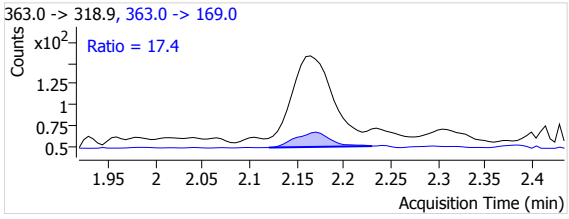

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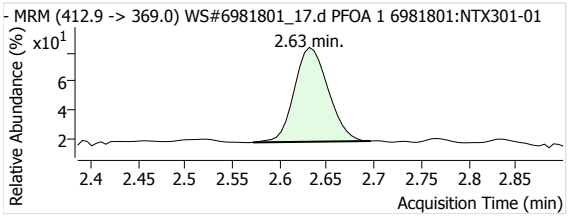

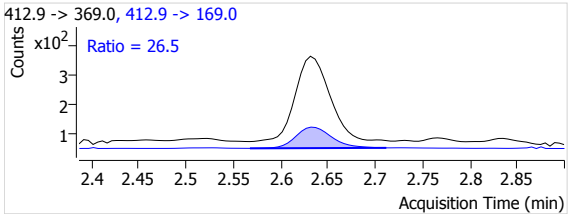

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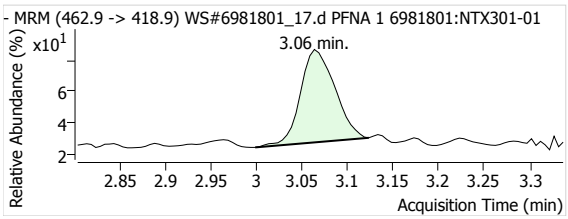

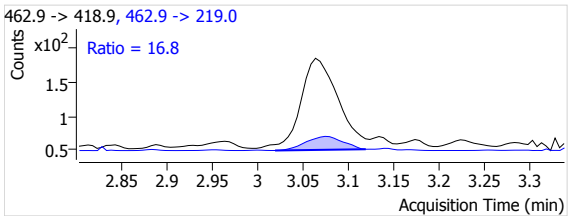

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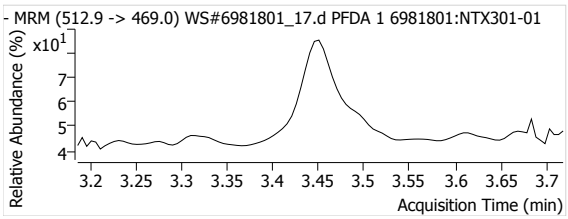

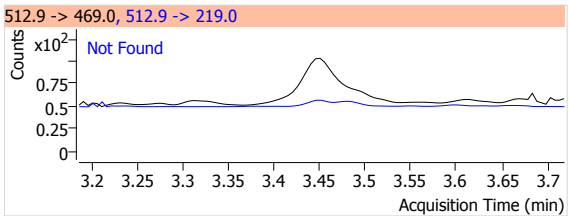

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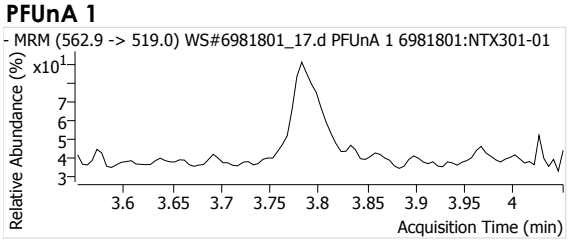

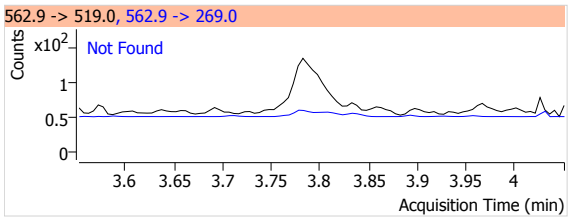

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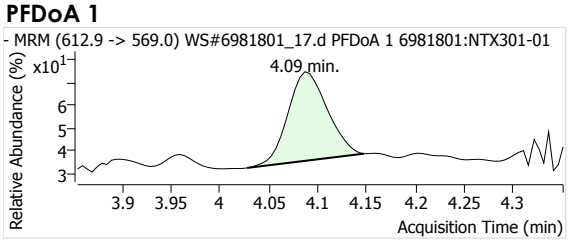

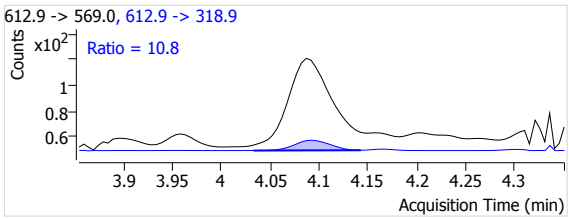

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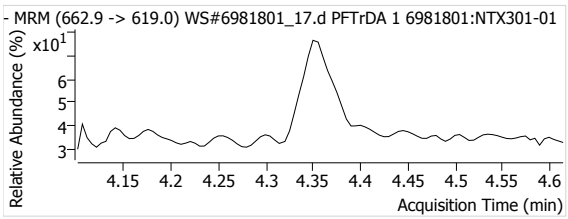

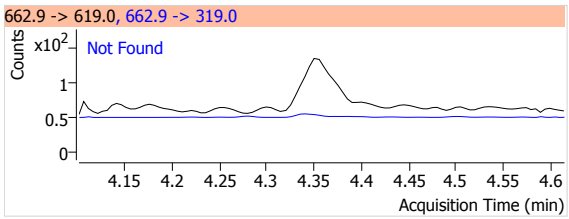

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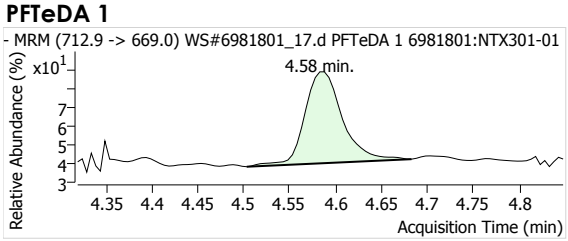

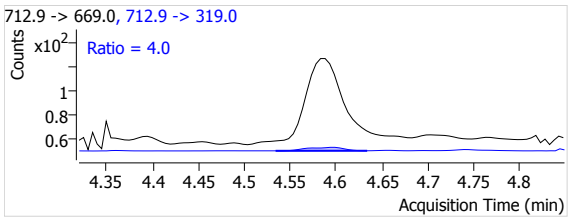

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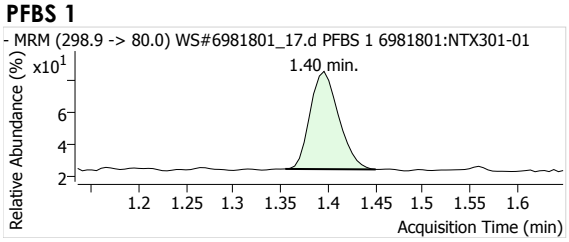

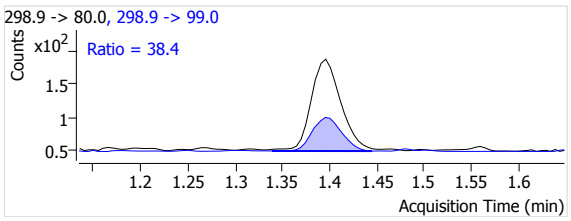

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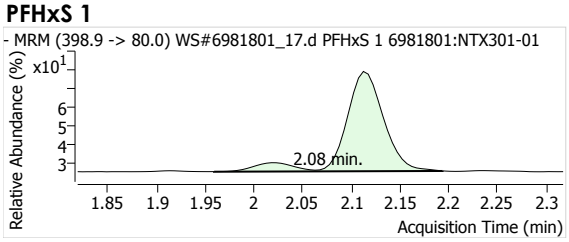

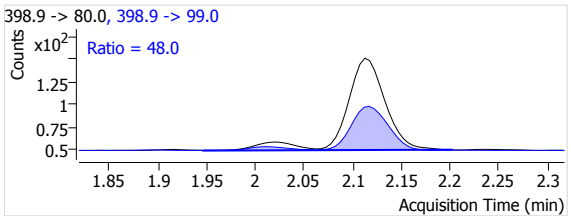

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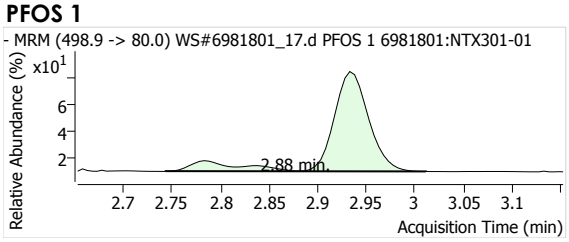

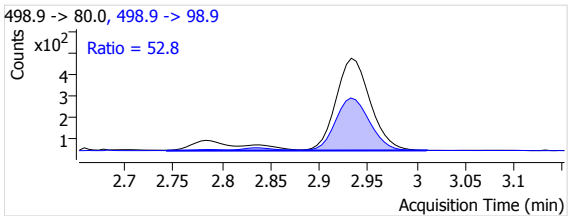

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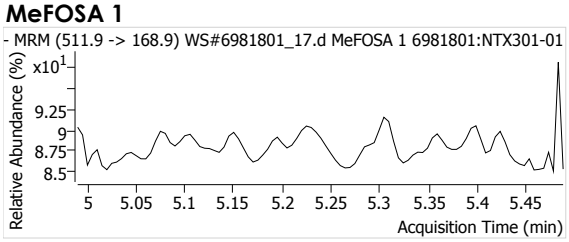

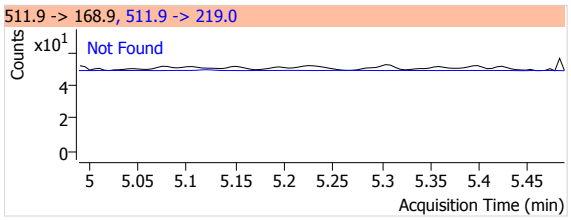

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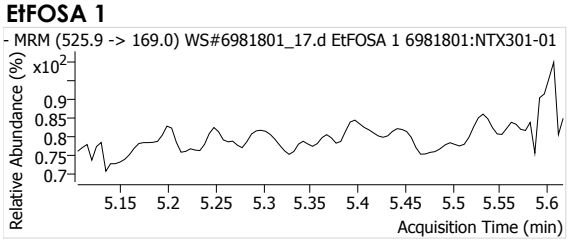

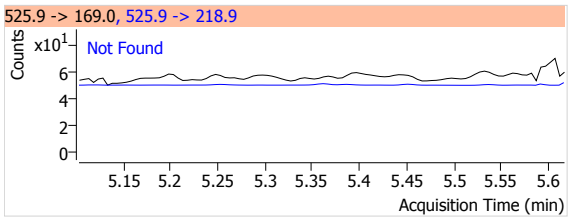

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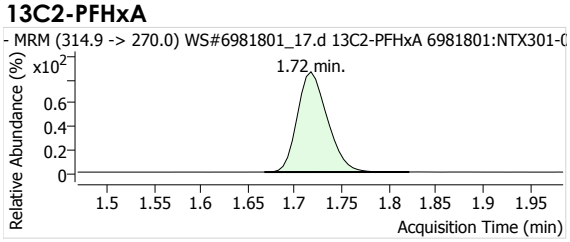

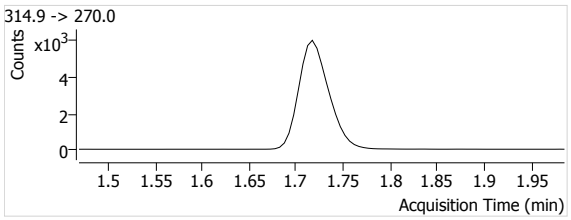

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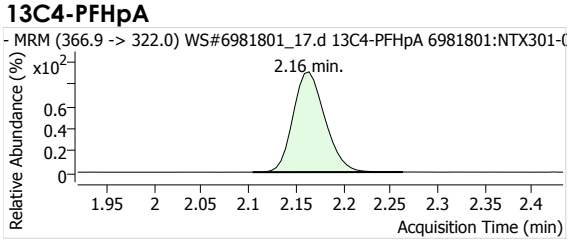

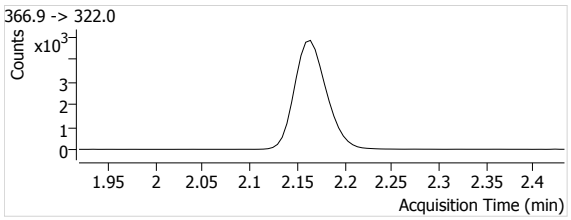

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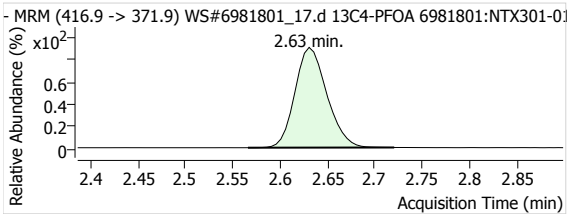

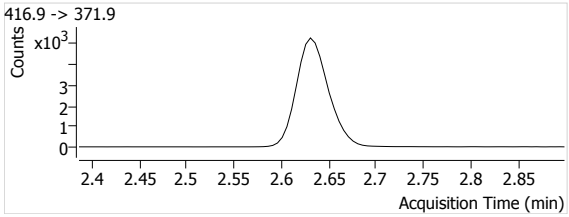

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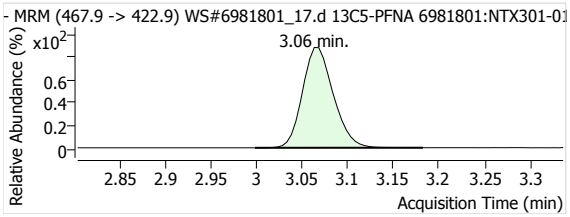

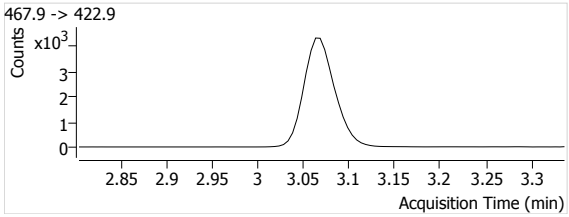

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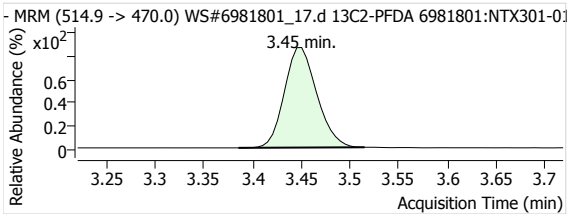

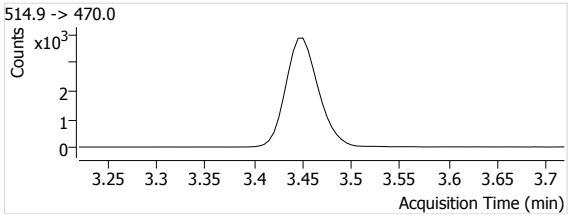

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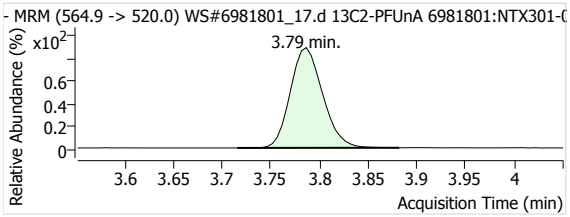

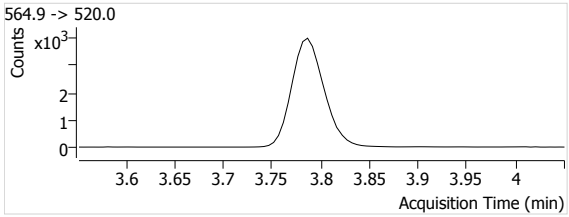

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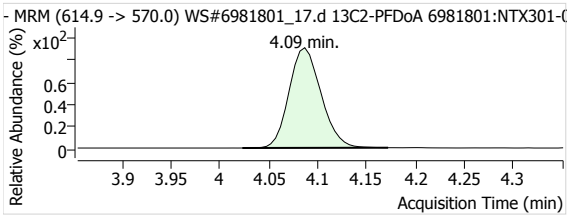

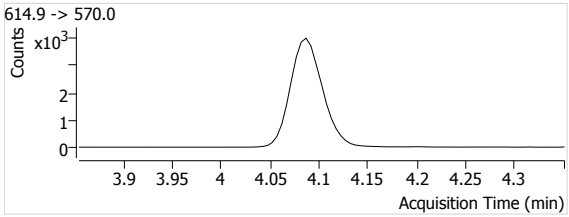

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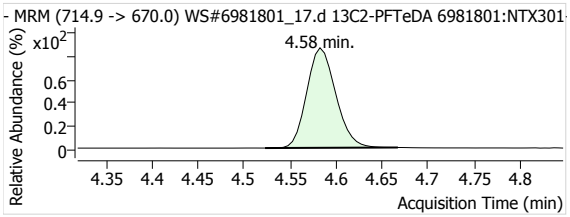

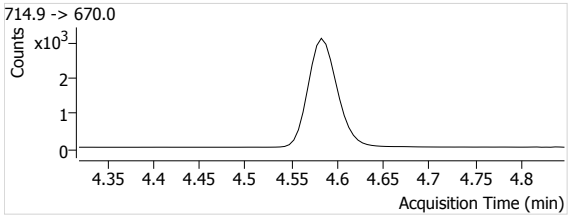

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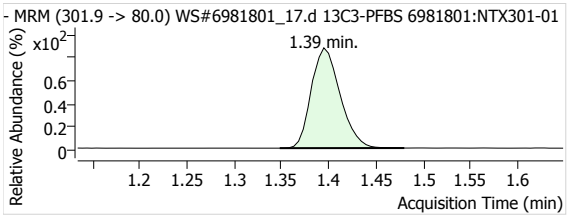

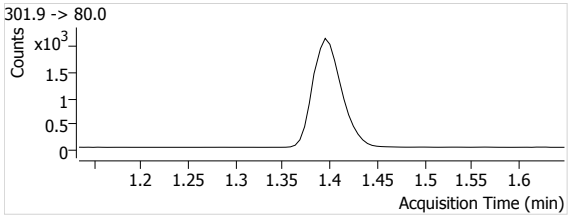

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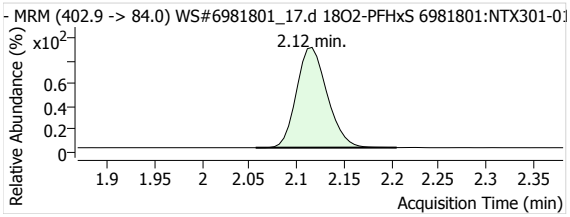

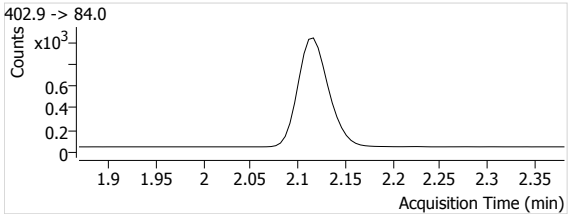

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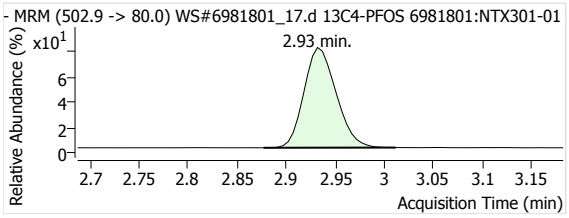

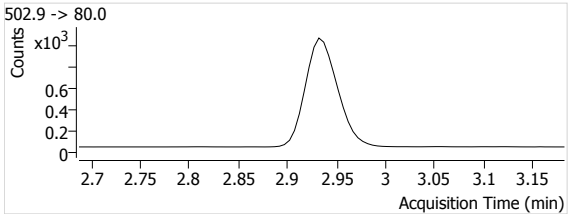

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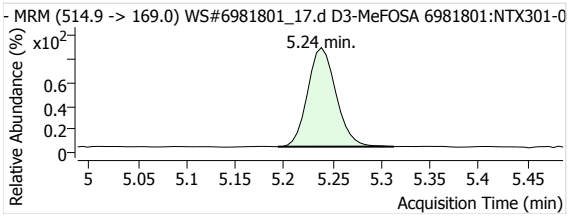

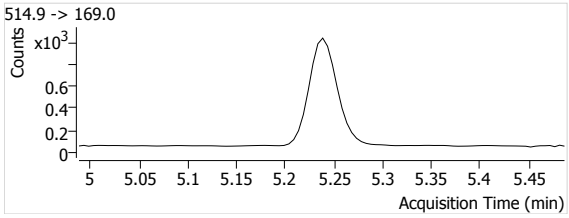

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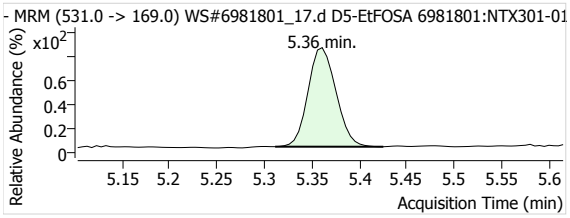
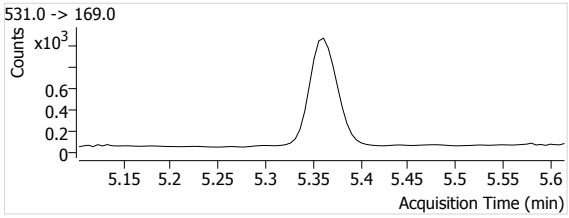




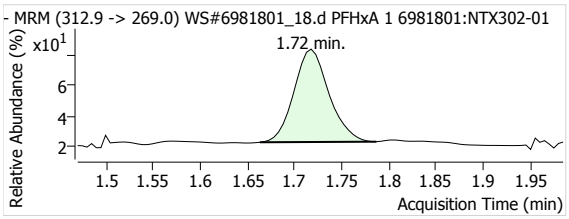
Quantitative Analysis Report

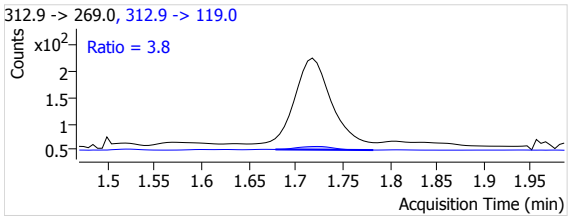
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX302-01	**Data File**	WS#6981801_18.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B7
Acq. Date-Time	2020/10/05 2:42:31 PM	**Dil.**	0.0
Comment	-		
User Defined			

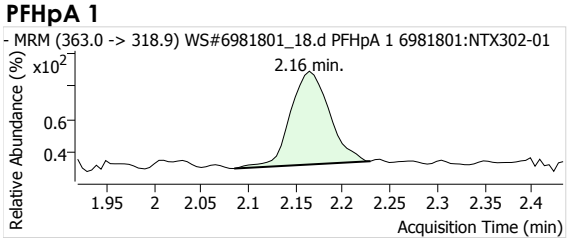
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0011	--	420	1.72	8	0.0307	16	1.72	10	3.8
PFHpA 1	µg/L	--	0.0000	--	285	2.16	7	0.0243	42	2.18	8	14.7
PFOA 1	µg/L	--	0.0059	--	678	2.63	10	0.0548	184	2.63	24	27.1
PFNA 1	µg/L	--	0.0016	--	323	3.07	7	0.0308	42	3.07	8	13.0
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0058	--	273	1.40	19	0.0603	118	1.40	13	43.2
PFHxS 1	µg/L	--	0.0112	--	259	2.08	24	0.1176	125	2.07	15	48.4
PFOS 1	µg/L	--	0.0613	--	1207	2.88	89	0.4946	666	2.88	133	55.2
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	93.1832	--	13697	1.72	851		--	--	--	--
13C4-PFHpA	µg/L	--	93.8096	--	11714	2.16	819		--	--	--	--
13C4-PFOA	µg/L	--	90.8377	--	12383	2.63	958		--	--	--	--
13C5-PFNA	µg/L	--	94.6295	--	10484	3.06	500		--	--	--	--
13C2-PFDA	µg/L	--	91.1283	--	8957	3.45	640		--	--	--	--
13C2-PFUnA	µg/L	--	87.9786	--	9353	3.78	1050		--	--	--	--
13C2-PFDoA	µg/L	--	84.7745	--	9343	4.09	434		--	--	--	--
13C2-PFTeDA	µg/L	--	78.3763	--	7057	4.58	957		--	--	--	--
13C3-PFBS	µg/L	--	89.5330	--	4525	1.39	382		--	--	--	--
18O2-PFHxS	µg/L	--	86.7821	--	2206	2.12	431		--	--	--	--
13C4-PFOS	µg/L	--	91.3174	--	2440	2.93	328		--	--	--	--
D3-MeFOSA	µg/L	--	56.8912	--	2002	5.24	62		--	--	--	--
D5-EtFOSA	µg/L	--	53.3030	--	2227	5.36	55		--	--	--	--

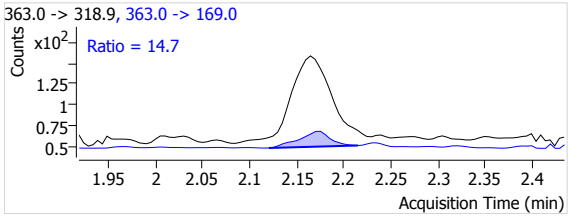
PFHxA 1





PFHpA 1





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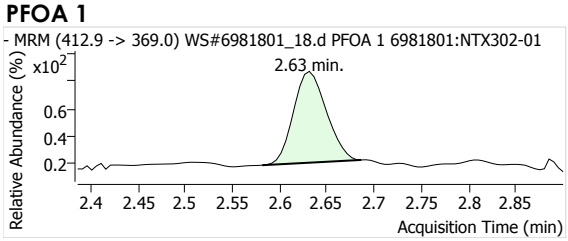

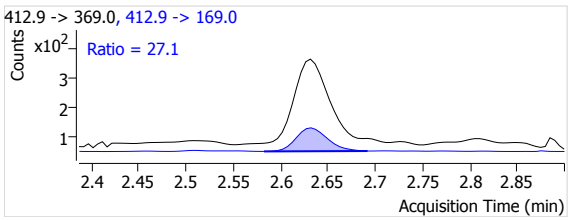

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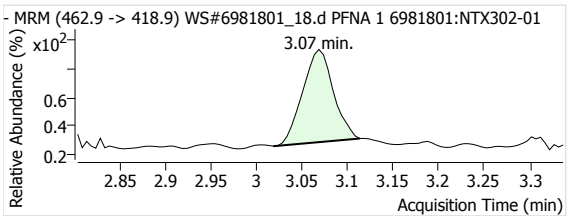
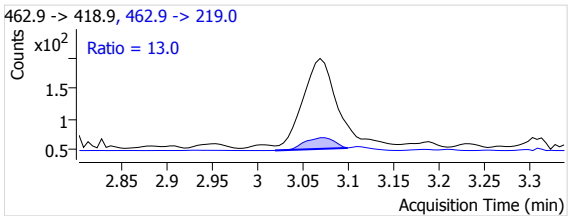
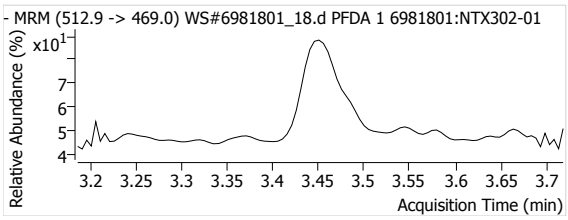
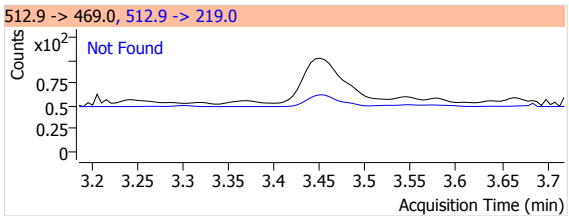




PFDA 1





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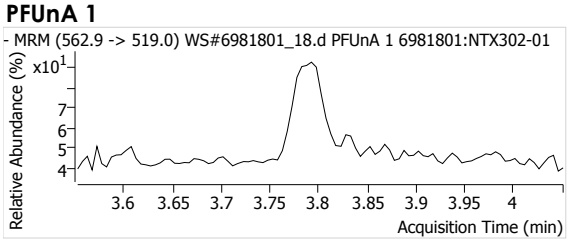

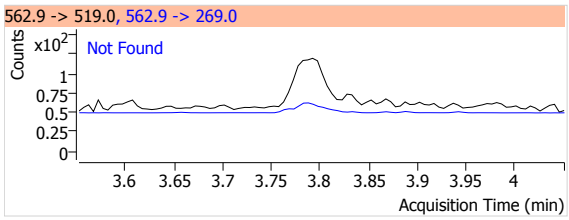

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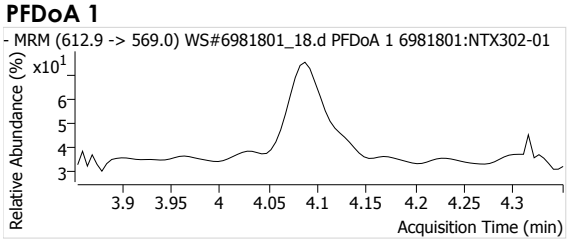

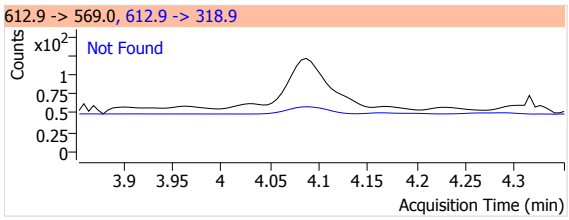

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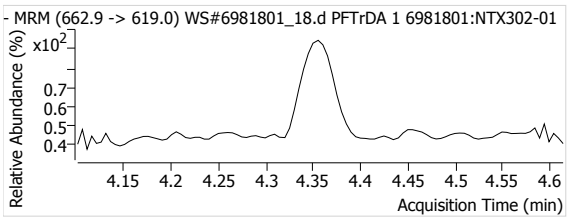

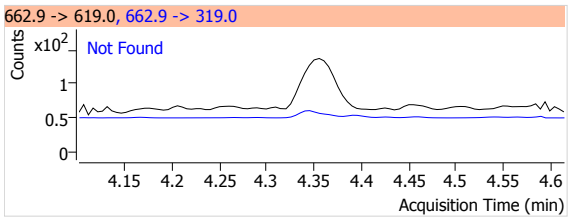

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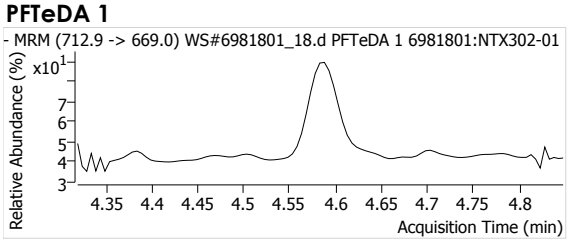

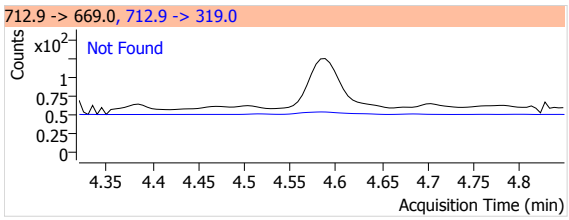

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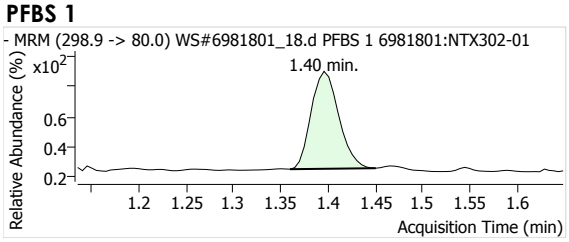

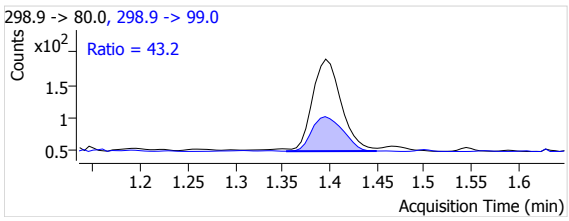

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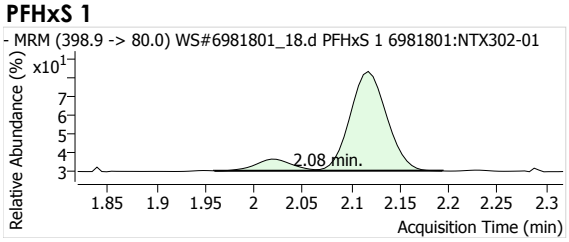

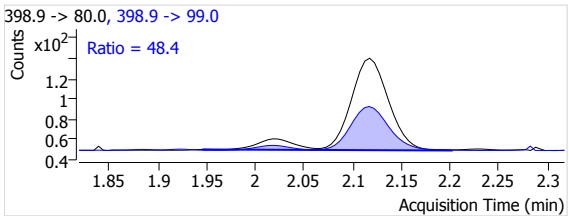

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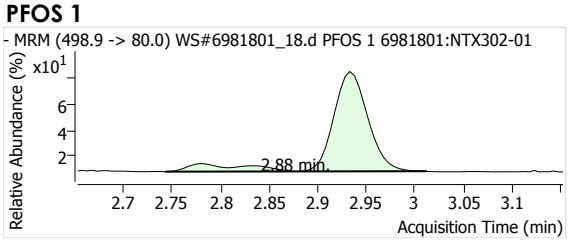

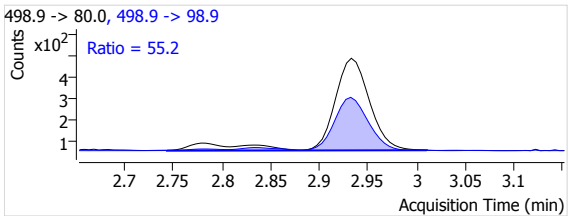

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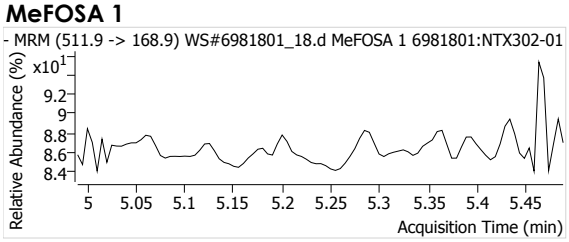

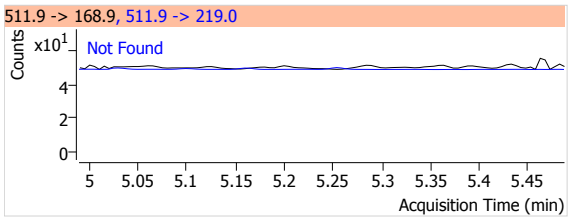

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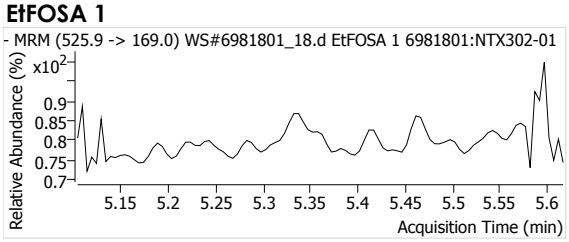

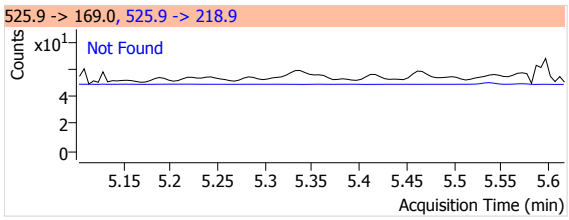

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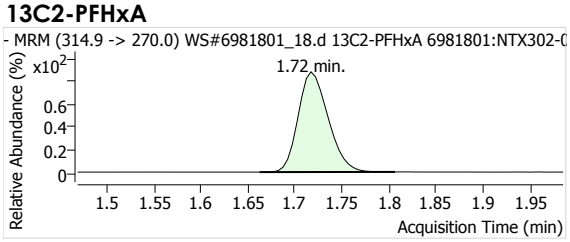

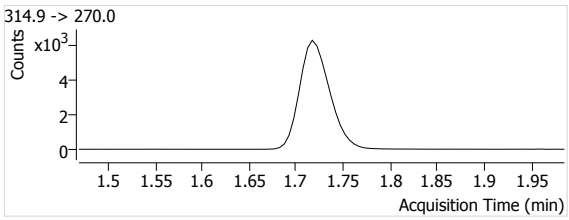

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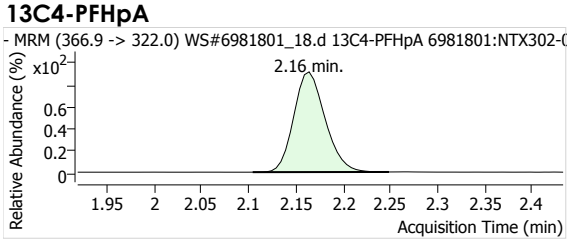

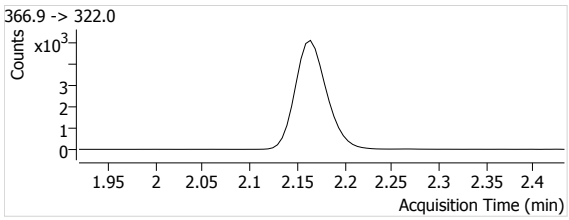

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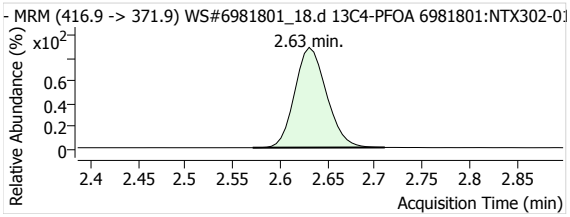

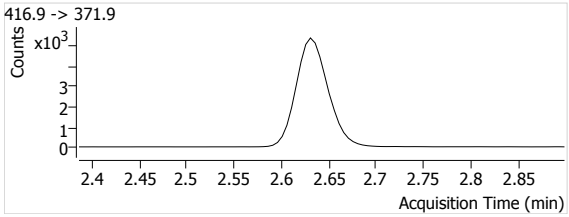

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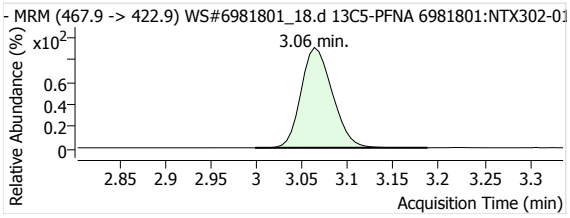

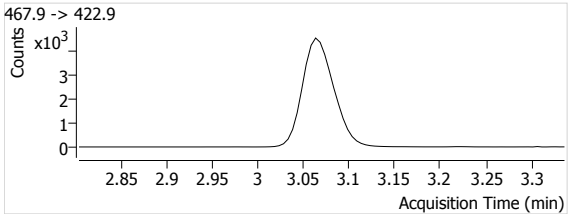

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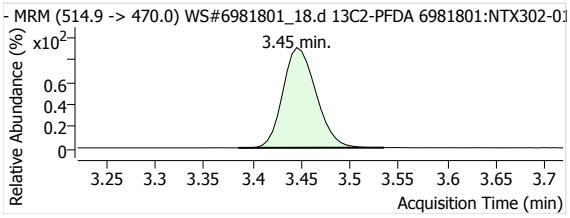

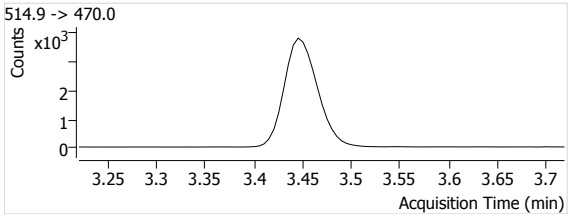

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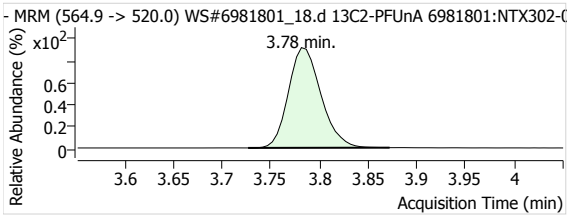

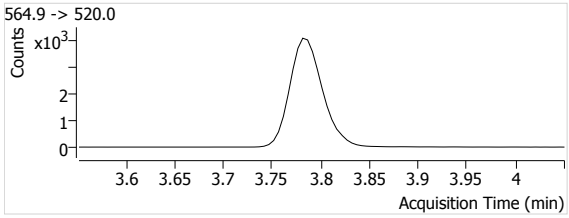

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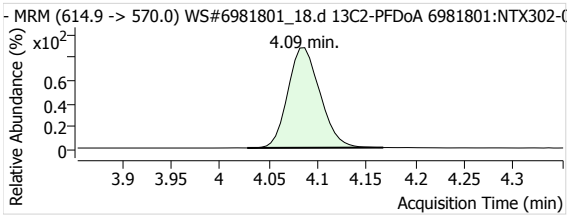

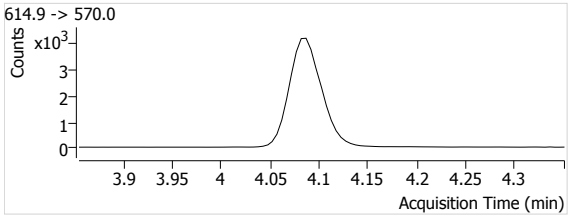

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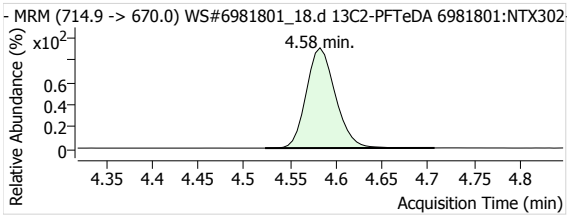

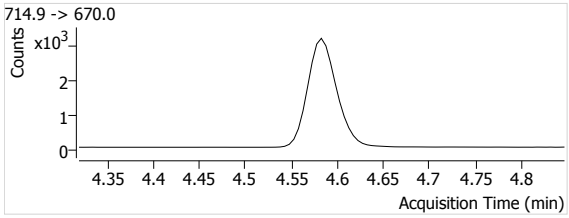

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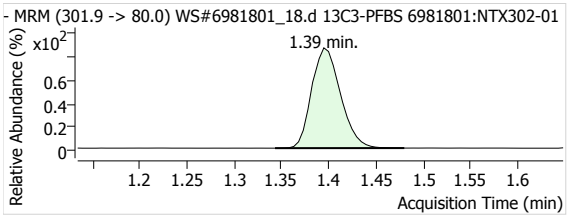

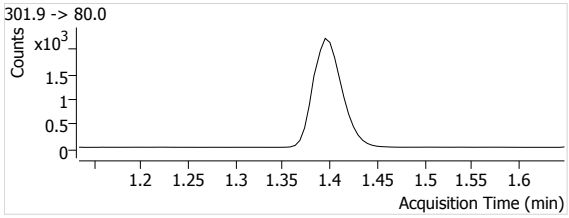

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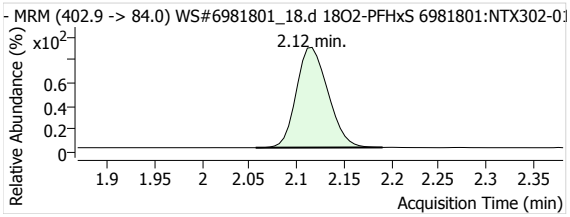

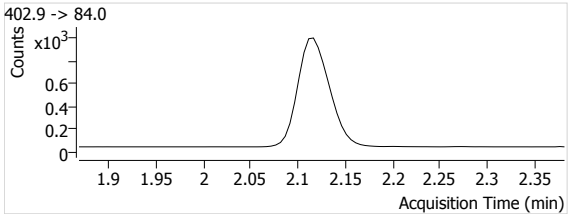

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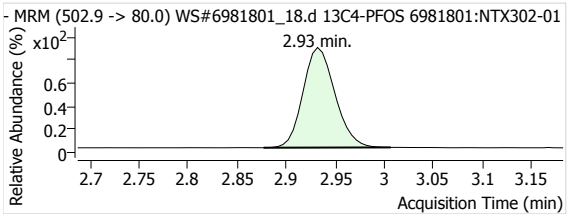
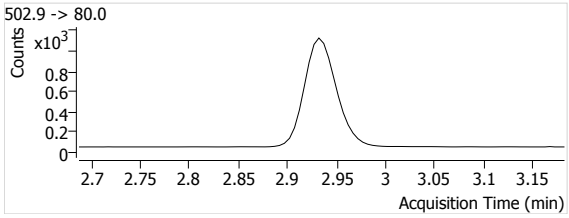
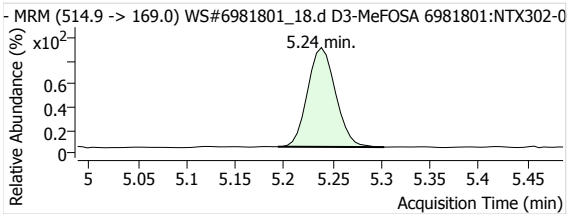
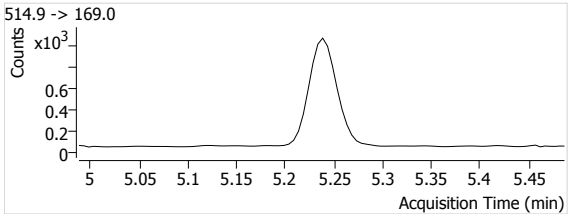




D3-MeFOSA





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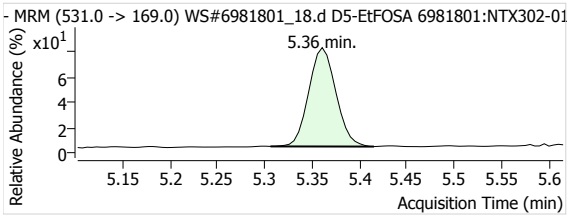
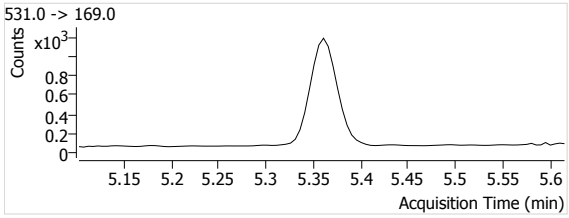




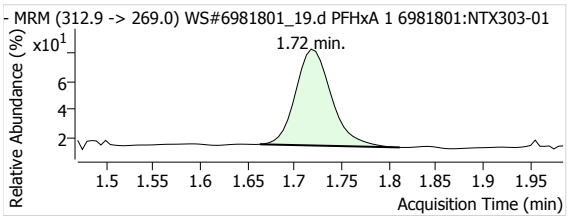
Quantitative Analysis Report

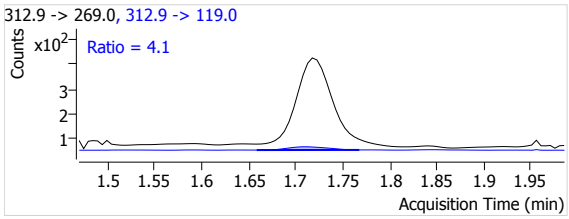
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX303-01	**Data File**	WS#6981801_19.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B8
Acq. Date-Time	2020/10/05 2:49:32 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

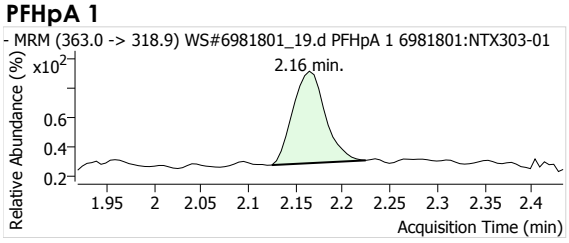
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0069	--	946	1.72	11	0.0726	39	1.71	13	4.1
PFHpA 1	µg/L	--	0.0000	--	330	2.16	8	0.0293	59	2.16	7	17.9
PFOA 1	µg/L	--	0.0127	--	1230	2.63	18	0.0985	334	2.63	65	27.2
PFNA 1	µg/L	--	0.0012	--	274	3.06	7	0.0278	45	3.06	16	16.4
PFDA 1	µg/L	--	0.0013	--	206	3.45	7	0.0246	32	3.46	27	15.5
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	0.0000	--	207	4.58	4	0.0300	17	4.57	17	8.2
PFBS 1	µg/L	--	0.0028	--	159	1.40	10	0.0364	66	1.40	6	41.5
PFHxS 1	µg/L	--	0.0214	--	449	2.08	67	0.2076	180	2.07	49	40.2
PFOS 1	µg/L	--	0.0533	--	1023	2.88	70	0.4326	508	2.88	122	49.7
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	88.6523	--	13031	1.72	871		--	--	--	--
13C4-PFHpA	µg/L	--	90.1738	--	11260	2.16	1498		--	--	--	--
13C4-PFOA	µg/L	--	91.5786	--	12484	2.63	1133		--	--	--	--
13C5-PFNA	µg/L	--	89.0875	--	9870	3.06	562		--	--	--	--
13C2-PFDA	µg/L	--	85.0239	--	8357	3.45	789		--	--	--	--
13C2-PFUnA	µg/L	--	86.0220	--	9145	3.78	611		--	--	--	--
13C2-PFDoA	µg/L	--	80.6370	--	8887	4.09	967		--	--	--	--
13C2-PFTeDA	µg/L	--	76.5660	--	6894	4.58	850		--	--	--	--
13C3-PFBS	µg/L	--	86.5255	--	4373	1.39	303		--	--	--	--
18O2-PFHxS	µg/L	--	85.0118	--	2161	2.12	369		--	--	--	--
13C4-PFOS	µg/L	--	88.4731	--	2364	2.93	321		--	--	--	--
D3-MeFOSA	µg/L	--	58.1415	--	2046	5.24	80		--	--	--	--
D5-EtFOSA	µg/L	--	54.7630	--	2288	5.36	51		--	--	--	--

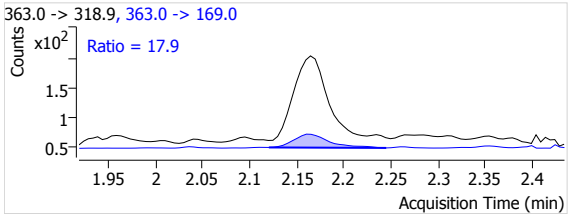
PFHxA 1





PFHpA 1





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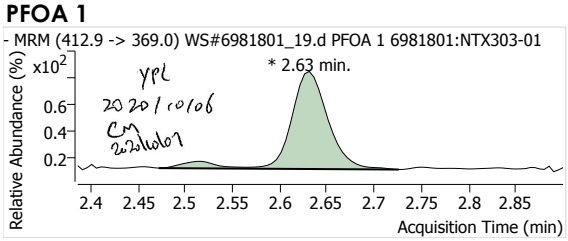

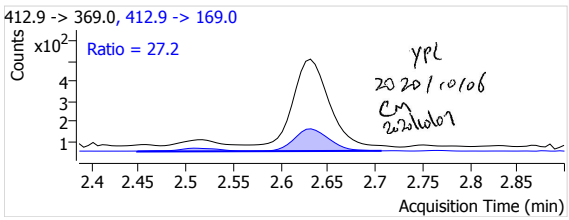

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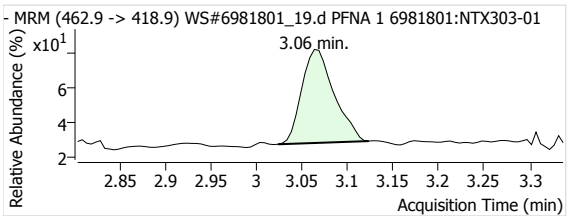

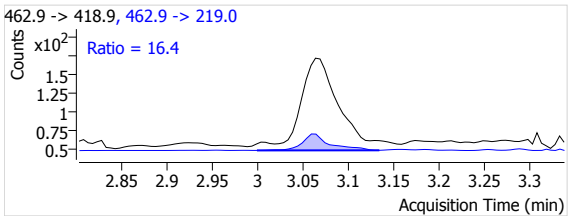

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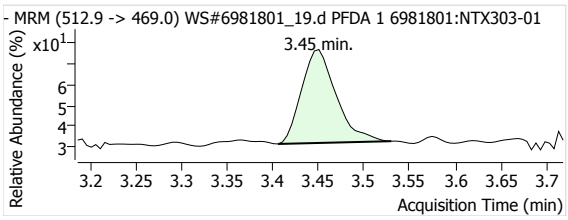

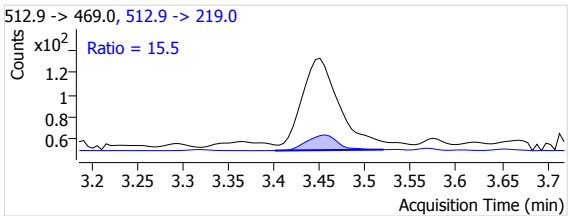

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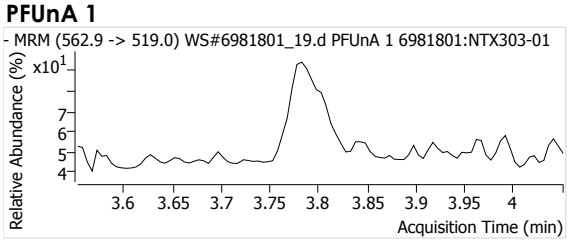

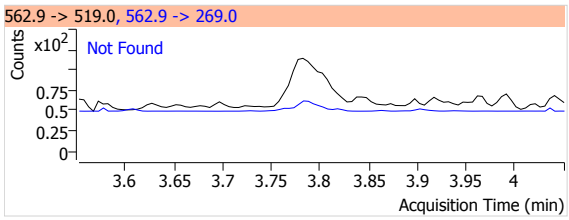

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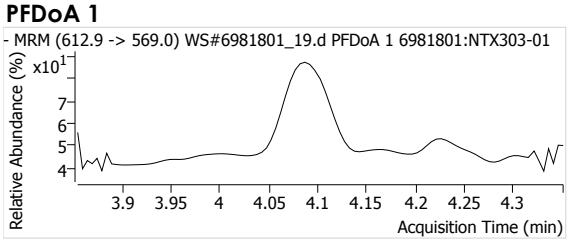

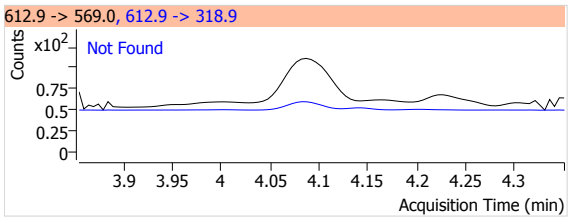

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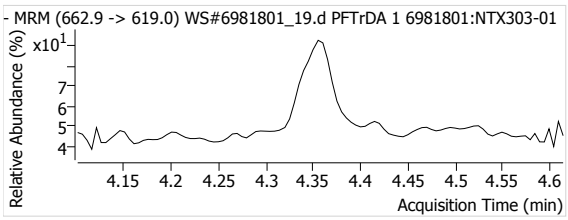

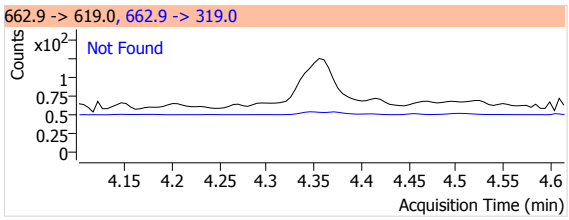

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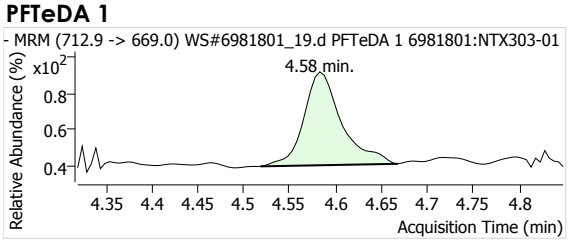

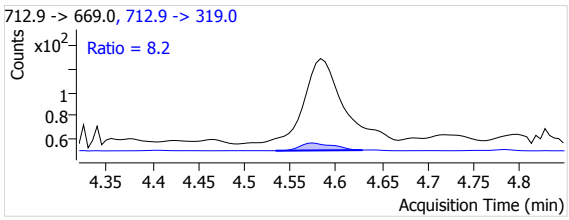

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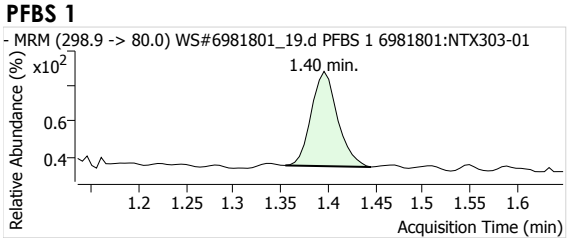

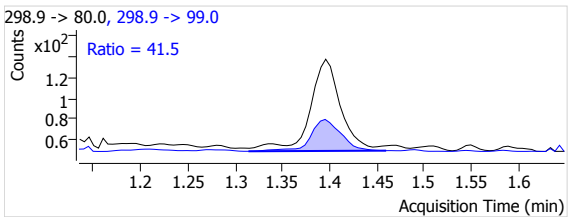

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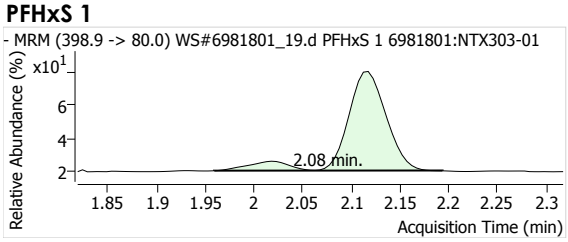
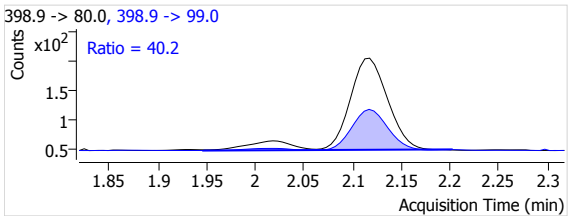
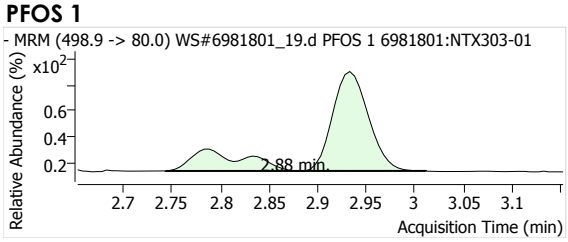
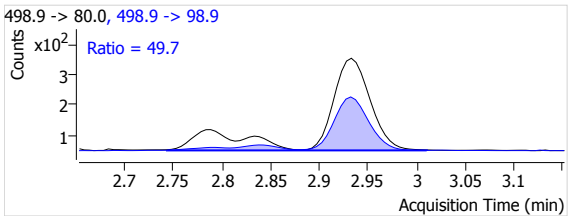




PFOS 1





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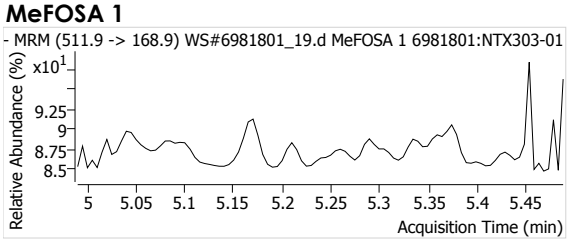

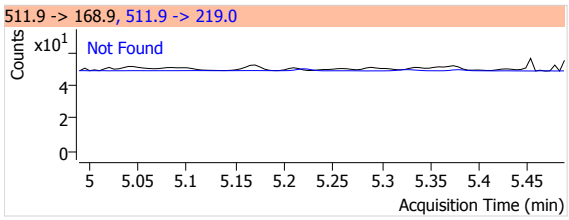

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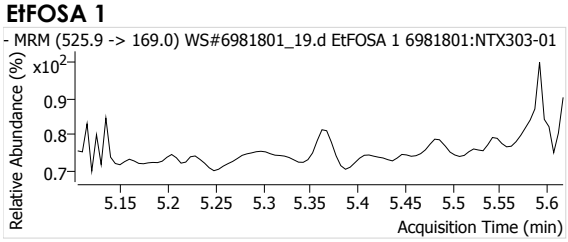

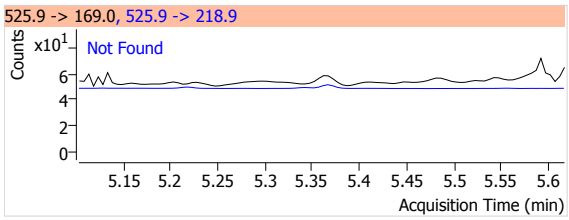

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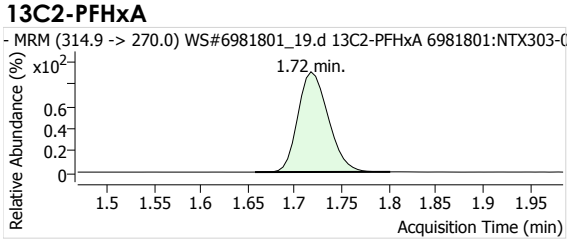

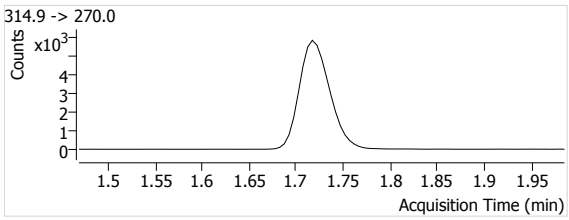

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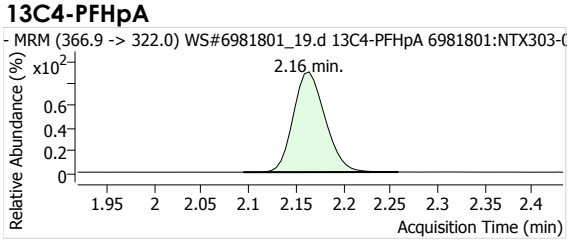

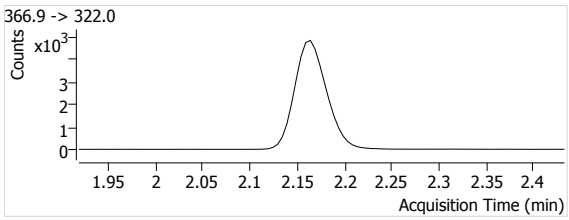

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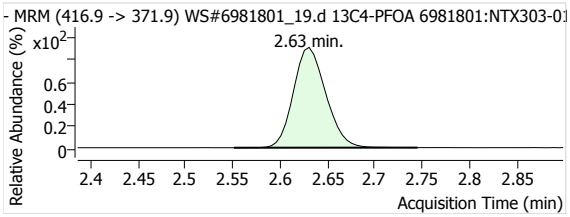

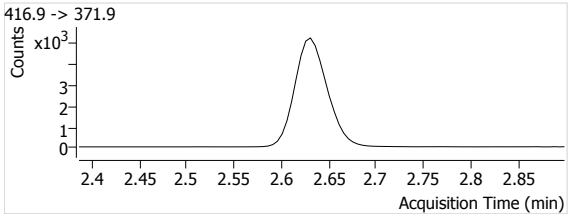

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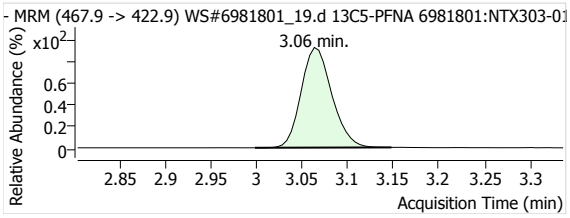

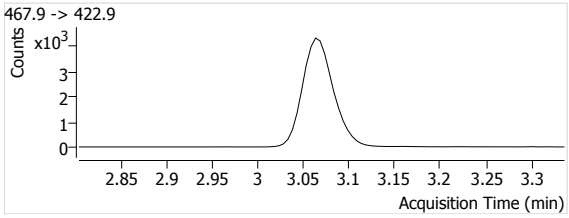

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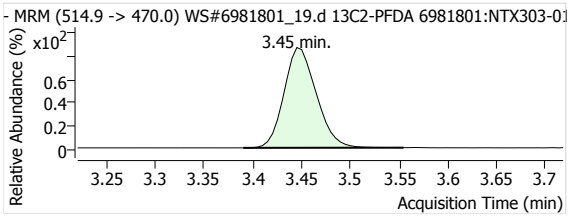

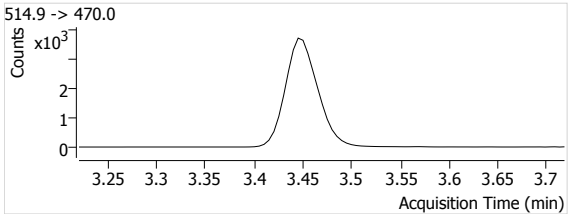

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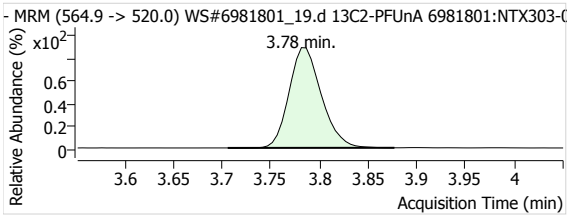

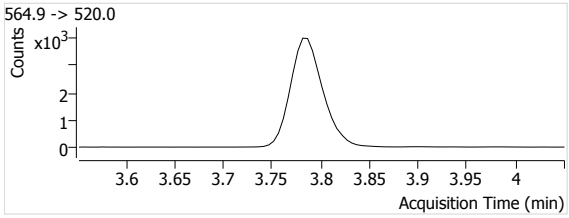

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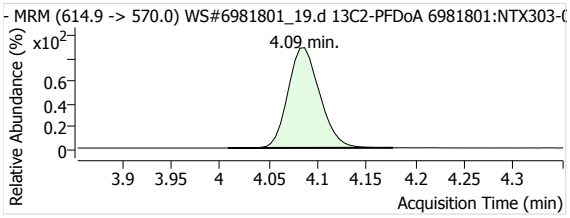

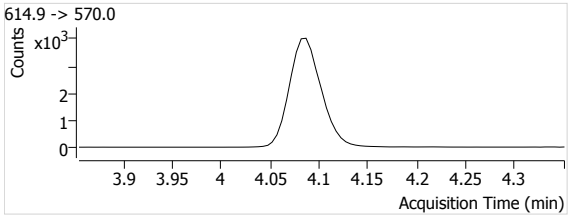

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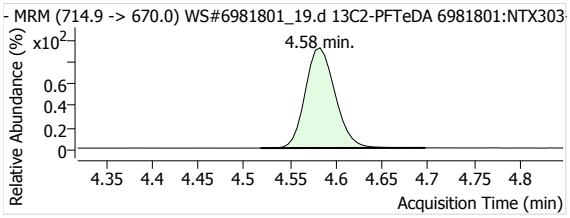

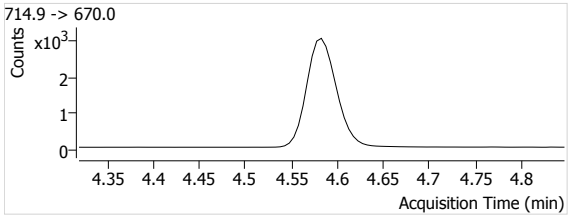

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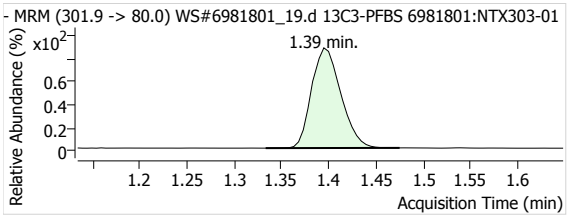

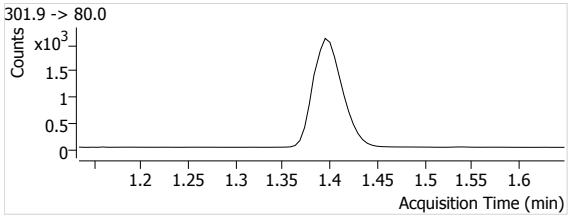

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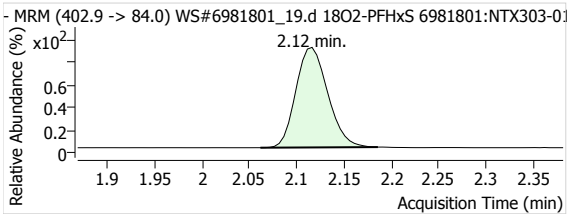

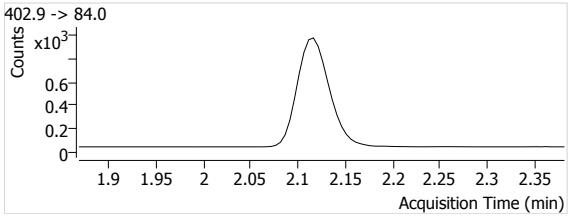

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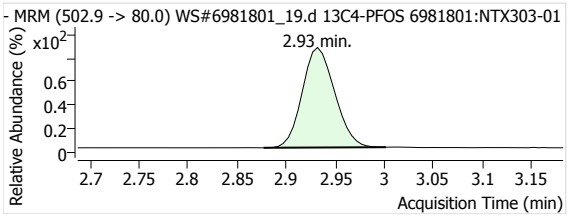
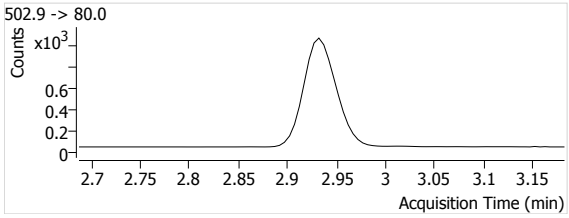
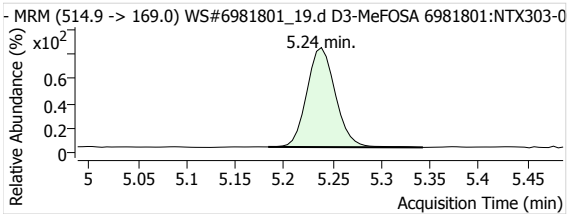
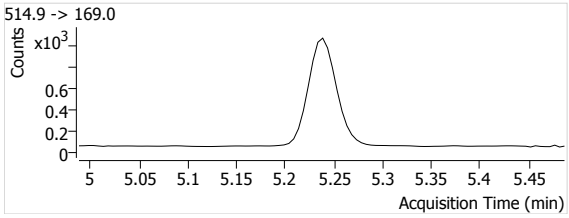




D3-MeFOSA





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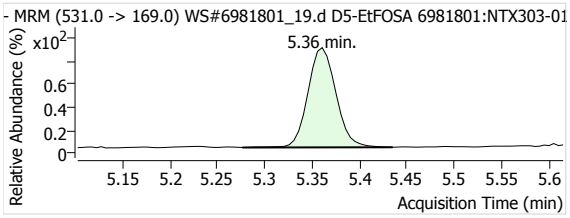
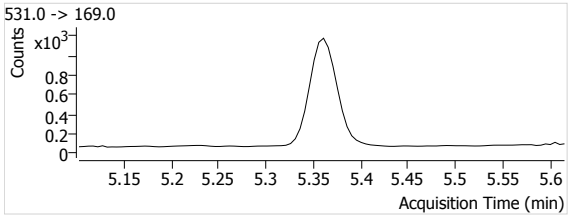




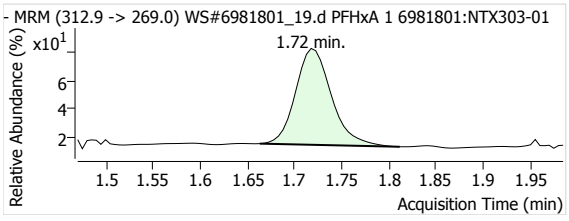
Quantitative Analysis Report

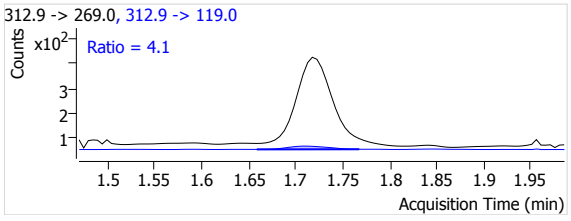
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX303-01	**Data File**	WS#6981801_19.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B8
Acq. Date-Time	2020/10/05 2:49:32 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0069	--	946	1.72	11	0.0726	39	1.71	13	4.1
PFHpA 1	µg/L	--	0.0000	--	330	2.16	8	0.0293	59	2.16	7	17.9
PFOA 1	µg/L	--	0.0111	--	1105	2.63	16	0.0885	283	2.63	67	25.6
PFNA 1	µg/L	--	0.0012	--	274	3.06	7	0.0278	45	3.06	16	16.4
PFDA 1	µg/L	--	0.0013	--	206	3.45	7	0.0246	32	3.46	27	15.5
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	0.0000	--	207	4.58	4	0.0300	17	4.57	17	8.2
PFBS 1	µg/L	--	0.0028	--	159	1.40	10	0.0364	66	1.40	6	41.5
PFHxS 1	µg/L	--	0.0214	--	449	2.08	67	0.2076	180	2.07	49	40.2
PFOS 1	µg/L	--	0.0533	--	1023	2.88	70	0.4326	508	2.88	122	49.7
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	88.6523	--	13031	1.72	871		--	--	--	--
13C4-PFHpA	µg/L	--	90.1738	--	11260	2.16	1498		--	--	--	--
13C4-PFOA	µg/L	--	91.5786	--	12484	2.63	1133		--	--	--	--
13C5-PFNA	µg/L	--	89.0875	--	9870	3.06	562		--	--	--	--
13C2-PFDA	µg/L	--	85.0239	--	8357	3.45	789		--	--	--	--
13C2-PFUnA	µg/L	--	86.0220	--	9145	3.78	611		--	--	--	--
13C2-PFDoA	µg/L	--	80.6370	--	8887	4.09	967		--	--	--	--
13C2-PFTeDA	µg/L	--	76.5660	--	6894	4.58	850		--	--	--	--
13C3-PFBS	µg/L	--	86.5255	--	4373	1.39	303		--	--	--	--
18O2-PFHxS	µg/L	--	85.0118	--	2161	2.12	369		--	--	--	--
13C4-PFOS	µg/L	--	88.4731	--	2364	2.93	321		--	--	--	--
D3-MeFOSA	µg/L	--	58.1415	--	2046	5.24	80		--	--	--	--
D5-EtFOSA	µg/L	--	54.7630	--	2288	5.36	51		--	--	--	--

PFHxA 1





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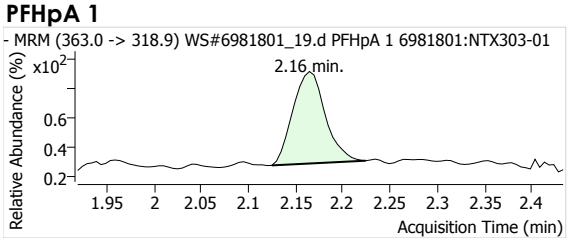

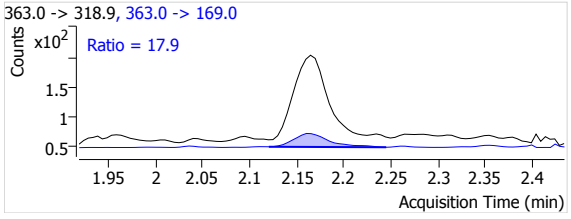

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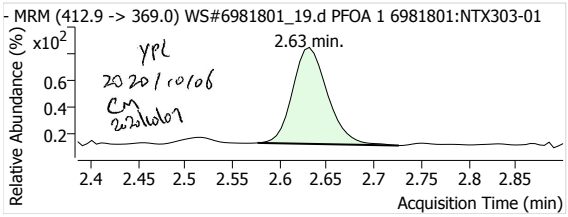

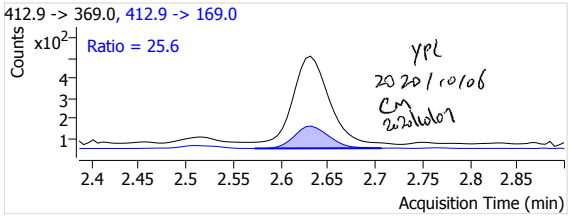

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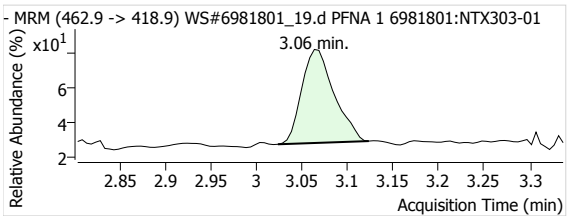

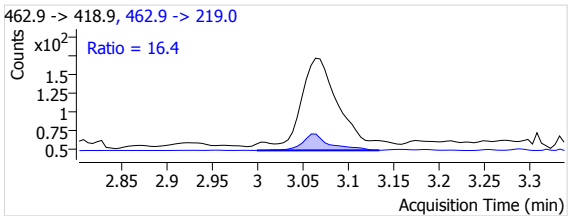

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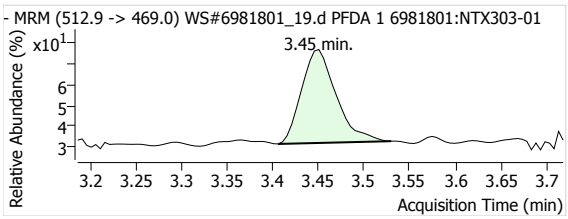

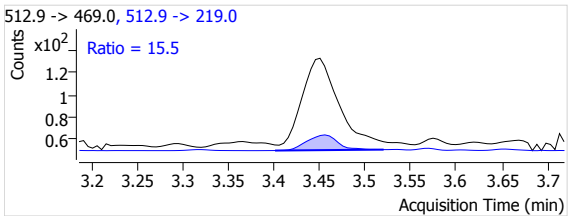

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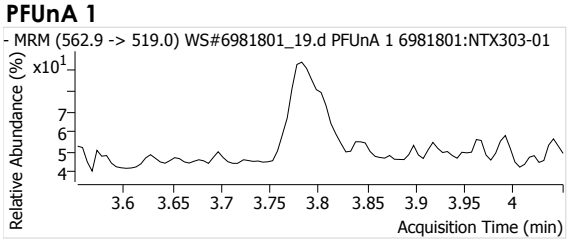

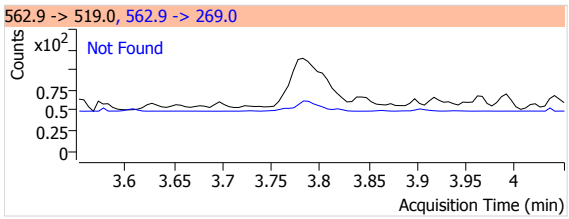

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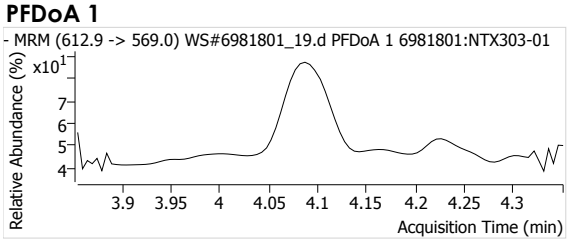

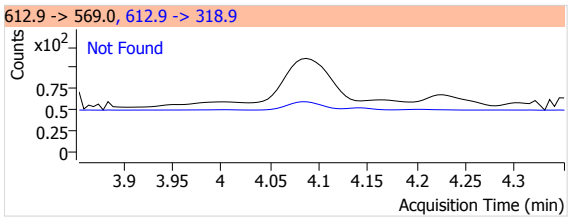

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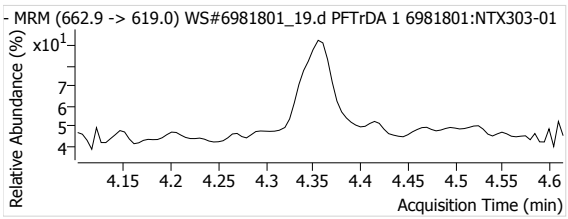

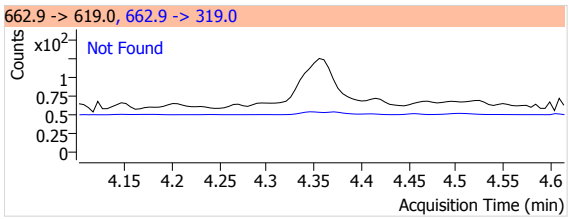

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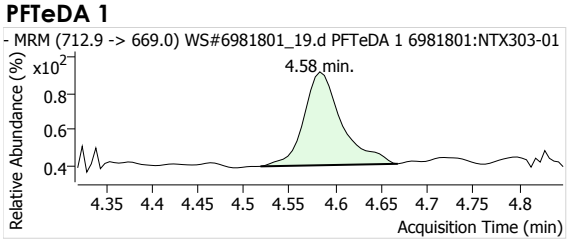

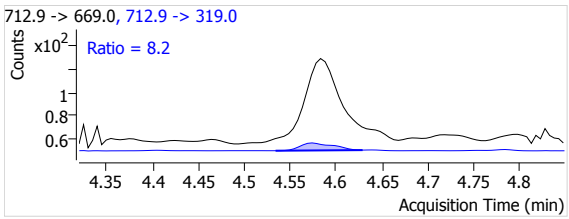

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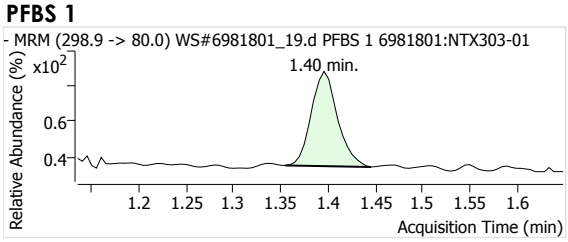

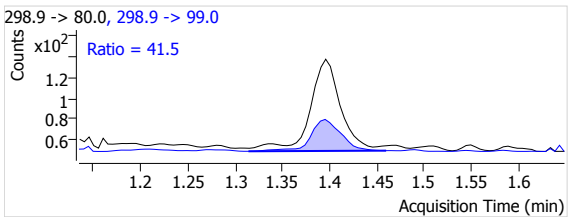

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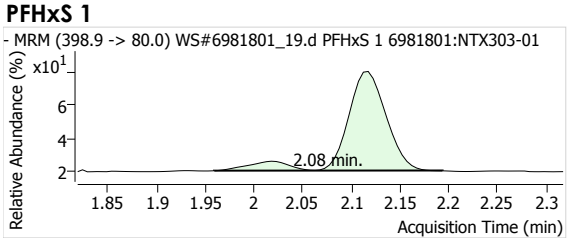

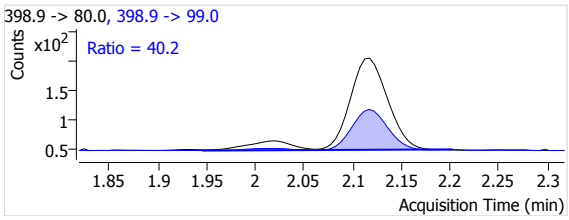

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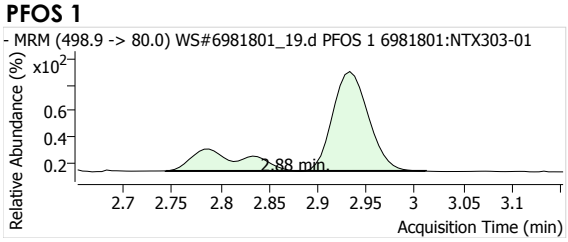

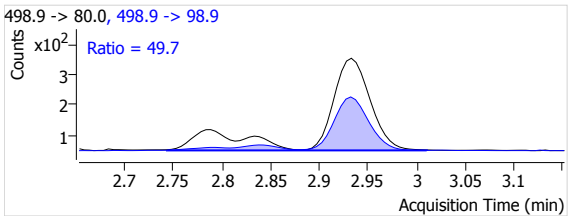

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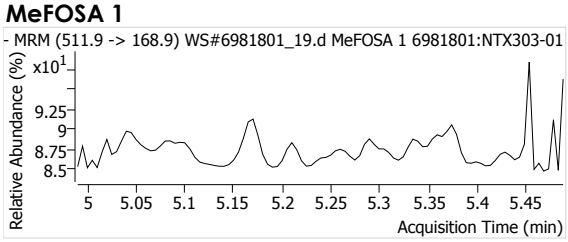

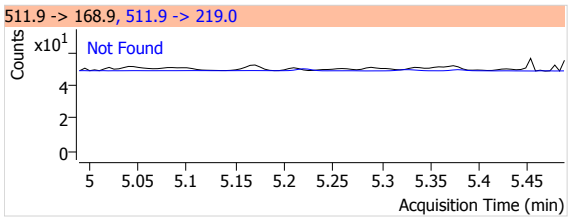

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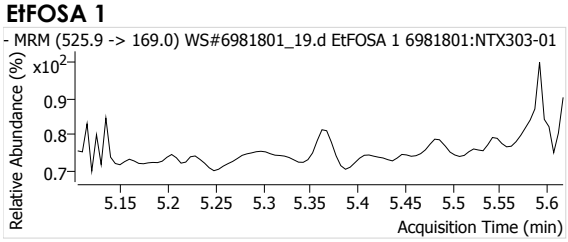

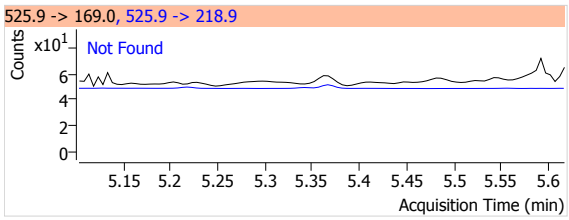

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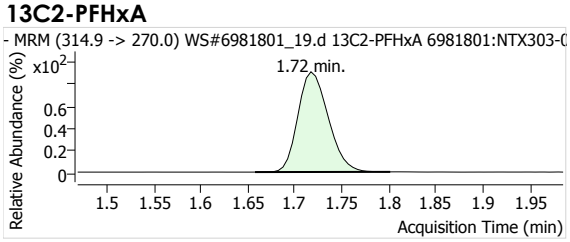

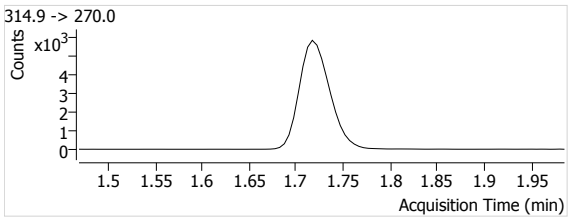

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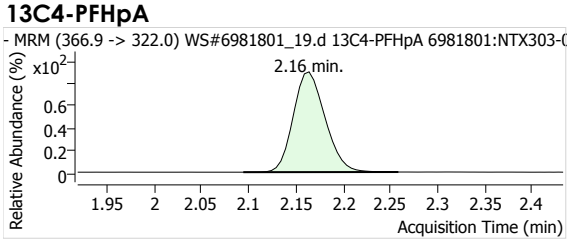

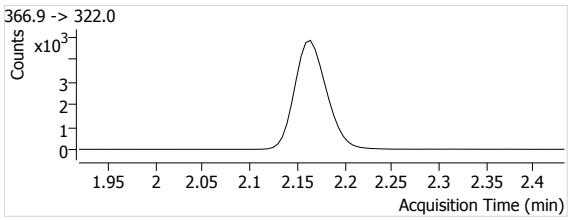

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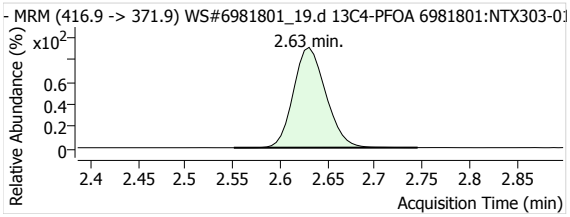

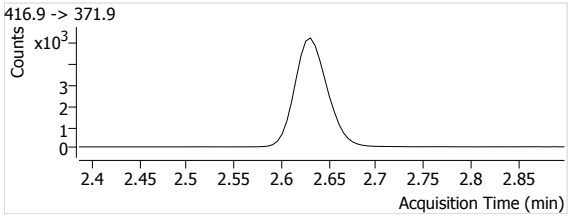

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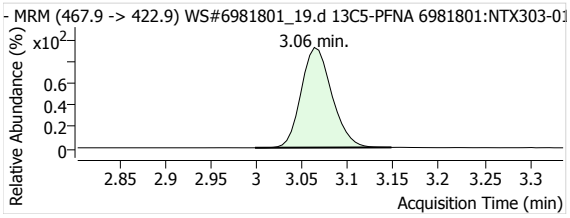

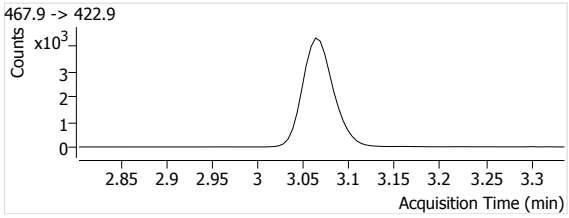

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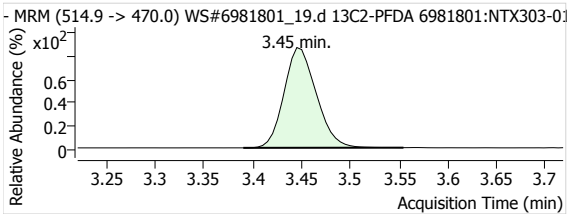

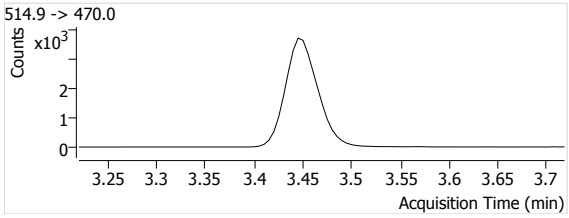

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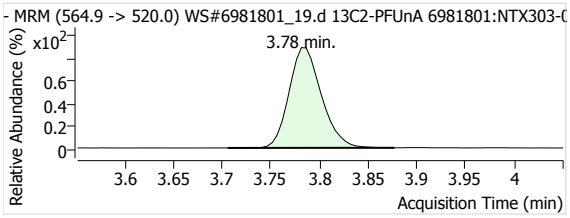

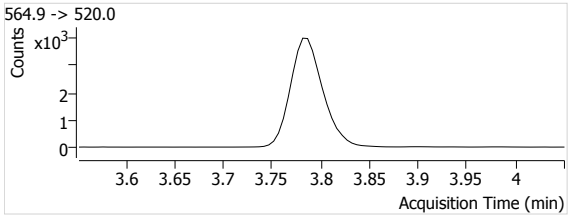

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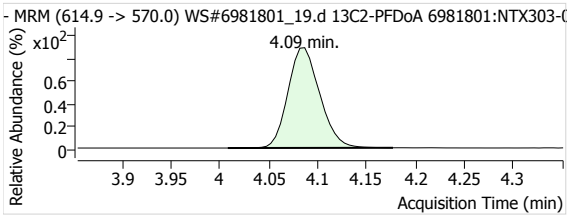

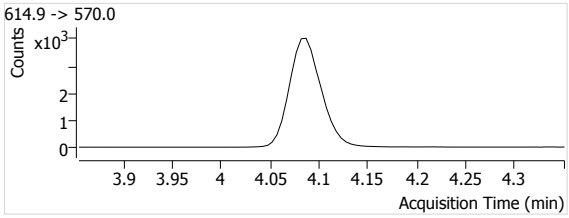

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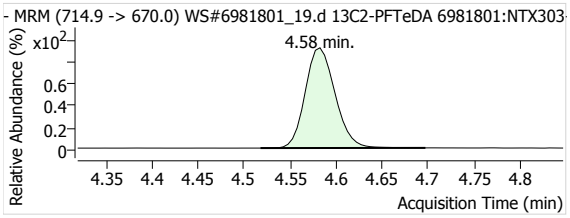

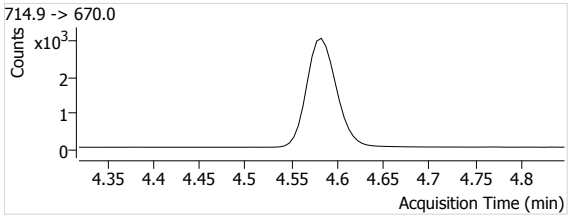

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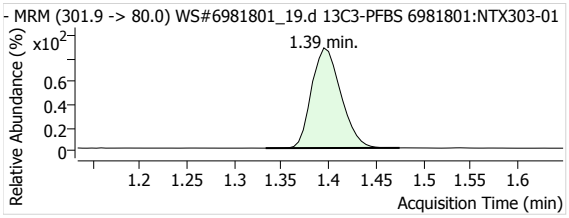

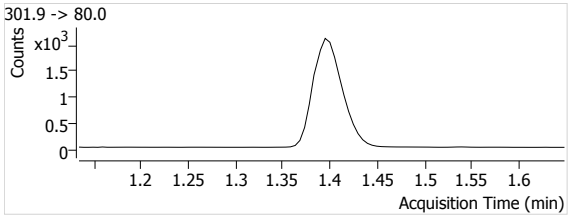

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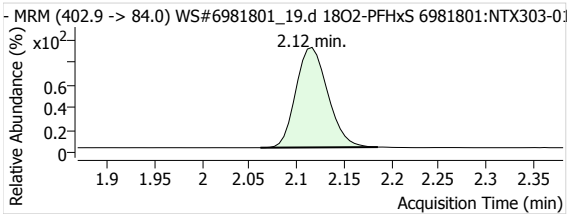

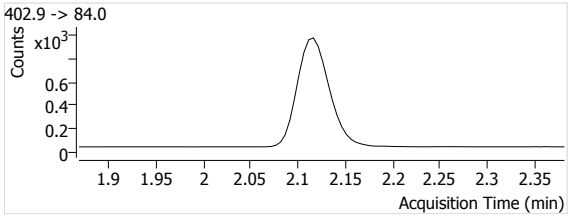

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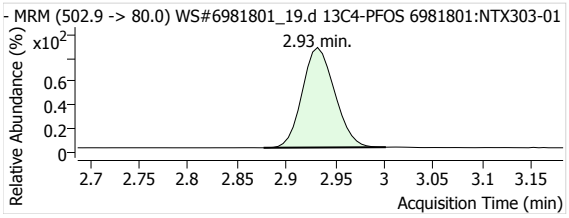
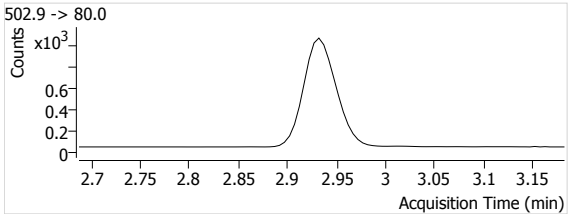
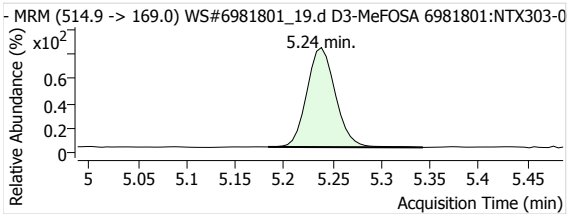
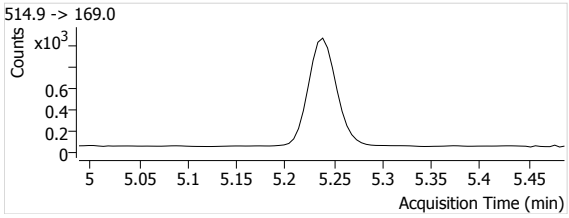


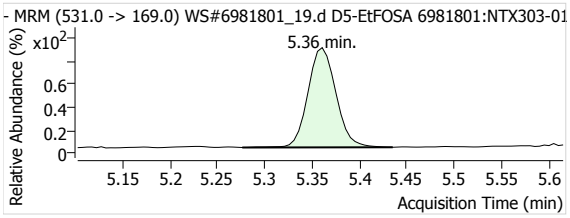


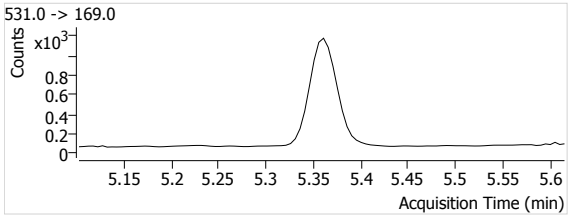
D3-MeFOSA





D5-EtFOSA





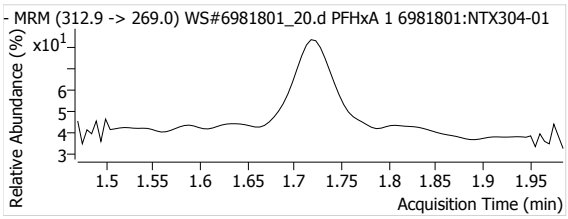
Quantitative Analysis Report

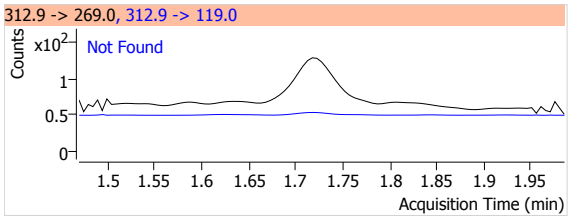
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX304-01	**Data File**	WS#6981801_20.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B9
Acq. Date-Time	2020/10/05 2:56:31 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFHxS		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	0.0057	--	698	2.63	13	0.0538	163	2.63	16	23.4
PFNA 1	µg/L	--	0.0011	--	274	3.06	7	0.0264	58	3.06	10	21.2
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	219	4.36	4	0.0305	23	4.35	13	10.5
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0070	--	328	1.40	24	0.0698	123	1.40	9	37.5
PFHxS 1	µg/L	--	0.0079	--	211	2.12	35	0.0884	107	2.07	128	51.0
PFOS 1	µg/L	--	0.0421	--	885	2.88	45	0.3463	380	2.88	70	42.9
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	93.2921	--	13713	1.72	671		--	--	--	--
13C4-PFHpA	µg/L	--	95.1870	--	11886	2.16	898		--	--	--	--
13C4-PFOA	µg/L	--	95.1951	--	12977	2.63	1412		--	--	--	--
13C5-PFNA	µg/L	--	93.7539	--	10387	3.06	611		--	--	--	--
13C2-PFDA	µg/L	--	92.2983	--	9072	3.45	1109		--	--	--	--
13C2-PFUnA	µg/L	--	88.8628	--	9447	3.79	743		--	--	--	--
13C2-PFDoA	µg/L	--	84.0123	--	9259	4.09	421		--	--	--	--
13C2-PFTeDA	µg/L	--	79.7090	--	7177	4.58	596		--	--	--	--
13C3-PFBS	µg/L	--	92.9363	--	4697	1.39	467		--	--	--	--
18O2-PFHxS	µg/L	--	93.6664	--	2381	2.12	326		--	--	--	--
13C4-PFOS	µg/L	--	95.6961	--	2557	2.93	528		--	--	--	--
D3-MeFOSA	µg/L	--	55.6976	--	1960	5.24	68		--	--	--	--
D5-EtFOSA	µg/L	--	54.1168	--	2261	5.36	46		--	--	--	--

PFHxA 1





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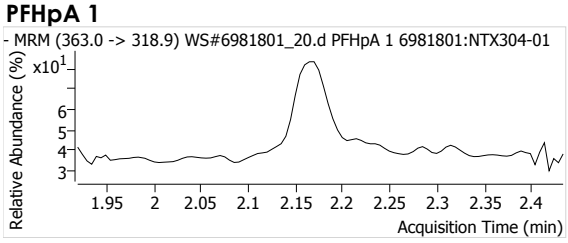

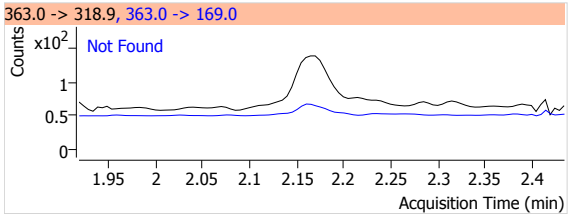

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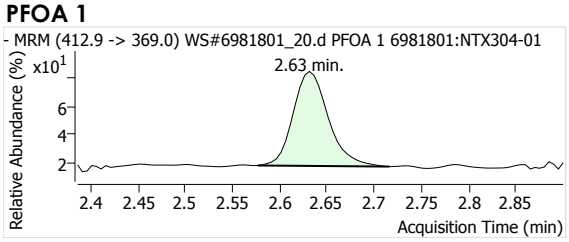

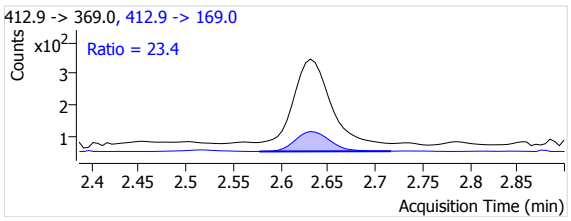

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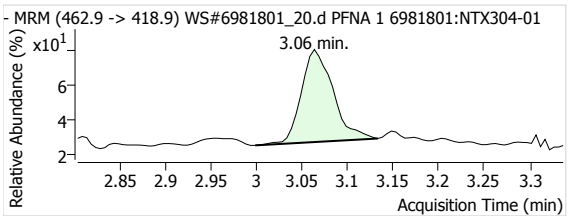

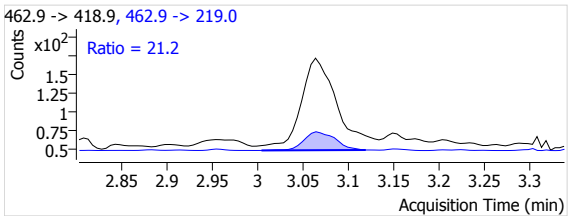

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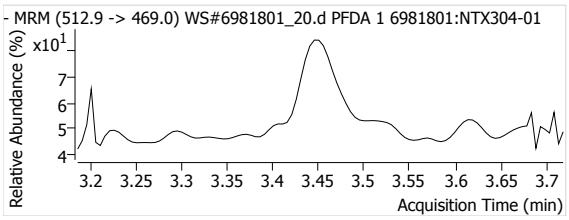

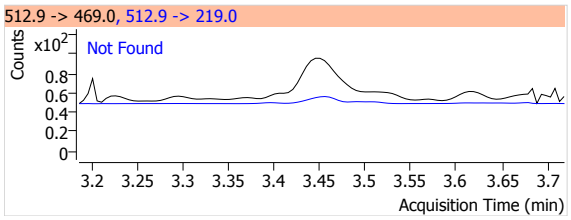

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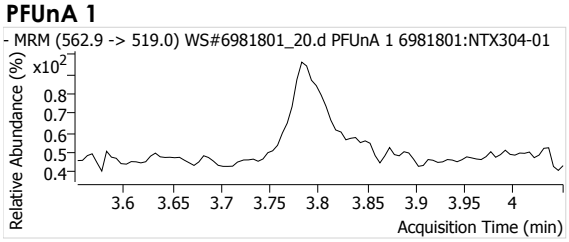

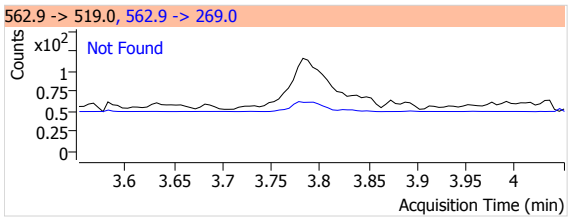

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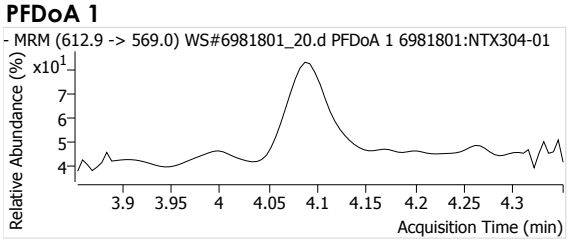

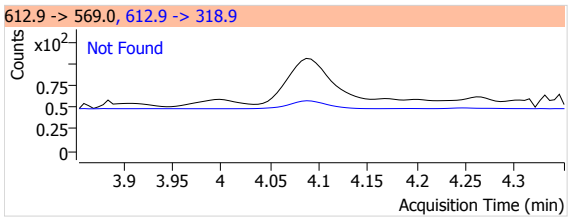

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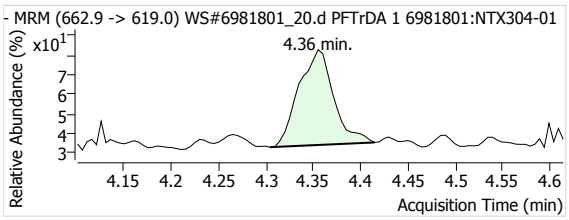

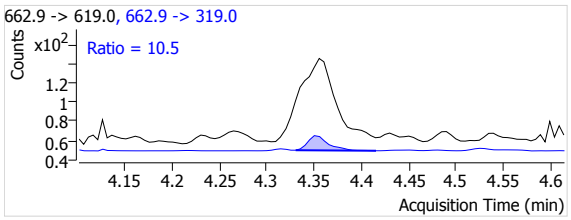

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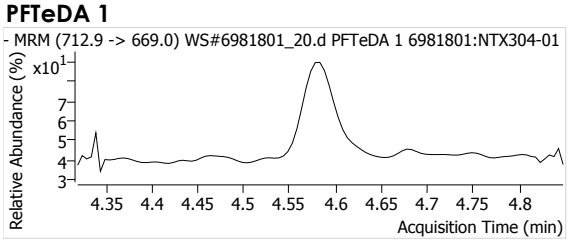

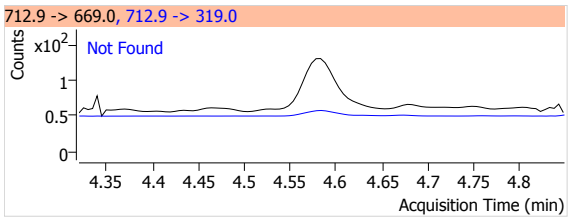

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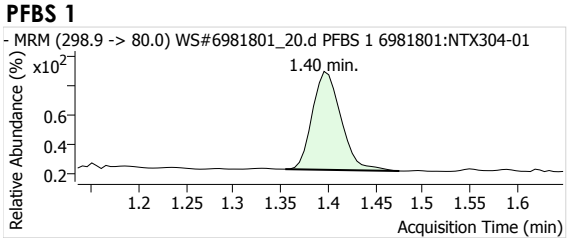

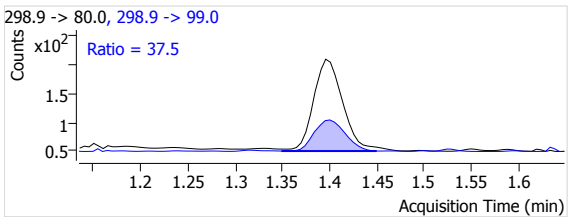

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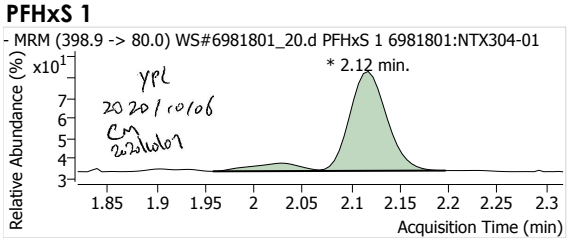

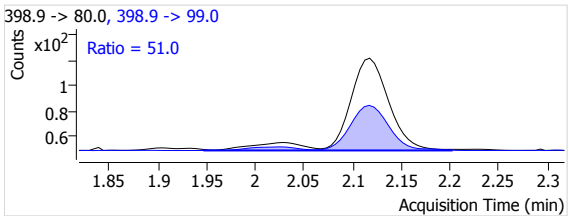

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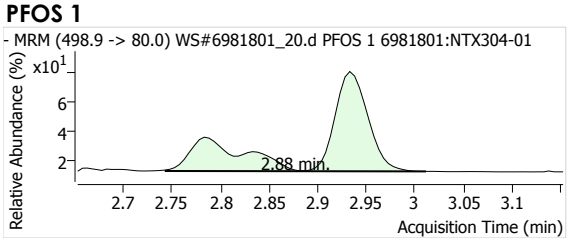

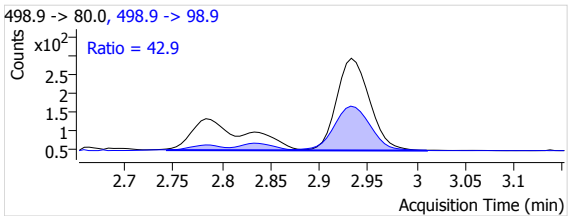

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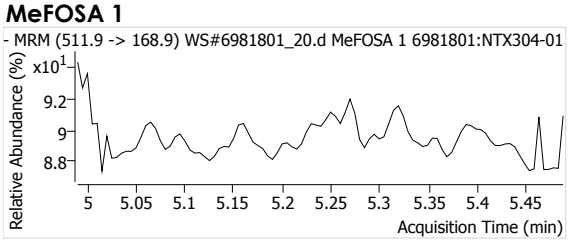

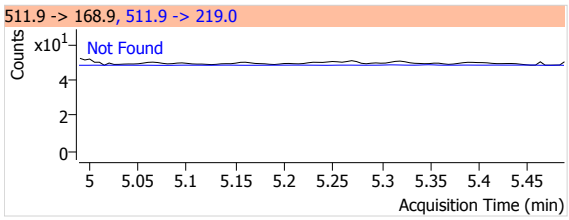

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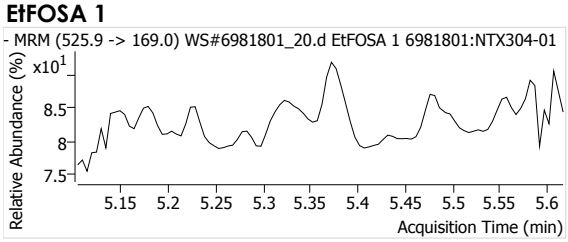

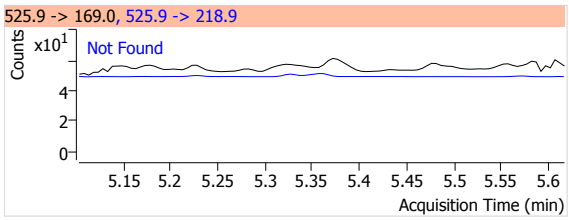

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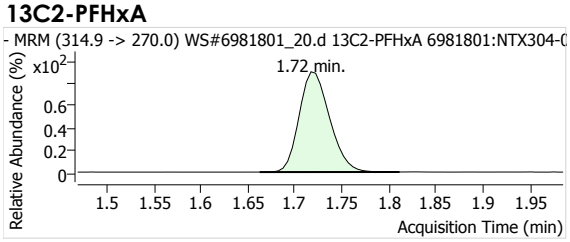

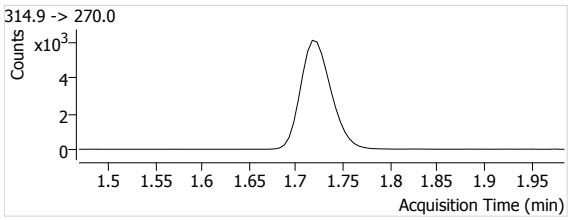

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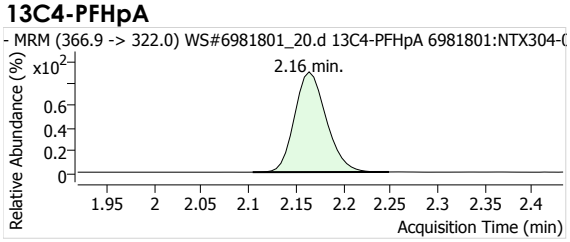

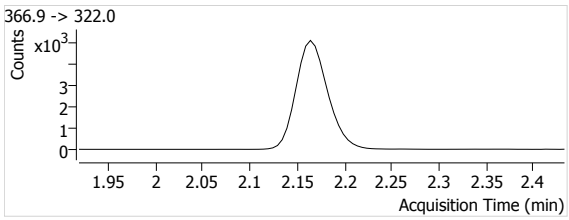

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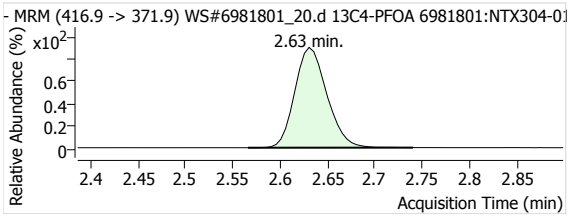

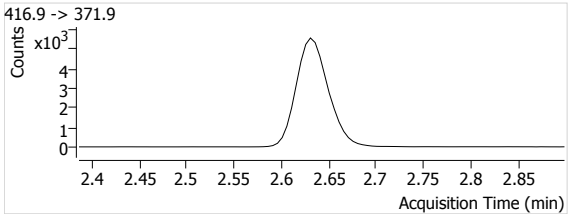

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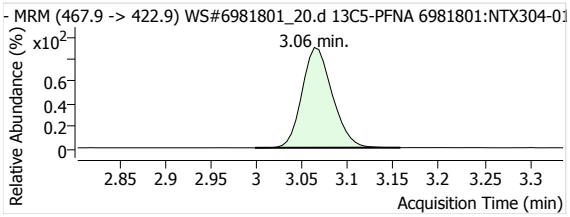

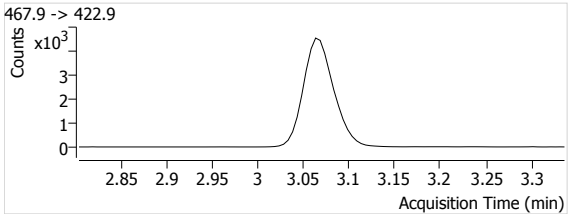

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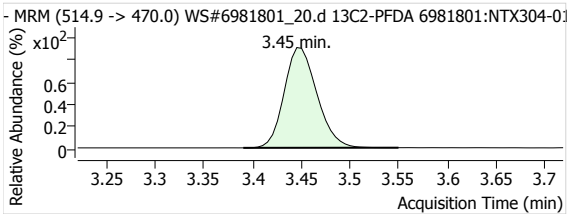

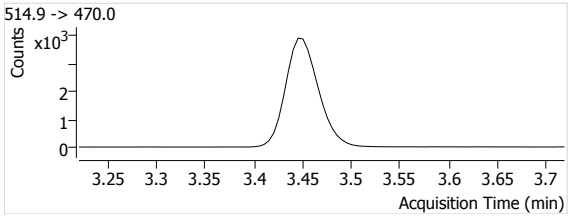

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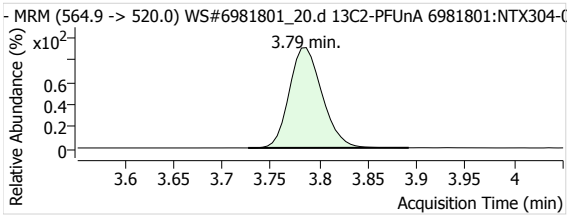

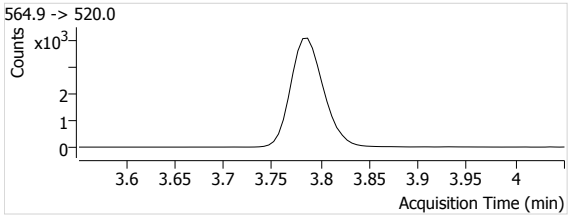

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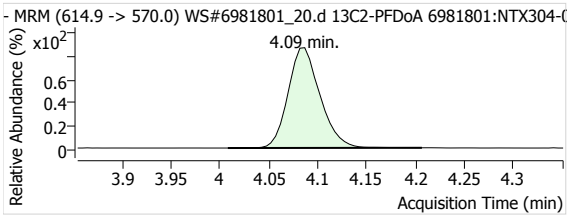

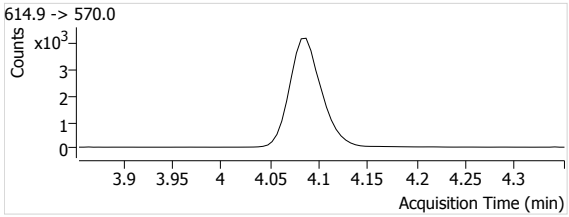

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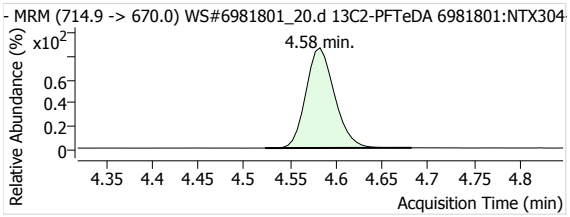

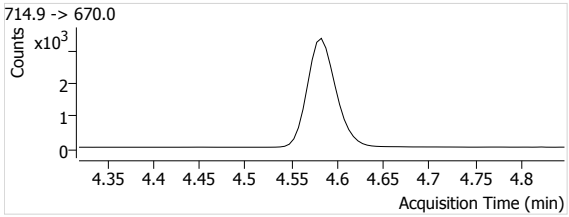

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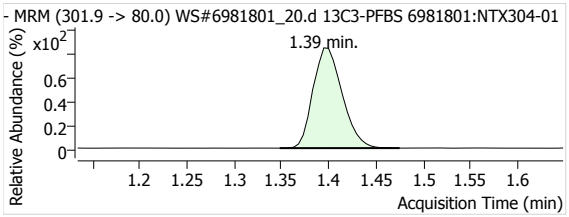

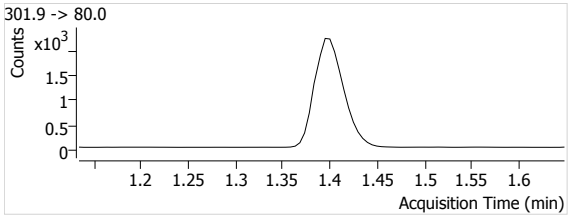

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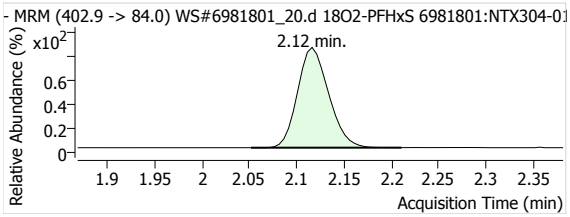
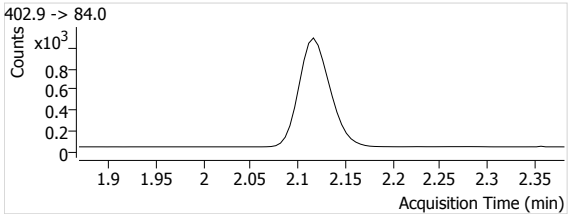
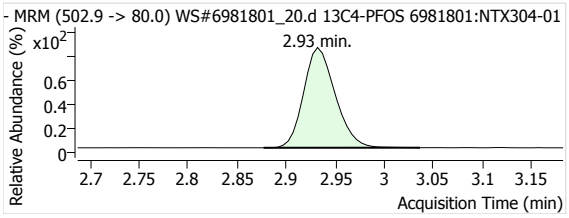
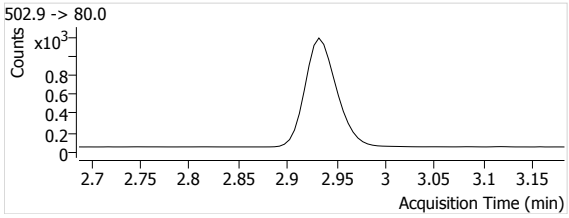


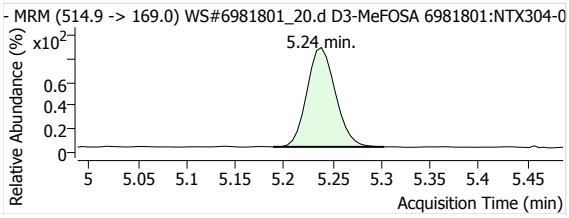


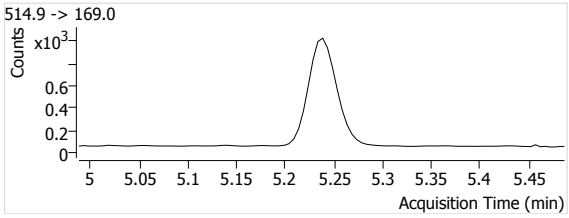
13C4-PFOS





D3-MeFOSA





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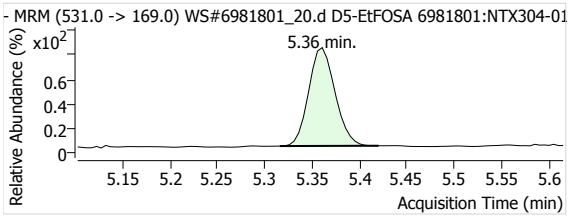
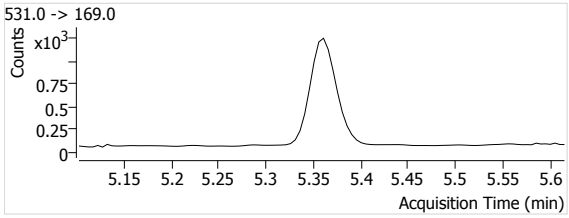




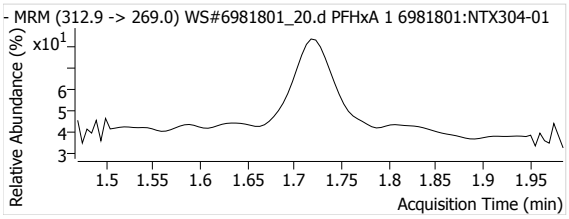
Quantitative Analysis Report

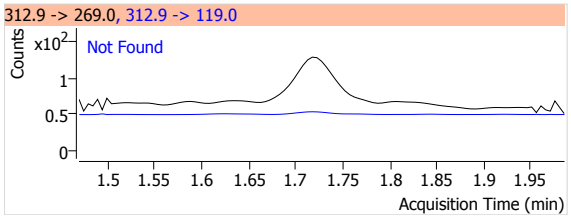
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX304-01	**Data File**	WS#6981801_20.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B9
Acq. Date-Time	2020/10/05 2:56:31 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFHxS		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	0.0057	--	698	2.63	13	0.0538	163	2.63	16	23.4
PFNA 1	µg/L	--	0.0011	--	274	3.06	7	0.0264	58	3.06	10	21.2
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	219	4.36	4	0.0305	23	4.35	13	10.5
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0070	--	328	1.40	24	0.0698	123	1.40	9	37.5
PFHxS 1	µg/L	--	0.0073	--	197	2.08	34	0.0828	107	2.07	128	54.4
PFOS 1	µg/L	--	0.0421	--	885	2.88	45	0.3463	380	2.88	70	42.9
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	93.2921	--	13713	1.72	671		--	--	--	--
13C4-PFHpA	µg/L	--	95.1870	--	11886	2.16	898		--	--	--	--
13C4-PFOA	µg/L	--	95.1951	--	12977	2.63	1412		--	--	--	--
13C5-PFNA	µg/L	--	93.7539	--	10387	3.06	611		--	--	--	--
13C2-PFDA	µg/L	--	92.2983	--	9072	3.45	1109		--	--	--	--
13C2-PFUnA	µg/L	--	88.8628	--	9447	3.79	743		--	--	--	--
13C2-PFDoA	µg/L	--	84.0123	--	9259	4.09	421		--	--	--	--
13C2-PFTeDA	µg/L	--	79.7090	--	7177	4.58	596		--	--	--	--
13C3-PFBS	µg/L	--	92.9363	--	4697	1.39	467		--	--	--	--
18O2-PFHxS	µg/L	--	93.6664	--	2381	2.12	326		--	--	--	--
13C4-PFOS	µg/L	--	95.6961	--	2557	2.93	528		--	--	--	--
D3-MeFOSA	µg/L	--	55.6976	--	1960	5.24	68		--	--	--	--
D5-EtFOSA	µg/L	--	54.1168	--	2261	5.36	46		--	--	--	--

PFHxA 1





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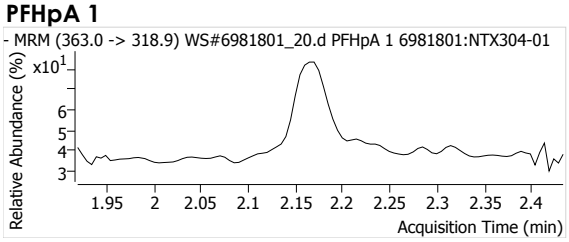

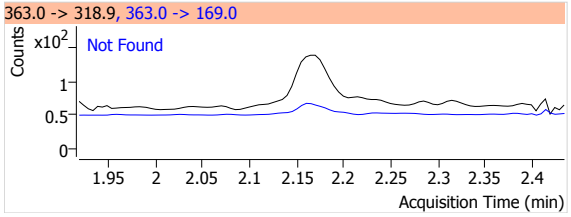

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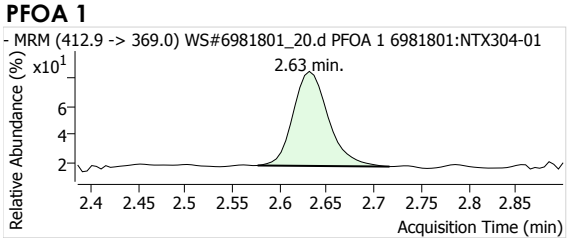

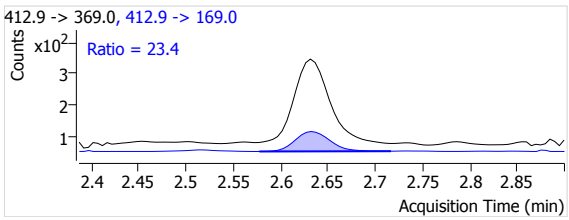

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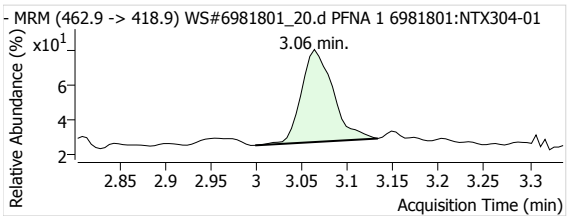

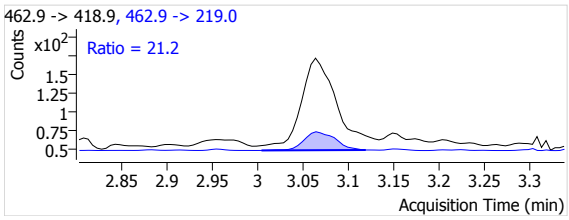

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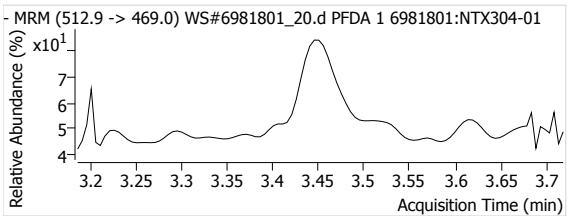

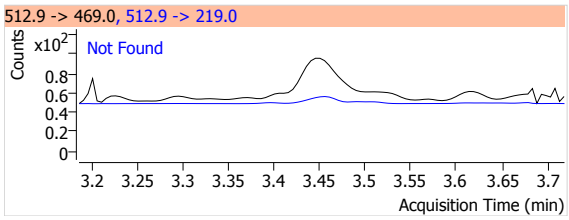

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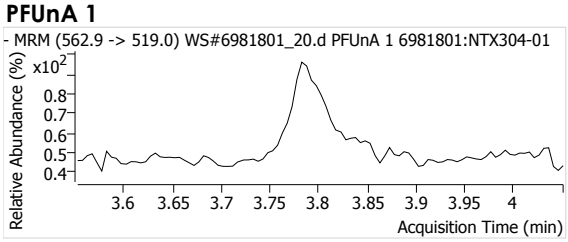

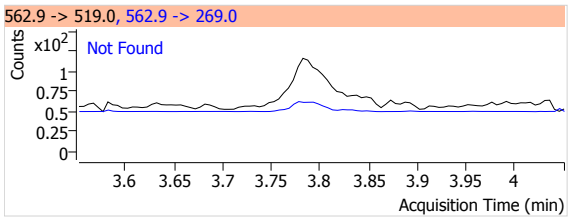

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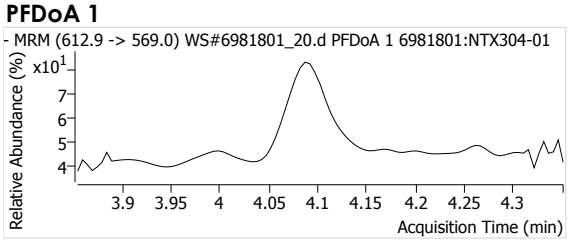

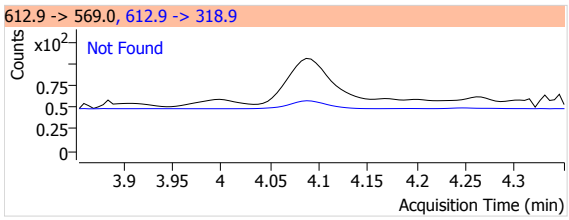

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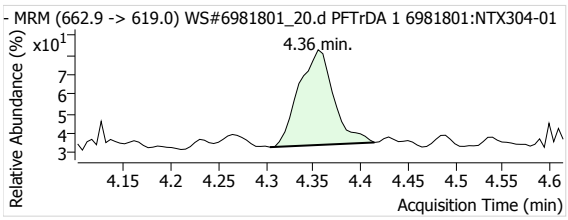

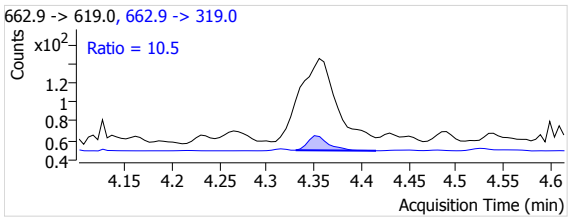

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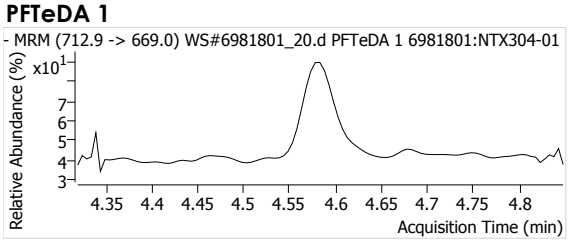

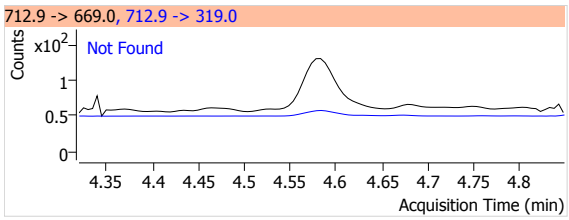

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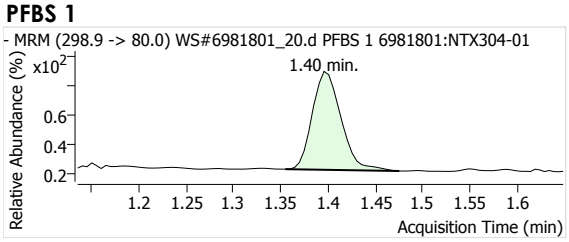

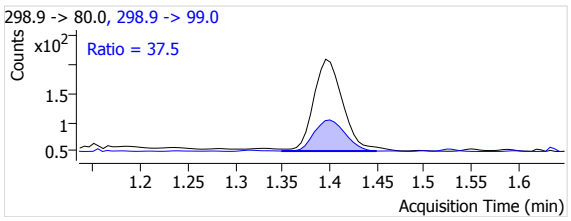

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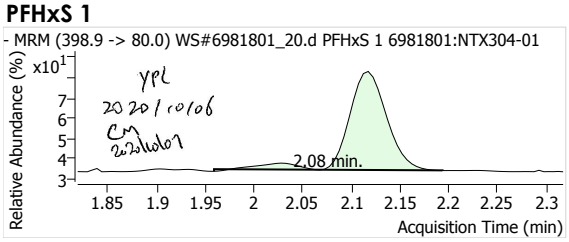

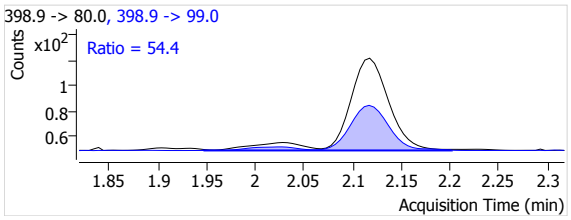

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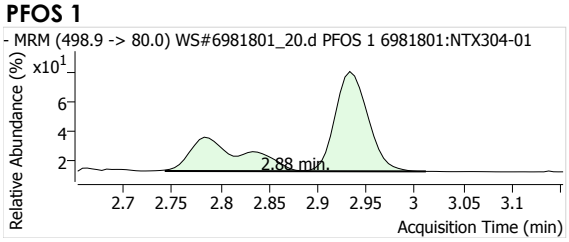

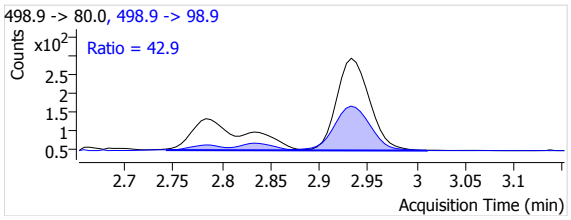

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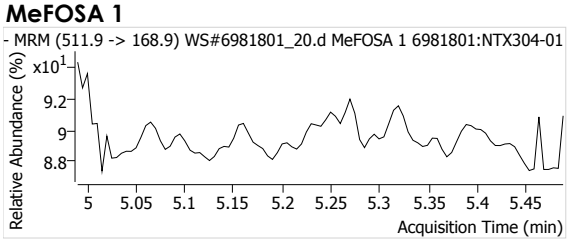

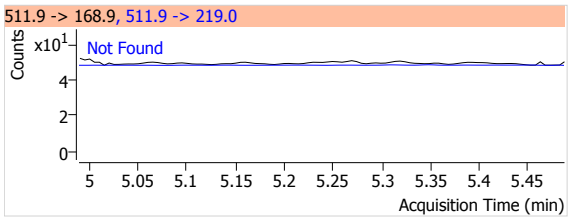

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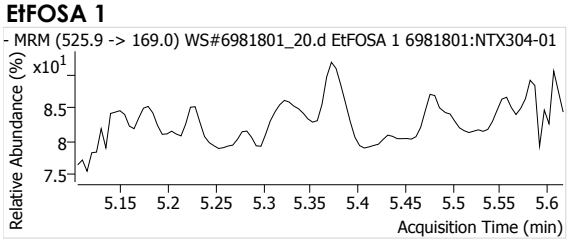
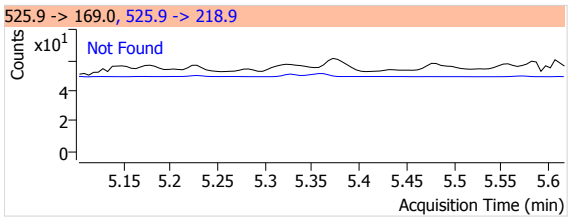
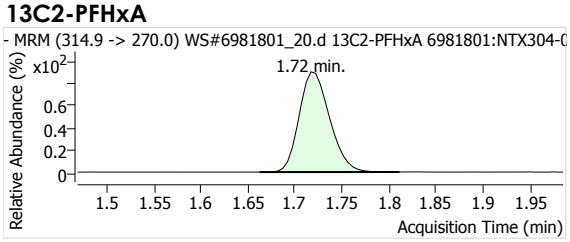
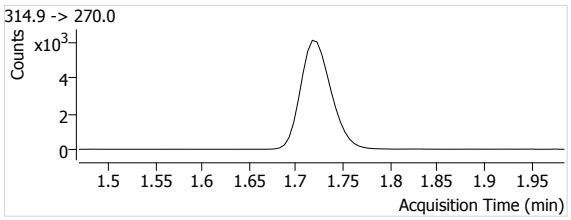




13C2-PFHxA





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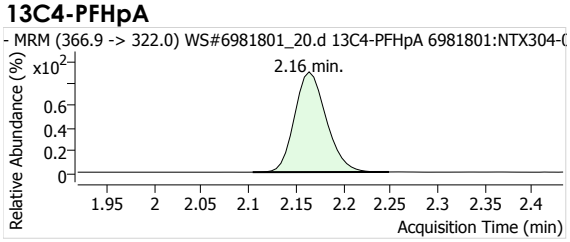

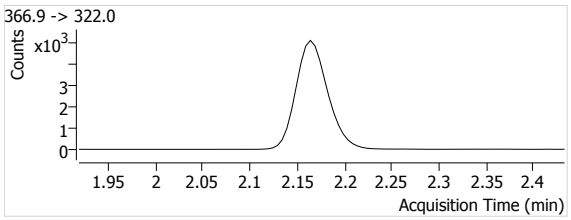

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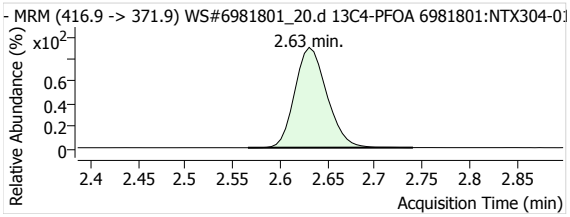

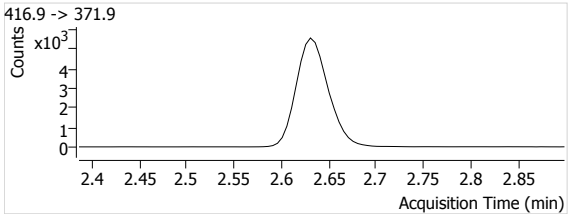

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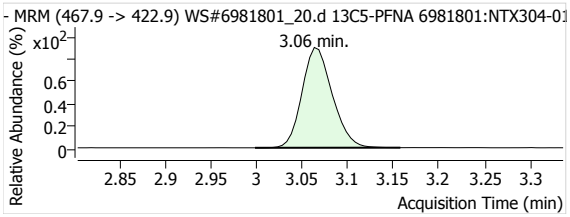

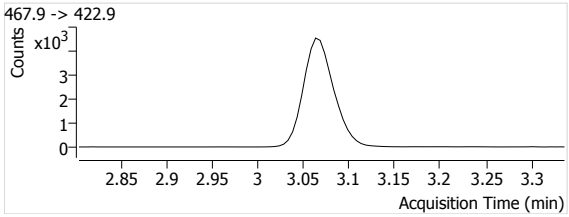

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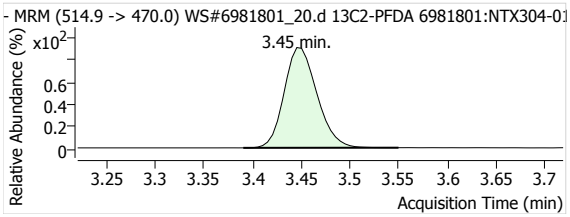

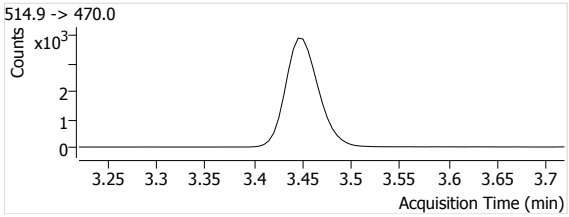

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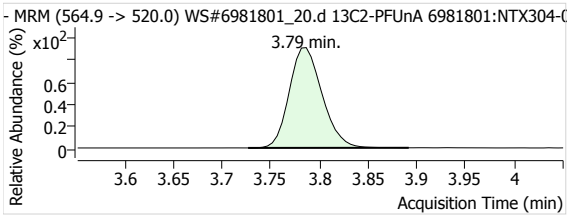

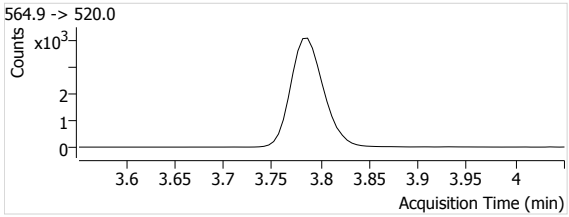

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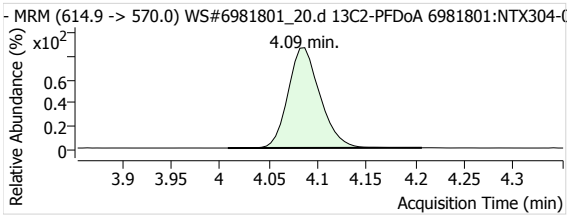

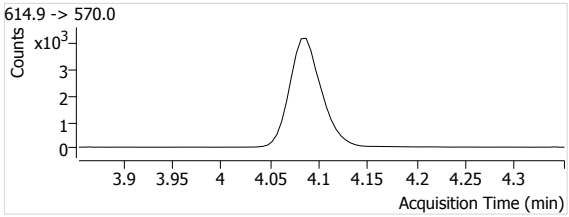

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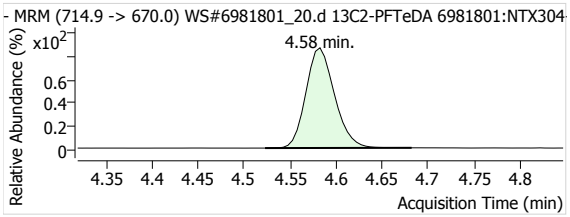

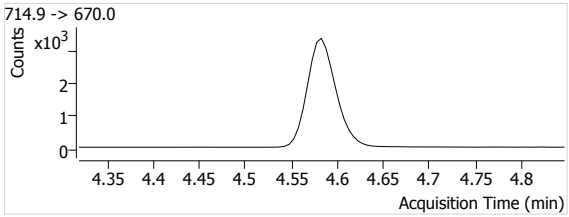

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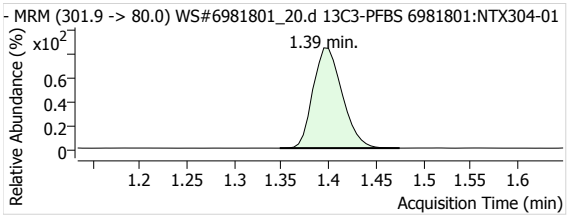

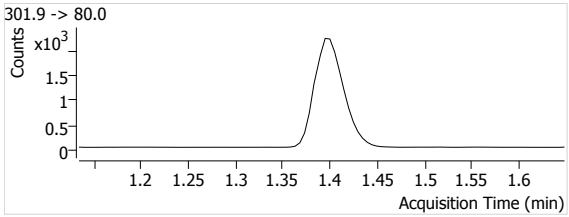

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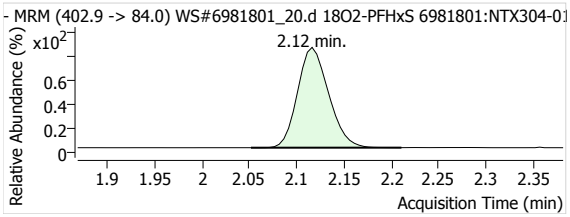

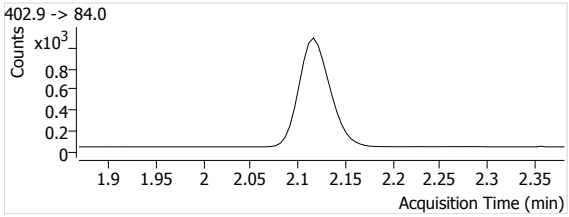

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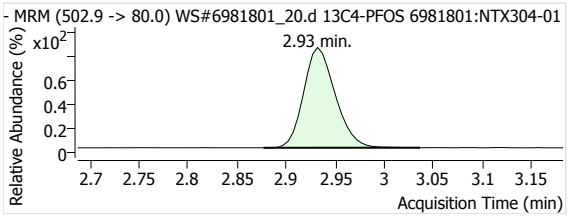

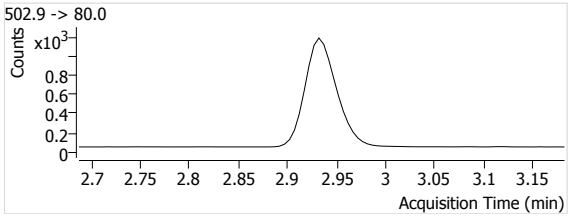

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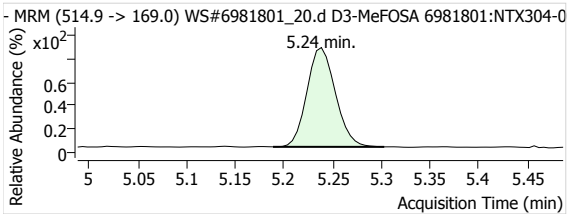

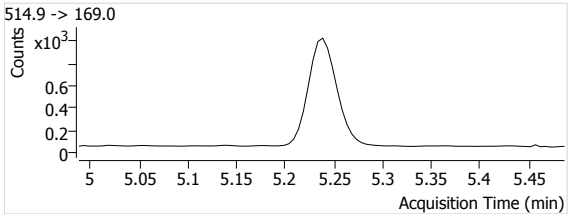

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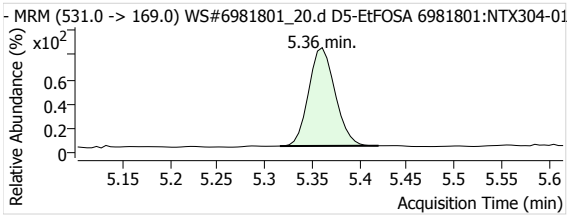
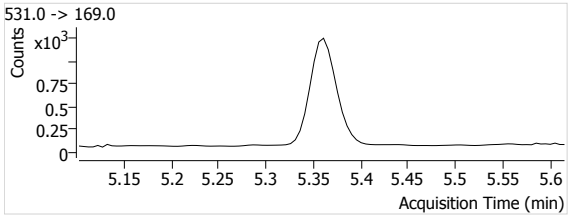




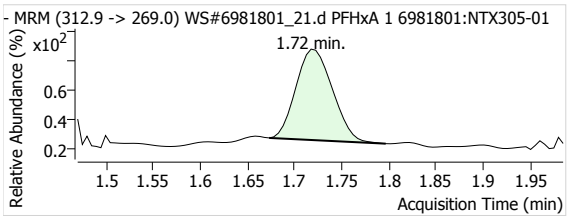
Quantitative Analysis Report

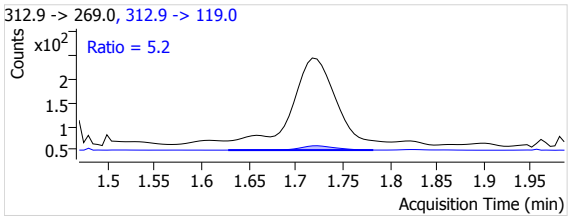
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX305-01	**Data File**	WS#6981801_21.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C1
Acq. Date-Time	2020/10/05 3:03:31 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0017	--	462	1.72	4	0.0349	24	1.72	3	5.2
PFHpA 1	µg/L	--	0.0005	--	473	2.16	10	0.0417	71	2.17	7	15.0
PFOA 1	µg/L	--	0.0264	--	2296	2.63	34	0.1874	527	2.63	135	23.0
PFNA 1	µg/L	--	0.0028	--	402	3.06	10	0.0398	75	3.06	12	18.7
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0094	--	406	1.40	29	0.0895	169	1.40	17	41.6
PFHxS 1	µg/L	--	0.0418	--	847	2.08	98	0.3884	373	2.07	242	44.0
PFOS 1	µg/L	--	0.0926	--	1704	2.88	60	0.7369	810	2.88	293	47.5
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	90.0537	--	13237	1.72	885		--	--	--	--
13C4-PFHpA	µg/L	--	90.8305	--	11342	2.16	759		--	--	--	--
13C4-PFOA	µg/L	--	89.8841	--	12253	2.63	1078		--	--	--	--
13C5-PFNA	µg/L	--	91.0913	--	10092	3.06	1027		--	--	--	--
13C2-PFDA	µg/L	--	86.4584	--	8498	3.45	740		--	--	--	--
13C2-PFUnA	µg/L	--	84.4229	--	8975	3.79	1127		--	--	--	--
13C2-PFDoA	µg/L	--	81.9799	--	9035	4.09	392		--	--	--	--
13C2-PFTeDA	µg/L	--	78.8761	--	7102	4.58	583		--	--	--	--
13C3-PFBS	µg/L	--	89.7705	--	4537	1.39	497		--	--	--	--
18O2-PFHxS	µg/L	--	85.7986	--	2181	2.12	232		--	--	--	--
13C4-PFOS	µg/L	--	86.5644	--	2313	2.93	304		--	--	--	--
D3-MeFOSA	µg/L	--	57.2038	--	2013	5.24	64		--	--	--	--
D5-EtFOSA	µg/L	--	54.8348	--	2291	5.36	64		--	--	--	--

PFHxA 1





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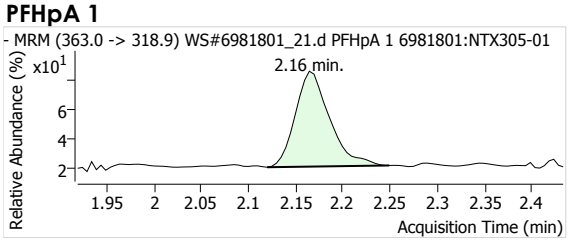

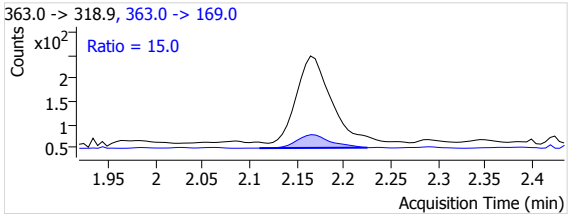

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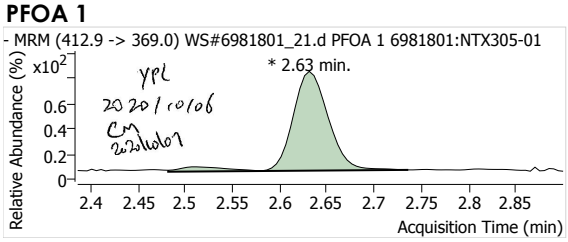

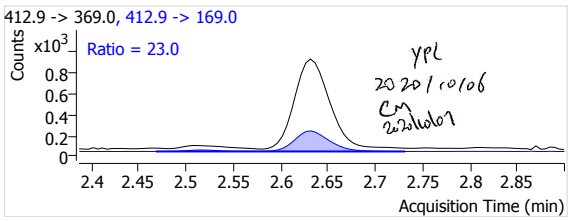

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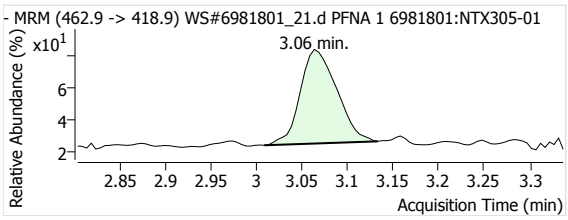

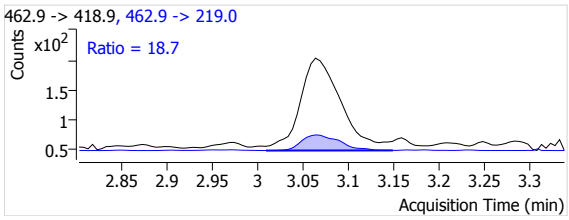

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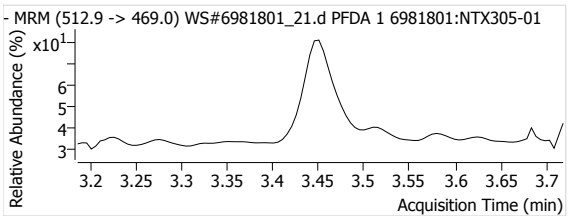

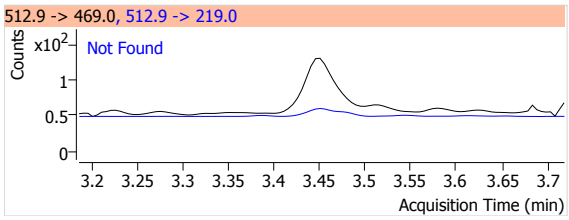

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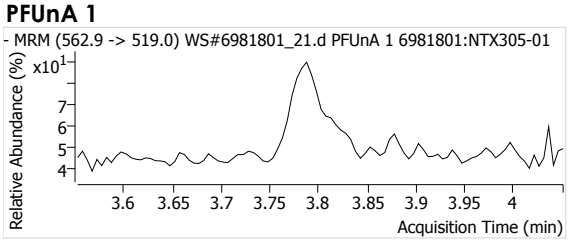

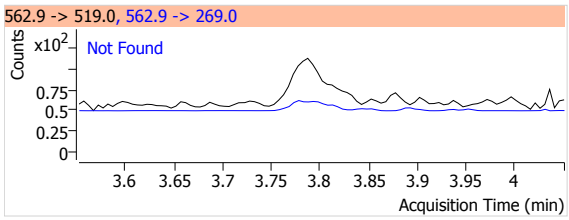

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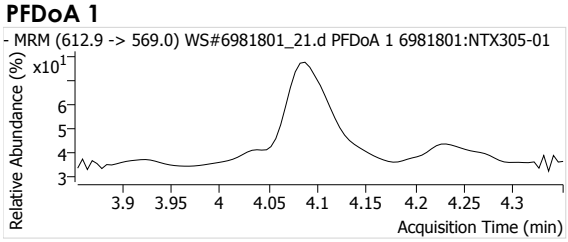

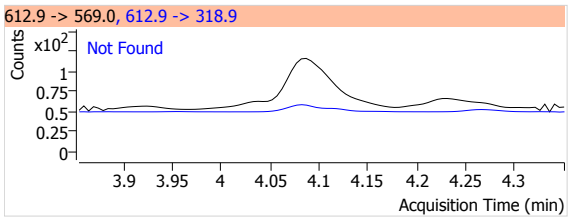

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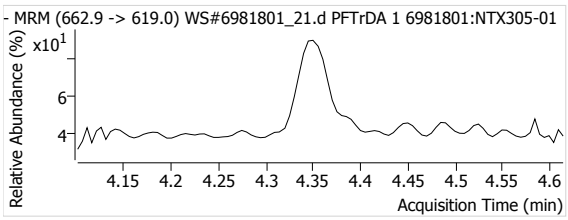

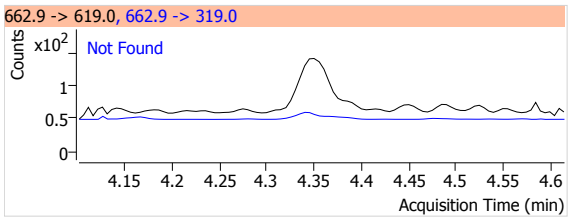

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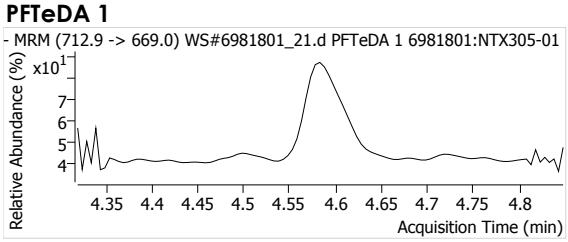

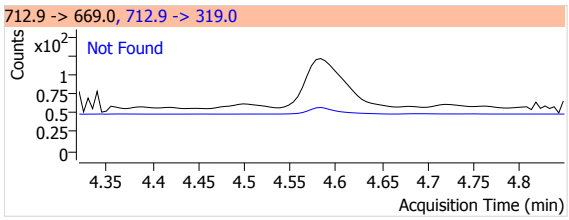

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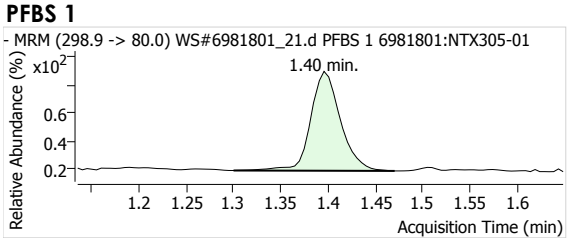

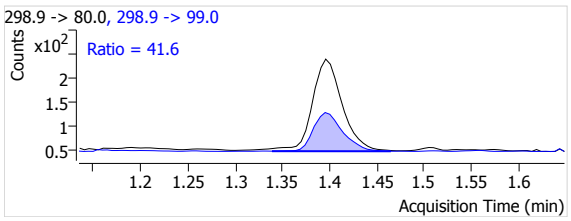

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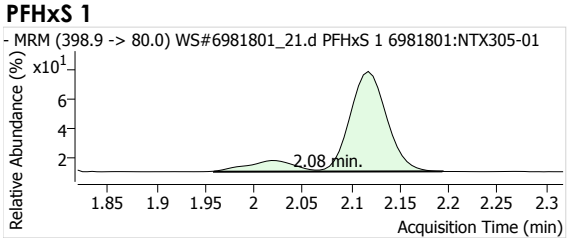

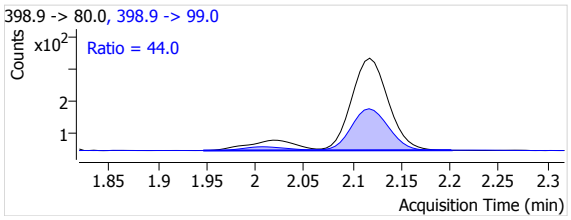

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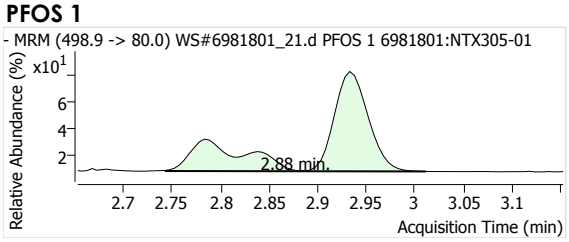
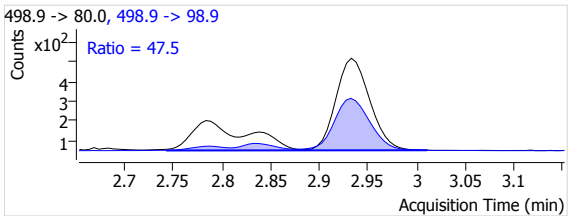
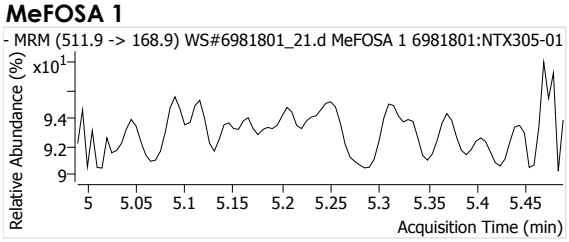
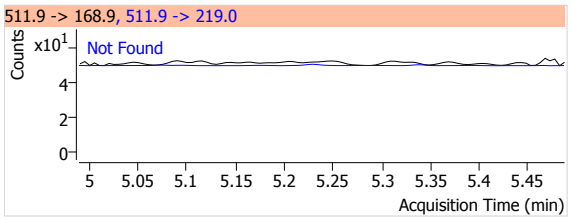




MeFOSA 1





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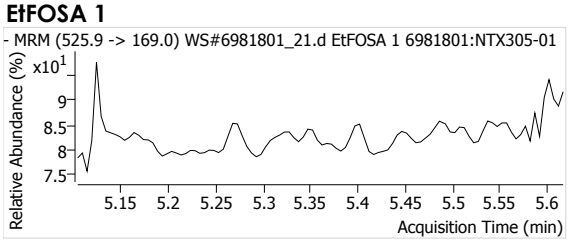
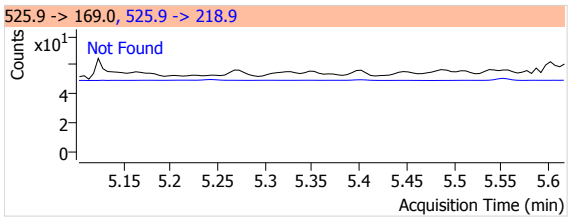
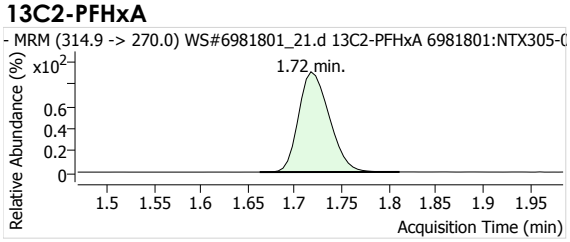
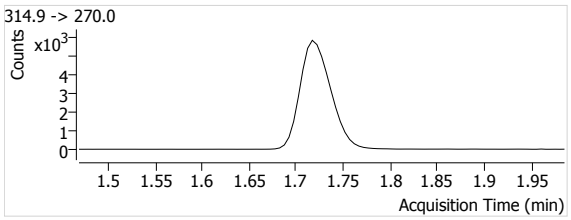




13C2-PFHxA





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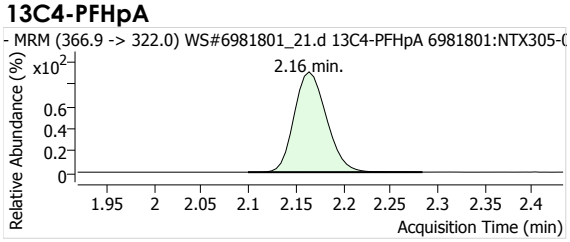

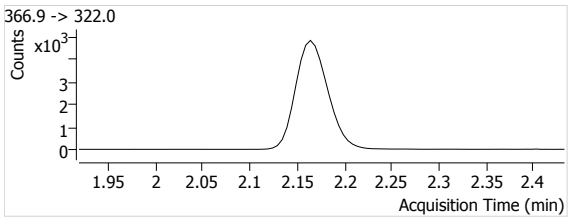

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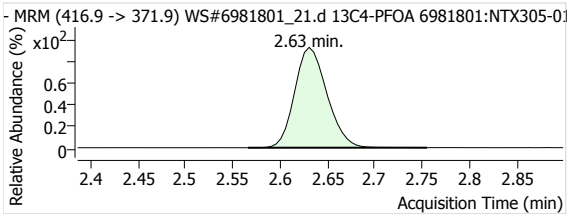

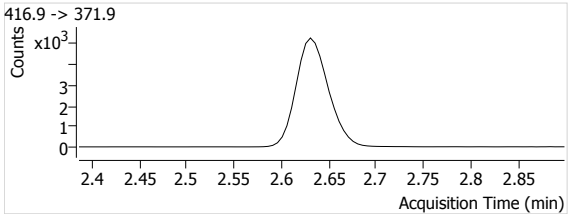

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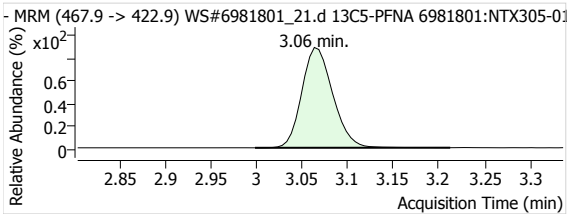
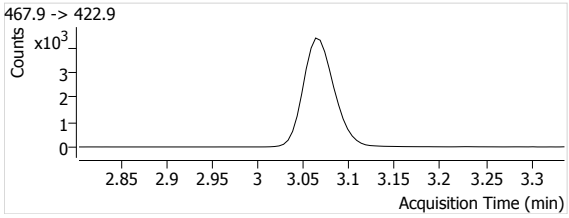
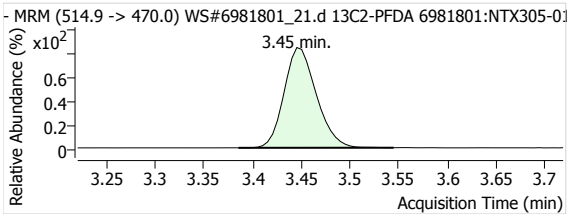
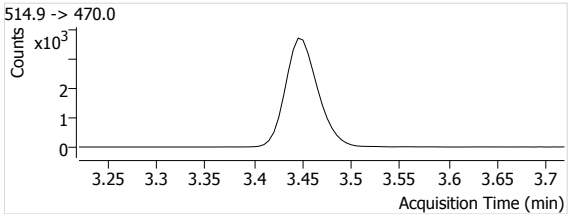




13C2-PFDA





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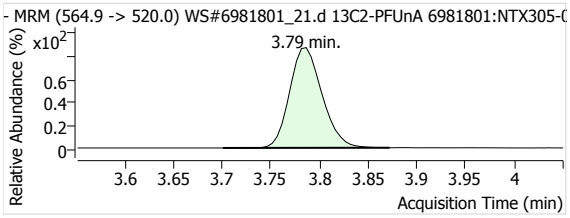

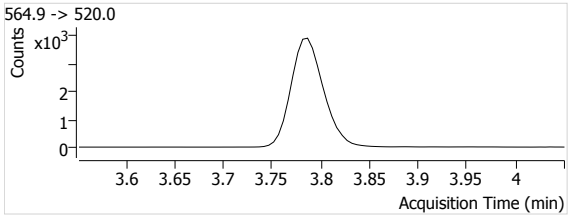

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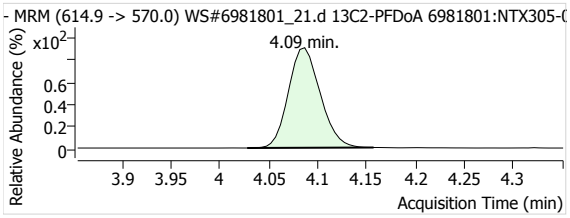

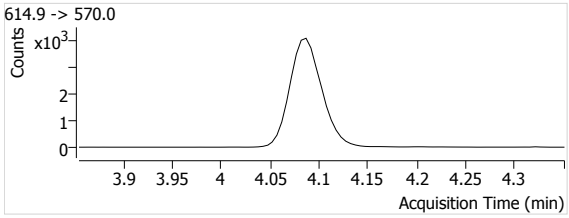

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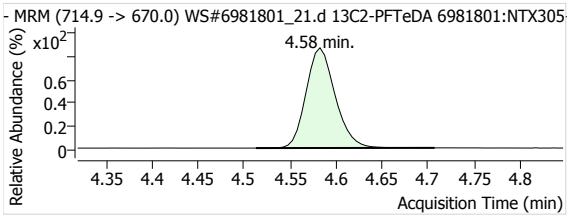

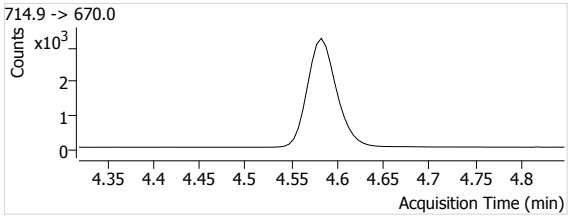

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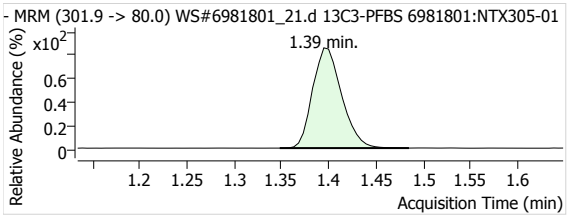
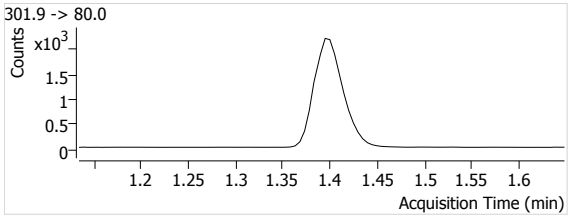
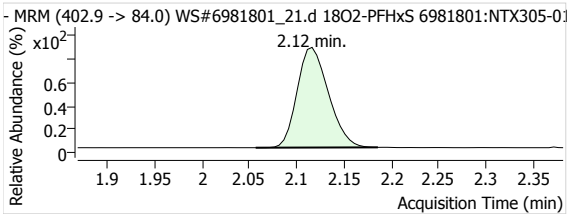
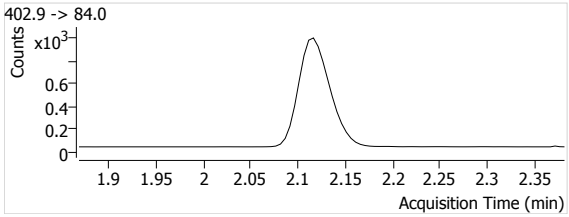




18O2-PFHxS





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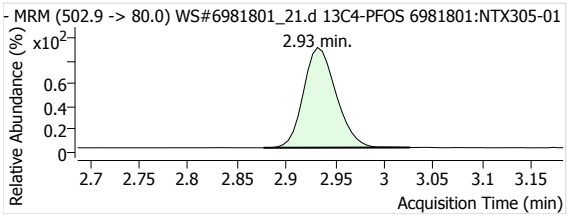
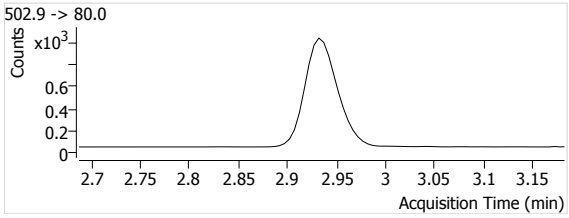
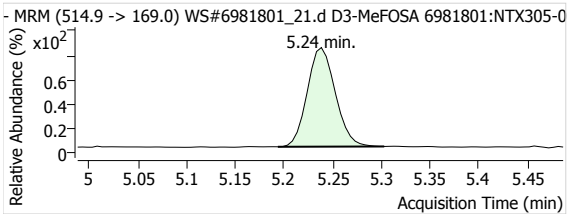
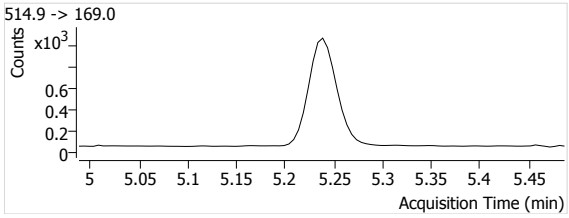


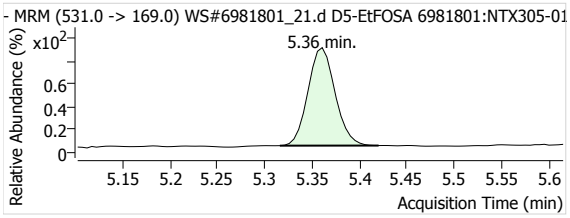


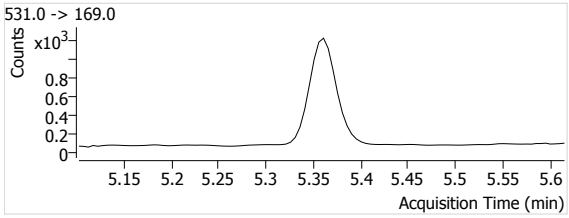
D3-MeFOSA





D5-EtFOSA





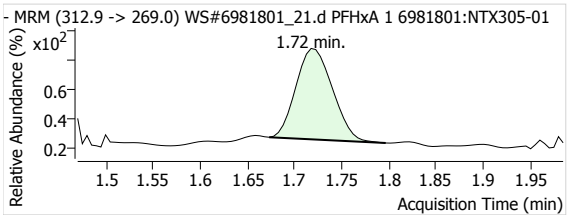
Quantitative Analysis Report

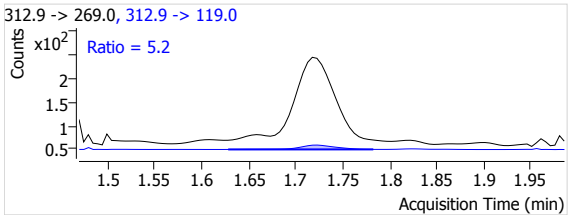
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX305-01	**Data File**	WS#6981801_21.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C1
Acq. Date-Time	2020/10/05 3:03:31 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0017	--	462	1.72	4	0.0349	24	1.72	3	5.2
PFHpA 1	µg/L	--	0.0005	--	473	2.16	10	0.0417	71	2.17	7	15.0
PFOA 1	µg/L	--	0.0246	--	2151	2.63	23	0.1755	491	2.63	147	22.8
PFNA 1	µg/L	--	0.0028	--	402	3.06	10	0.0398	75	3.06	12	18.7
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0094	--	406	1.40	29	0.0895	169	1.40	17	41.6
PFHxS 1	µg/L	--	0.0418	--	847	2.08	98	0.3884	373	2.07	242	44.0
PFOS 1	µg/L	--	0.0926	--	1704	2.88	60	0.7369	810	2.88	293	47.5
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	90.0537	--	13237	1.72	885		--	--	--	--
13C4-PFHpA	µg/L	--	90.8305	--	11342	2.16	759		--	--	--	--
13C4-PFOA	µg/L	--	89.8841	--	12253	2.63	1078		--	--	--	--
13C5-PFNA	µg/L	--	91.0913	--	10092	3.06	1027		--	--	--	--
13C2-PFDA	µg/L	--	86.4584	--	8498	3.45	740		--	--	--	--
13C2-PFUnA	µg/L	--	84.4229	--	8975	3.79	1127		--	--	--	--
13C2-PFDoA	µg/L	--	81.9799	--	9035	4.09	392		--	--	--	--
13C2-PFTeDA	µg/L	--	78.8761	--	7102	4.58	583		--	--	--	--
13C3-PFBS	µg/L	--	89.7705	--	4537	1.39	497		--	--	--	--
18O2-PFHxS	µg/L	--	85.7986	--	2181	2.12	232		--	--	--	--
13C4-PFOS	µg/L	--	86.5644	--	2313	2.93	304		--	--	--	--
D3-MeFOSA	µg/L	--	57.2038	--	2013	5.24	64		--	--	--	--
D5-EtFOSA	µg/L	--	54.8348	--	2291	5.36	64		--	--	--	--

PFHxA 1





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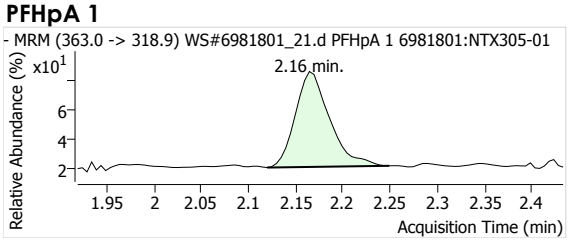

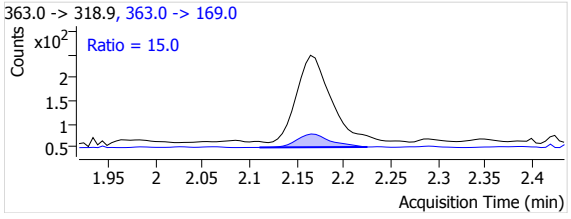

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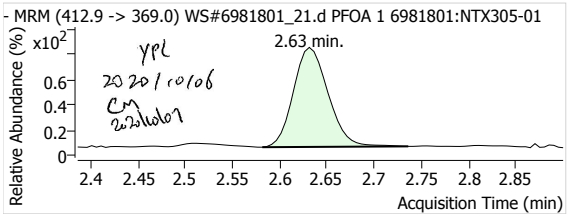

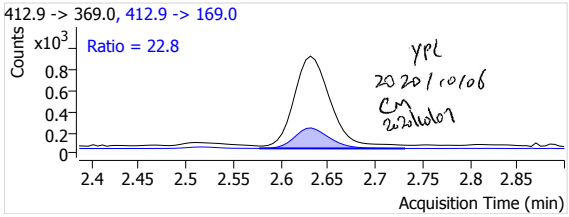

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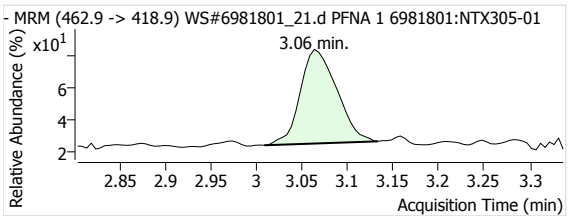

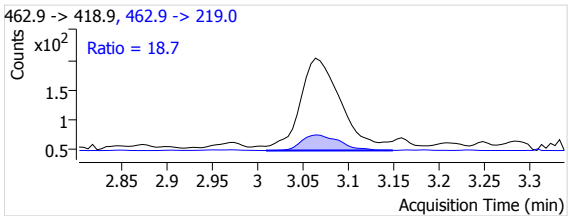

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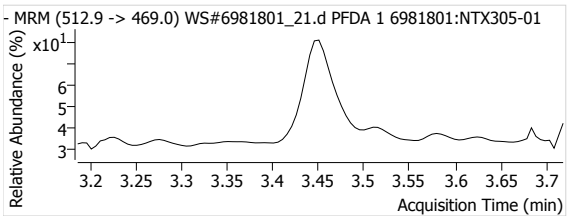

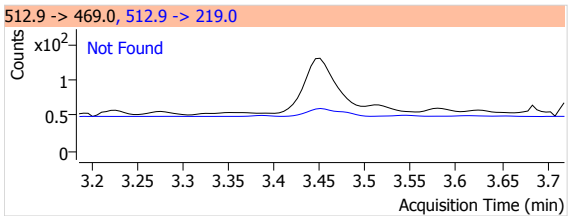

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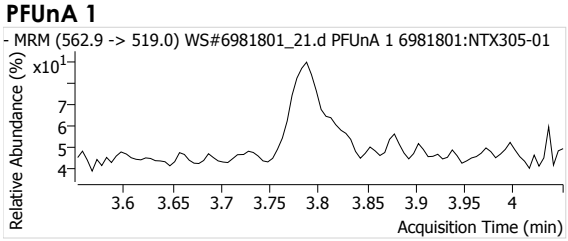

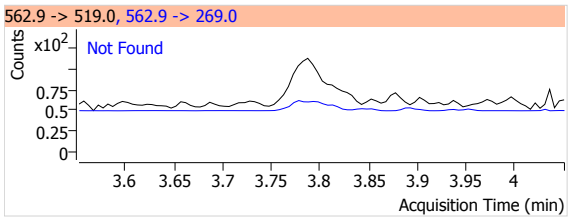

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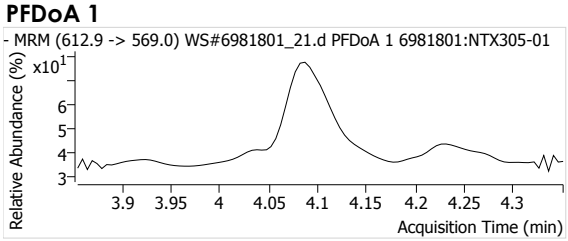

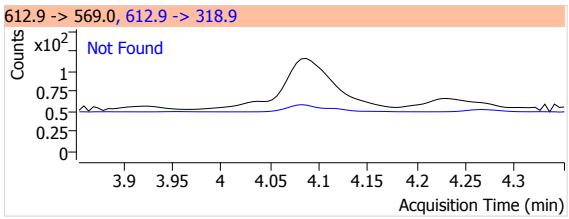

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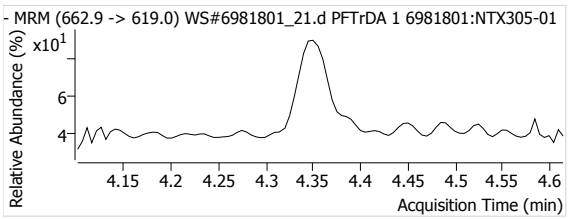

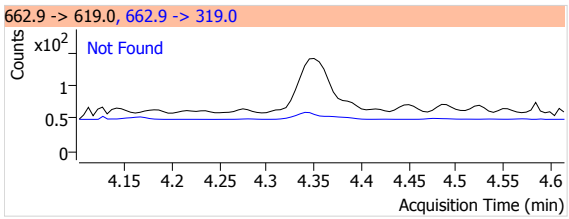

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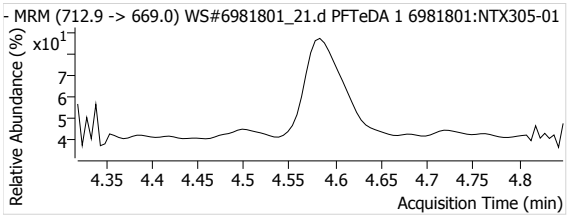

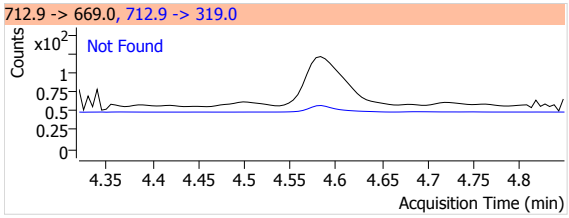

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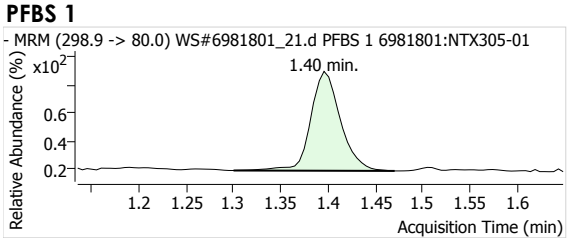

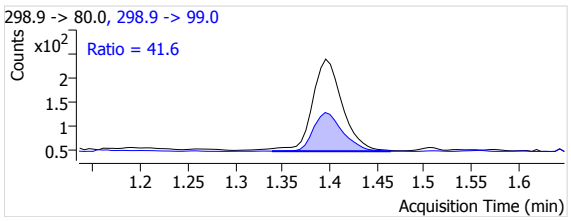

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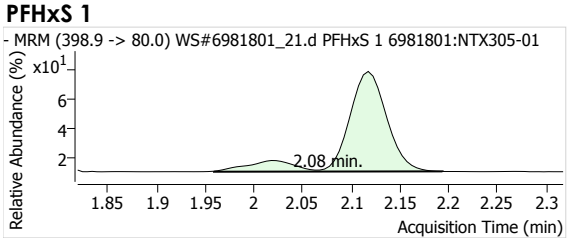
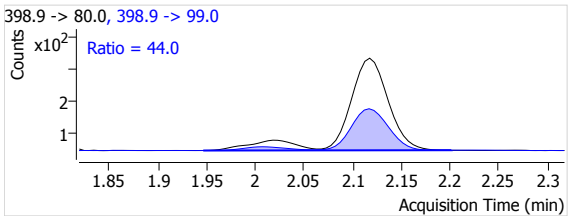
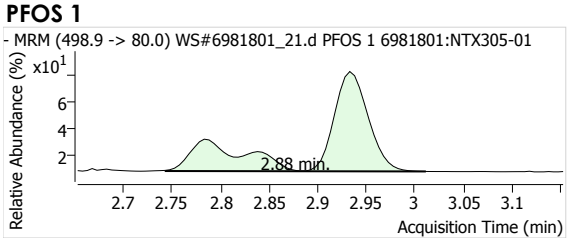
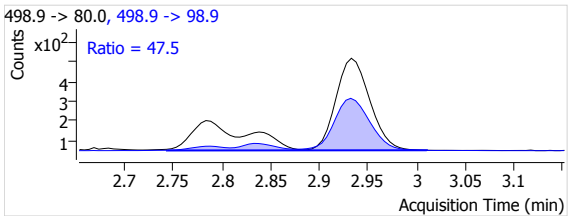


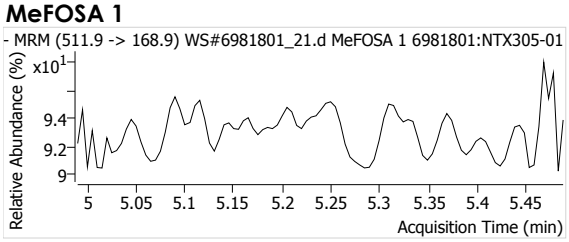


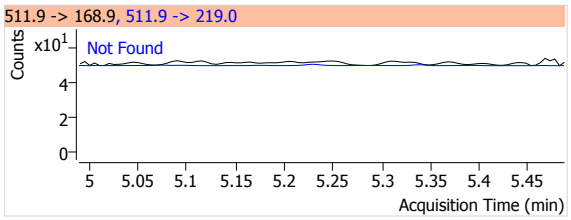
PFOS 1





MeFOSA 1





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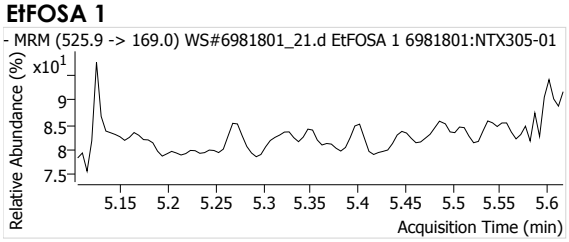
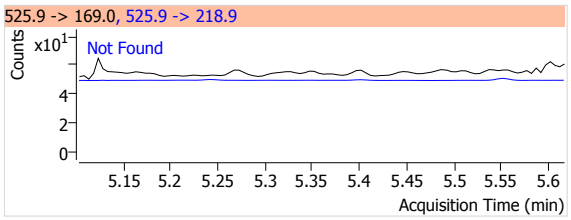
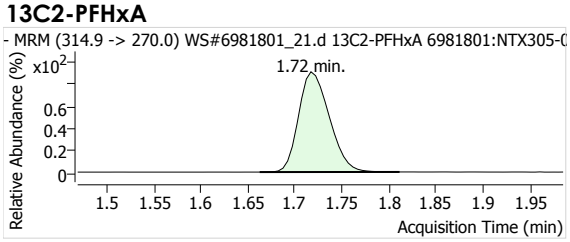
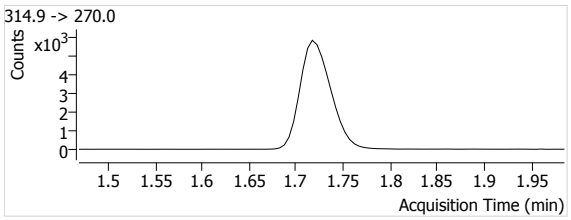




13C2-PFHxA





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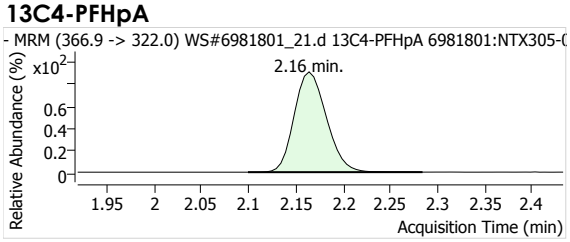

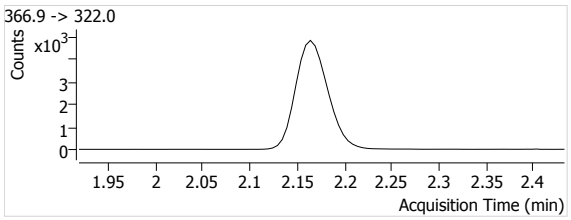

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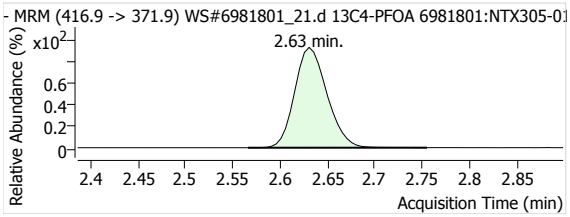

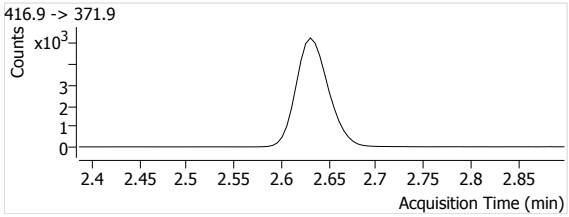

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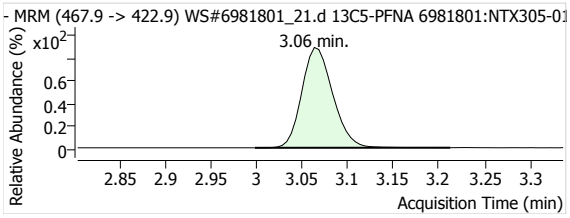

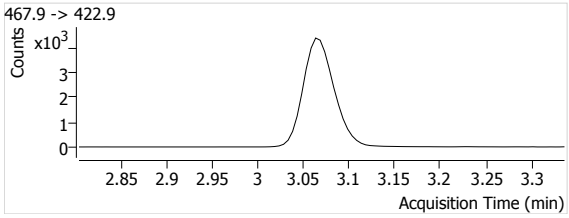

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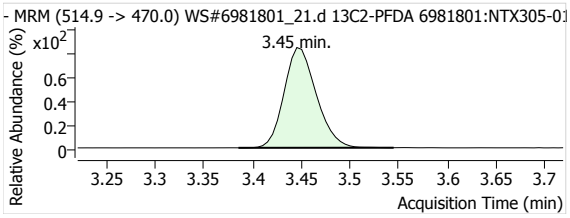

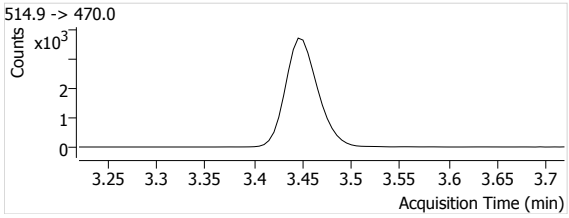

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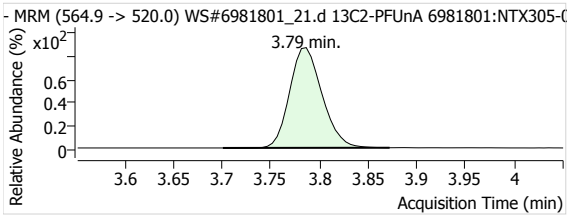

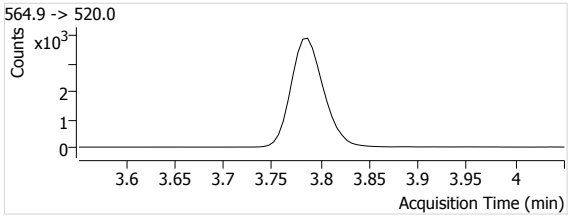

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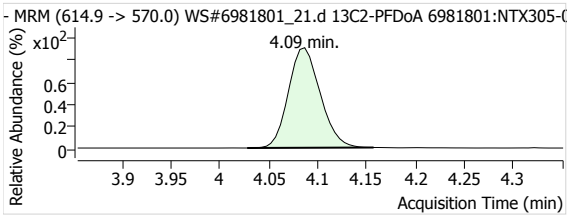

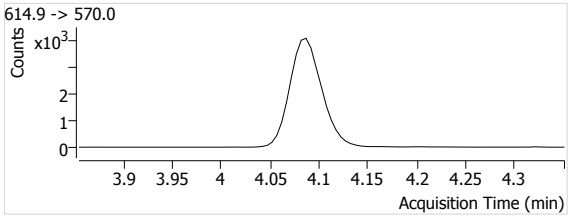

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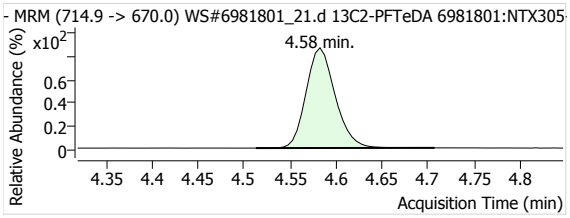

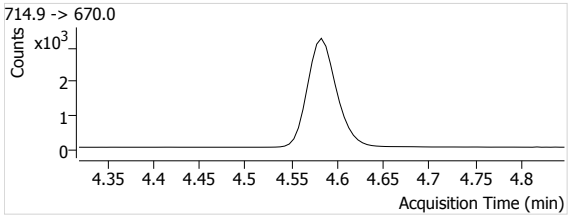

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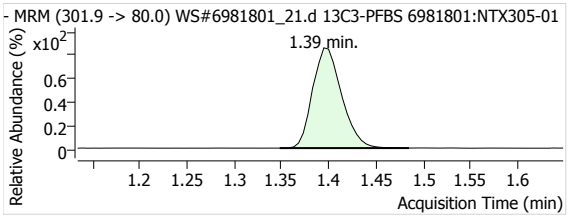

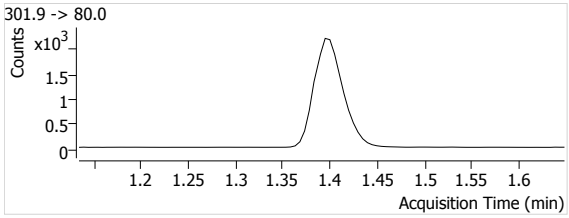

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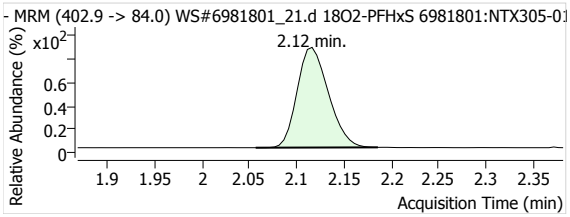

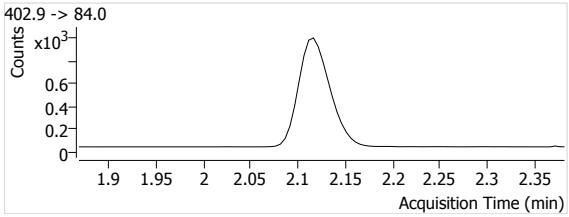

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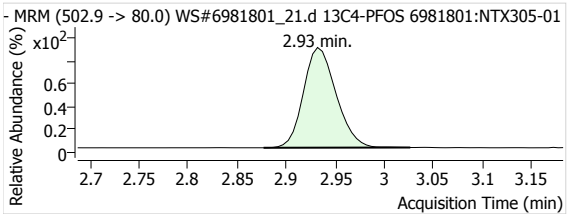
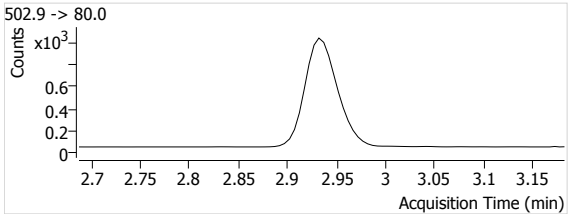
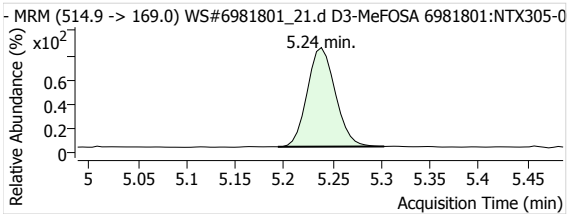
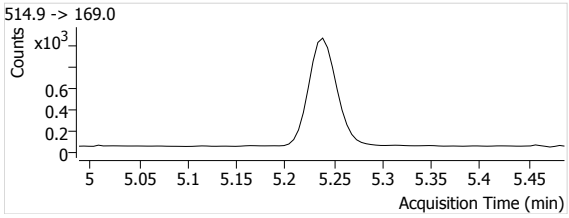




D3-MeFOSA





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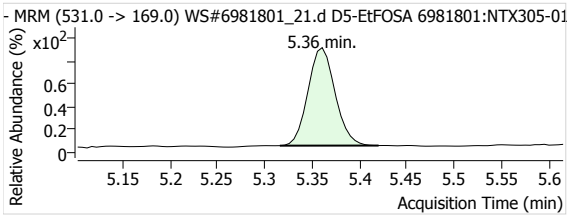
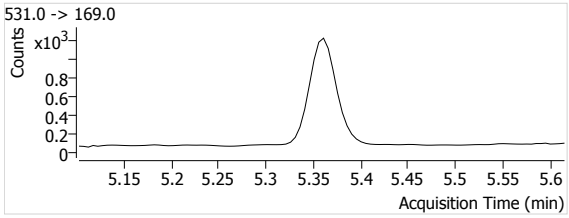




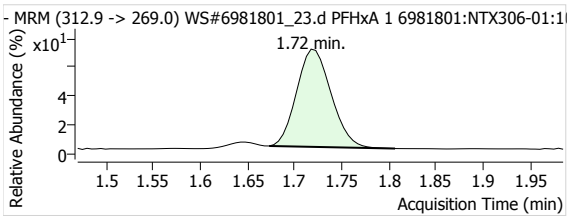
Quantitative Analysis Report

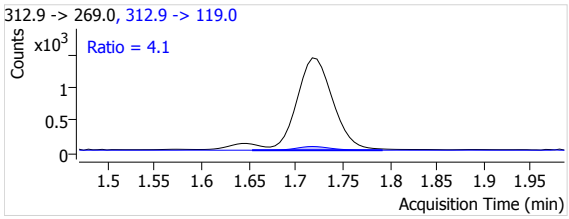
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX306-01:10x	**Data File**	WS#6981801_23.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C2
Acq. Date-Time	2020/10/05 3:17:29 PM	**Dil.**	0.2
Comment	Not reported		
User Defined			

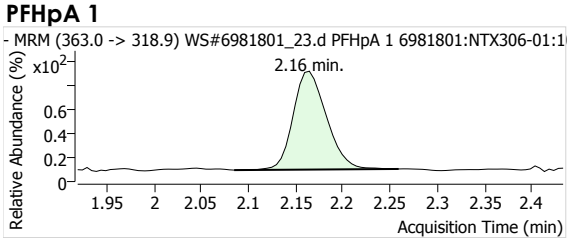
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.3260	--	3457	1.72	30	0.2560	142	1.72	19	4.1
PFHpA 1	µg/L	--	0.0809	--	1347	2.16	20	0.1150	217	2.17	29	16.1
PFOA 1	µg/L	--	0.3173	--	2808	2.63	23	0.2219	713	2.63	144	25.4
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	175	4.08	3	0.0181	28	4.08	52	16.0
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	0.0000	--	217	4.58	7	0.0279	13	4.58	9	6.0
PFBS 1	µg/L	--	0.0111	--	102	1.40	8	0.0224	37	1.40	10	36.3
PFHxS 1	µg/L	--	0.9207	--	1879	2.08	173	0.8322	869	2.07	611	46.2
PFOS 1	µg/L	--	0.7308	--	1449	2.88	54	0.5858	702	2.88	110	48.4
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	91.8770	--	13505	1.72	1406		--	--	--	--
13C4-PFHpA	µg/L	--	93.8176	--	11715	2.16	1127		--	--	--	--
13C4-PFOA	µg/L	--	92.8330	--	12655	2.63	1267		--	--	--	--
13C5-PFNA	µg/L	--	90.9017	--	10071	3.07	715		--	--	--	--
13C2-PFDA	µg/L	--	90.3042	--	8876	3.45	636		--	--	--	--
13C2-PFUnA	µg/L	--	88.5900	--	9418	3.79	653		--	--	--	--
13C2-PFDoA	µg/L	--	87.8777	--	9685	4.09	706		--	--	--	--
13C2-PFTeDA	µg/L	--	86.5060	--	7789	4.58	452		--	--	--	--
13C3-PFBS	µg/L	--	90.1266	--	4555	1.39	507		--	--	--	--
18O2-PFHxS	µg/L	--	88.8277	--	2258	2.12	341		--	--	--	--
13C4-PFOS	µg/L	--	92.5524	--	2473	2.93	241		--	--	--	--
D3-MeFOSA	µg/L	--	33.7880	--	1189	5.24	49		--	--	--	--
D5-EtFOSA	µg/L	--	32.8147	--	1371	5.36	32		--	--	--	--

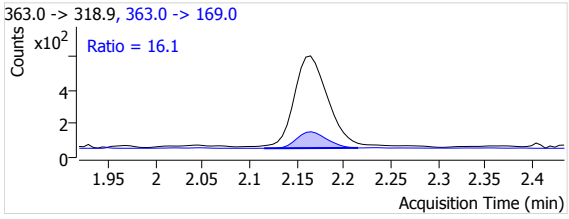
PFHxA 1



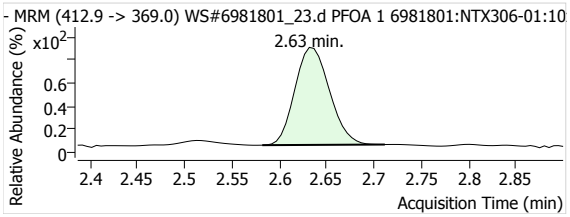


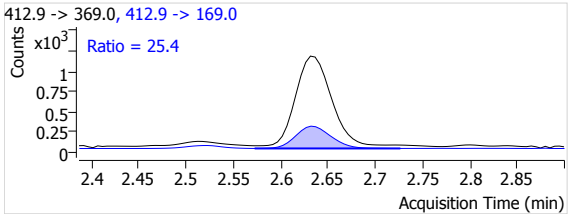
PFHpA 1



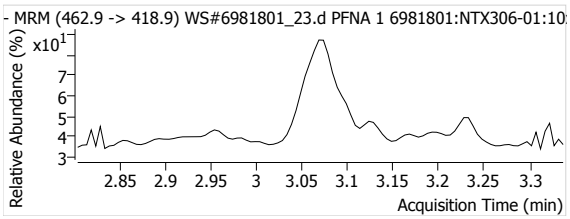


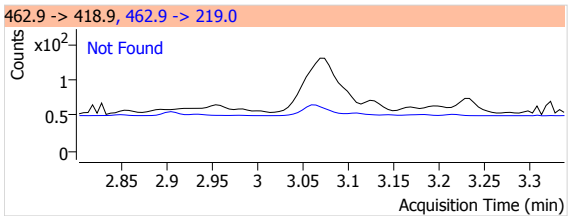
PFOA 1



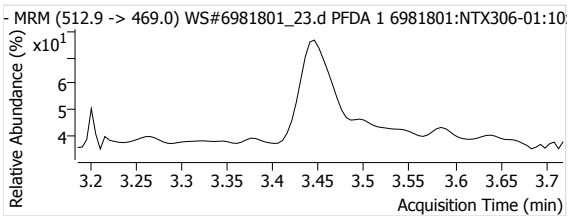


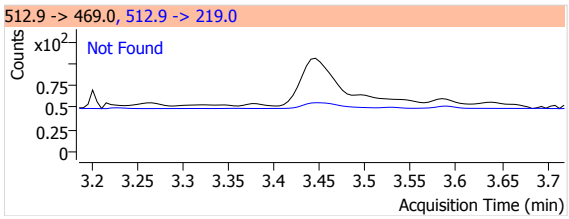
PFNA 1



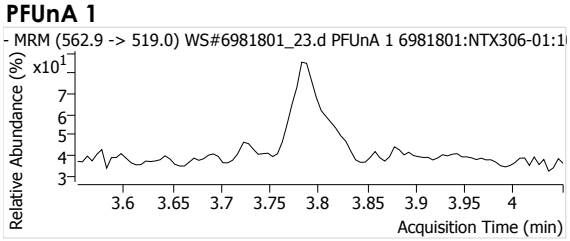


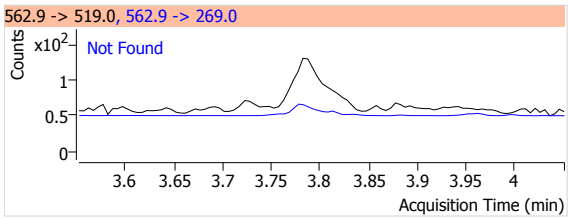
PFDA 1





PFUnA 1





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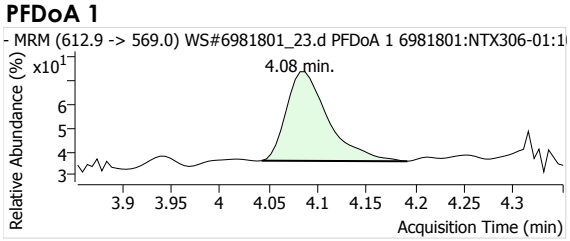

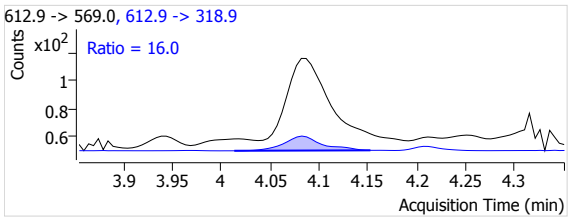

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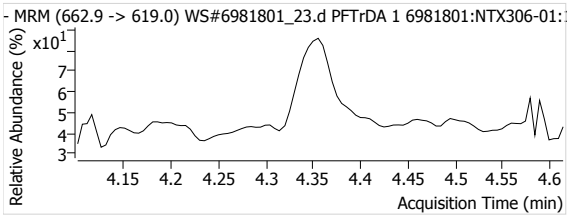

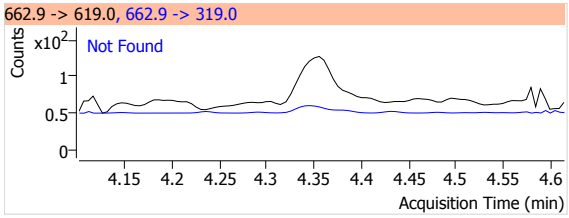

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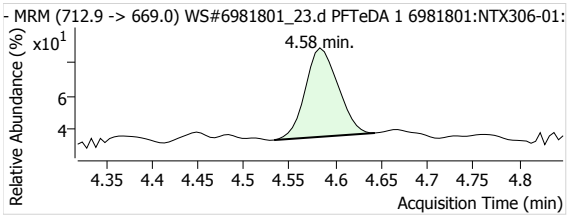

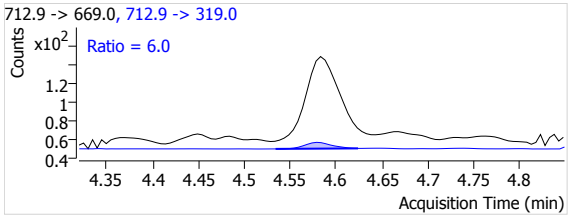

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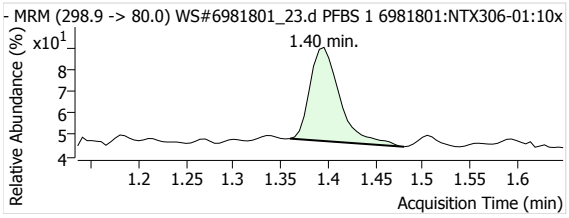

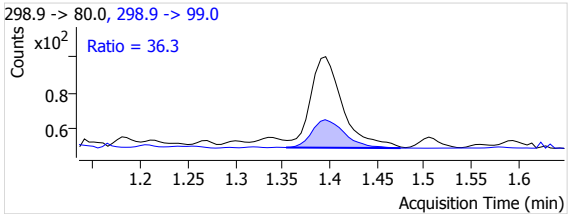

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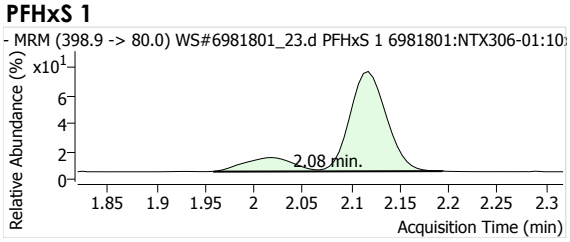
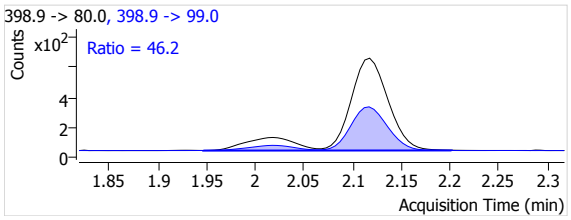
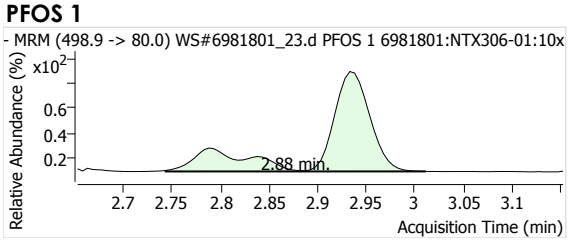
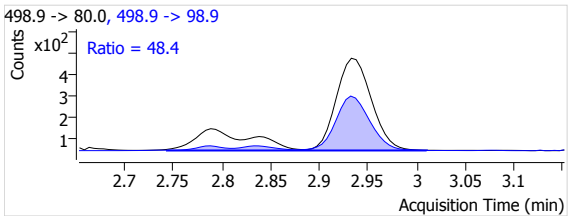




PFOS 1





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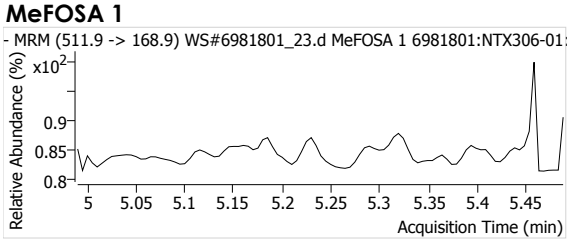

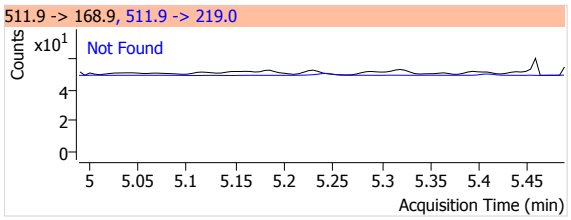

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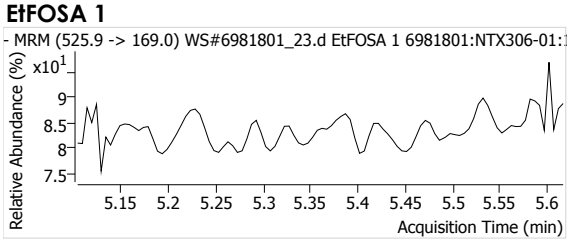

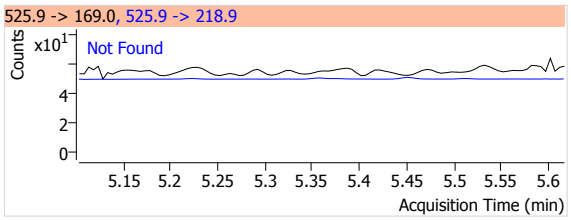

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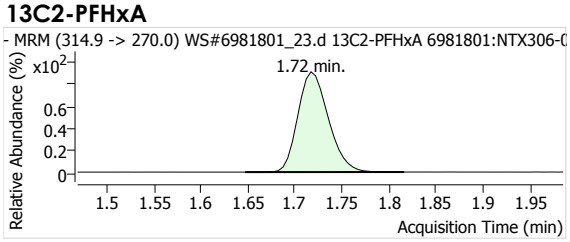

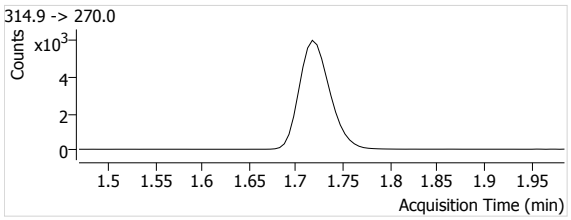

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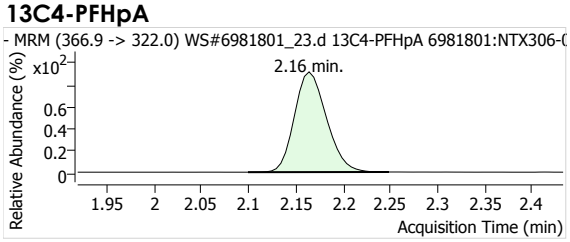

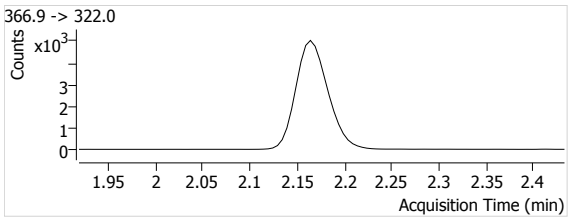

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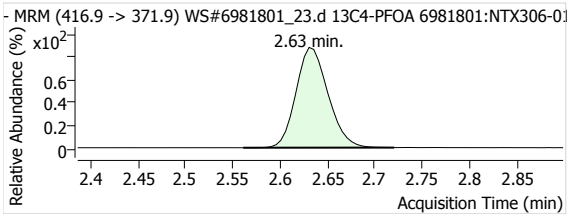

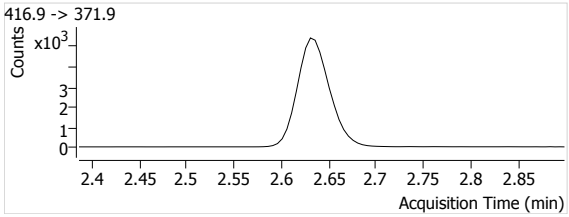

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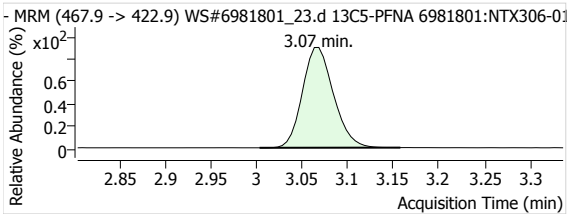

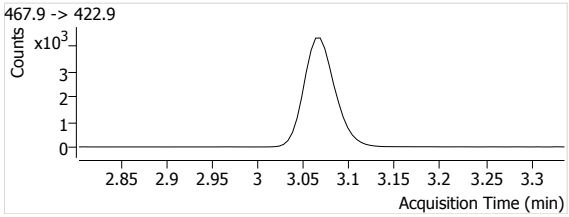

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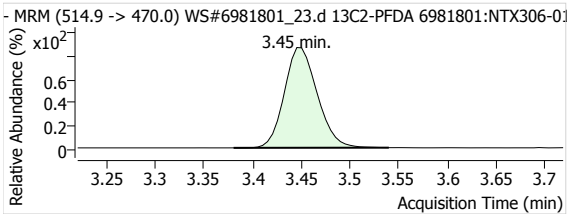

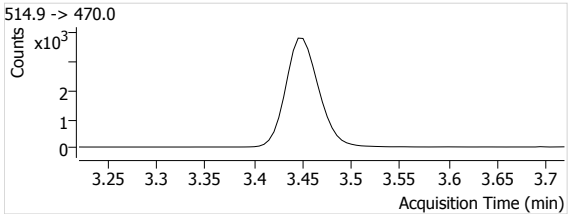

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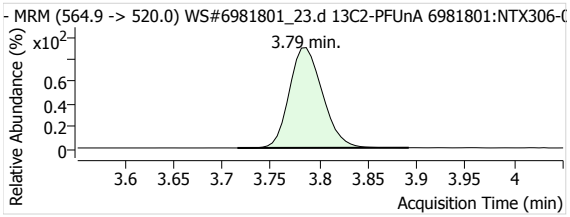

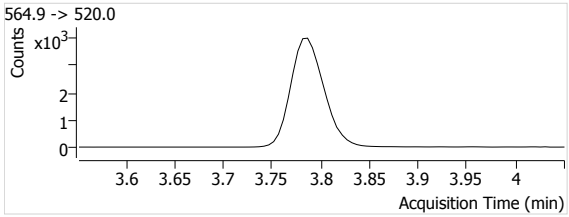

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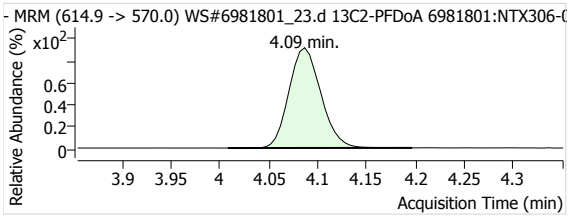

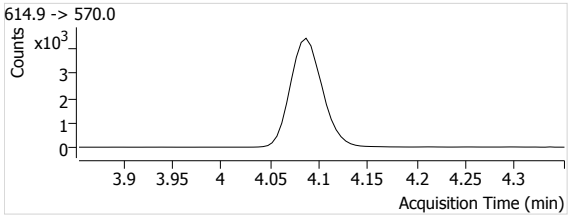

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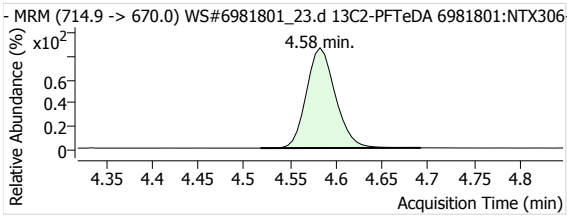

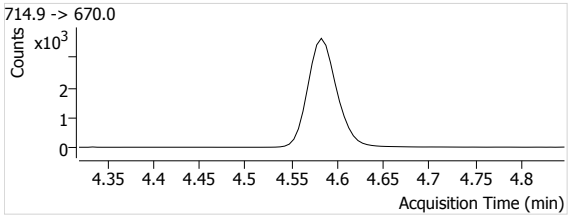

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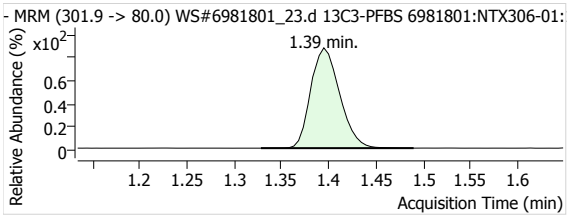

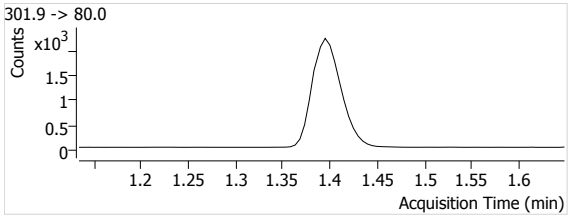

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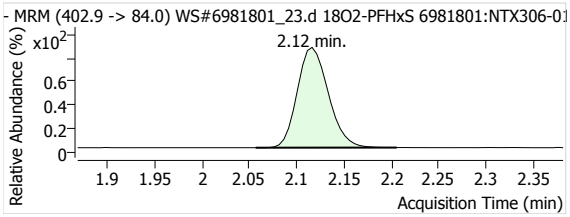

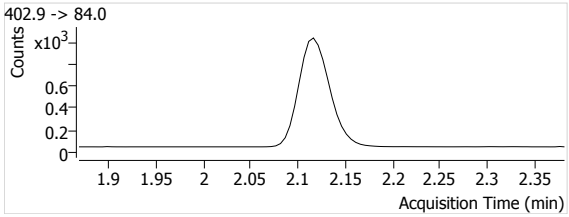

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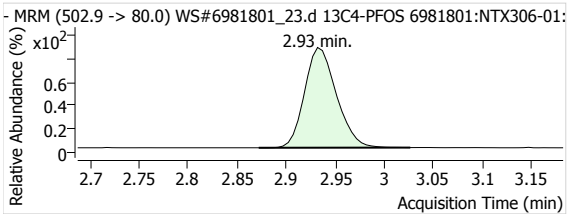

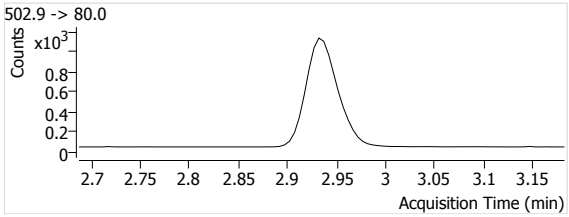

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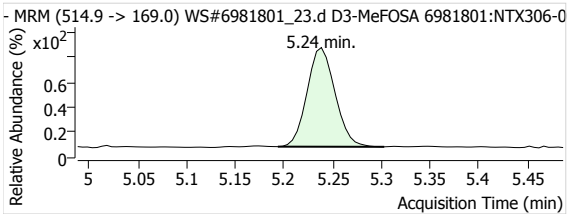

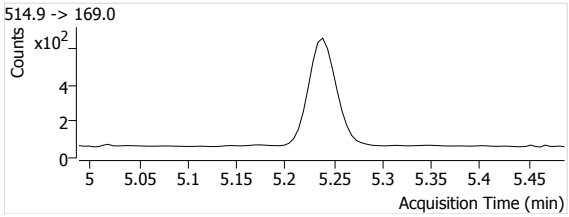

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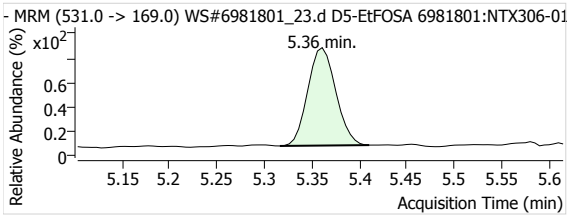
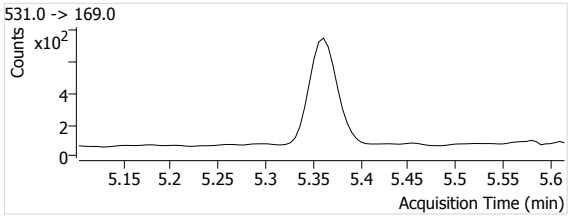




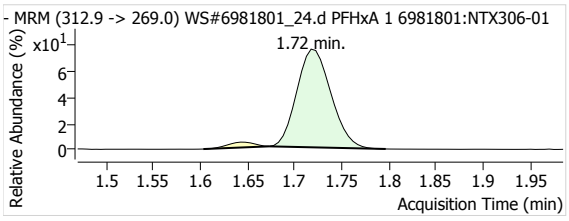
Quantitative Analysis Report

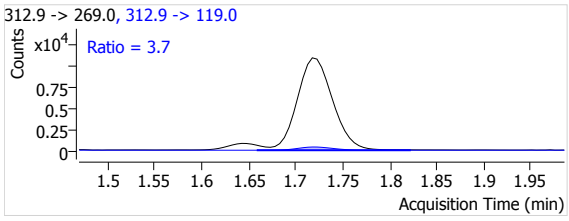
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX306-01	**Data File**	WS#6981801_24.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C3
Acq. Date-Time	2020/10/05 3:24:31 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.3271	--	27084	1.72	244	2.0410	1002	1.72	95	3.7
PFHpA 1	µg/L	--	0.1061	--	10437	2.16	74	0.9201	1785	2.17	62	17.1
PFOA 1	µg/L	--	0.3692	--	25129	2.63	437	2.0787	6456	2.63	746	25.7
PFNA 1	µg/L	--	0.0096	--	800	3.07	11	0.0806	145	3.07	36	18.1
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0193	--	661	1.40	21	0.1475	234	1.40	24	35.4
PFHxS 1	µg/L	--	0.8878	--	15380	2.08	279	6.7901	6856	2.07	664	44.6
PFOS 1	µg/L	--	0.8104	--	12545	2.88	245	5.4284	6154	2.88	467	49.1
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	90.2783	--	13270	1.72	901		--	--	--	--
13C4-PFHpA	µg/L	--	90.8385	--	11343	2.16	1156		--	--	--	--
13C4-PFOA	µg/L	--	88.6810	--	12089	2.64	697		--	--	--	--
13C5-PFNA	µg/L	--	89.5749	--	9924	3.07	849		--	--	--	--
13C2-PFDA	µg/L	--	85.6445	--	8418	3.45	650		--	--	--	--
13C2-PFUnA	µg/L	--	84.3477	--	8967	3.79	736		--	--	--	--
13C2-PFDoA	µg/L	--	78.4775	--	8649	4.09	543		--	--	--	--
13C2-PFTeDA	µg/L	--	72.5233	--	6530	4.58	720		--	--	--	--
13C3-PFBS	µg/L	--	88.6822	--	4482	1.40	340		--	--	--	--
18O2-PFHxS	µg/L	--	89.1031	--	2265	2.12	657		--	--	--	--
13C4-PFOS	µg/L	--	86.4895	--	2311	2.93	350		--	--	--	--
D3-MeFOSA	µg/L	--	50.7531	--	1786	5.24	82		--	--	--	--
D5-EtFOSA	µg/L	--	49.4974	--	2068	5.36	55		--	--	--	--

PFHxA 1





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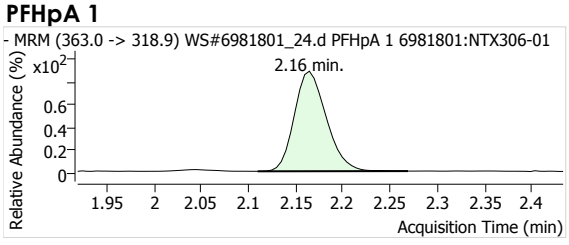

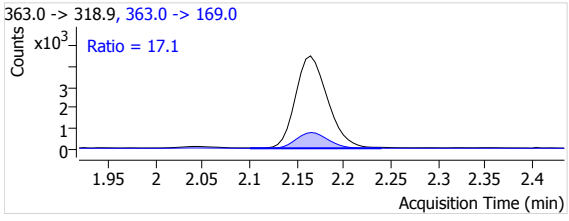

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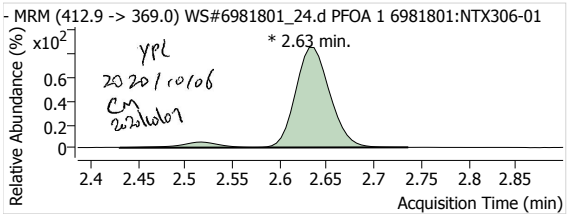

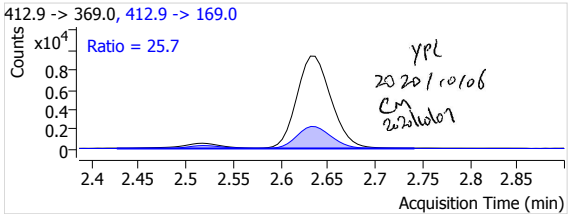

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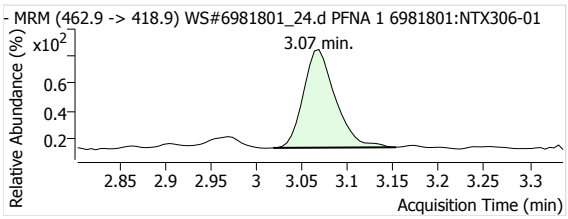

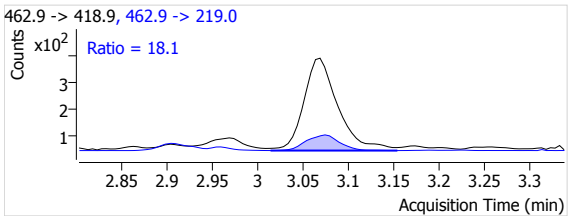

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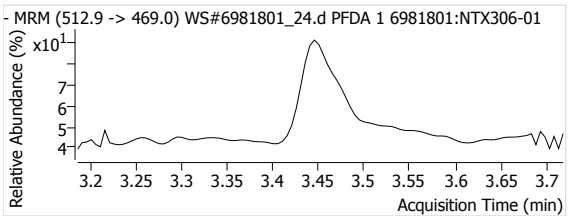

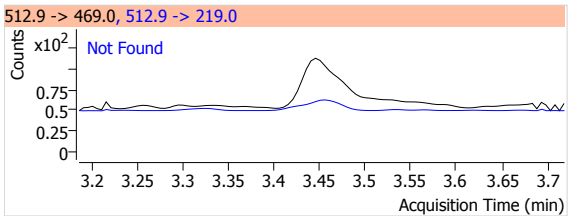

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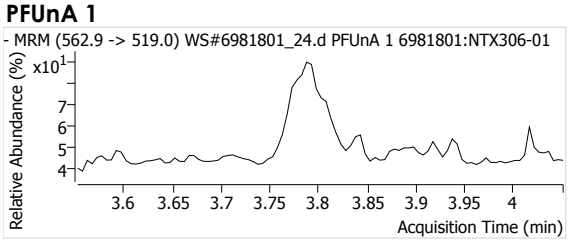

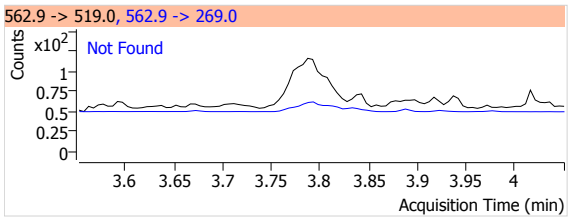

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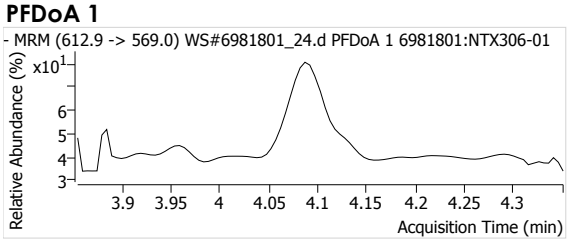

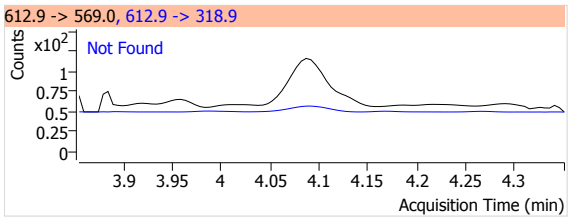

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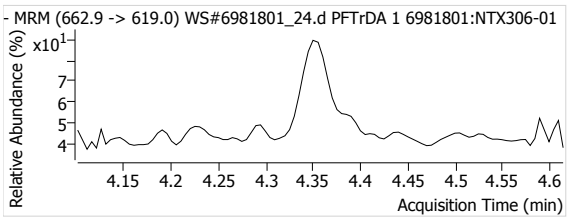
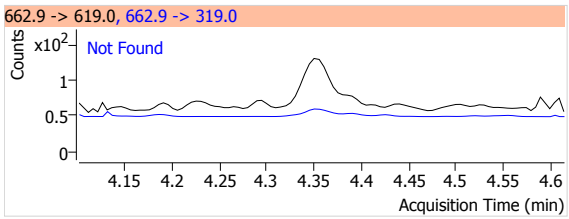
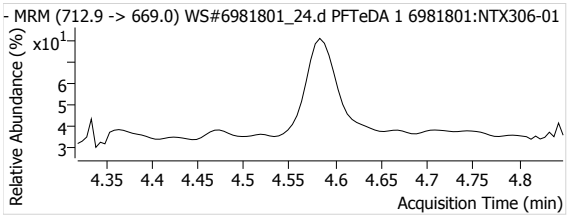
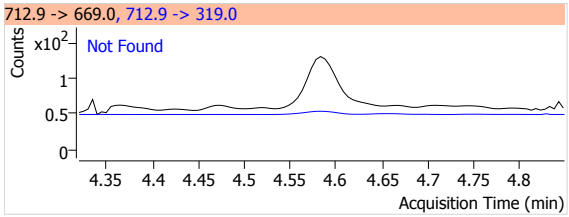




PFTeDA 1





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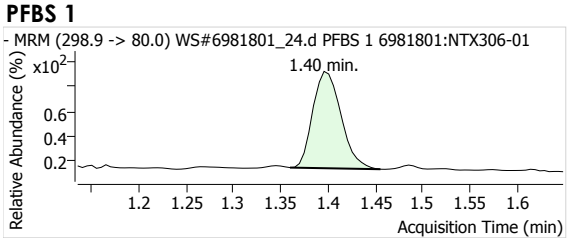
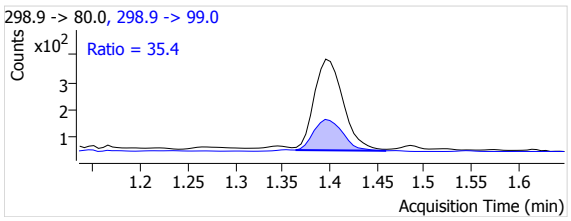
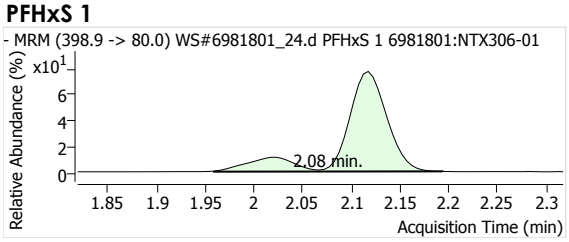
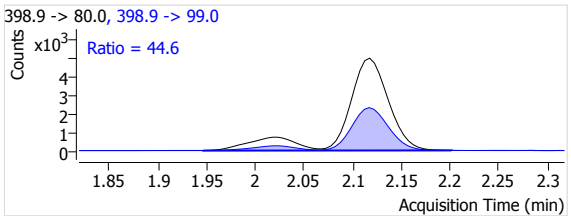


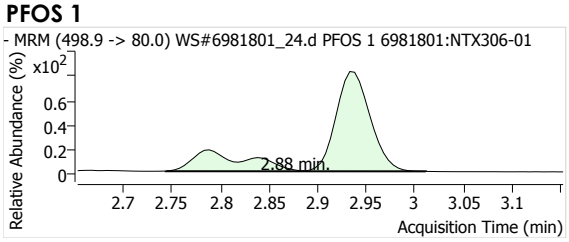


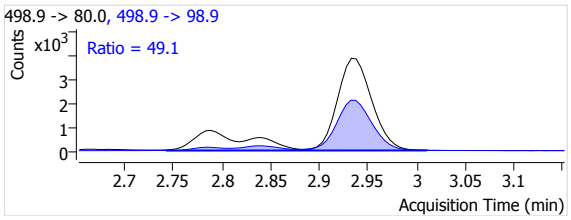
PFHxS 1





PFOS 1





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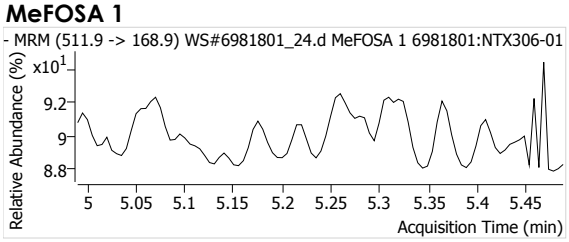

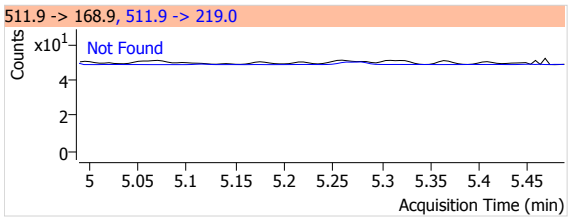

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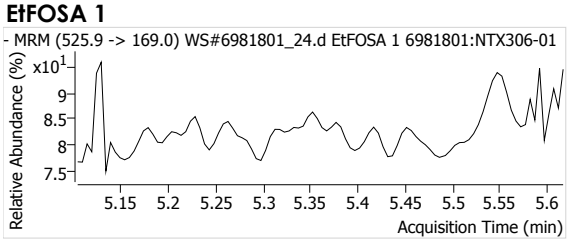

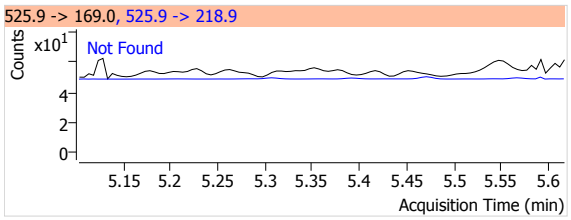

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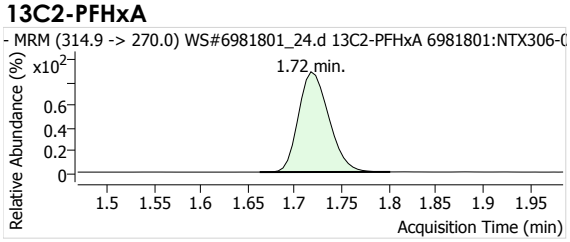

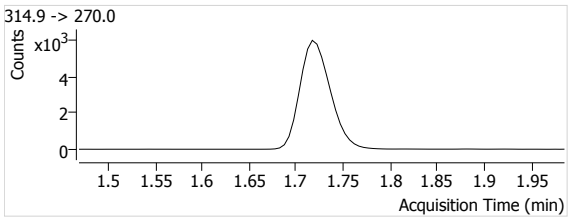

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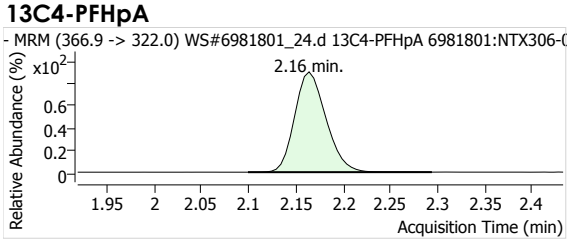

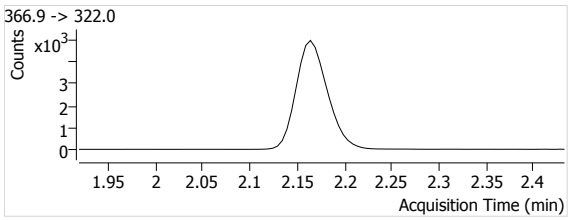

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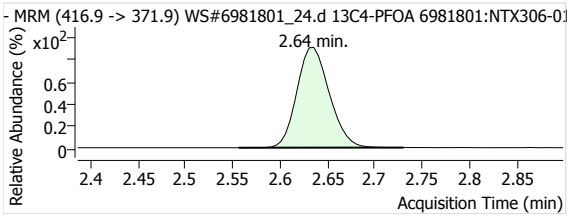

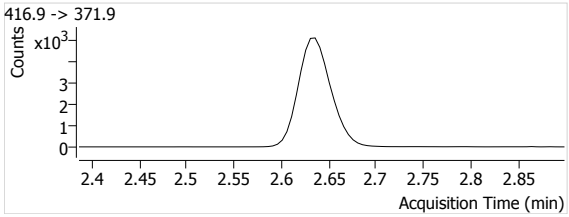

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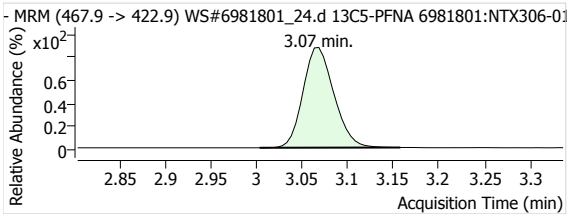

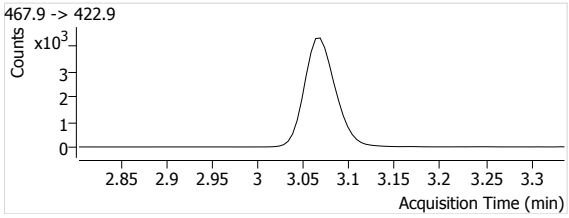

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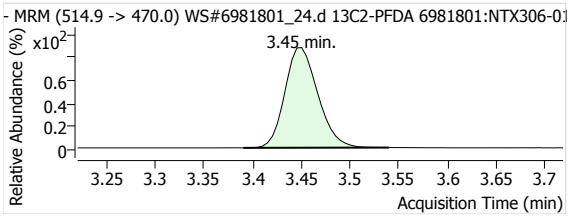

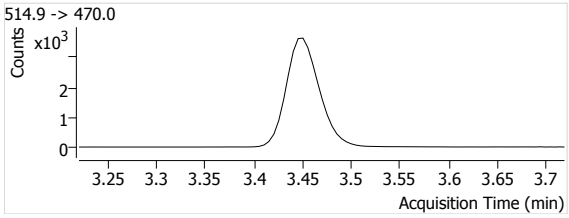

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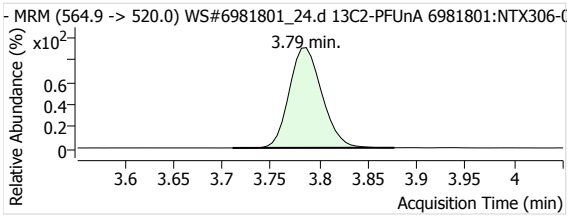

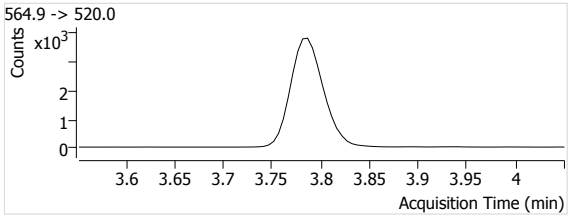

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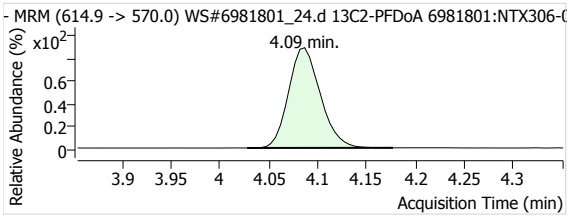

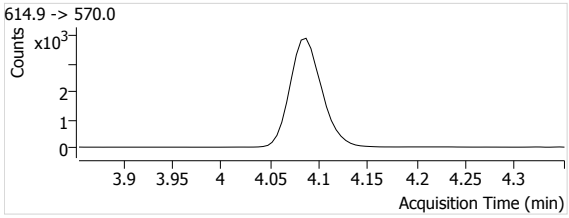

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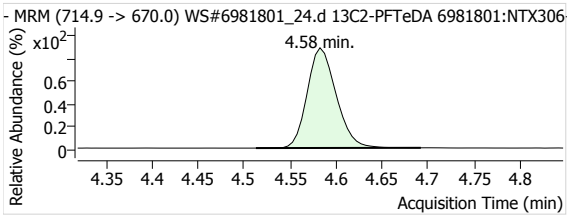

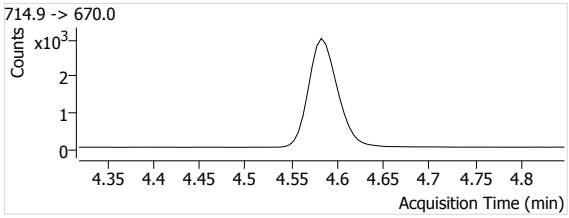

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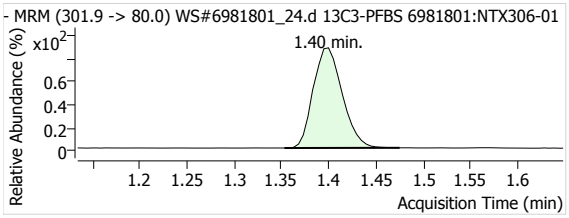

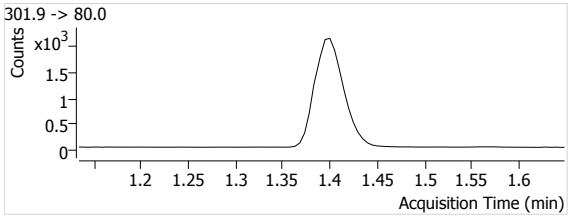

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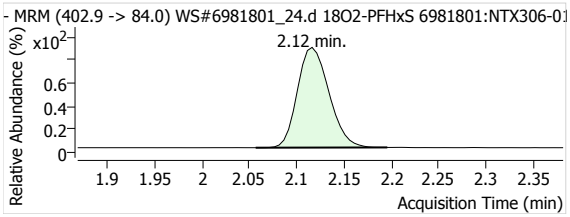

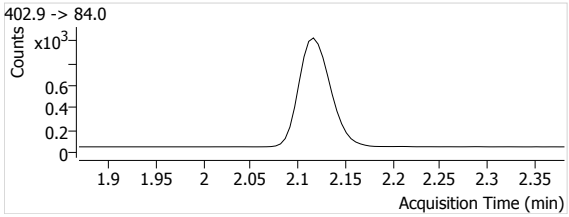

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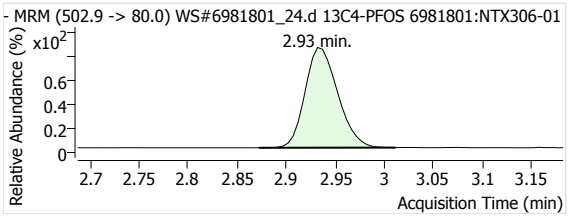

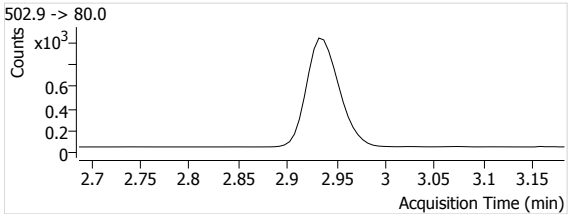

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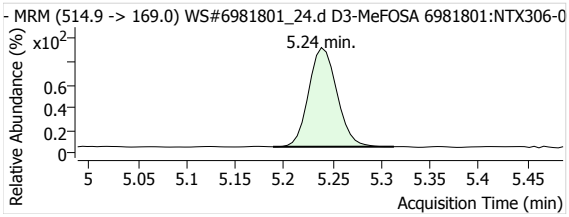

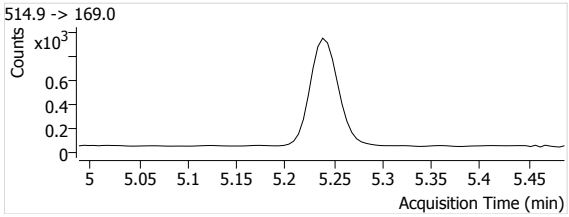

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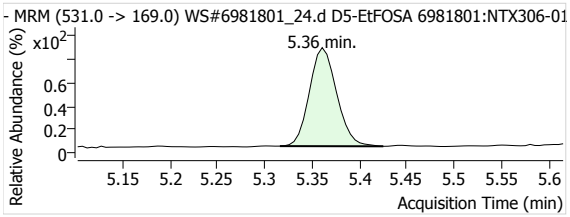
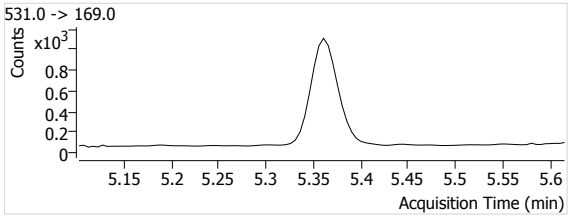




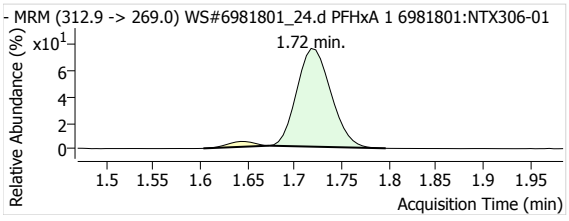
Quantitative Analysis Report

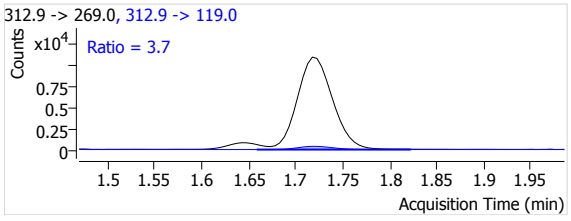
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX306-01	**Data File**	WS#6981801_24.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C3
Acq. Date-Time	2020/10/05 3:24:31 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

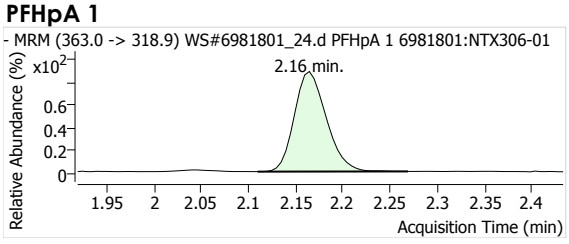
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.3271	--	27084	1.72	244	2.0410	1002	1.72	95	3.7
PFHpA 1	µg/L	--	0.1061	--	10437	2.16	74	0.9201	1785	2.17	62	17.1
PFOA 1	µg/L	--	0.3433	--	23378	2.63	436	1.9338	5659	2.63	745	24.2
PFNA 1	µg/L	--	0.0096	--	800	3.07	11	0.0806	145	3.07	36	18.1
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0193	--	661	1.40	21	0.1475	234	1.40	24	35.4
PFHxS 1	µg/L	--	0.8878	--	15380	2.08	279	6.7901	6856	2.07	664	44.6
PFOS 1	µg/L	--	0.8104	--	12545	2.88	245	5.4284	6154	2.88	467	49.1
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	90.2783	--	13270	1.72	901		--	--	--	--
13C4-PFHpA	µg/L	--	90.8385	--	11343	2.16	1156		--	--	--	--
13C4-PFOA	µg/L	--	88.6810	--	12089	2.64	697		--	--	--	--
13C5-PFNA	µg/L	--	89.5749	--	9924	3.07	849		--	--	--	--
13C2-PFDA	µg/L	--	85.6445	--	8418	3.45	650		--	--	--	--
13C2-PFUnA	µg/L	--	84.3477	--	8967	3.79	736		--	--	--	--
13C2-PFDoA	µg/L	--	78.4775	--	8649	4.09	543		--	--	--	--
13C2-PFTeDA	µg/L	--	72.5233	--	6530	4.58	720		--	--	--	--
13C3-PFBS	µg/L	--	88.6822	--	4482	1.40	340		--	--	--	--
18O2-PFHxS	µg/L	--	89.1031	--	2265	2.12	657		--	--	--	--
13C4-PFOS	µg/L	--	86.4895	--	2311	2.93	350		--	--	--	--
D3-MeFOSA	µg/L	--	50.7531	--	1786	5.24	82		--	--	--	--
D5-EtFOSA	µg/L	--	49.4974	--	2068	5.36	55		--	--	--	--

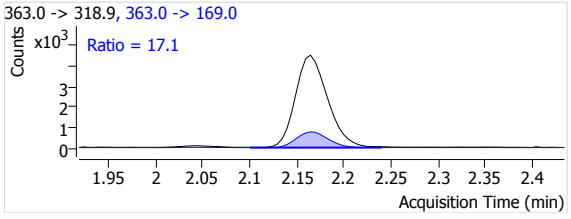
PFHxA 1



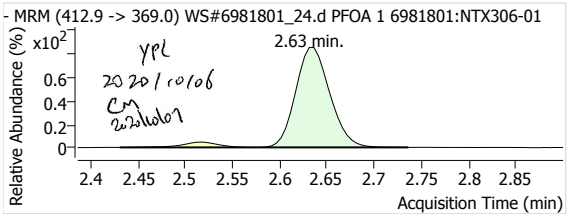


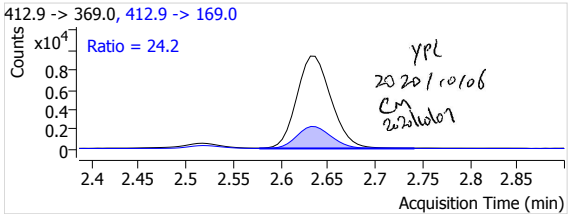
PFHpA 1





PFOA 1





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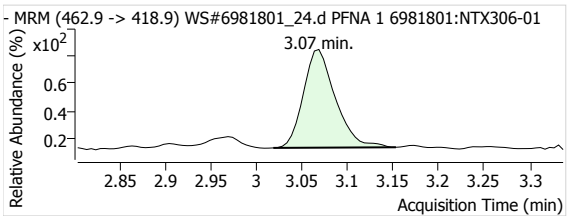

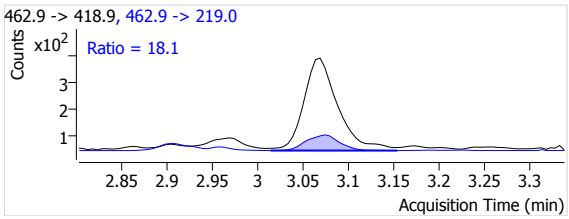

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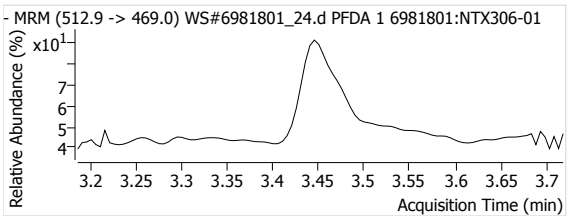
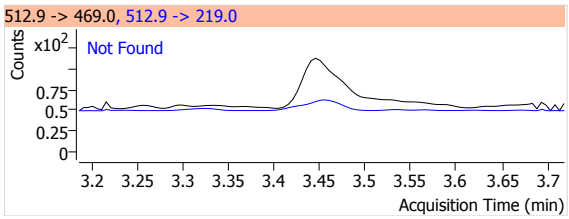
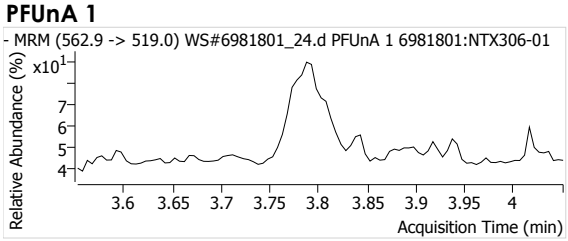
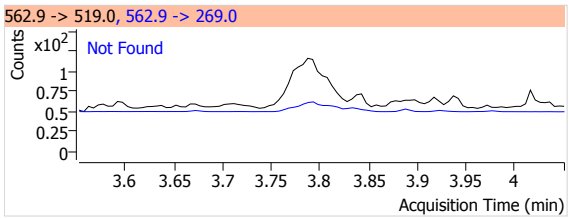




PFUnA 1





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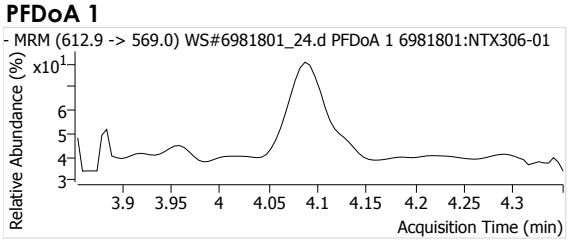

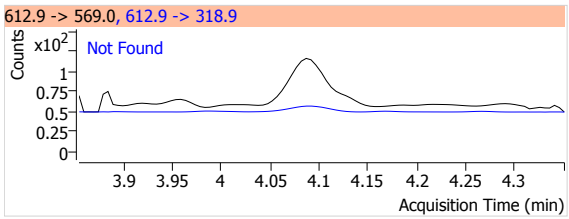

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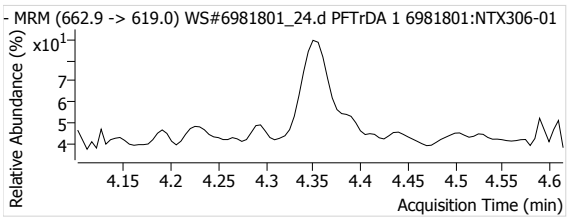

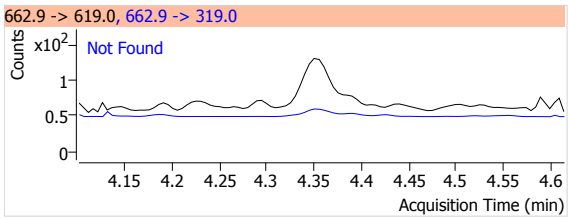

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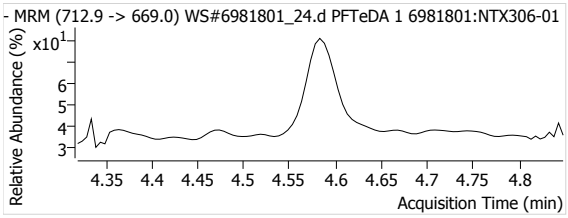

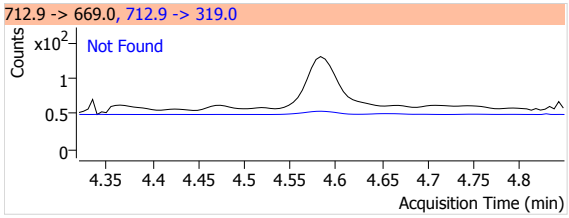

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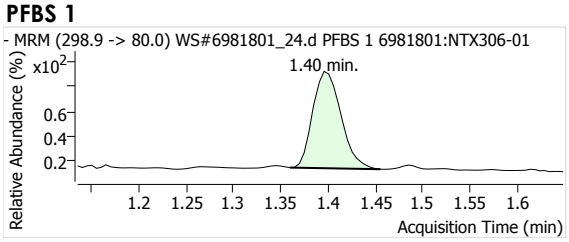

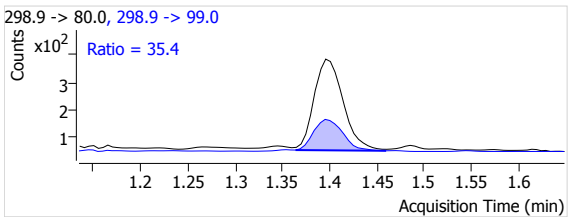

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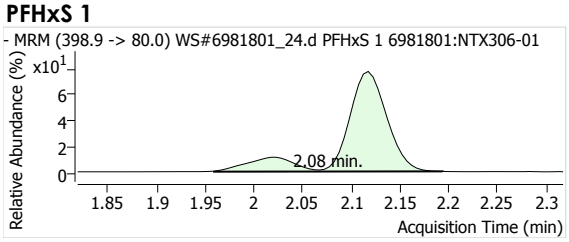

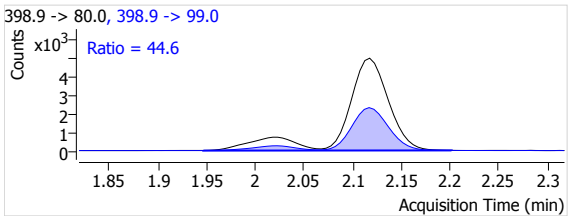

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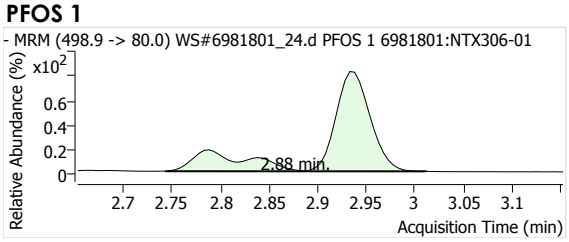

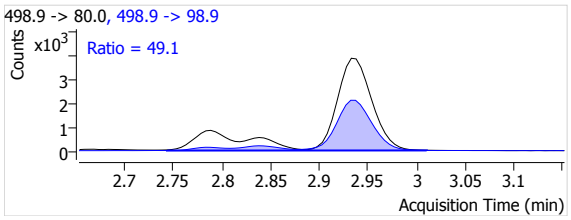

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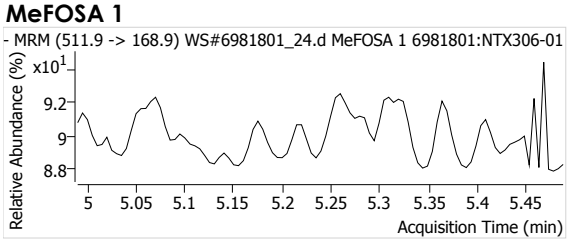

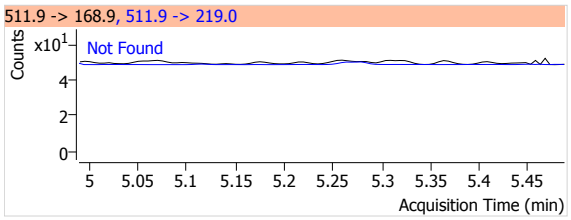

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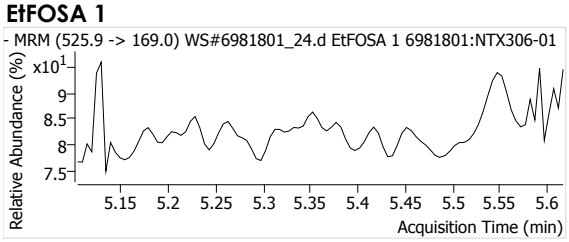
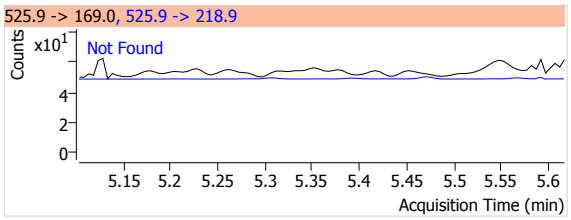
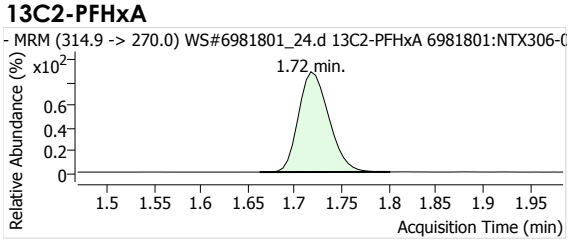
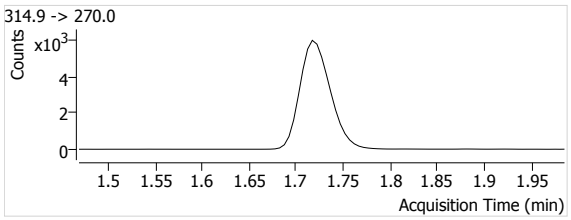




13C2-PFHxA





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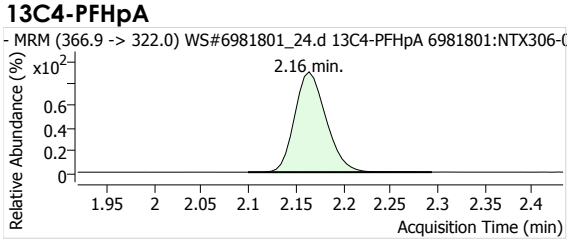

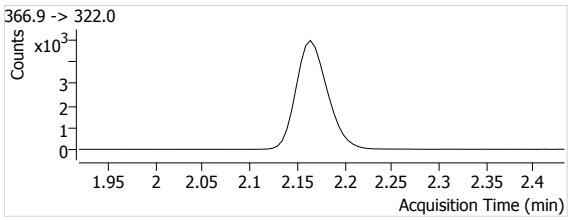

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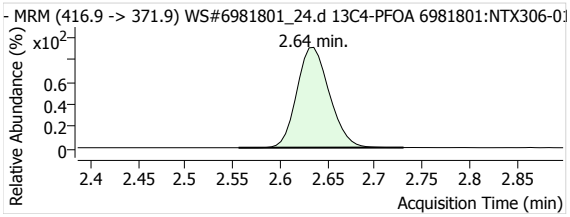

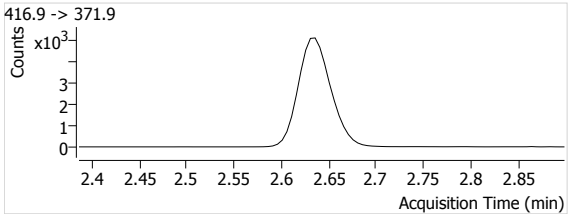

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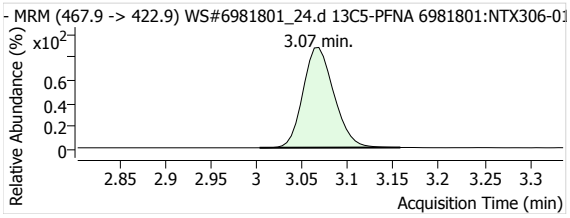

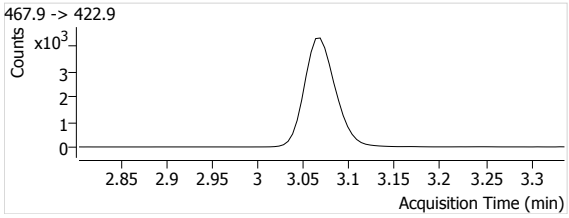

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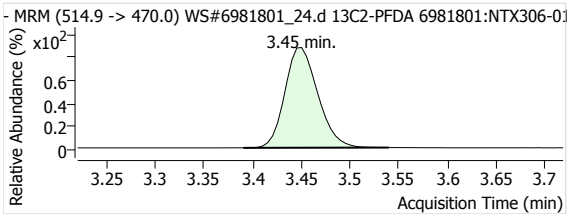

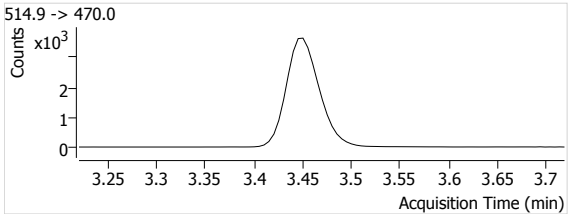

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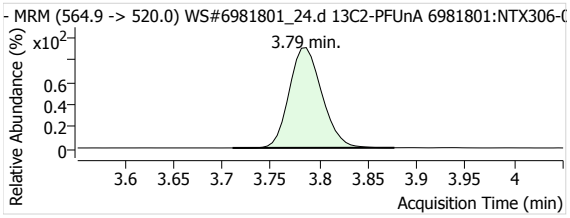

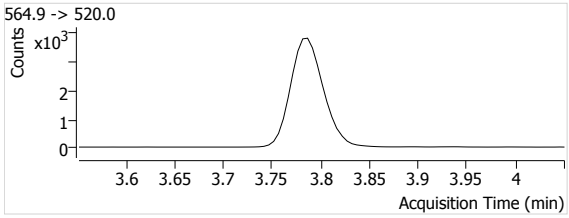

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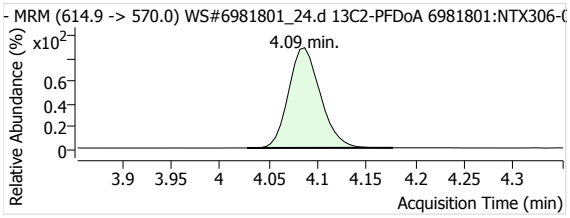

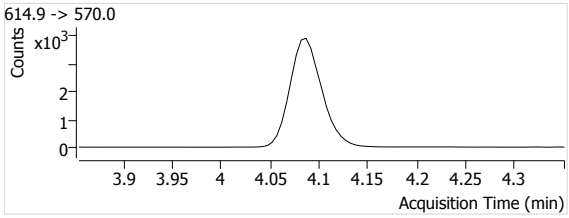

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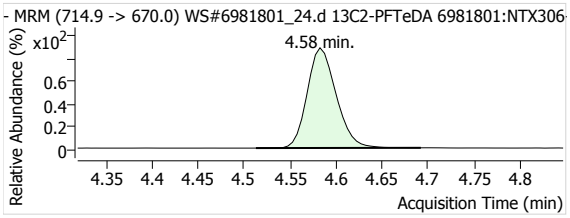

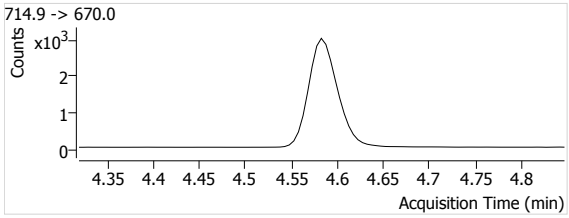

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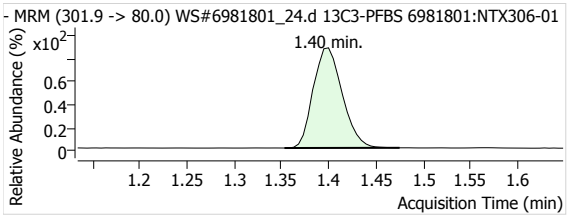

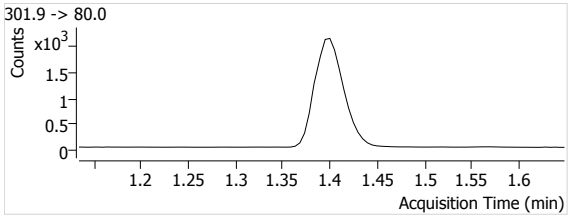

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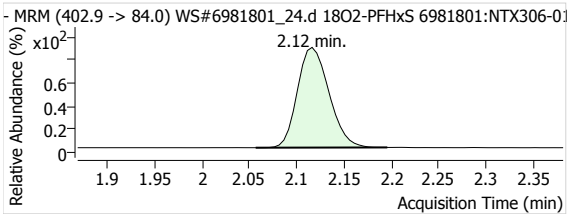

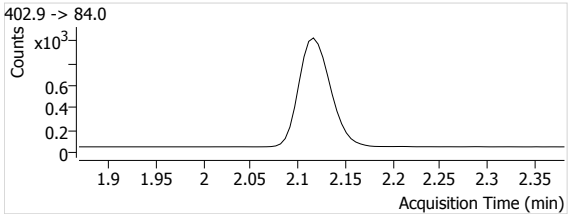

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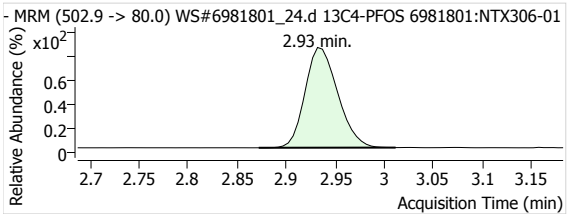

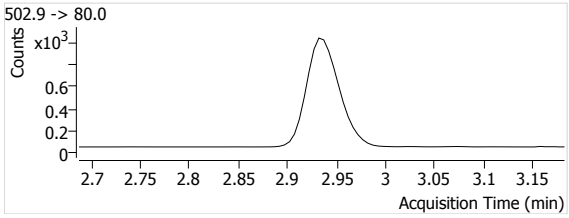

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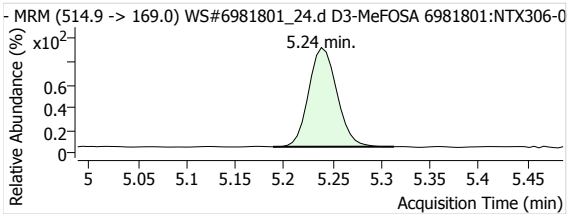

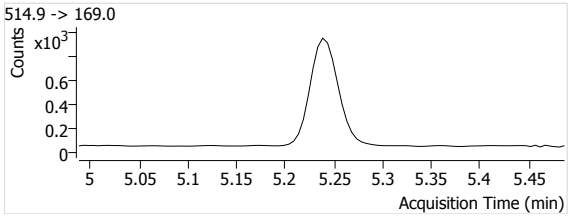

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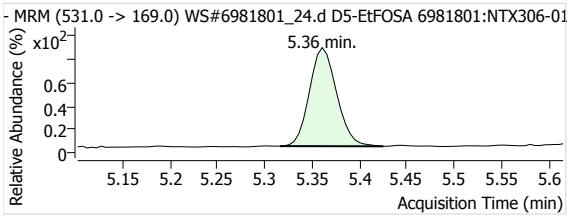
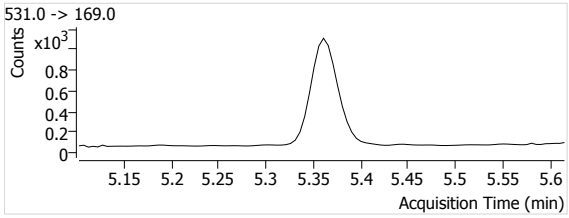




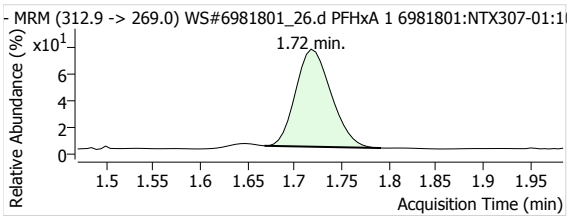
Quantitative Analysis Report

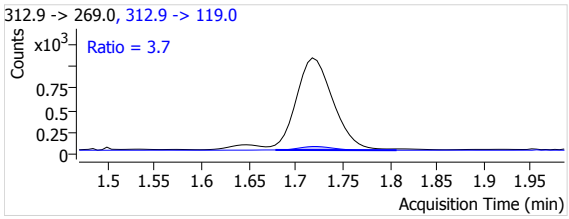
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX307-01:10x	**Data File**	WS#6981801_26.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C4
Acq. Date-Time	2020/10/05 3:38:29 PM	**Dil.**	0.2
Comment	Reported PFHxS, PFOS		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2544	--	2669	1.72	33	0.2048	98	1.72	11	3.7
PFHpA 1	µg/L	--	0.0686	--	1127	2.16	24	0.1031	193	2.17	10	17.1
PFOA 1	µg/L	--	0.6911	--	5444	2.64	106	0.4637	1339	2.63	182	24.6
PFNA 1	µg/L	--	0.0051	--	210	3.07	5	0.0223	42	3.07	12	20.0
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0150	--	113	1.39	7	0.0256	43	1.39	12	38.1
PFHxS 1	µg/L	--	1.6446	--	3228	2.08	178	1.4718	1490	2.07	206	46.2
PFOS 1	µg/L	--	1.1596	--	2093	2.88	46	0.9172	1000	2.88	122	47.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	88.6727	--	13034	1.72	566		--	--	--	--
13C4-PFHpA	µg/L	--	87.5551	--	10933	2.16	832		--	--	--	--
13C4-PFOA	µg/L	--	86.1209	--	11740	2.63	1072		--	--	--	--
13C5-PFNA	µg/L	--	85.1250	--	9431	3.07	1204		--	--	--	--
13C2-PFDA	µg/L	--	85.9599	--	8449	3.45	873		--	--	--	--
13C2-PFUnA	µg/L	--	84.7521	--	9010	3.79	425		--	--	--	--
13C2-PFDoA	µg/L	--	86.0811	--	9487	4.09	665		--	--	--	--
13C2-PFTeDA	µg/L	--	80.9196	--	7286	4.58	668		--	--	--	--
13C3-PFBS	µg/L	--	87.3961	--	4417	1.39	796		--	--	--	--
18O2-PFHxS	µg/L	--	86.2707	--	2193	2.12	405		--	--	--	--
13C4-PFOS	µg/L	--	85.4042	--	2282	2.94	540		--	--	--	--
D3-MeFOSA	µg/L	--	37.1981	--	1309	5.24	40		--	--	--	--
D5-EtFOSA	µg/L	--	36.5965	--	1529	5.36	33		--	--	--	--

PFHxA 1





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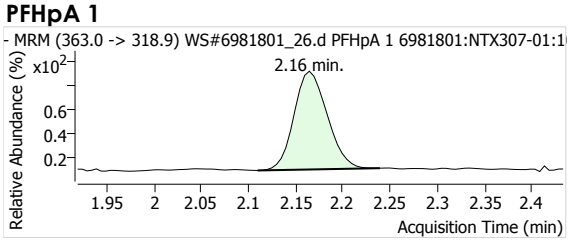
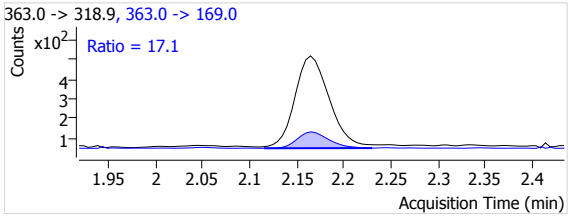
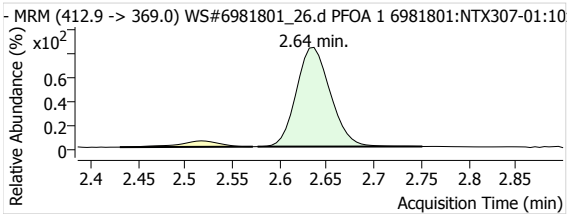
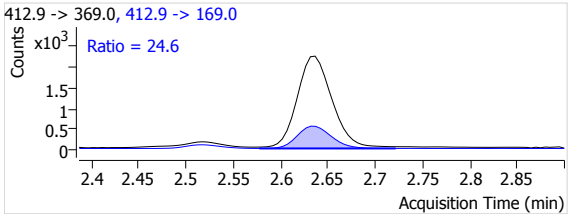




PFOA 1





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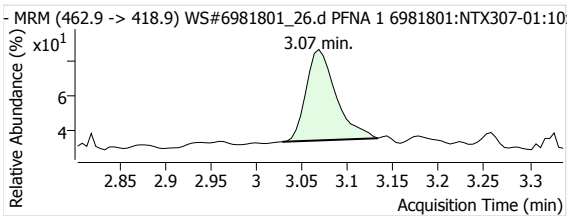

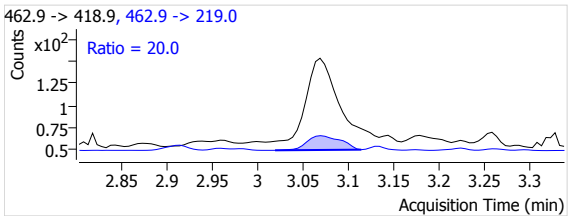

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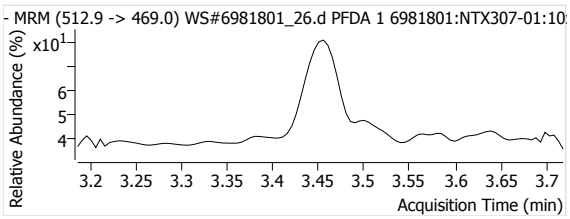

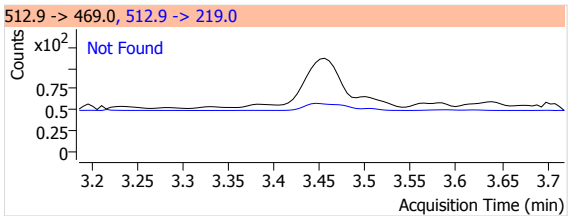

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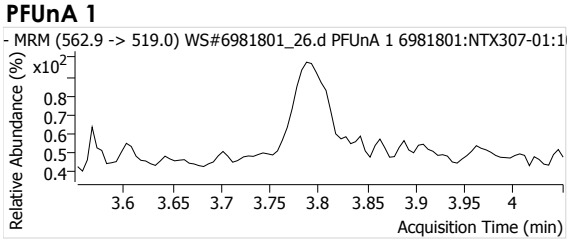

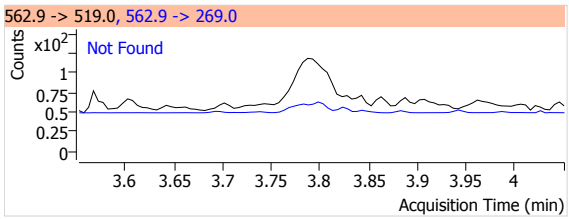

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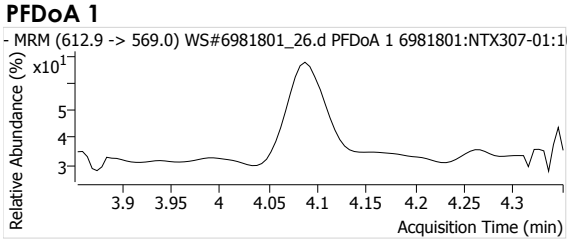

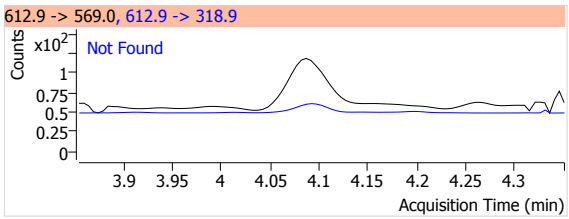

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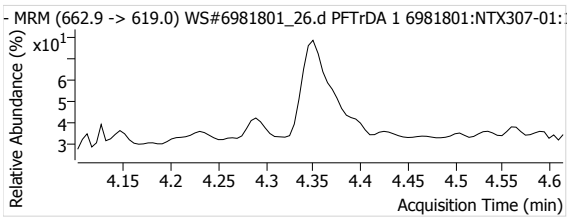

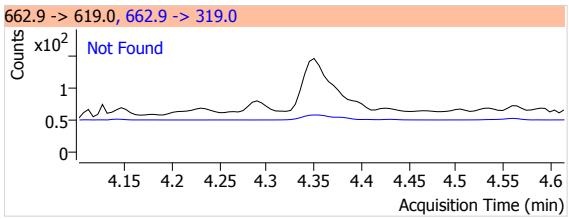

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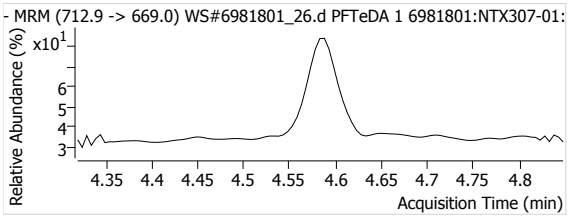

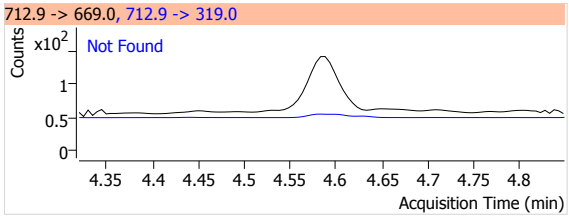

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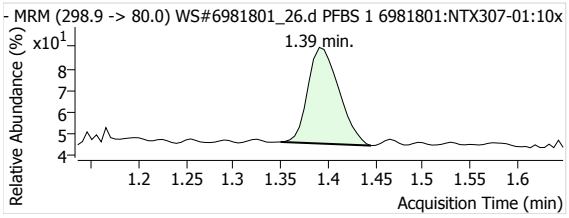

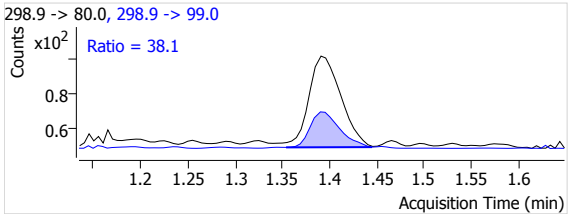

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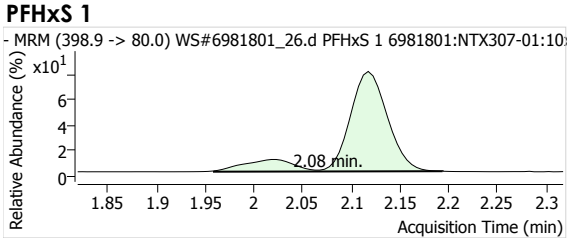
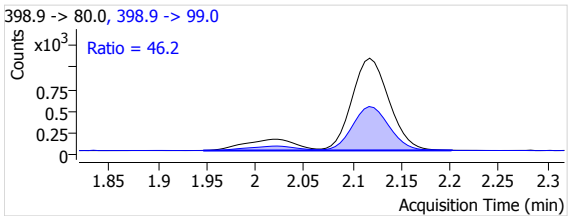
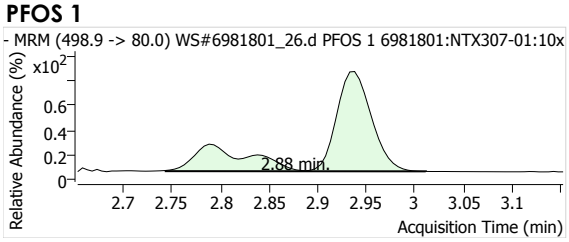
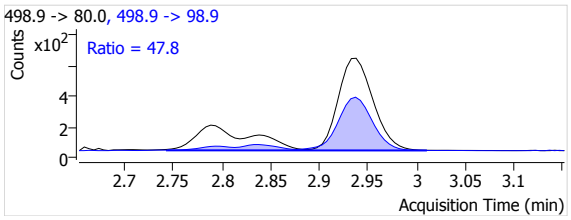




PFOS 1





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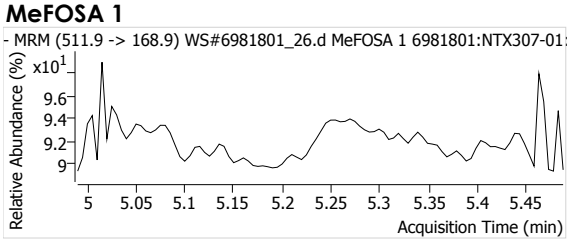

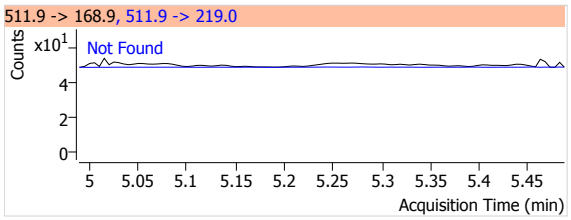

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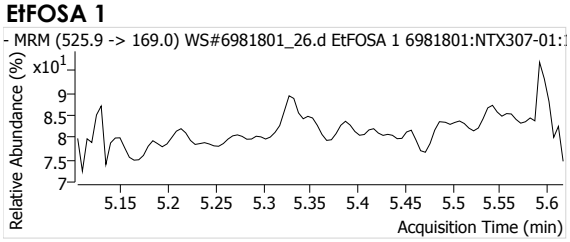

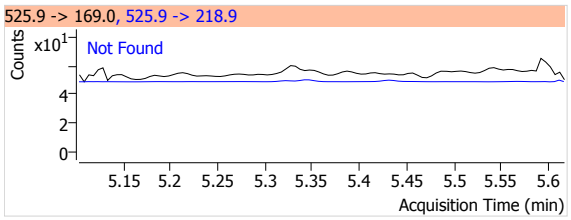

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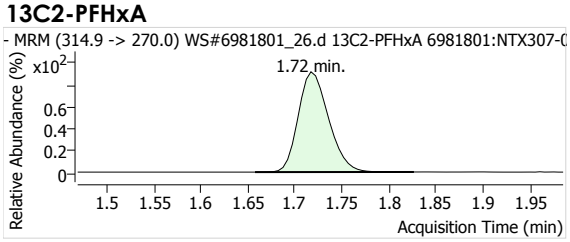

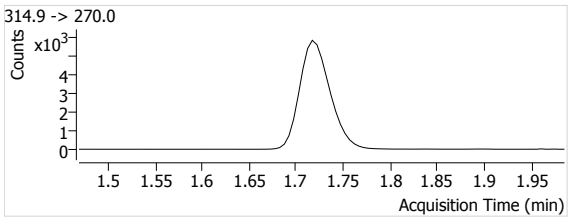

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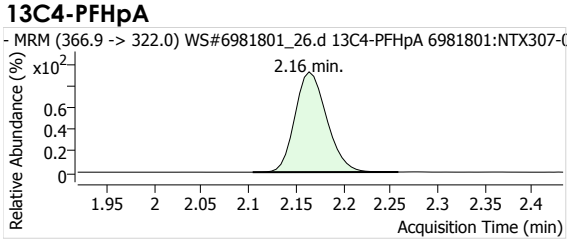

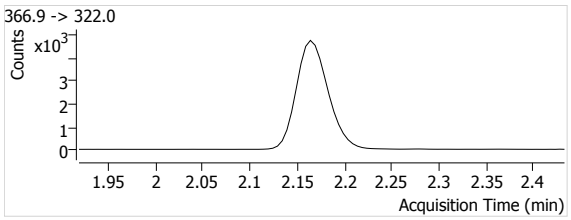

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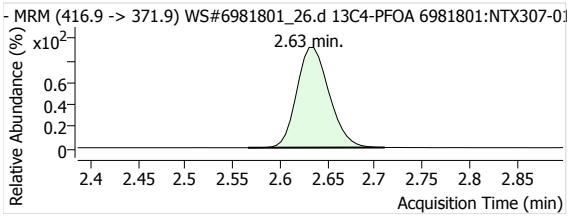

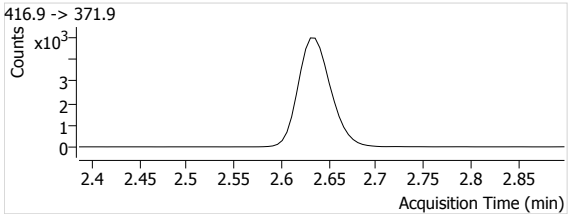

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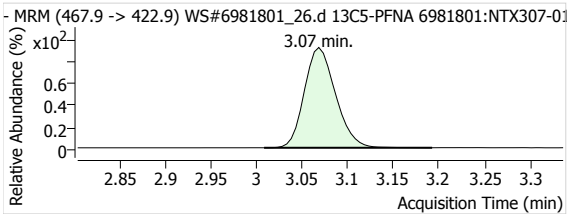

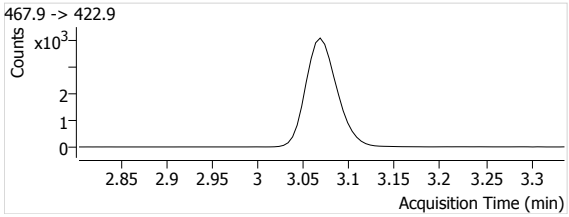

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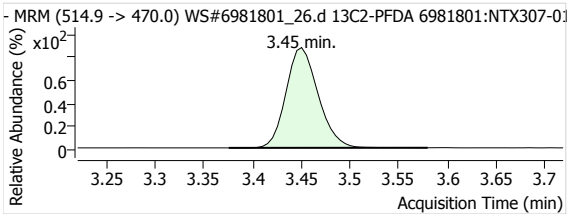

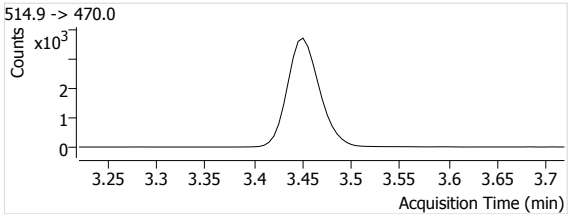

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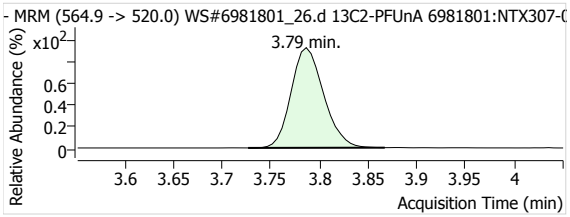

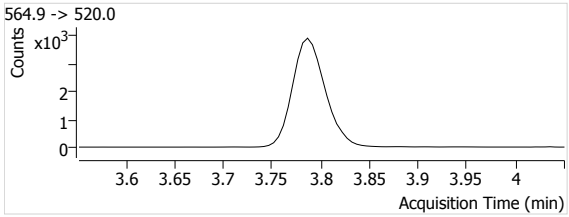

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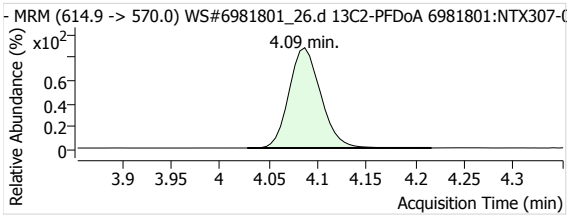

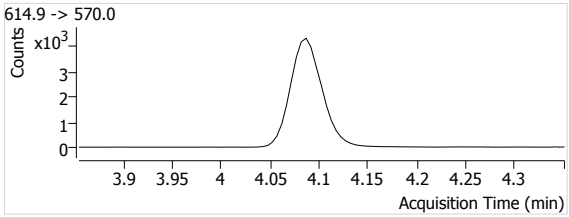

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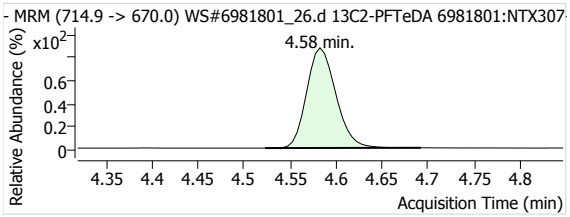

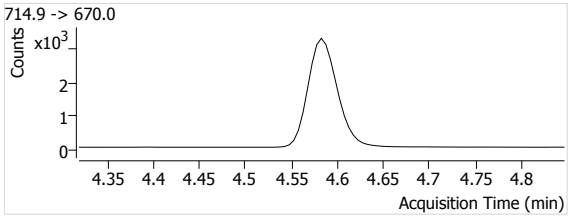

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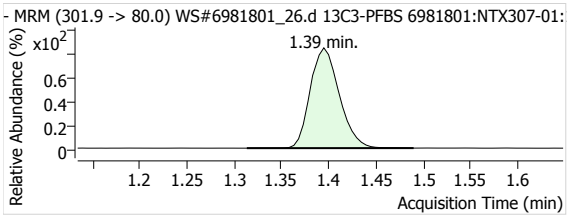
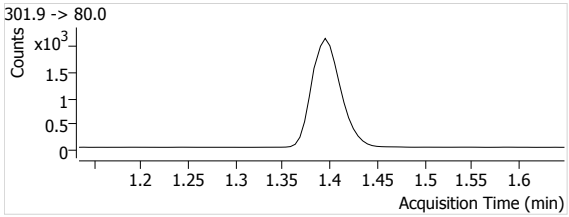
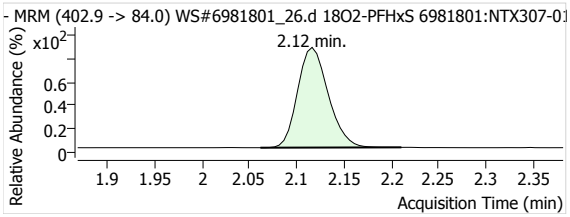
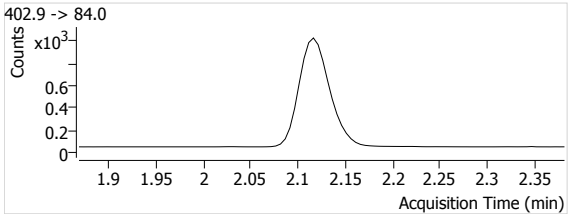




18O2-PFHxS





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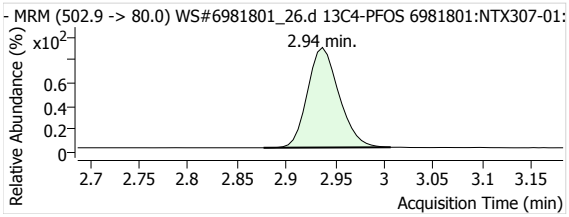
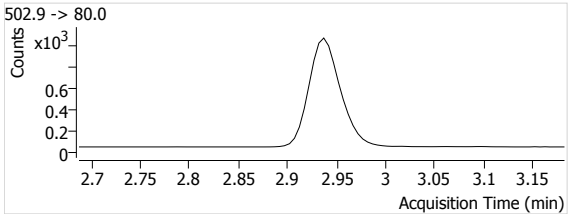
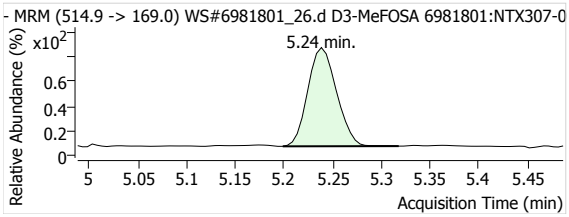
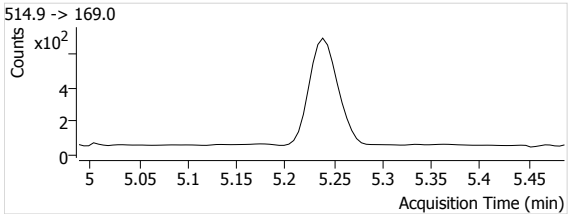




D3-MeFOSA





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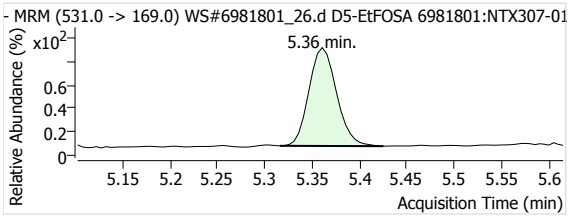
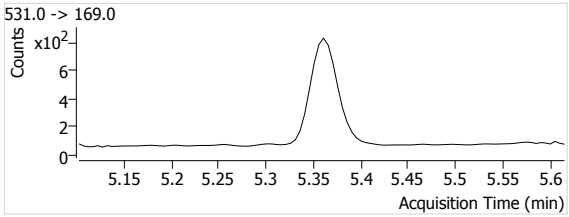




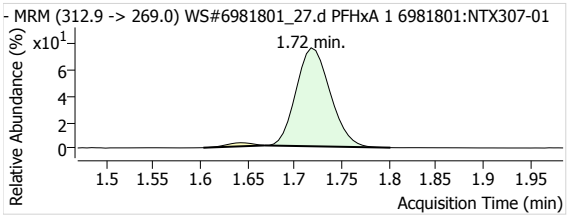
Quantitative Analysis Report

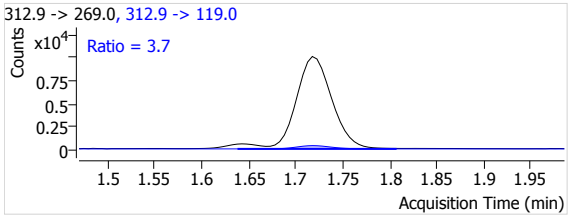
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX307-01	**Data File**	WS#6981801_27.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C5
Acq. Date-Time	2020/10/05 3:45:29 PM	**Dil.**	0.0
Comment	Reported all except PFHxS, PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2630	--	24978	1.72	263	1.9025	934	1.72	121	3.7
PFHpA 1	µg/L	--	0.0881	--	9961	2.16	131	0.8869	1662	2.16	53	16.7
PFOA 1	µg/L	--	0.7482	--	57455	2.63	694	4.8567	14997	2.63	1058	26.1
PFNA 1	µg/L	--	0.0089	--	827	3.06	8	0.0858	125	3.06	24	15.1
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0280	--	1050	1.40	28	0.2385	439	1.40	47	41.8
PFHxS 1	µg/L	--	1.6665	--	31622	2.08	288	14.7424	14444	2.07	796	45.7
PFOS 1	µg/L	--	1.1817	--	20935	2.88	177	9.1541	10139	2.88	425	48.4
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	89.3190	--	13129	1.72	1039		--	--	--	--
13C4-PFHpA	µg/L	--	89.9415	--	11231	2.16	853		--	--	--	--
13C4-PFOA	µg/L	--	86.7811	--	11830	2.63	643		--	--	--	--
13C5-PFNA	µg/L	--	87.0476	--	9644	3.07	543		--	--	--	--
13C2-PFDA	µg/L	--	85.8480	--	8438	3.45	786		--	--	--	--
13C2-PFUnA	µg/L	--	84.2536	--	8957	3.78	607		--	--	--	--
13C2-PFDoA	µg/L	--	78.5228	--	8654	4.09	498		--	--	--	--
13C2-PFTeDA	µg/L	--	72.4567	--	6524	4.58	726		--	--	--	--
13C3-PFBS	µg/L	--	87.1191	--	4403	1.39	378		--	--	--	--
18O2-PFHxS	µg/L	--	84.3824	--	2145	2.12	374		--	--	--	--
13C4-PFOS	µg/L	--	85.5913	--	2287	2.93	745		--	--	--	--
D3-MeFOSA	µg/L	--	56.1807	--	1977	5.24	105		--	--	--	--
D5-EtFOSA	µg/L	--	56.8454	--	2375	5.36	44		--	--	--	--

PFHxA 1





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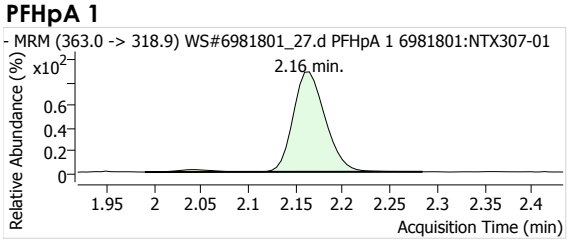

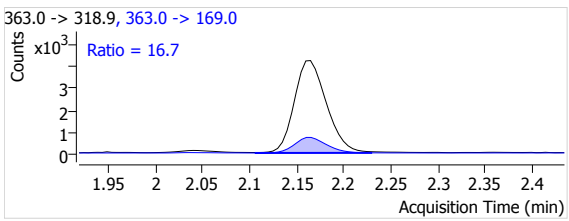

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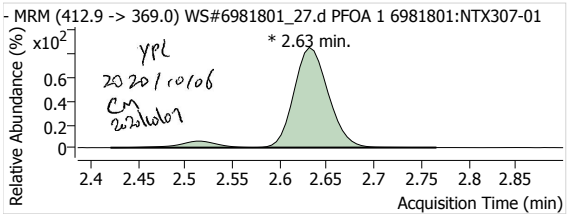

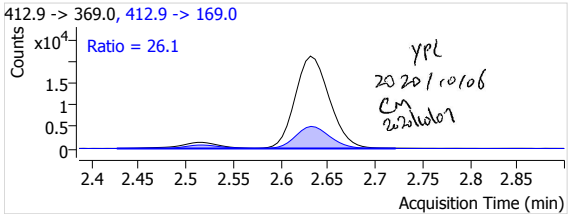

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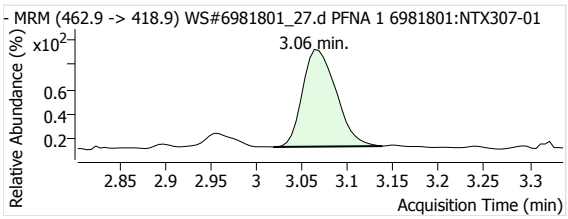

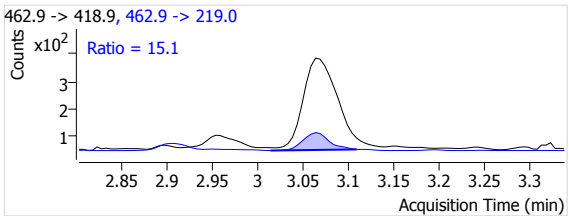

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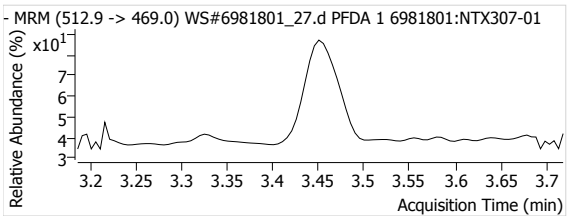

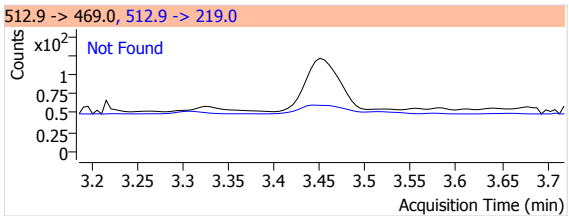

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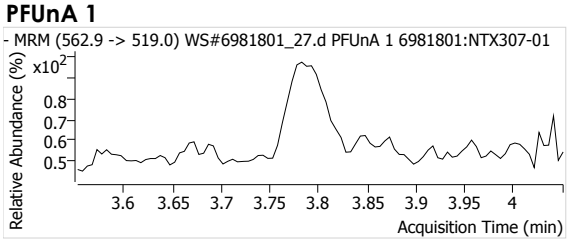

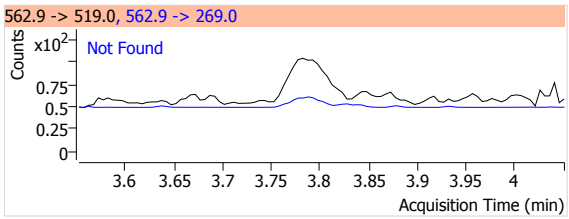

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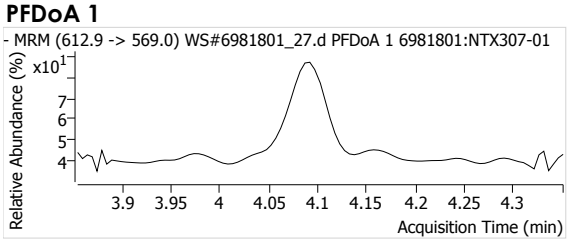

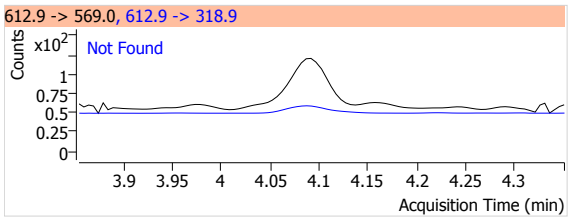

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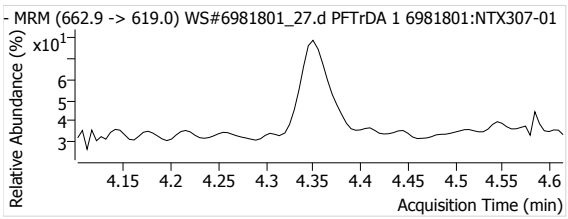

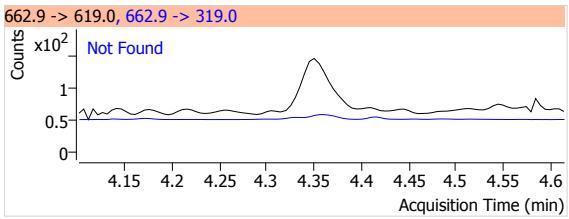

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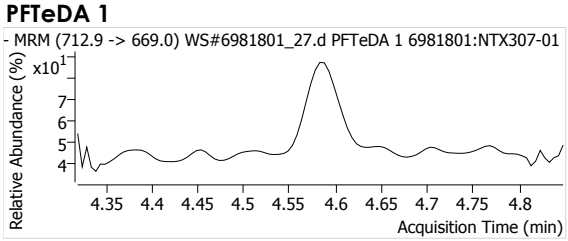

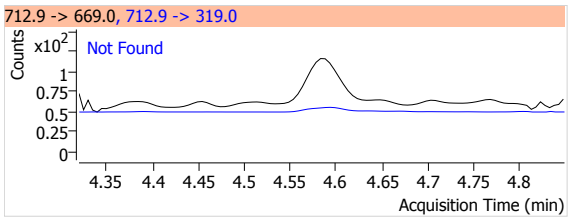

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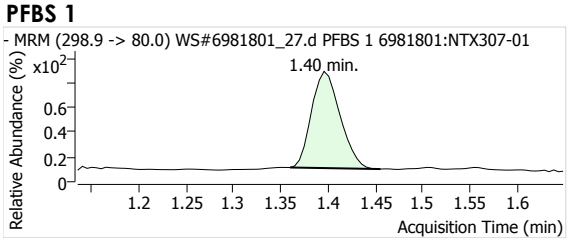

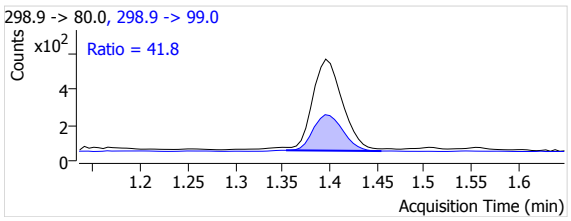

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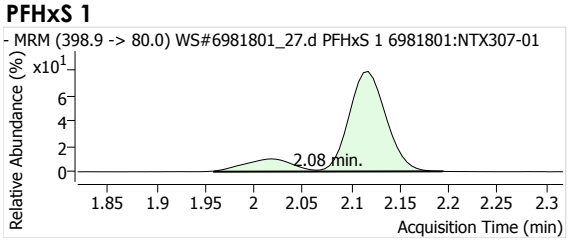

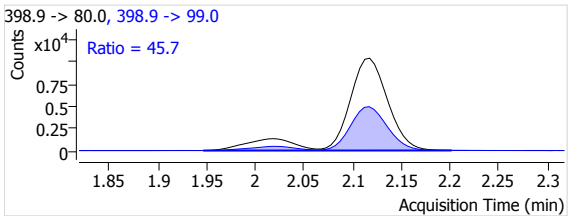

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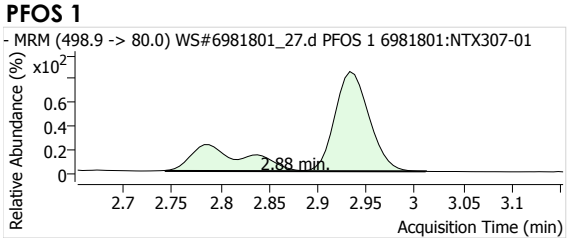

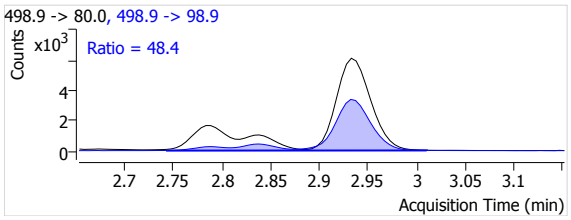

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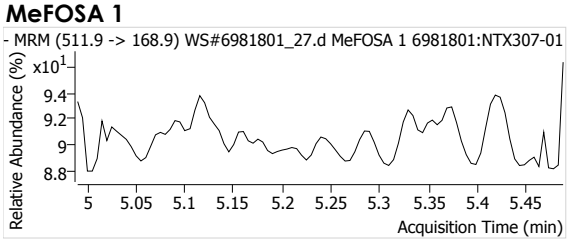

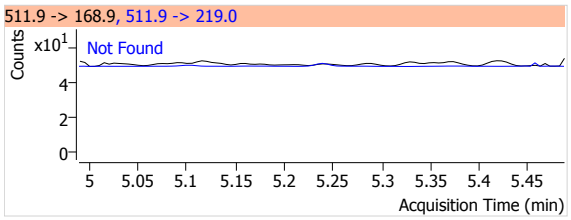

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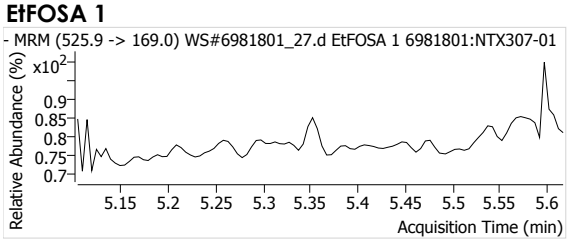

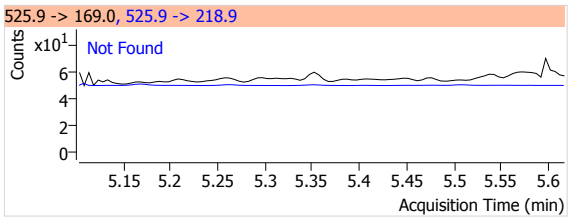

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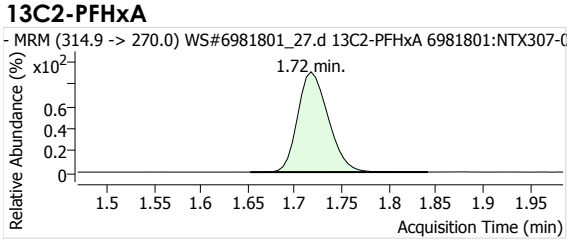

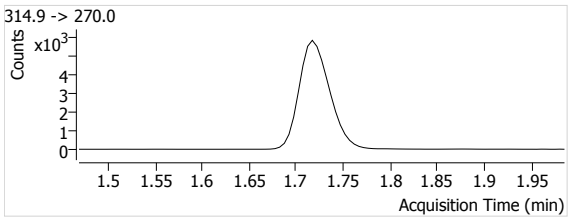

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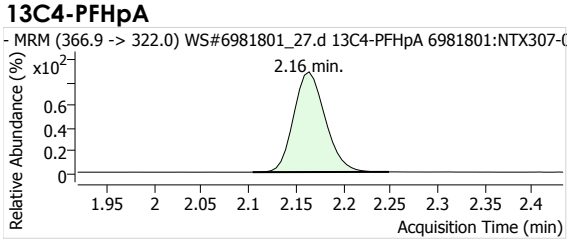

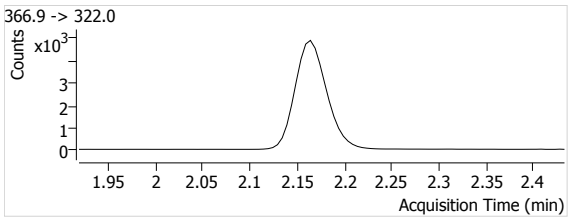

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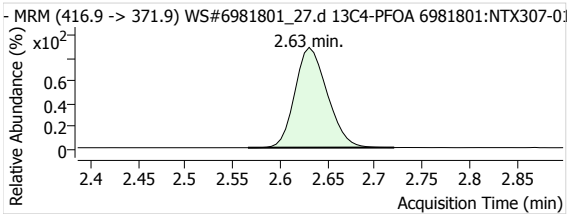

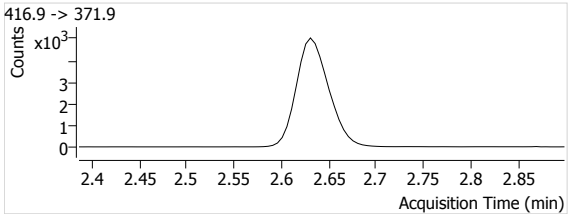

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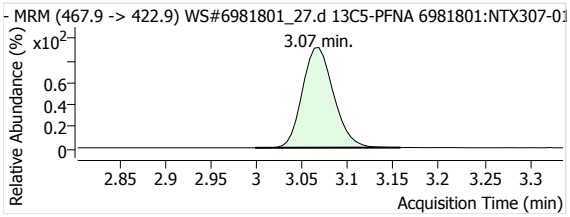

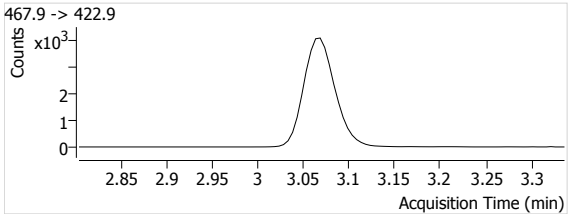

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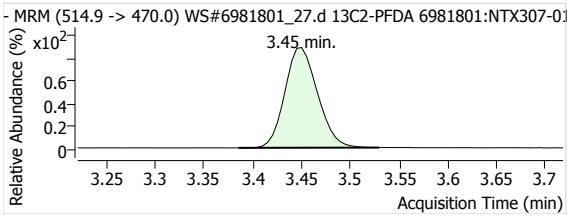

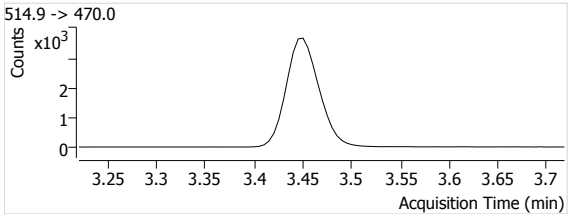

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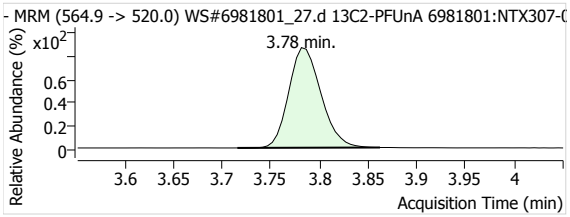

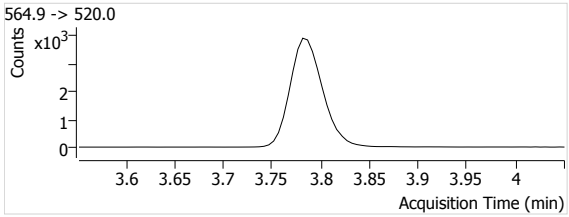

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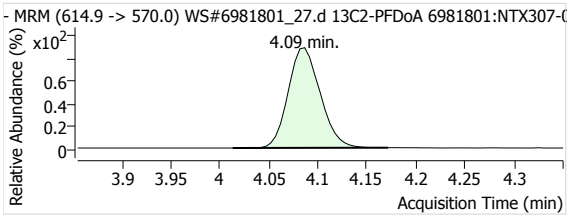

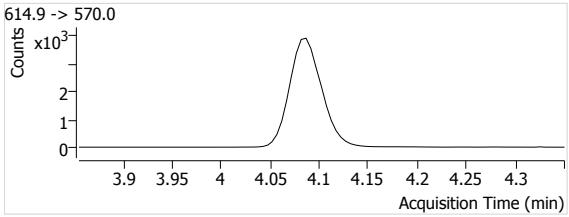

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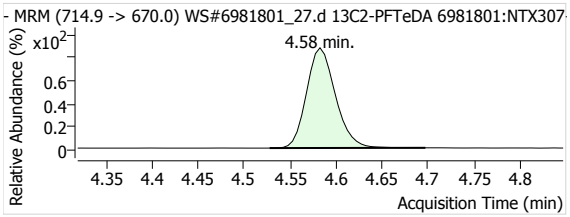

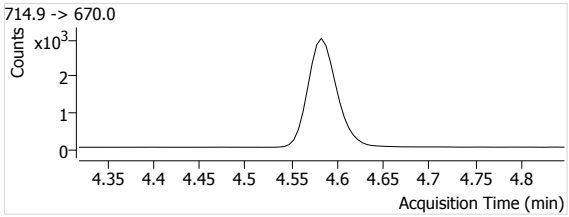

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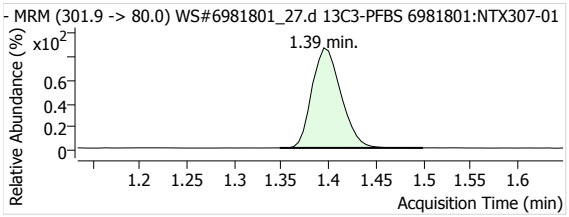

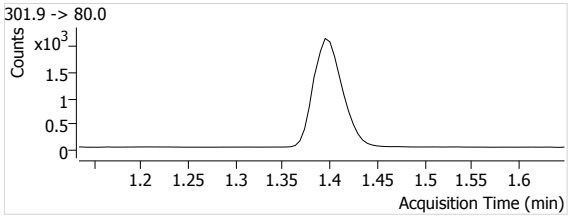

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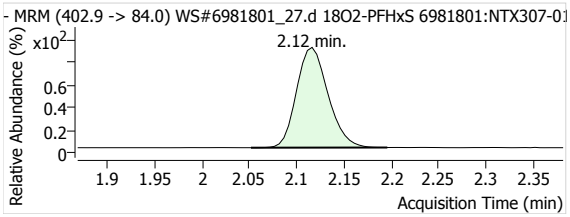

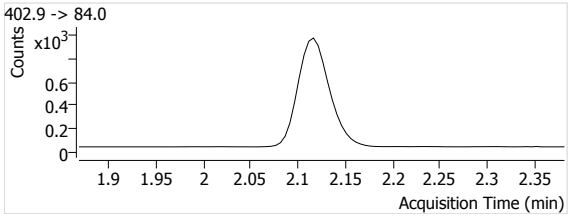

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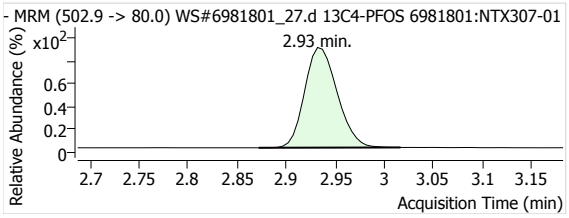

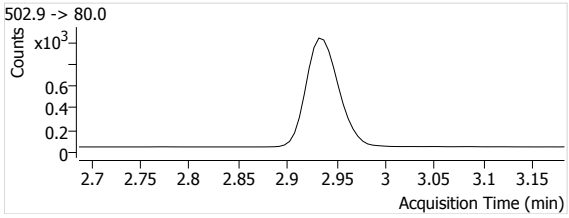

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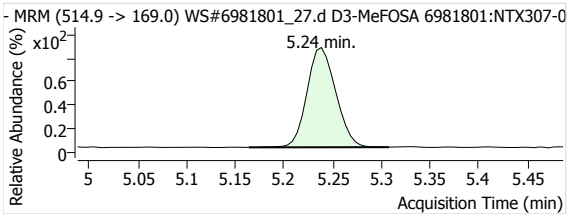

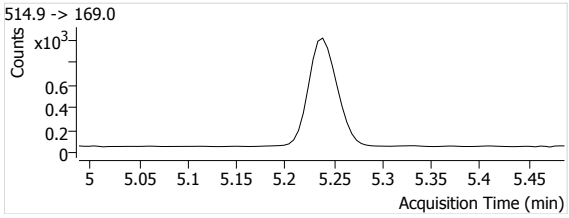

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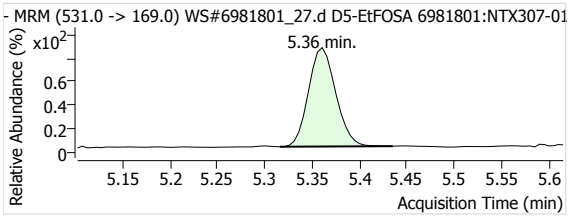
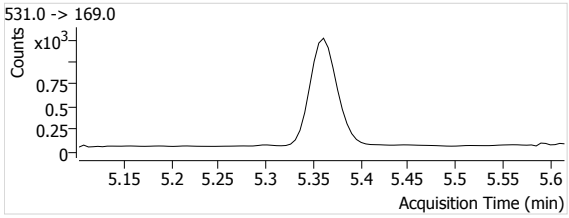




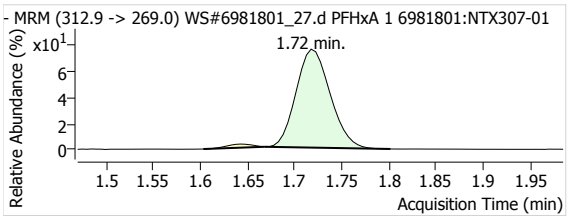
Quantitative Analysis Report

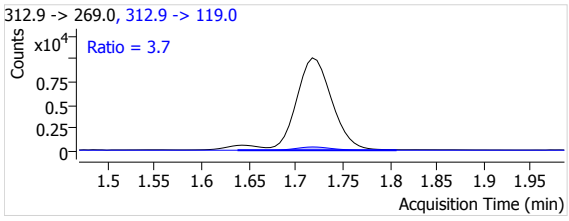
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX307-01	**Data File**	WS#6981801_27.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C5
Acq. Date-Time	2020/10/05 3:45:29 PM	**Dil.**	0.0
Comment	Reported all except PFHxS, PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2630	--	24978	1.72	263	1.9025	934	1.72	121	3.7
PFHpA 1	µg/L	--	0.0881	--	9961	2.16	131	0.8869	1662	2.16	53	16.7
PFOA 1	µg/L	--	0.6918	--	53140	2.63	694	4.4920	12786	2.63	1057	24.1
PFNA 1	µg/L	--	0.0089	--	827	3.06	8	0.0858	125	3.06	24	15.1
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0280	--	1050	1.40	28	0.2385	439	1.40	47	41.8
PFHxS 1	µg/L	--	1.6665	--	31622	2.08	288	14.7424	14444	2.07	796	45.7
PFOS 1	µg/L	--	1.1817	--	20935	2.88	177	9.1541	10139	2.88	425	48.4
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	89.3190	--	13129	1.72	1039		--	--	--	--
13C4-PFHpA	µg/L	--	89.9415	--	11231	2.16	853		--	--	--	--
13C4-PFOA	µg/L	--	86.7811	--	11830	2.63	643		--	--	--	--
13C5-PFNA	µg/L	--	87.0476	--	9644	3.07	543		--	--	--	--
13C2-PFDA	µg/L	--	85.8480	--	8438	3.45	786		--	--	--	--
13C2-PFUnA	µg/L	--	84.2536	--	8957	3.78	607		--	--	--	--
13C2-PFDoA	µg/L	--	78.5228	--	8654	4.09	498		--	--	--	--
13C2-PFTeDA	µg/L	--	72.4567	--	6524	4.58	726		--	--	--	--
13C3-PFBS	µg/L	--	87.1191	--	4403	1.39	378		--	--	--	--
18O2-PFHxS	µg/L	--	84.3824	--	2145	2.12	374		--	--	--	--
13C4-PFOS	µg/L	--	85.5913	--	2287	2.93	745		--	--	--	--
D3-MeFOSA	µg/L	--	56.1807	--	1977	5.24	105		--	--	--	--
D5-EtFOSA	µg/L	--	56.8454	--	2375	5.36	44		--	--	--	--

PFHxA 1





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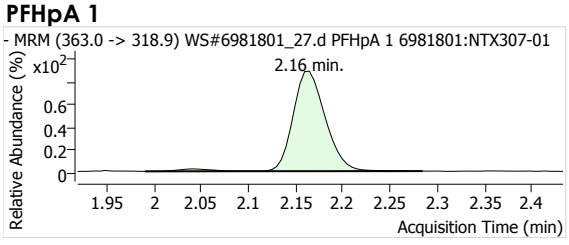

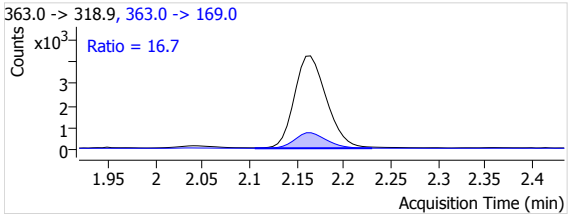

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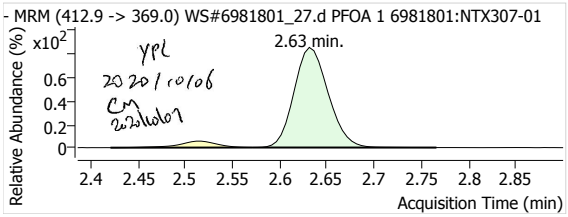

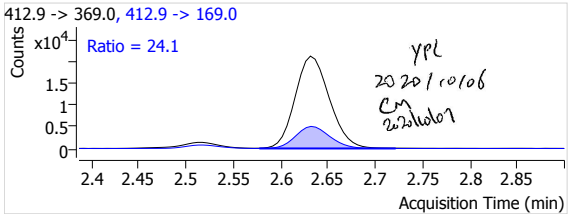

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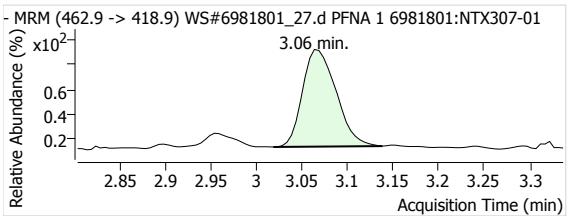

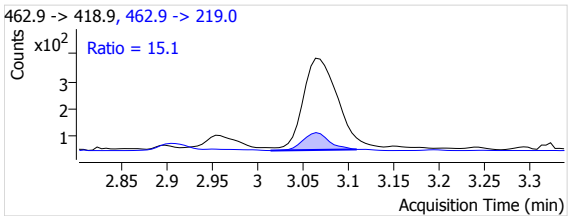

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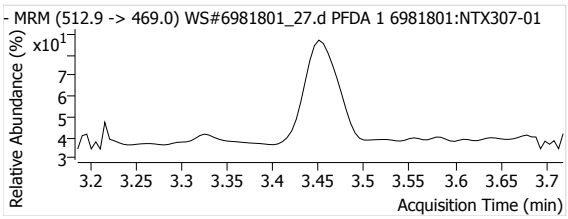

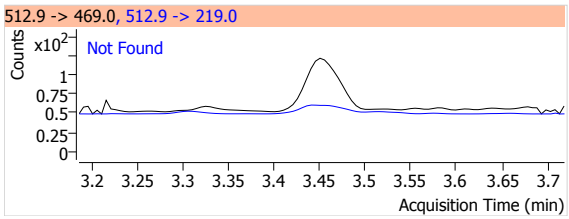

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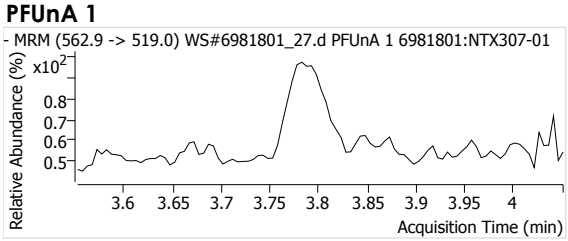

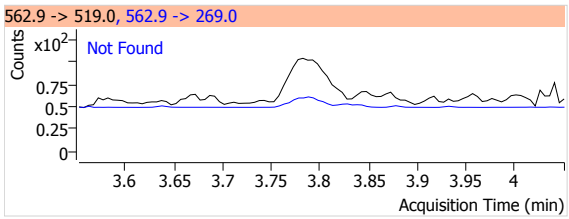

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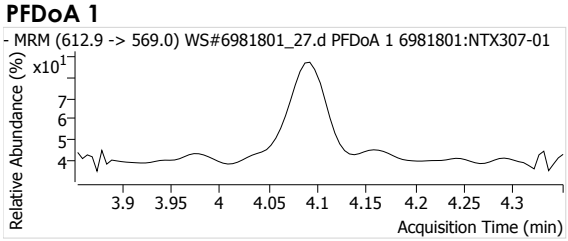

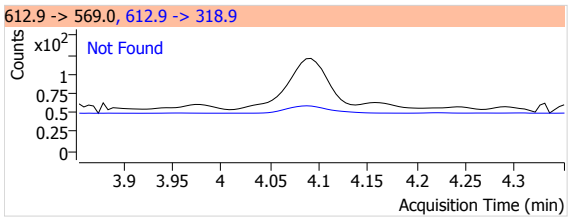

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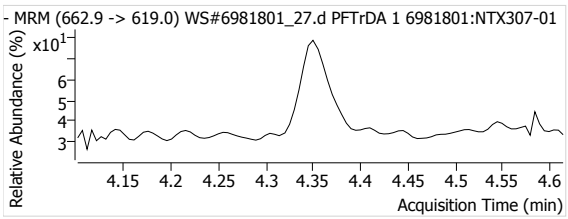

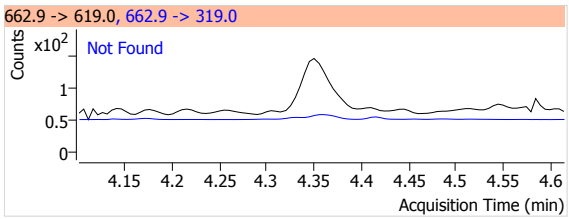

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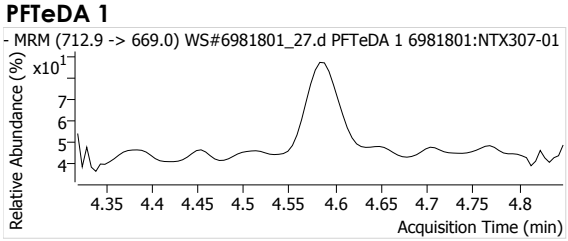

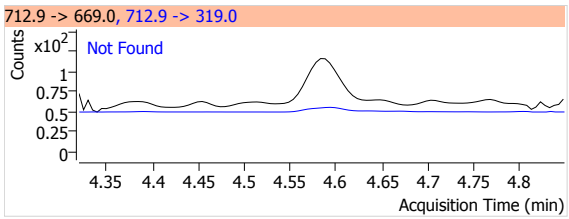

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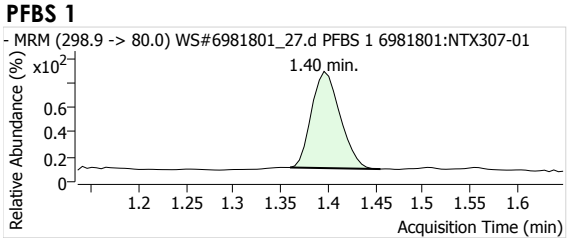

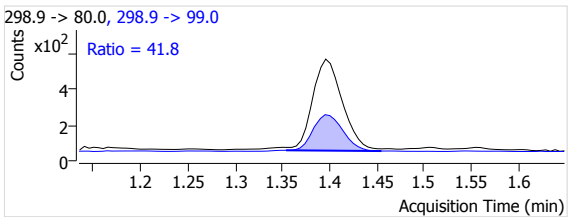

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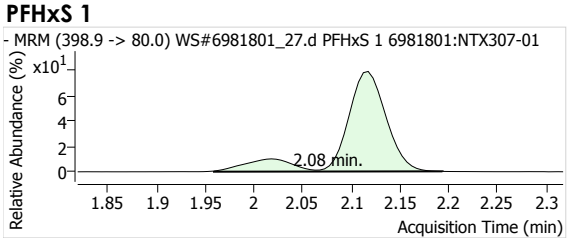

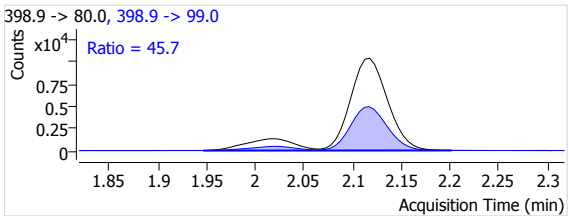

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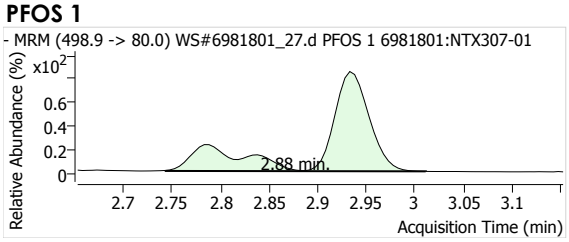

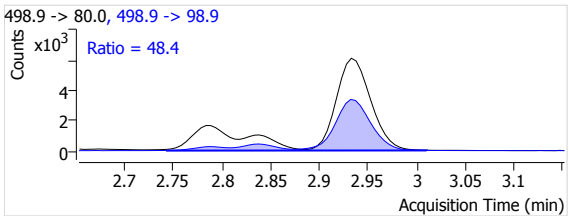

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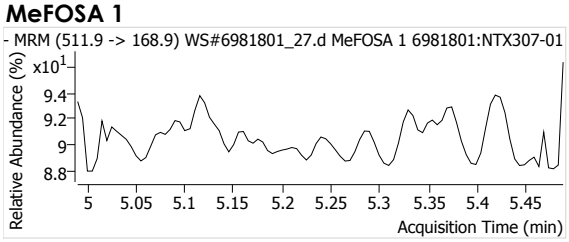

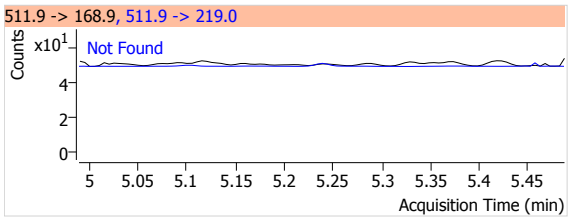

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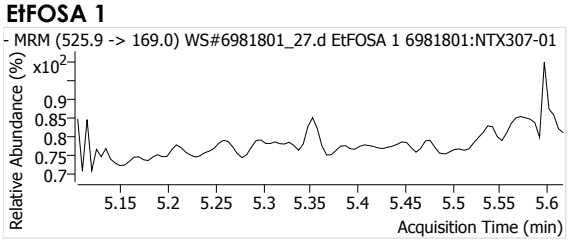

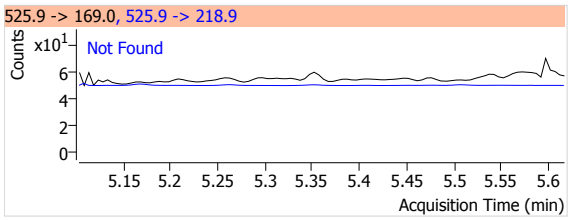

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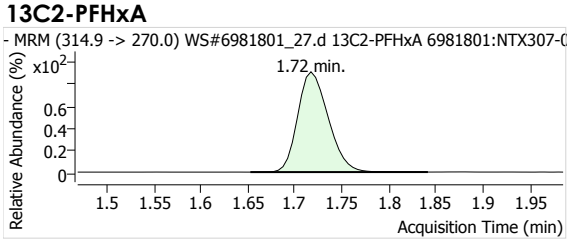

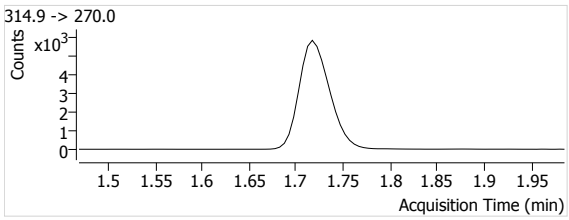

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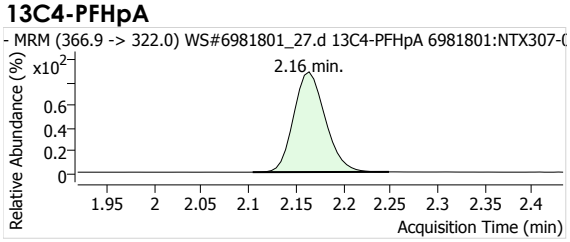

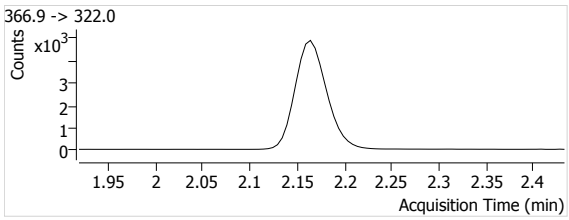

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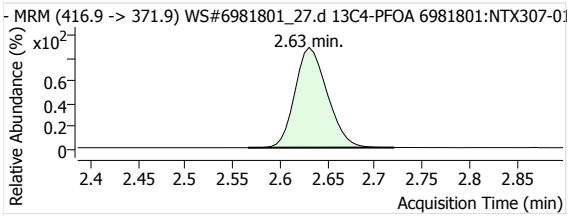

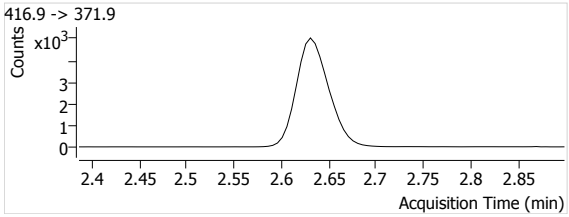

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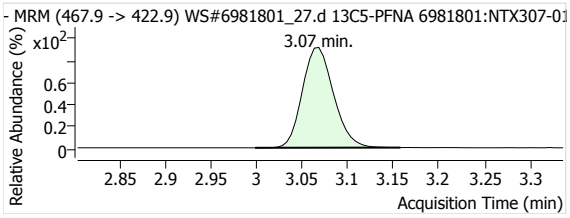

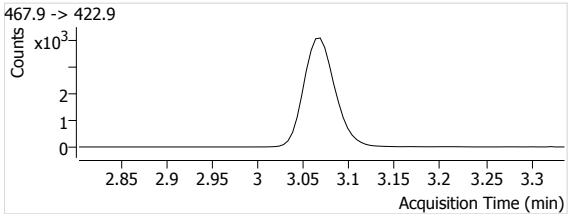

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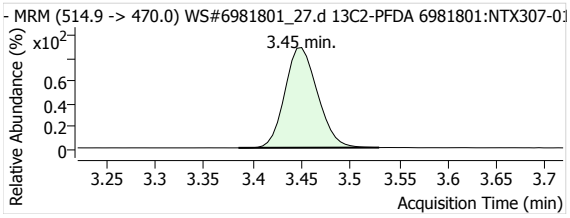

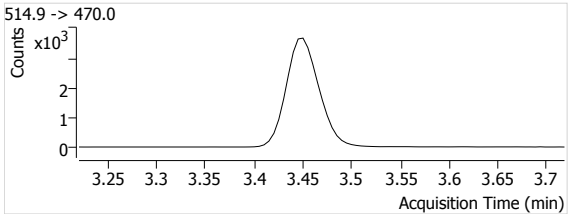

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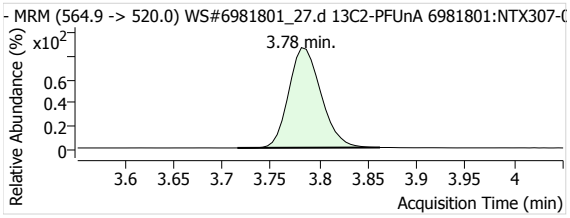

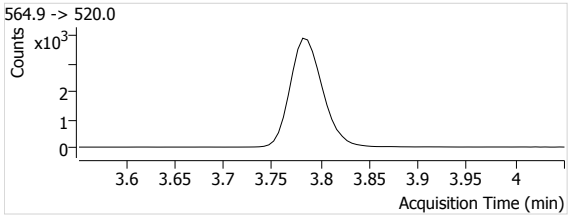

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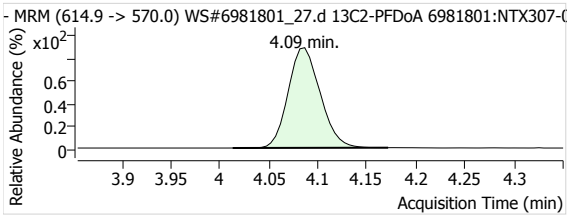

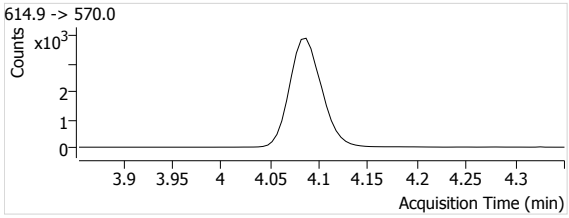

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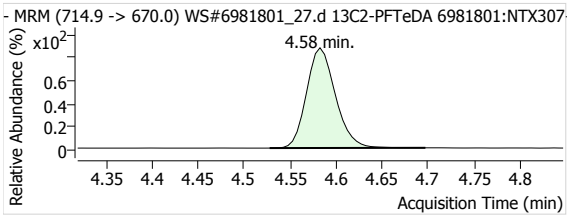

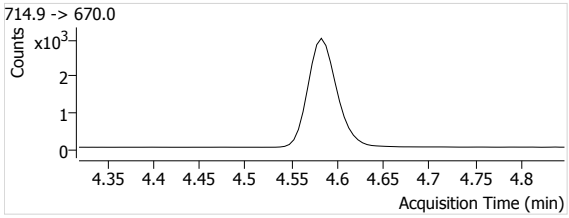

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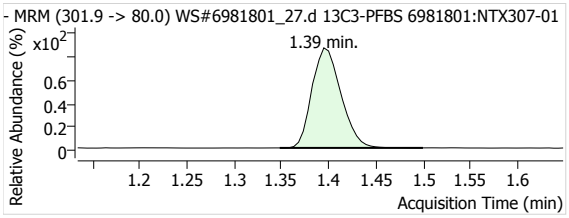

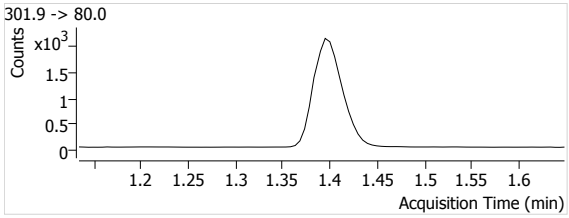

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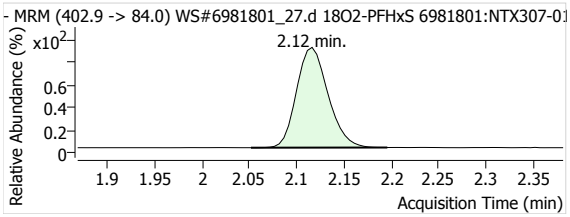

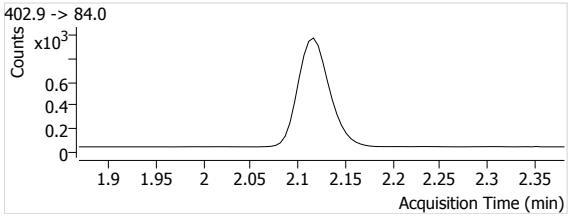

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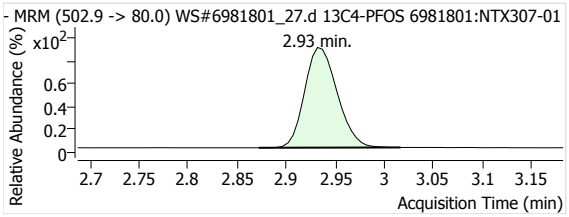
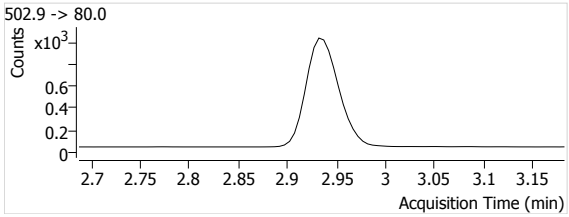
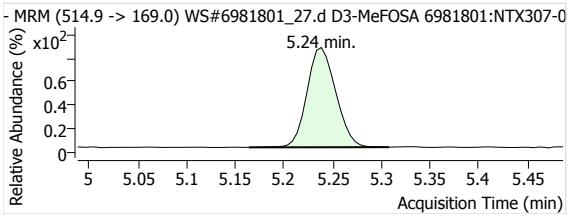
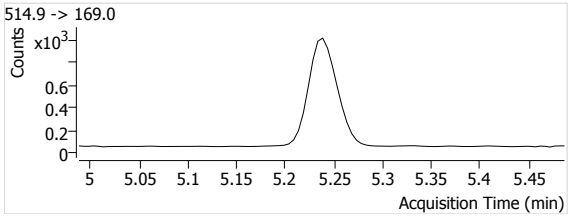




D3-MeFOSA





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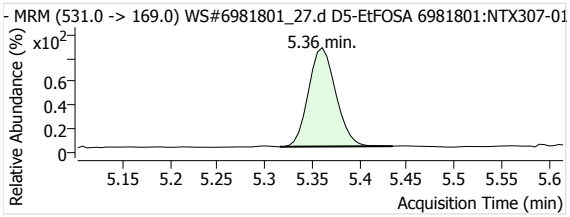
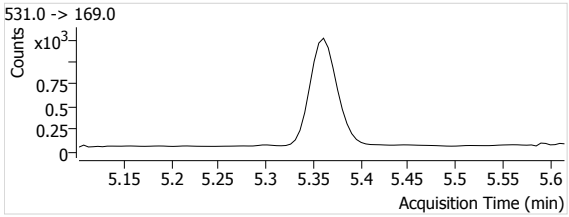




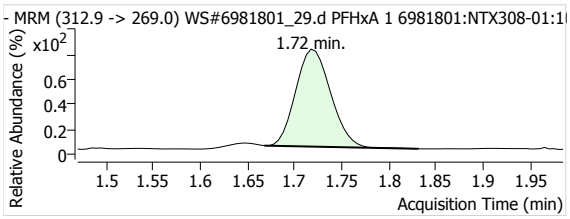
Quantitative Analysis Report

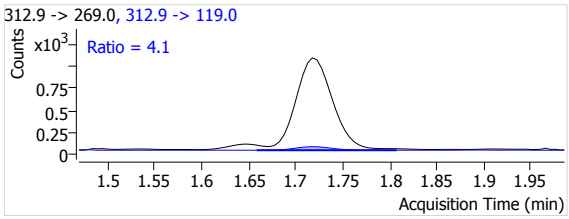
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX308-01:10x	**Data File**	WS#6981801_29.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C6
Acq. Date-Time	2020/10/05 3:59:28 PM	**Dil.**	0.2
Comment	Reported PFHxS, PFOS		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2383	--	2605	1.72	28	0.1933	107	1.72	10	4.1
PFHpA 1	µg/L	--	0.0726	--	1238	2.16	19	0.1069	227	2.16	13	18.3
PFOA 1	µg/L	--	0.6757	--	5671	2.63	76	0.4538	1518	2.63	185	26.8
PFNA 1	µg/L	--	0.0026	--	206	3.07	5	0.0204	24	3.06	8	11.7
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	194	4.08	7	0.0201	28	4.08	6	14.4
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0140	--	111	1.39	11	0.0248	43	1.40	8	38.7
PFHxS 1	µg/L	--	1.6321	--	3342	2.08	165	1.4608	1470	2.07	279	44.0
PFOS 1	µg/L	--	1.0599	--	2027	2.88	69	0.8402	959	2.88	113	47.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	91.7001	--	13479	1.72	1132		--	--	--	--
13C4-PFHpA	µg/L	--	92.7044	--	11576	2.16	947		--	--	--	--
13C4-PFOA	µg/L	--	91.6813	--	12498	2.63	1557		--	--	--	--
13C5-PFNA	µg/L	--	91.3440	--	10120	3.06	494		--	--	--	--
13C2-PFDA	µg/L	--	87.3537	--	8586	3.45	1305		--	--	--	--
13C2-PFUnA	µg/L	--	88.9098	--	9452	3.78	433		--	--	--	--
13C2-PFDoA	µg/L	--	87.4512	--	9638	4.08	577		--	--	--	--
13C2-PFTeDA	µg/L	--	84.0182	--	7565	4.58	986		--	--	--	--
13C3-PFBS	µg/L	--	88.6229	--	4479	1.39	658		--	--	--	--
18O2-PFHxS	µg/L	--	90.0079	--	2288	2.12	836		--	--	--	--
13C4-PFOS	µg/L	--	90.3069	--	2413	2.93	206		--	--	--	--
D3-MeFOSA	µg/L	--	37.1128	--	1306	5.24	58		--	--	--	--
D5-EtFOSA	µg/L	--	36.6922	--	1533	5.36	30		--	--	--	--

PFHxA 1





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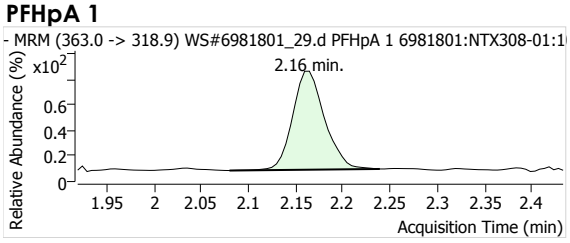

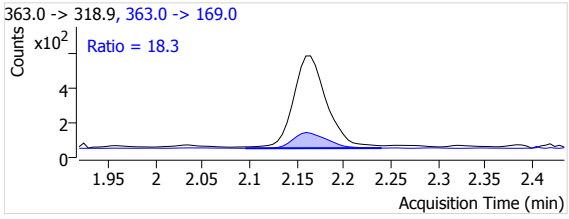

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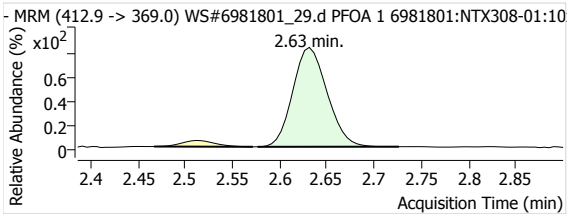

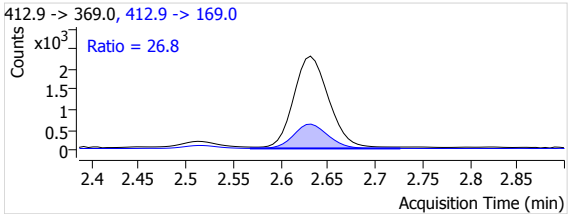

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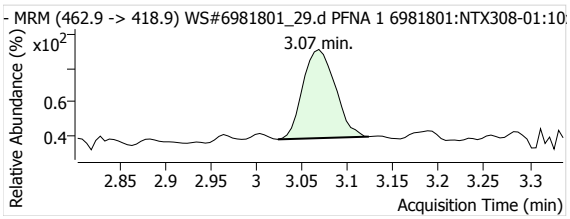

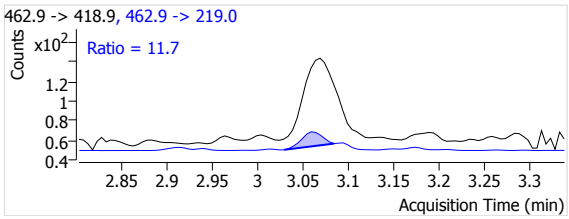

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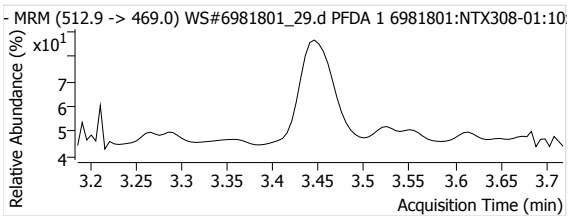

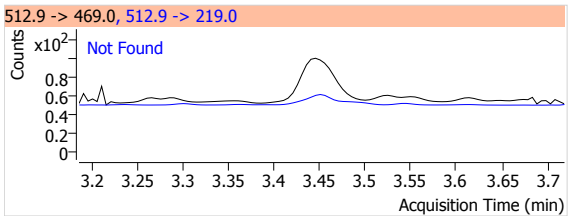

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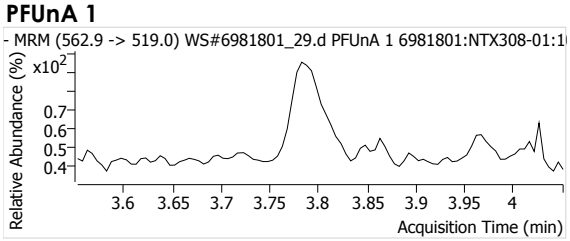

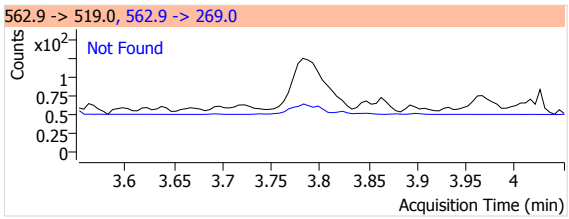

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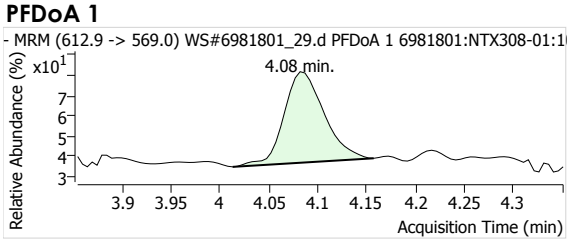

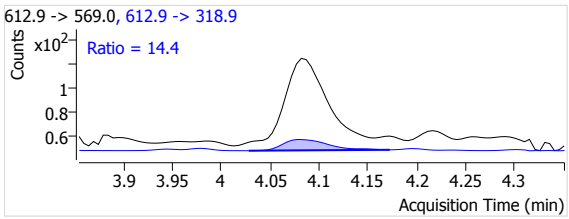

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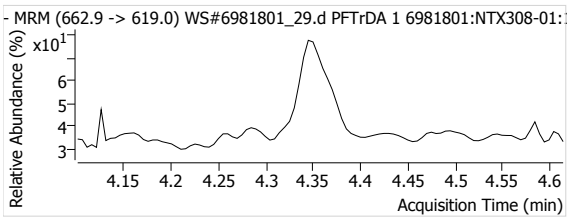

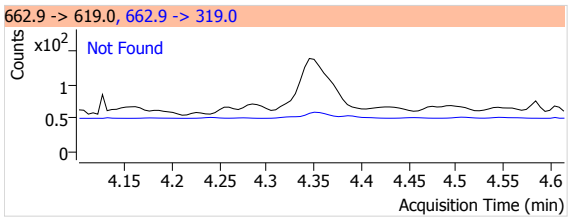

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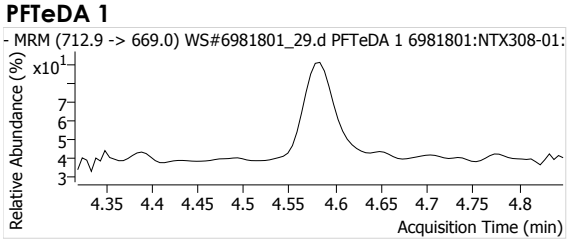

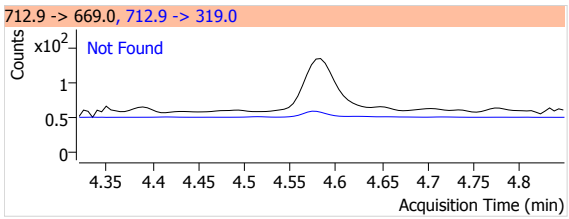

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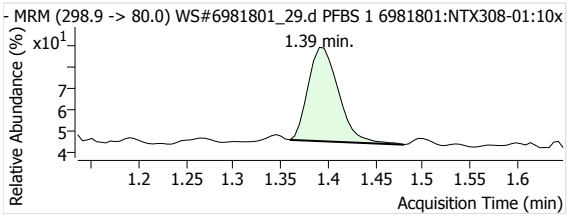

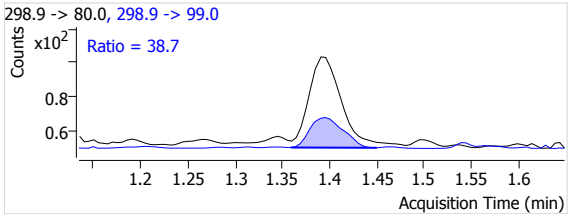

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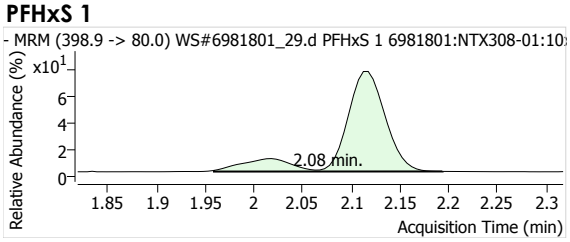

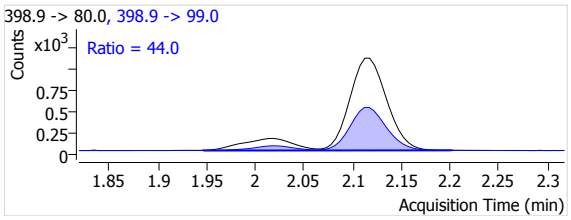

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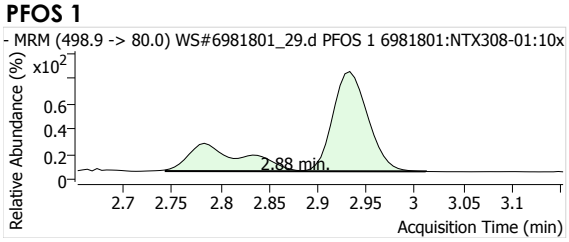

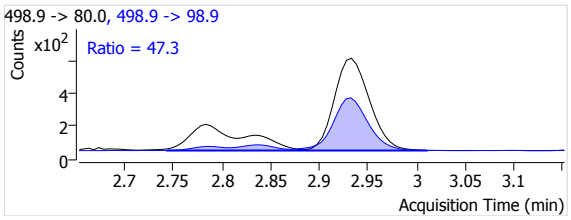

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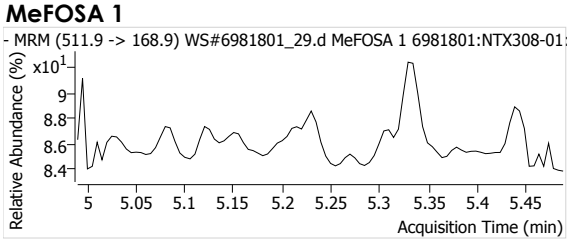

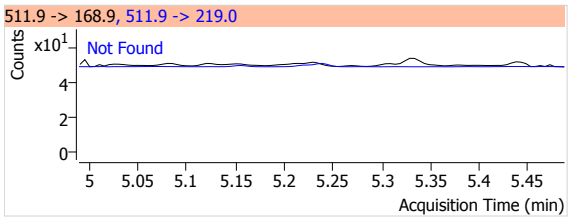

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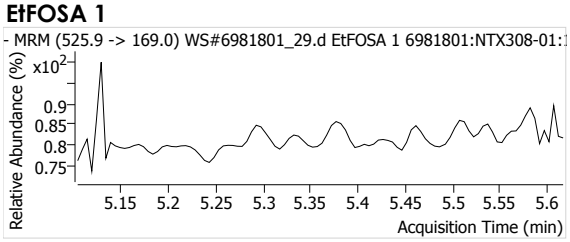

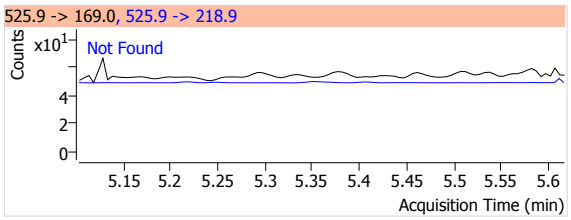

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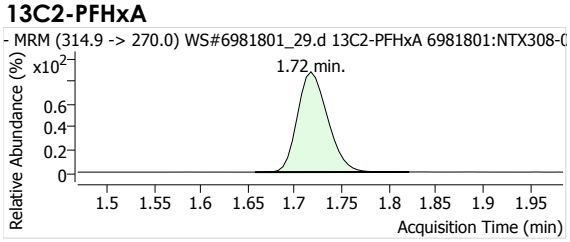

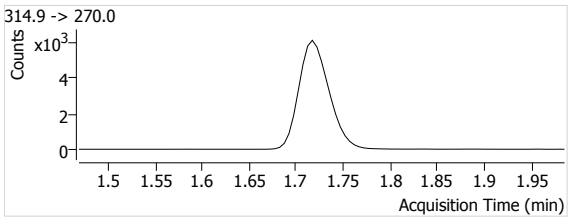

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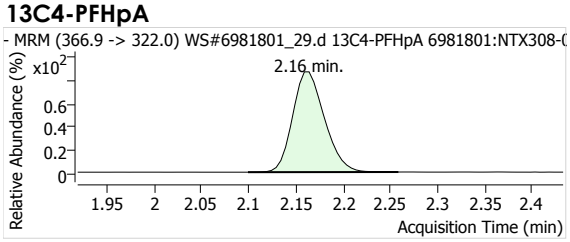

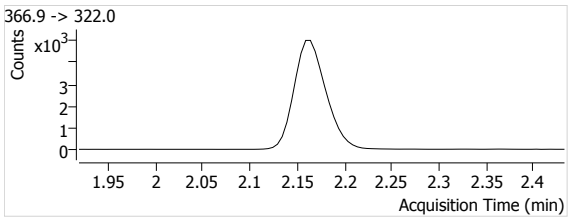

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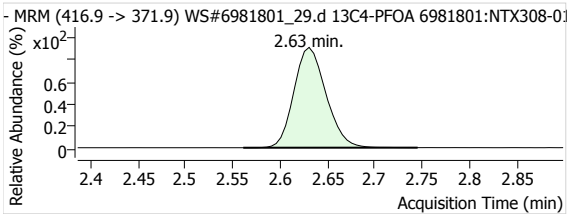

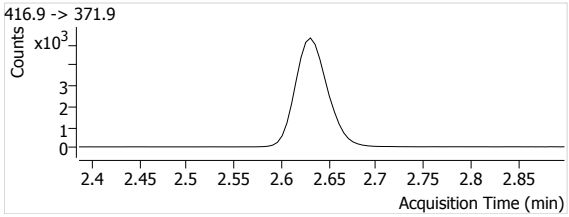

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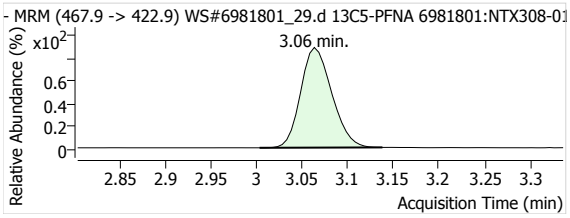

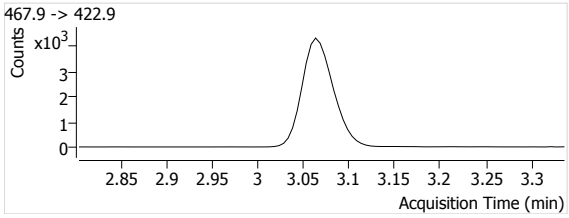

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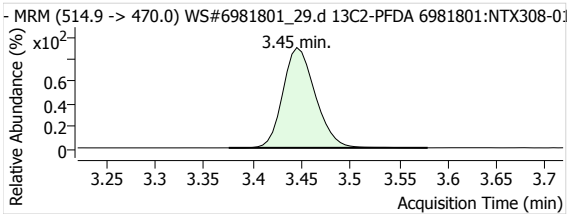

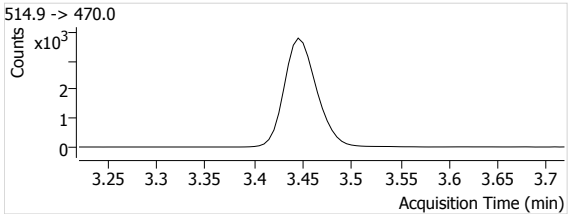

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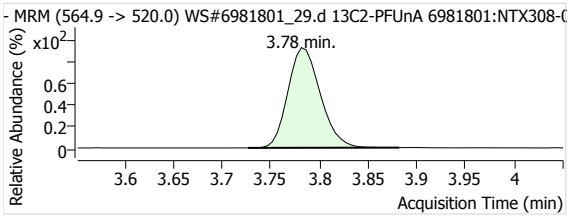

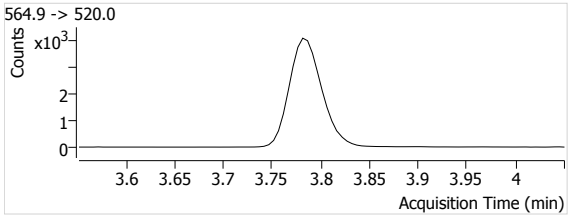

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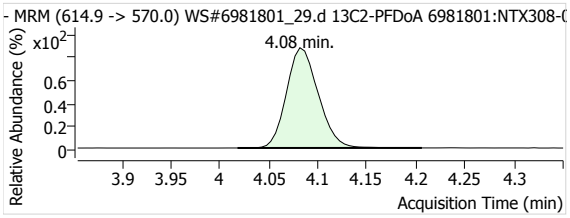

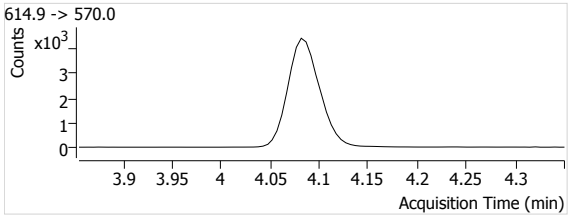

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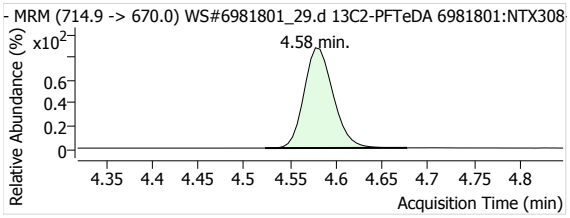
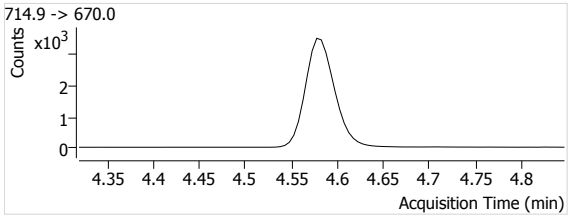
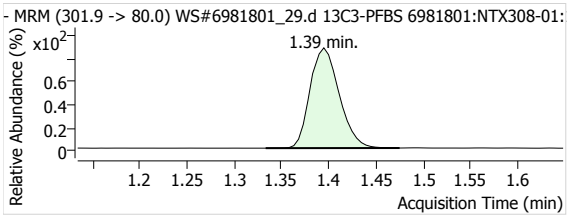
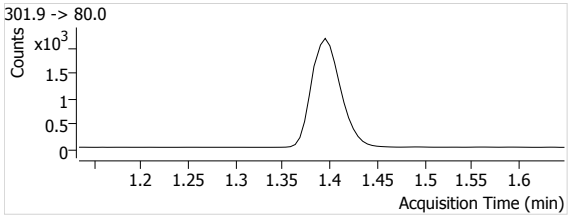


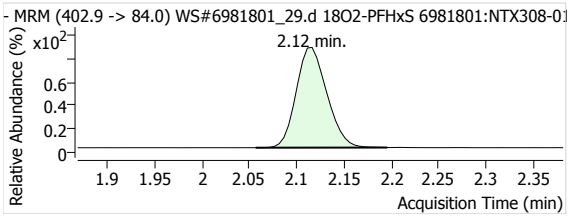


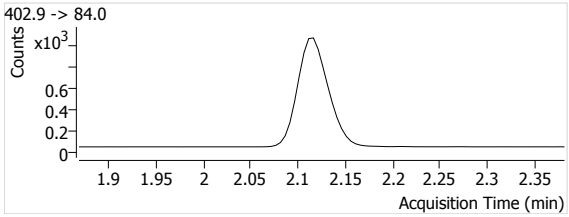
13C3-PFBS





18O2-PFHxS





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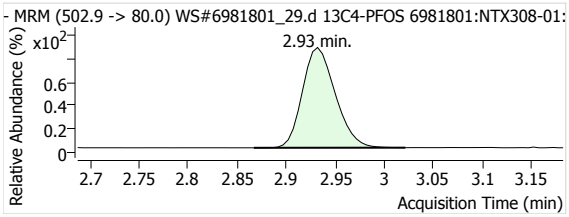
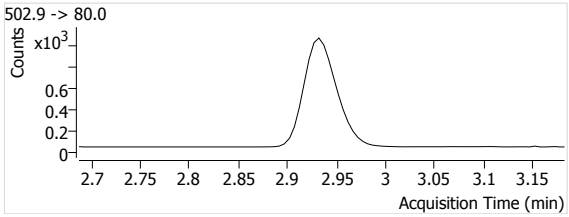
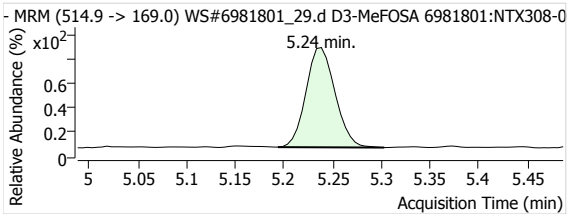
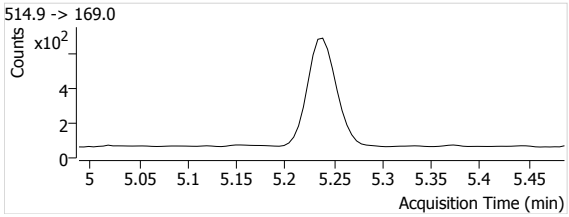




D3-MeFOSA





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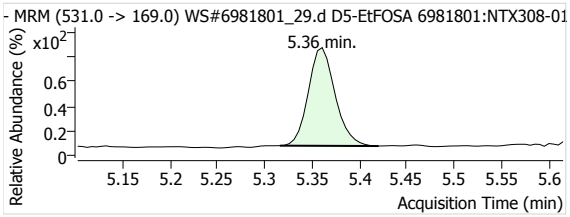
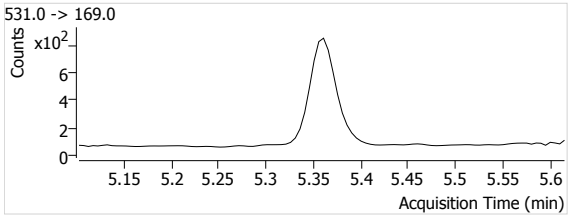




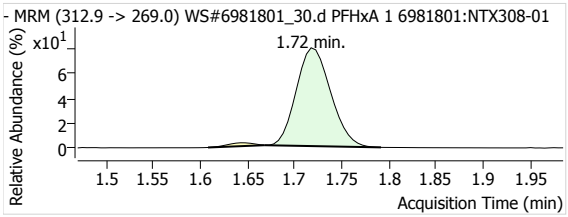
Quantitative Analysis Report

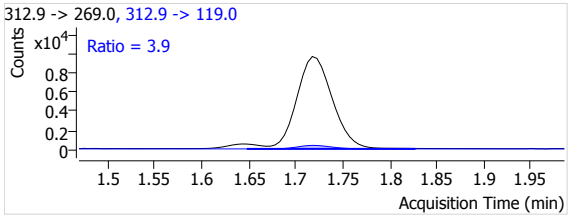
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX308-01	**Data File**	WS#6981801_30.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C7
Acq. Date-Time	2020/10/05 4:06:28 PM	**Dil.**	0.0
Comment	Reported all except PFHxS, PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2831	--	24176	1.72	226	1.8547	949	1.72	121	3.9
PFHpA 1	µg/L	--	0.0921	--	9711	2.16	79	0.8411	1637	2.16	52	16.9
PFOA 1	µg/L	--	0.7853	--	56613	2.63	508	4.6174	14719	2.63	969	26.0
PFNA 1	µg/L	--	0.0100	--	878	3.06	12	0.0866	140	3.06	16	15.9
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	200	4.35	5	0.0287	15	4.36	25	7.5
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0279	--	992	1.40	41	0.2172	400	1.40	21	40.3
PFHxS 1	µg/L	--	1.6969	--	30729	2.08	261	13.5969	13982	2.07	633	45.5
PFOS 1	µg/L	--	1.2380	--	19605	2.88	133	8.6864	9182	2.88	317	46.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	88.6795	--	13035	1.72	866		--	--	--	--
13C4-PFHpA	µg/L	--	92.4562	--	11545	2.16	638		--	--	--	--
13C4-PFOA	µg/L	--	89.9428	--	12261	2.63	720		--	--	--	--
13C5-PFNA	µg/L	--	91.5335	--	10141	3.06	756		--	--	--	--
13C2-PFDA	µg/L	--	83.6606	--	8223	3.45	533		--	--	--	--
13C2-PFUnA	µg/L	--	87.1696	--	9267	3.78	555		--	--	--	--
13C2-PFDoA	µg/L	--	80.2649	--	8846	4.08	624		--	--	--	--
13C2-PFTeDA	µg/L	--	77.5211	--	6980	4.58	561		--	--	--	--
13C3-PFBS	µg/L	--	90.3839	--	4568	1.39	221		--	--	--	--
18O2-PFHxS	µg/L	--	88.9064	--	2260	2.12	309		--	--	--	--
13C4-PFOS	µg/L	--	84.4686	--	2257	2.93	736		--	--	--	--
D3-MeFOSA	µg/L	--	58.1699	--	2047	5.24	62		--	--	--	--
D5-EtFOSA	µg/L	--	56.0795	--	2343	5.36	56		--	--	--	--

PFHxA 1





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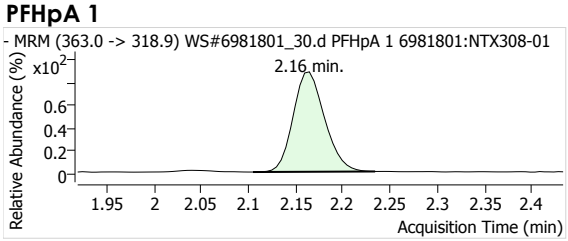

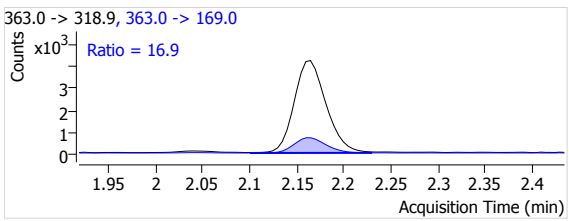

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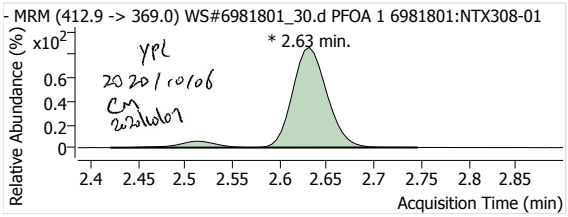

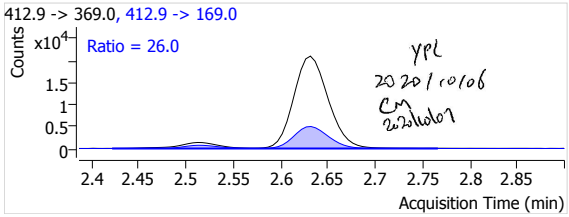

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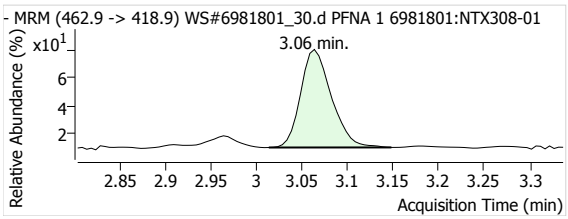

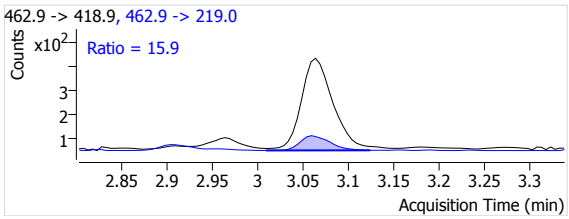

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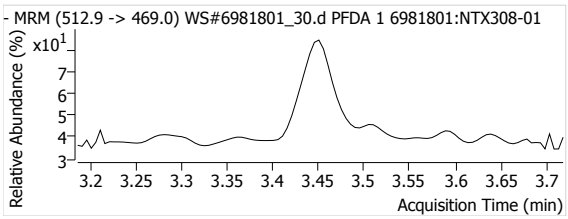

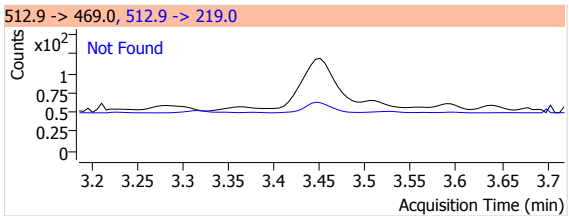

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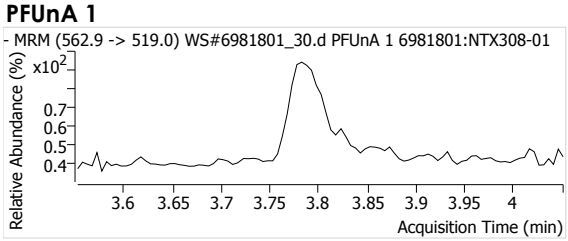

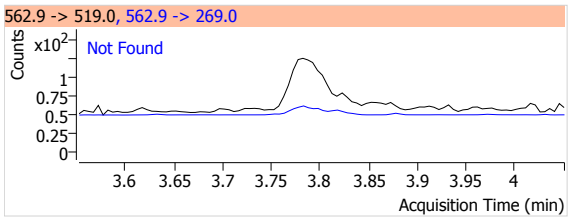

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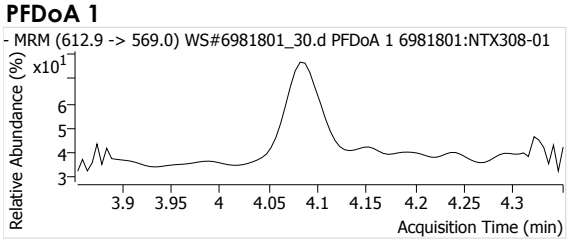

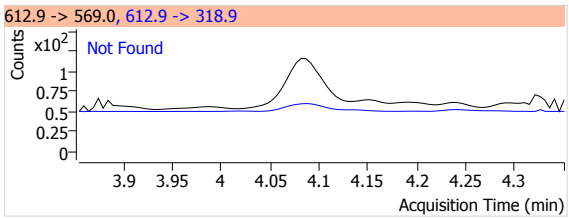

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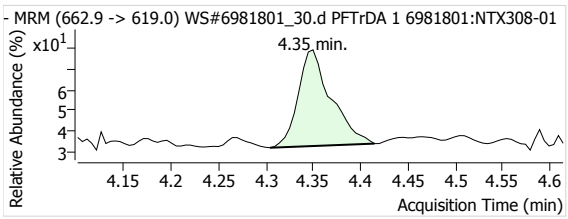

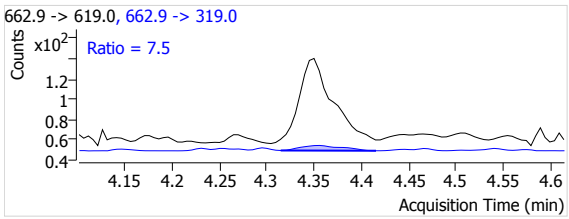

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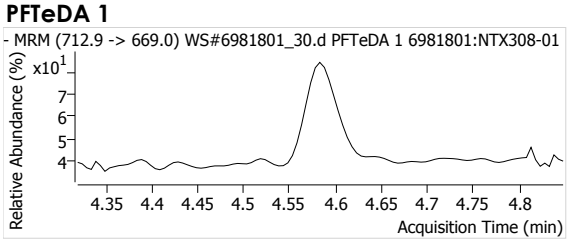

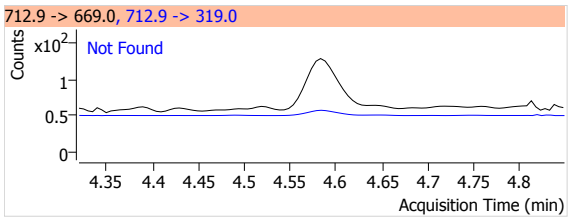

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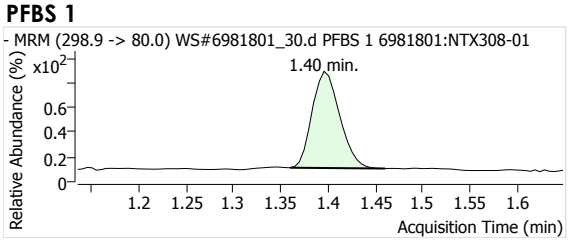

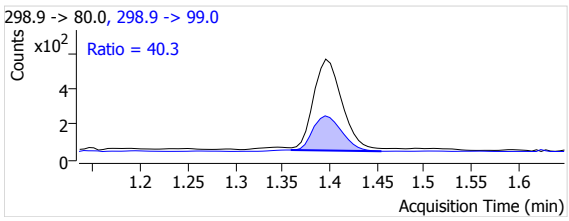

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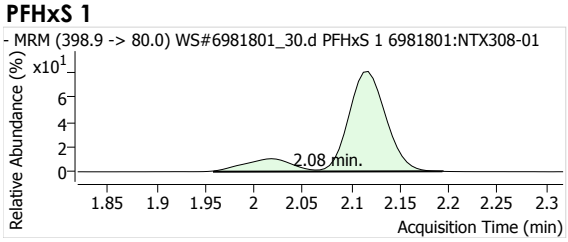

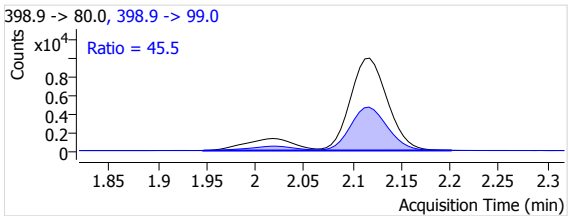

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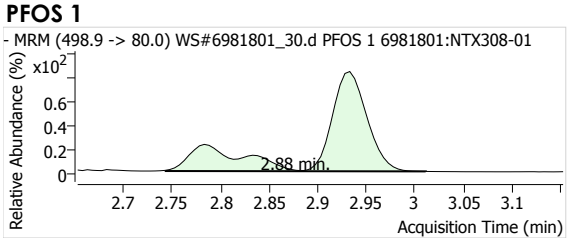
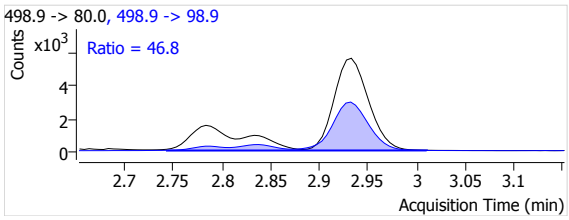
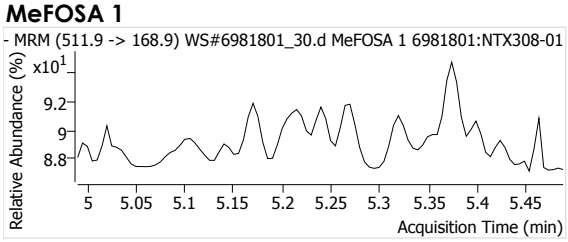
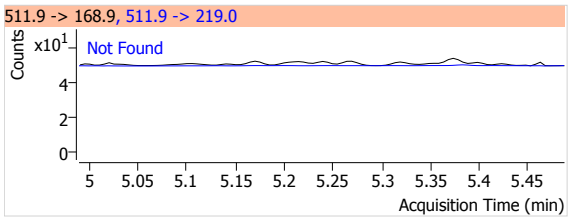




MeFOSA 1





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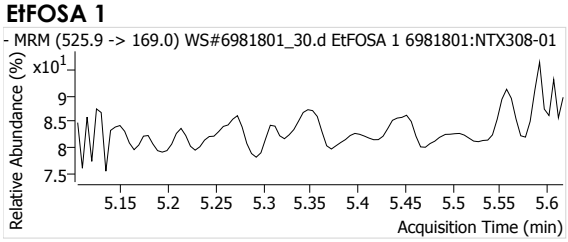
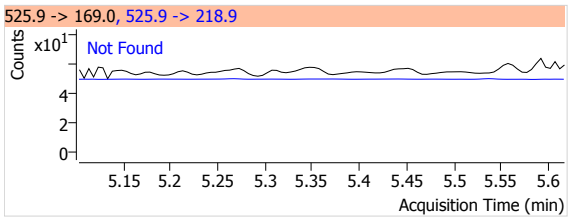
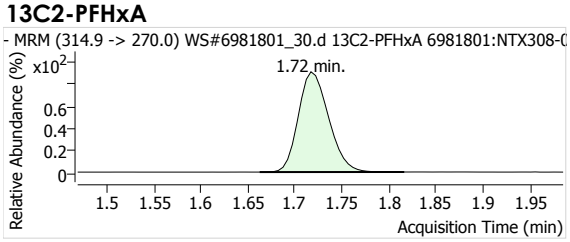
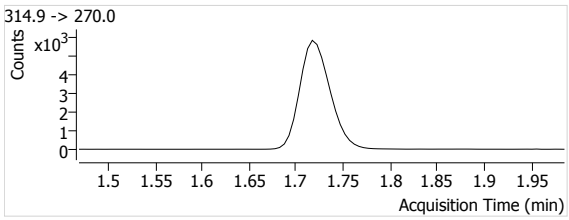




13C2-PFHxA





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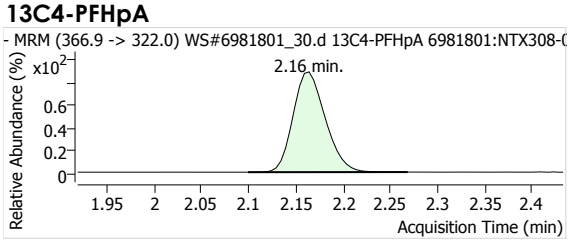

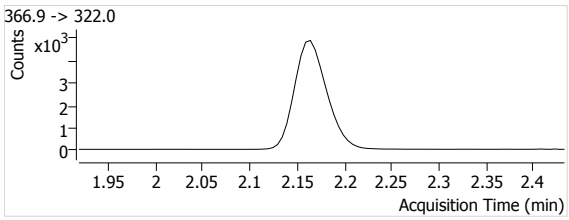

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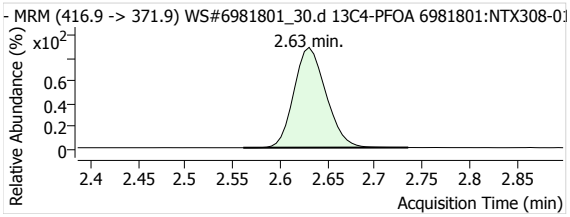

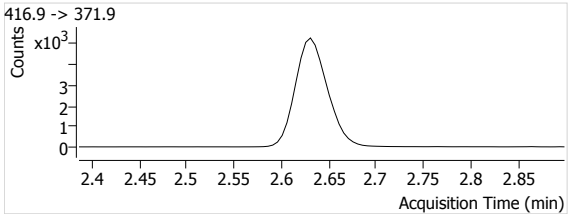

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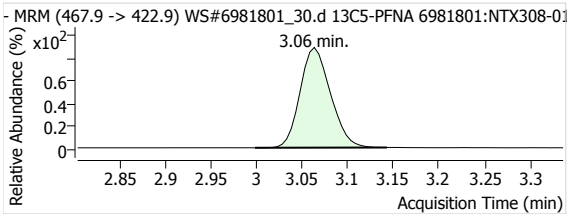

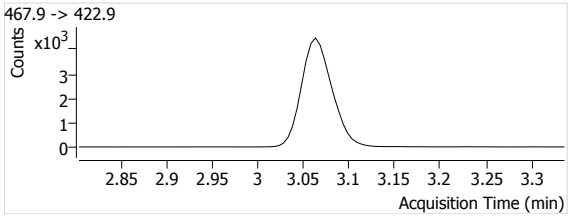

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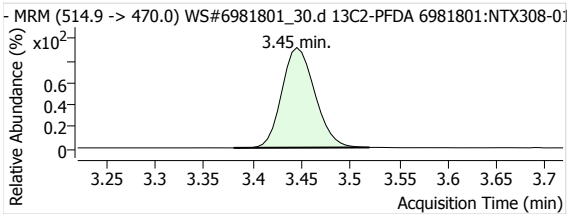
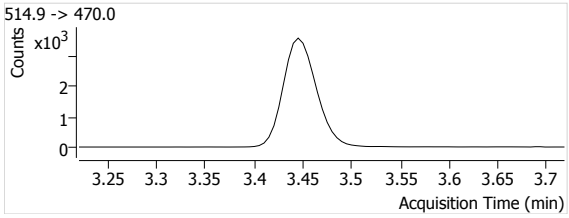
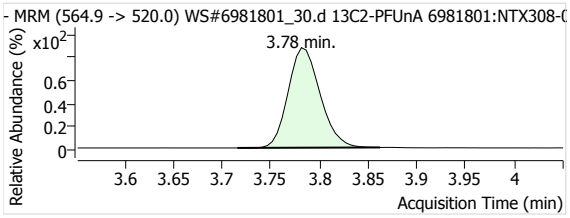
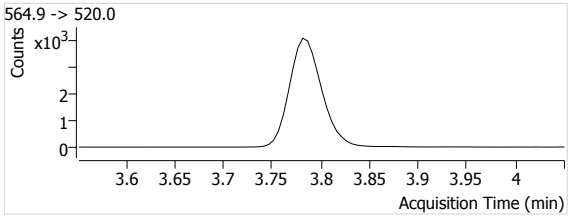




13C2-PFUnA





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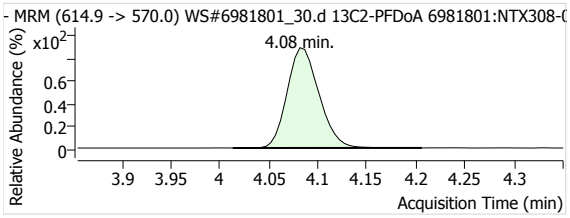

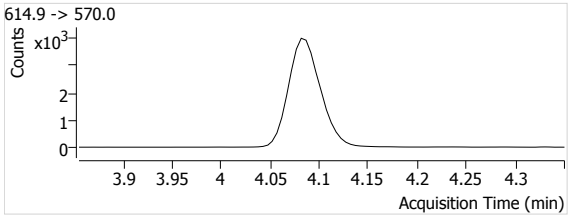

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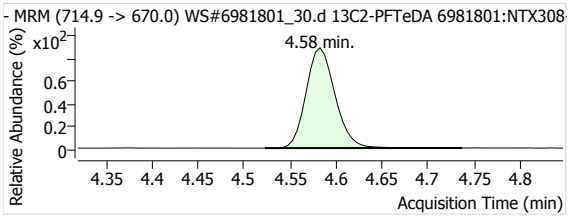

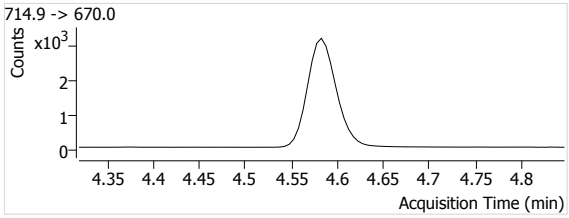

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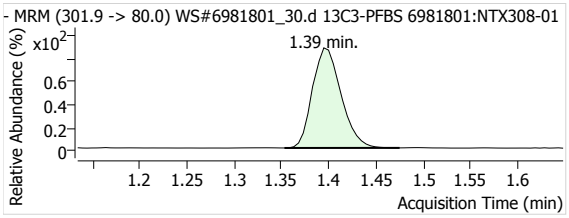
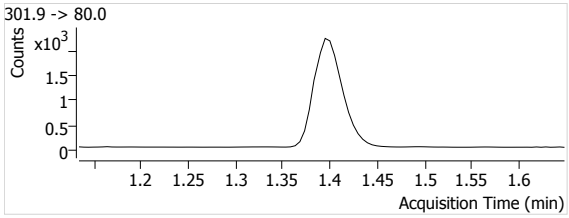
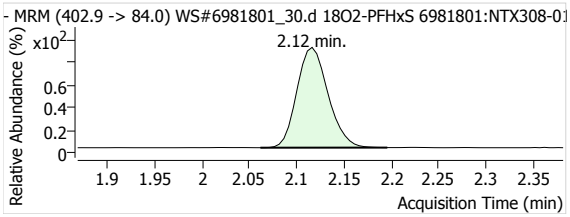
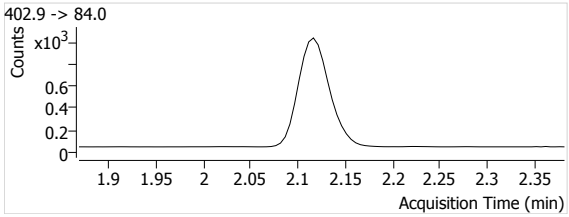




18O2-PFHxS





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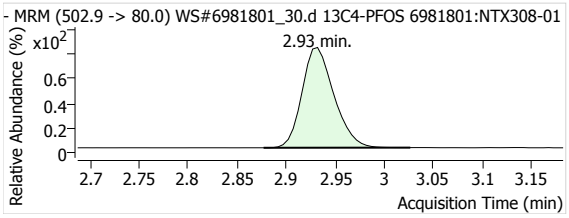
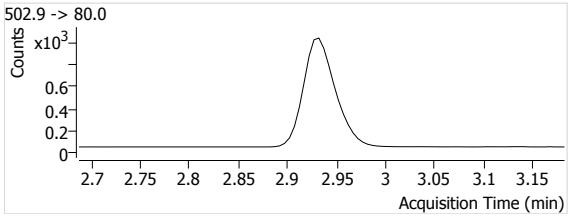
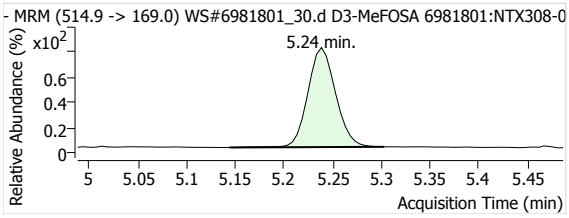
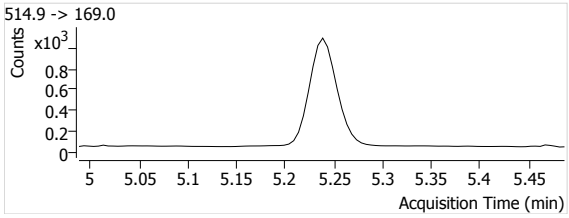




D3-MeFOSA





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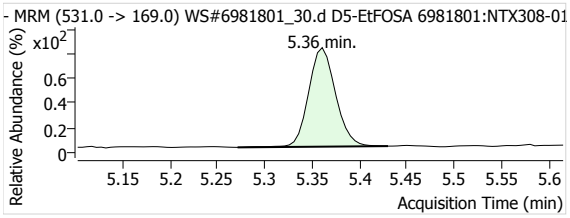
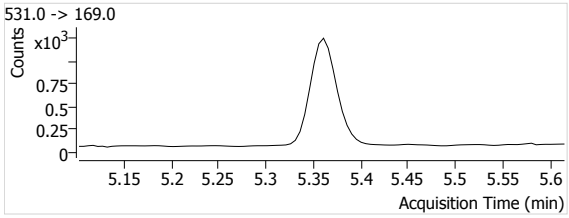




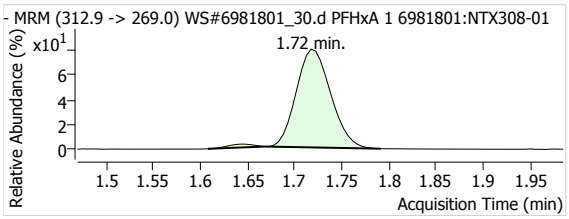
Quantitative Analysis Report

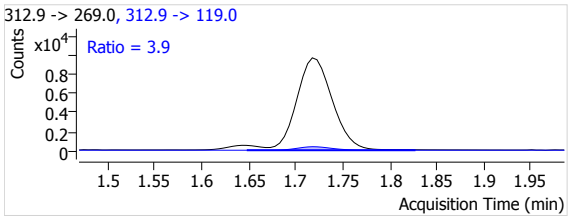
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX308-01	**Data File**	WS#6981801_30.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C7
Acq. Date-Time	2020/10/05 4:06:28 PM	**Dil.**	0.0
Comment	Reported all except PFHxS, PFOS		
User Defined	MI PFOA		

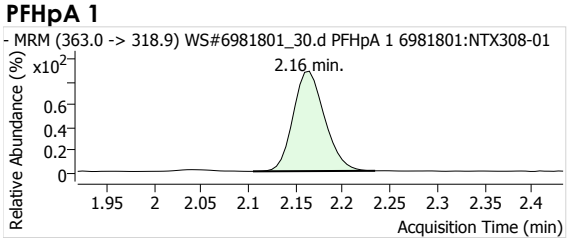
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2831	--	24176	1.72	226	1.8547	949	1.72	121	3.9
PFHpA 1	µg/L	--	0.0921	--	9711	2.16	79	0.8411	1637	2.16	52	16.9
PFOA 1	µg/L	--	0.7268	--	52415	2.63	507	4.2749	12653	2.63	967	24.1
PFNA 1	µg/L	--	0.0100	--	878	3.06	12	0.0866	140	3.06	16	15.9
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	200	4.35	5	0.0287	15	4.36	25	7.5
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0279	--	992	1.40	41	0.2172	400	1.40	21	40.3
PFHxS 1	µg/L	--	1.6969	--	30729	2.08	261	13.5969	13982	2.07	633	45.5
PFOS 1	µg/L	--	1.2380	--	19605	2.88	133	8.6864	9182	2.88	317	46.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	88.6795	--	13035	1.72	866		--	--	--	--
13C4-PFHpA	µg/L	--	92.4562	--	11545	2.16	638		--	--	--	--
13C4-PFOA	µg/L	--	89.9428	--	12261	2.63	720		--	--	--	--
13C5-PFNA	µg/L	--	91.5335	--	10141	3.06	756		--	--	--	--
13C2-PFDA	µg/L	--	83.6606	--	8223	3.45	533		--	--	--	--
13C2-PFUnA	µg/L	--	87.1696	--	9267	3.78	555		--	--	--	--
13C2-PFDoA	µg/L	--	80.2649	--	8846	4.08	624		--	--	--	--
13C2-PFTeDA	µg/L	--	77.5211	--	6980	4.58	561		--	--	--	--
13C3-PFBS	µg/L	--	90.3839	--	4568	1.39	221		--	--	--	--
18O2-PFHxS	µg/L	--	88.9064	--	2260	2.12	309		--	--	--	--
13C4-PFOS	µg/L	--	84.4686	--	2257	2.93	736		--	--	--	--
D3-MeFOSA	µg/L	--	58.1699	--	2047	5.24	62		--	--	--	--
D5-EtFOSA	µg/L	--	56.0795	--	2343	5.36	56		--	--	--	--

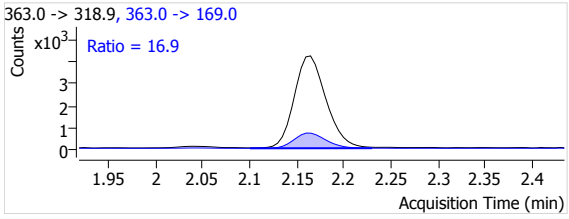
PFHxA 1





PFHpA 1





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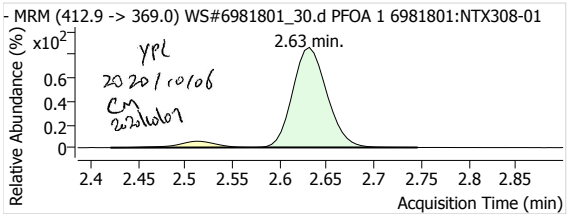

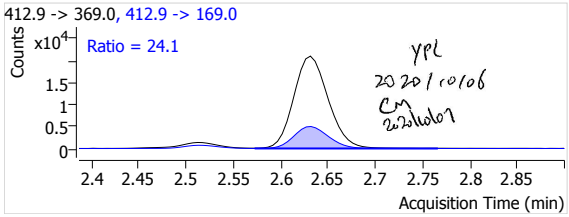

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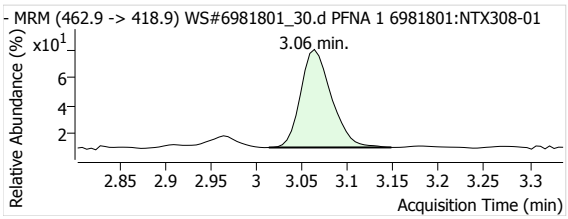

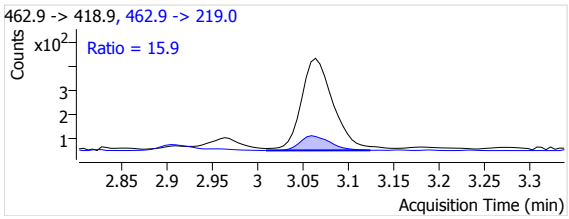

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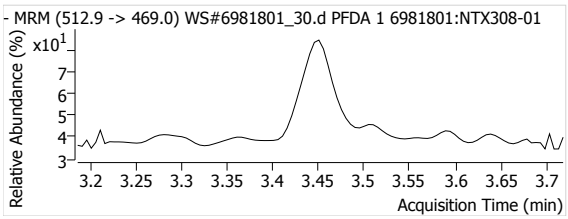
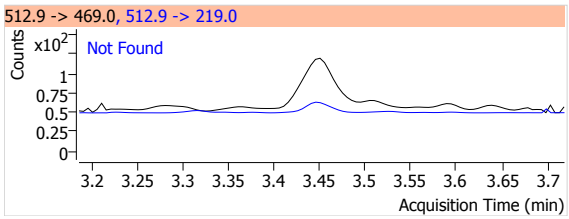
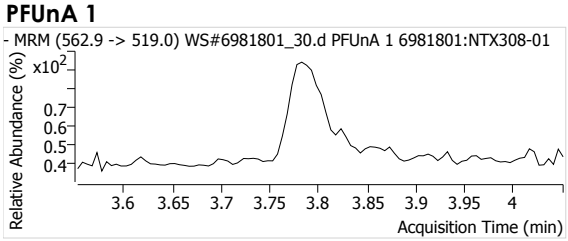
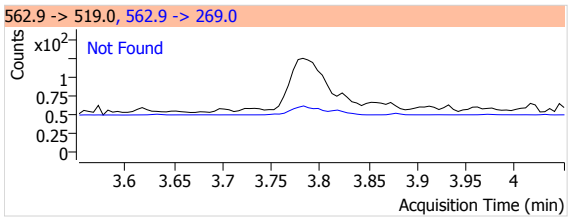




PFUnA 1





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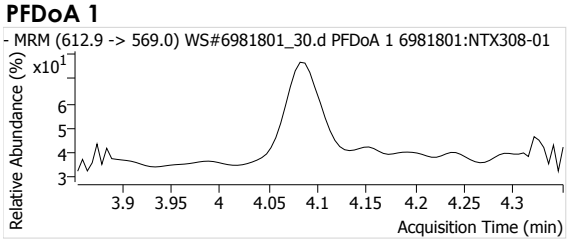

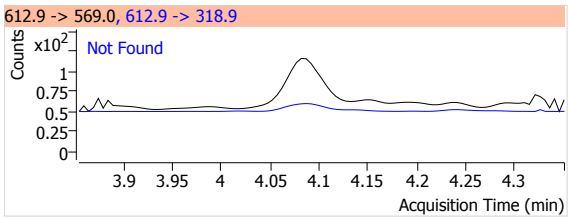

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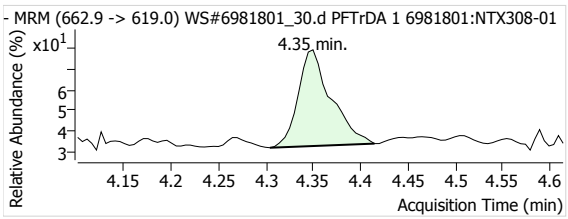

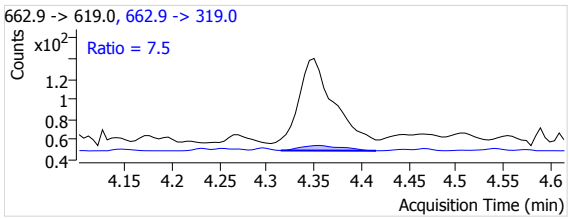

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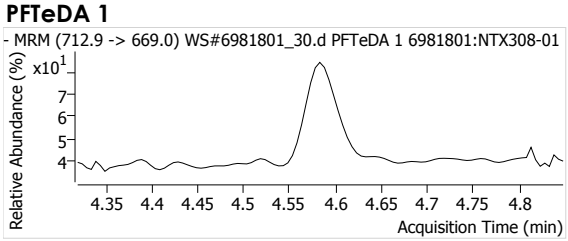

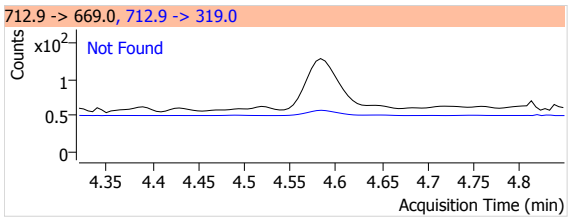

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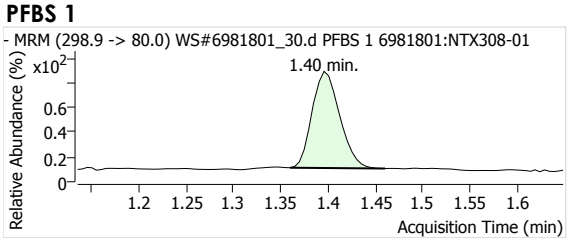
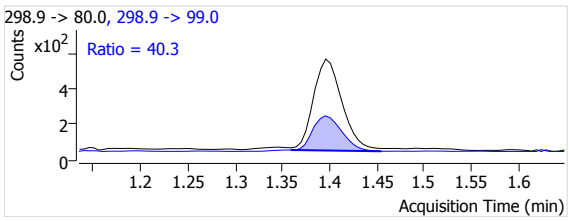
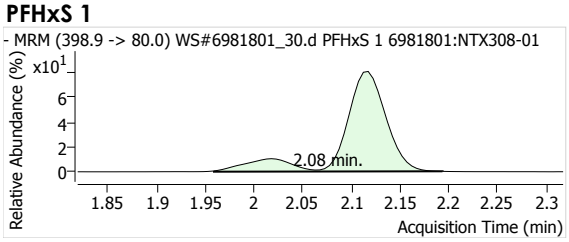
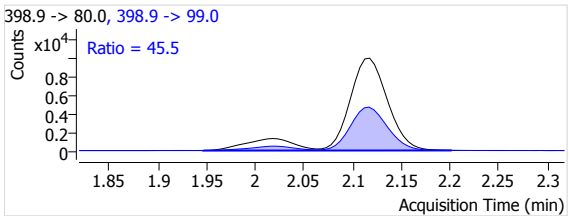


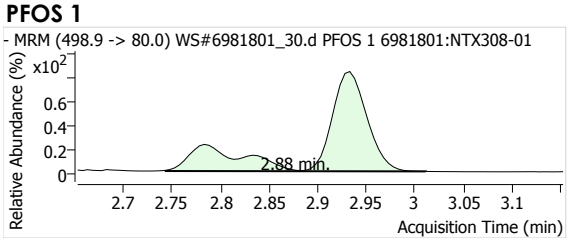


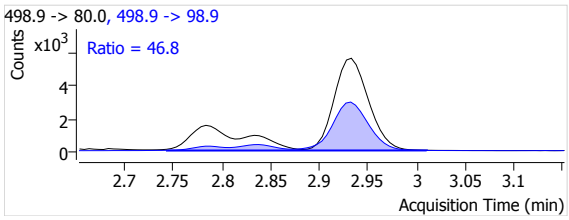
PFHxS 1



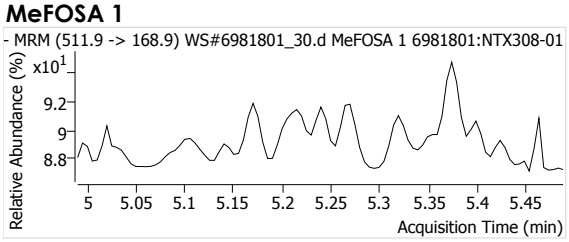


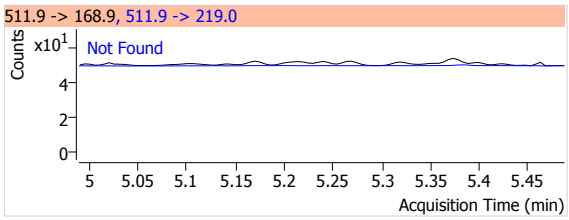
PFOS 1





MeFOSA 1





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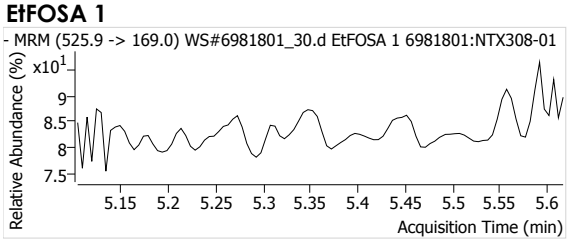
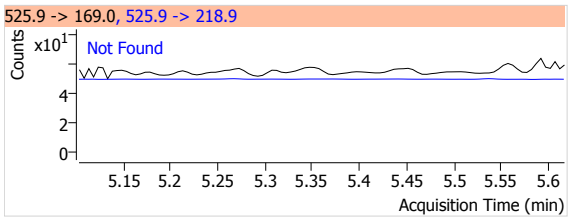
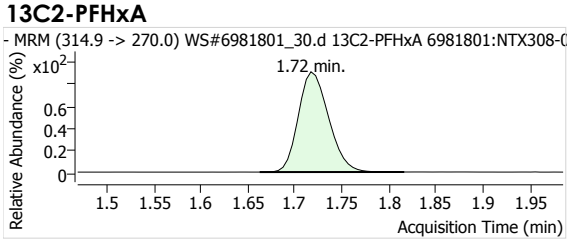
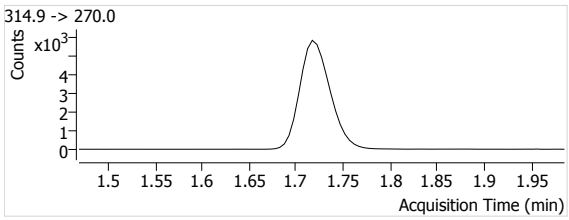




13C2-PFHxA





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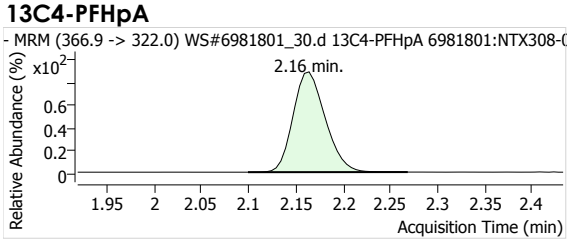

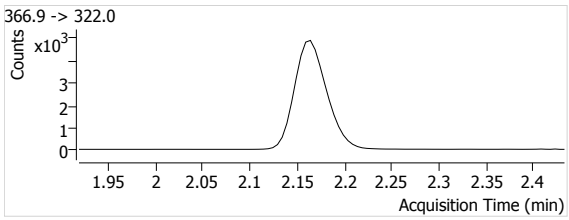

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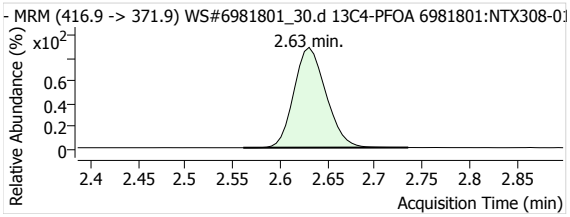

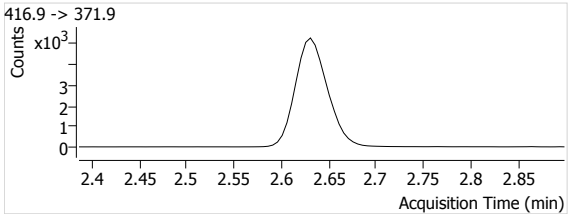

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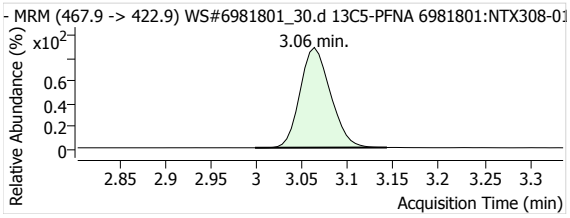

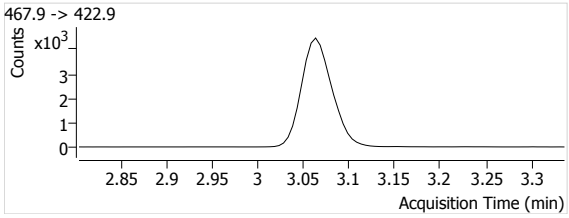

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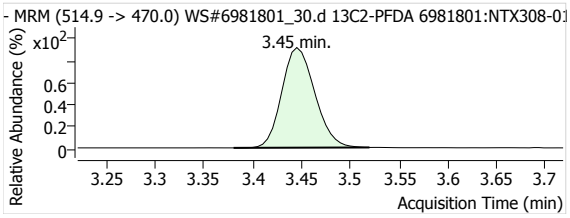

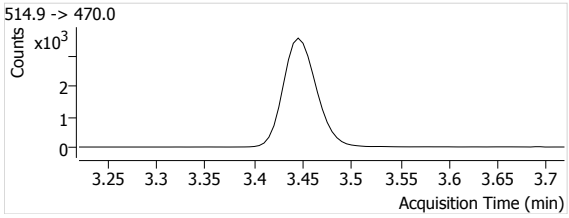

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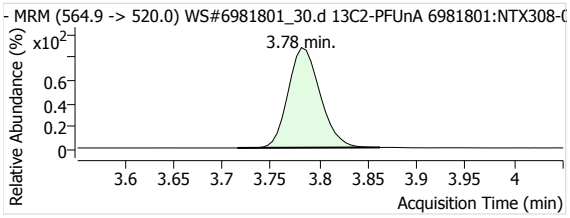

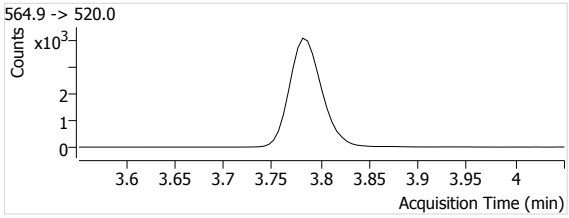

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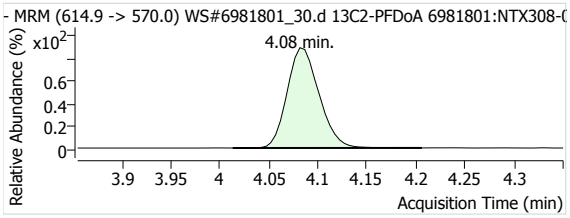

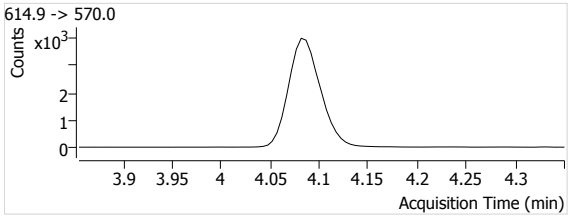

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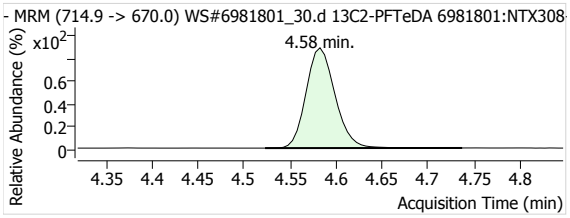

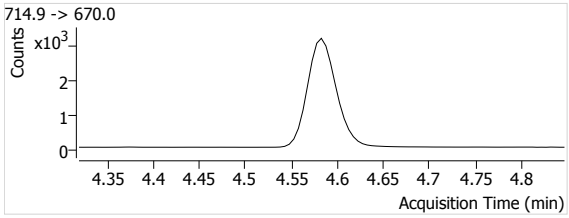

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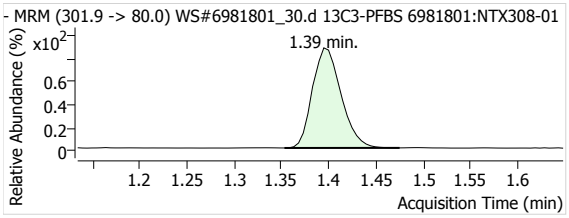

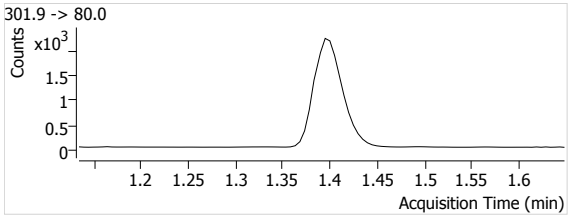

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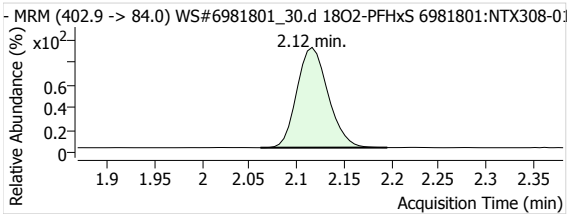

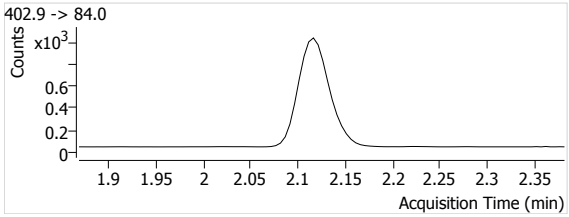

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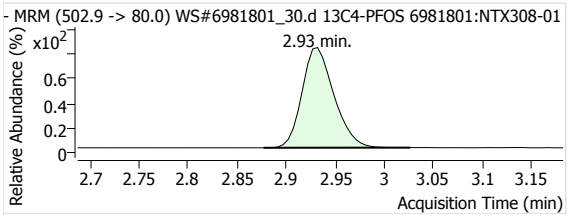
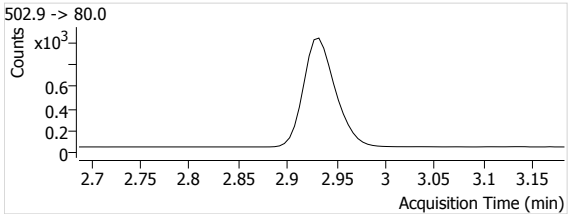
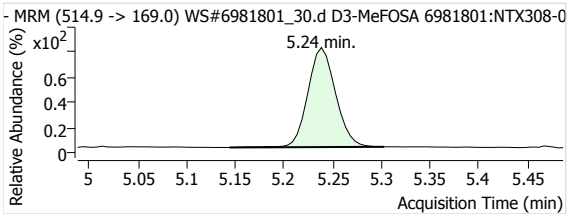
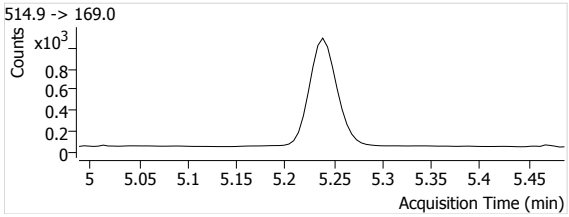




D3-MeFOSA





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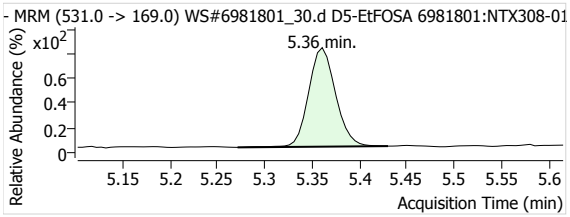
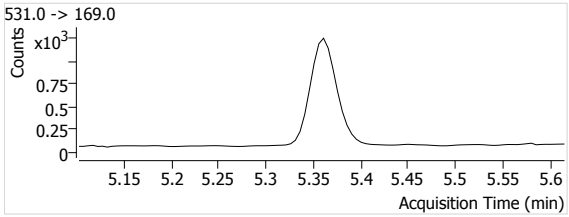




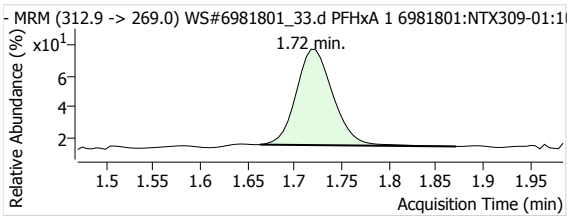
Quantitative Analysis Report

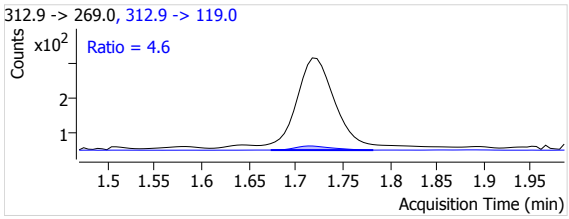
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX309-01:10x	**Data File**	WS#6981801_33.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C8
Acq. Date-Time	2020/10/05 4:27:24 PM	**Dil.**	0.2
Comment	Not reported		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0434	--	690	1.72	20	0.0540	32	1.71	19	4.6
PFHpA 1	µg/L	--	0.0088	--	508	2.16	10	0.0454	70	2.17	7	13.8
PFOA 1	µg/L	--	0.0833	--	854	2.63	9	0.0705	218	2.64	68	25.5
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0032	--	70	1.40	3	0.0160	23	1.39	13	32.9
PFHxS 1	µg/L	--	0.5498	--	1108	2.08	67	0.5045	496	2.07	150	44.7
PFOS 1	µg/L	--	0.4233	--	802	2.88	88	0.3481	411	2.88	187	51.2
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	86.8971	--	12773	1.72	1332		--	--	--	--
13C4-PFHpA	µg/L	--	89.5571	--	11183	2.16	1158		--	--	--	--
13C4-PFOA	µg/L	--	88.8571	--	12113	2.63	866		--	--	--	--
13C5-PFNA	µg/L	--	87.6613	--	9712	3.06	768		--	--	--	--
13C2-PFDA	µg/L	--	86.2753	--	8480	3.45	737		--	--	--	--
13C2-PFUnA	µg/L	--	84.0655	--	8937	3.78	459		--	--	--	--
13C2-PFDoA	µg/L	--	85.0104	--	9369	4.09	686		--	--	--	--
13C2-PFTeDA	µg/L	--	78.6428	--	7081	4.58	602		--	--	--	--
13C3-PFBS	µg/L	--	86.4662	--	4370	1.39	624		--	--	--	--
18O2-PFHxS	µg/L	--	86.4280	--	2197	2.12	433		--	--	--	--
13C4-PFOS	µg/L	--	86.2275	--	2304	2.93	379		--	--	--	--
D3-MeFOSA	µg/L	--	31.4862	--	1108	5.24	66		--	--	--	--
D5-EtFOSA	µg/L	--	28.7937	--	1203	5.36	21		--	--	--	--

PFHxA 1





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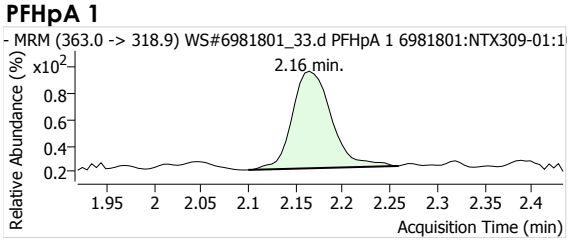

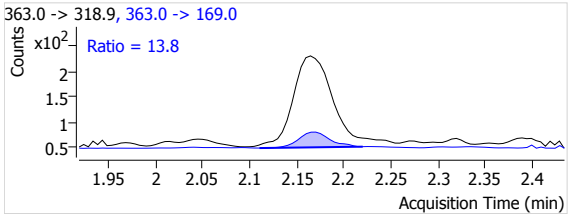

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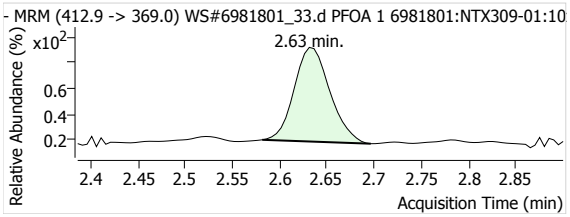

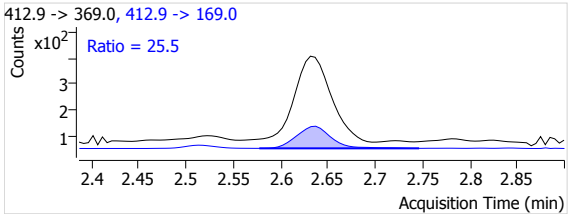

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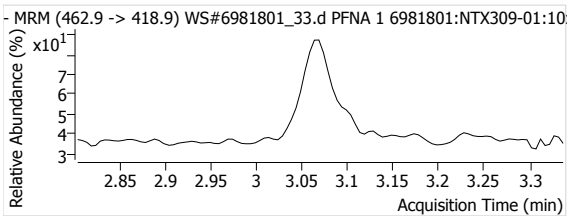

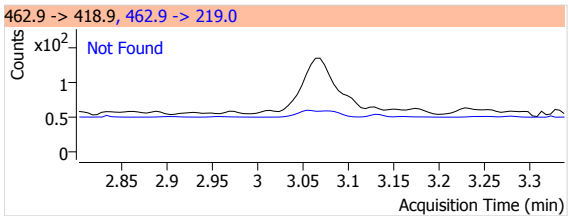

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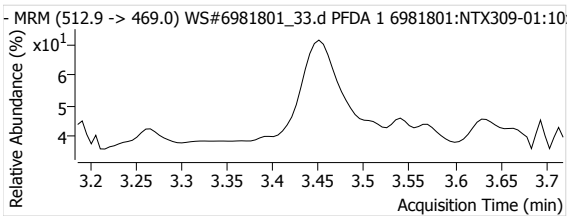

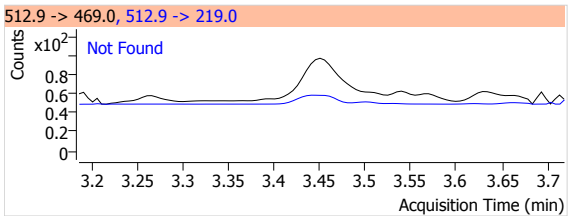

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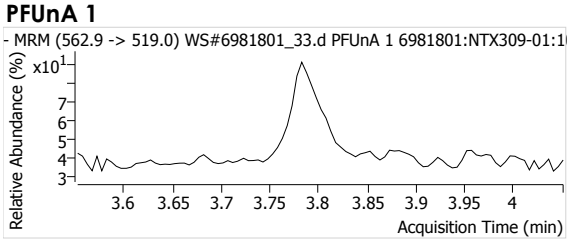

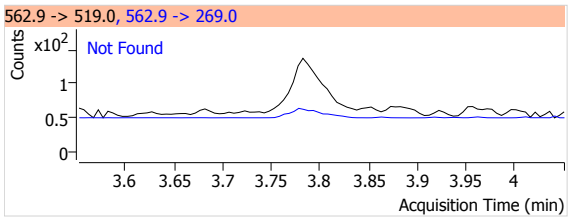

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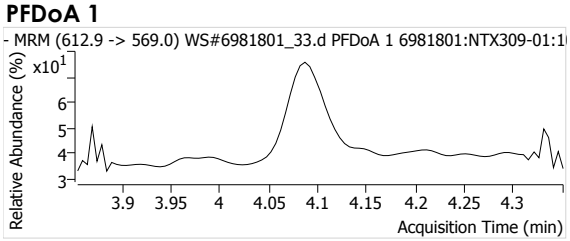

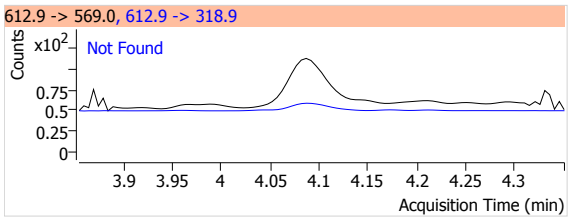

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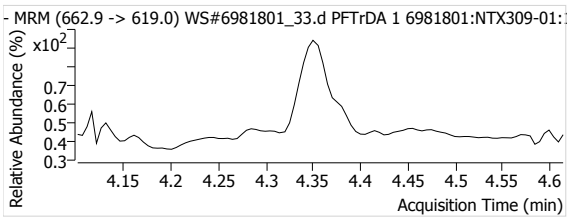

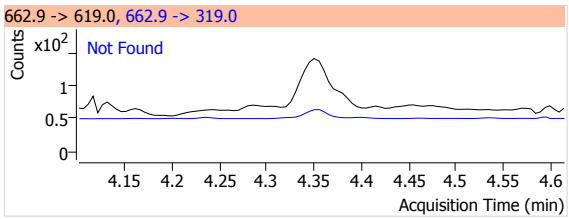

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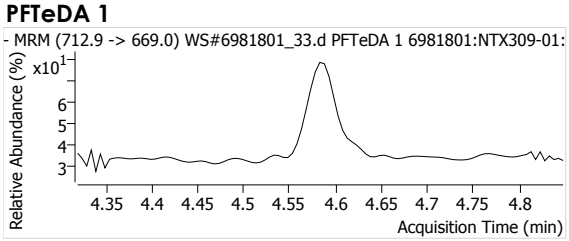

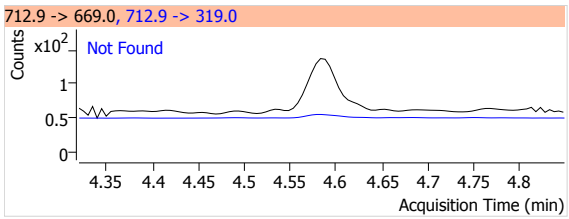

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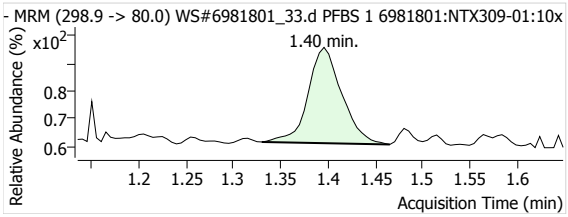

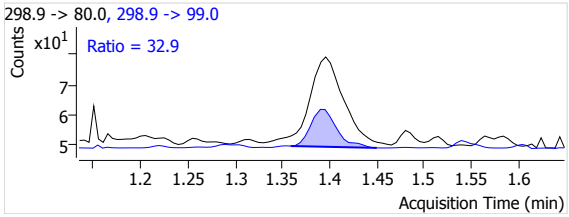

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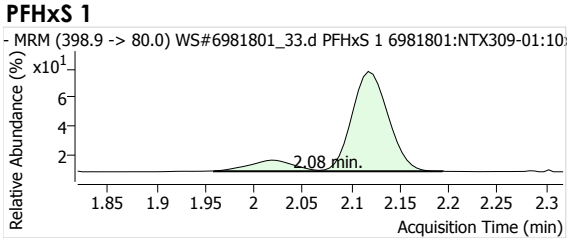

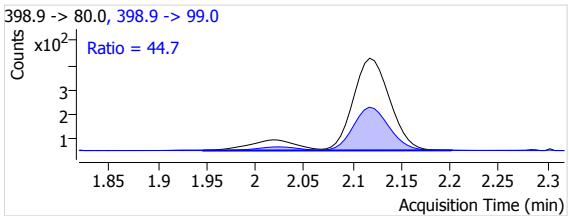

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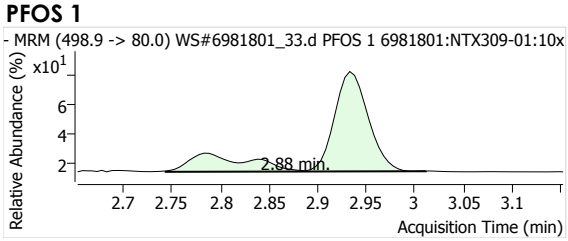

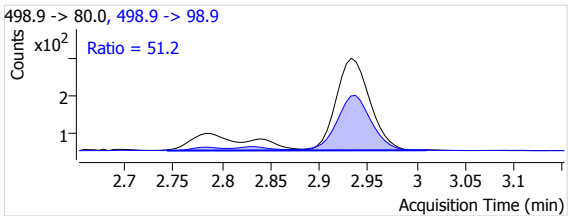

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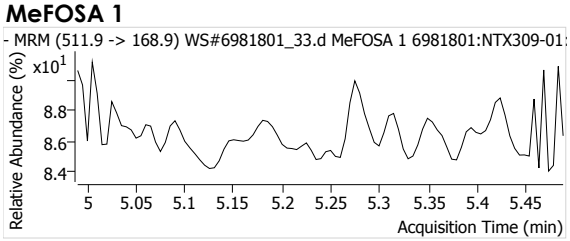

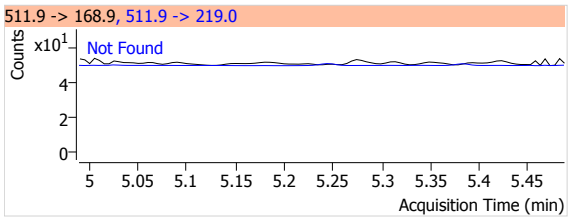

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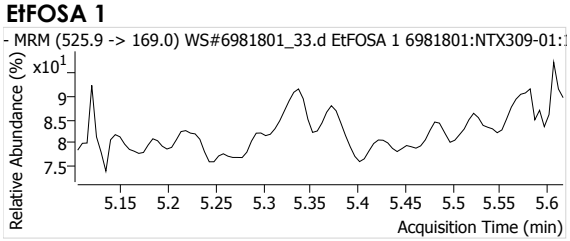

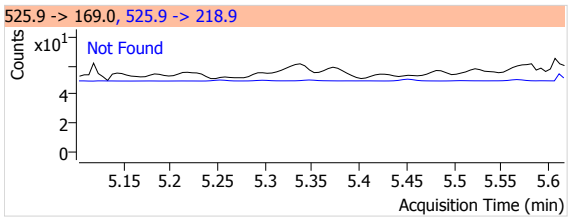

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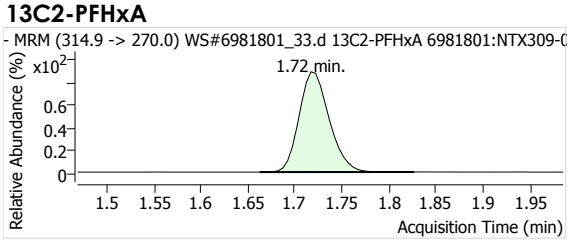

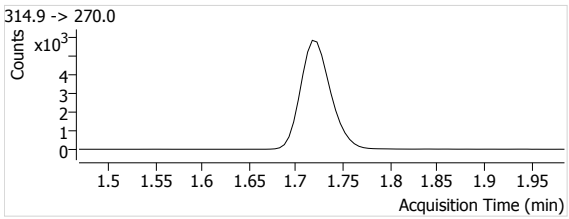

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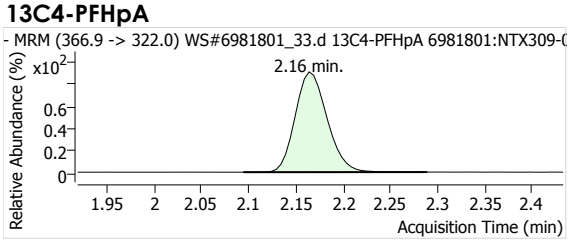

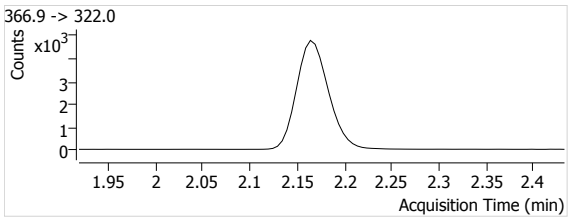

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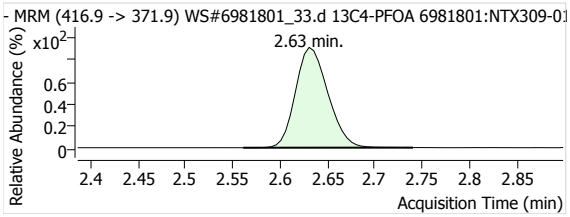

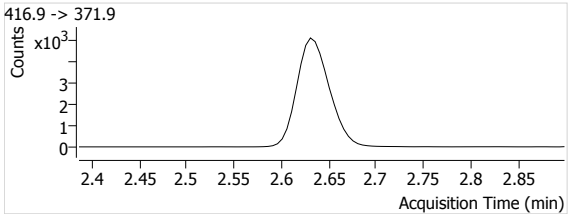

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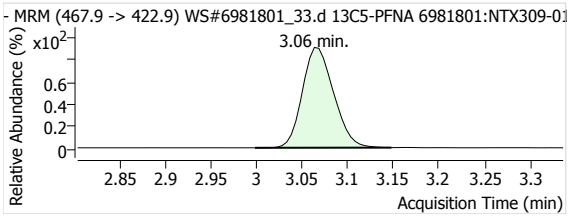

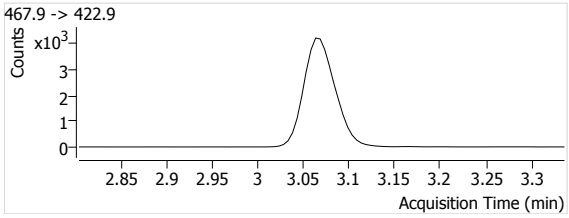

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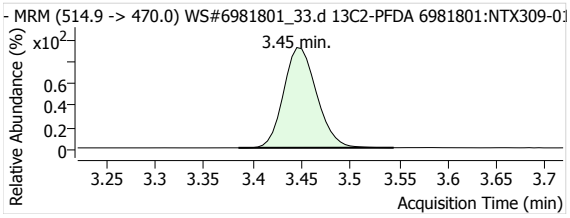

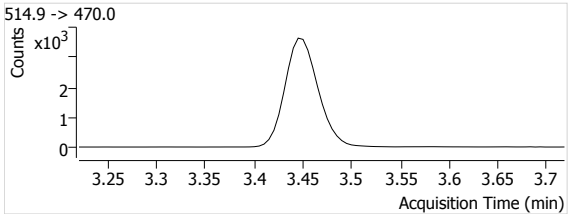

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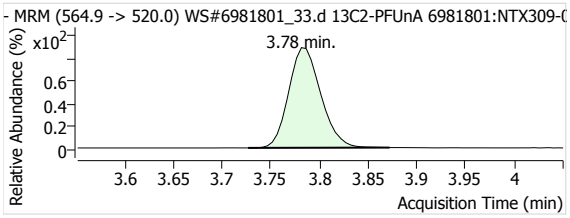

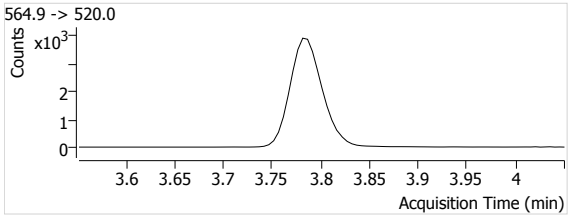

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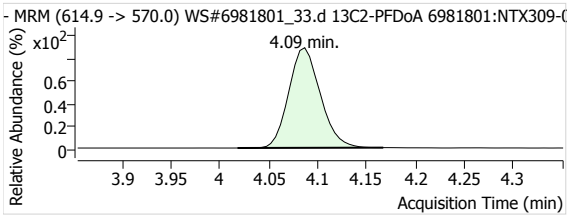

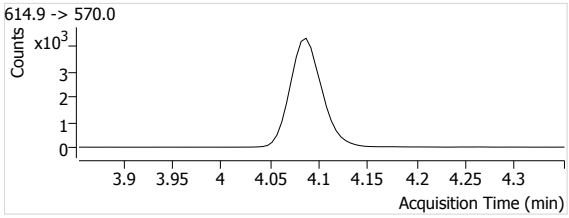

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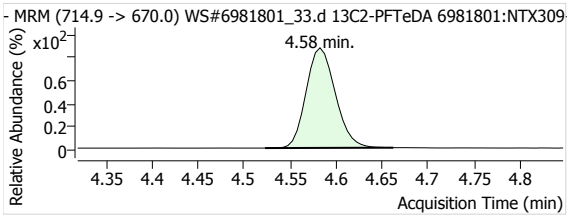

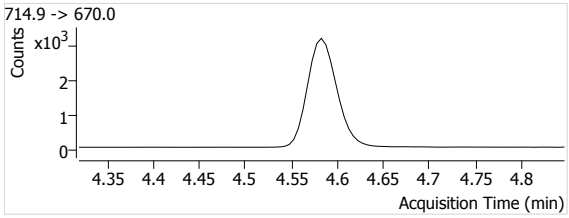

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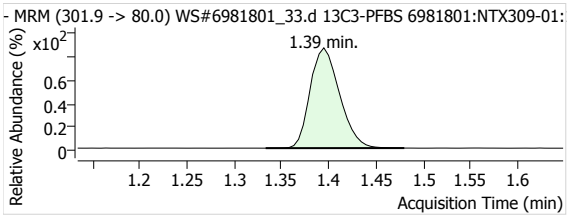

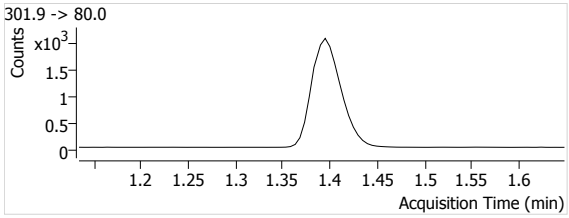

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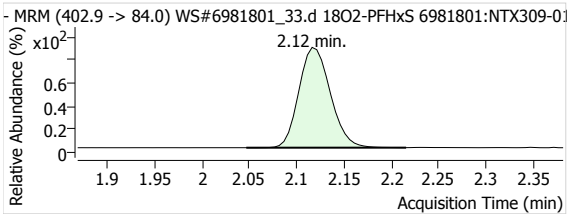

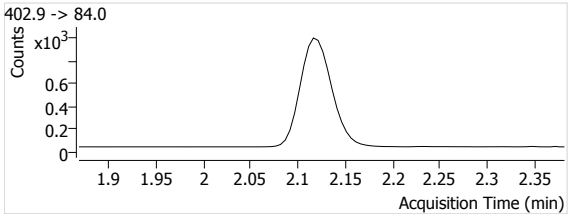

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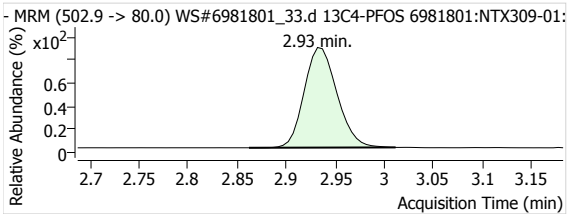

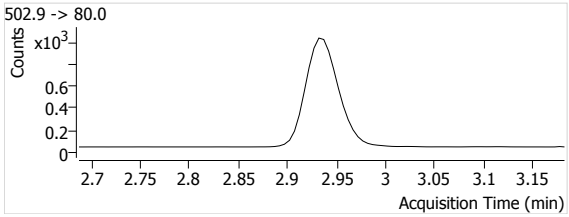

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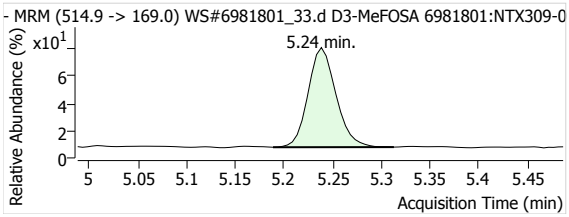

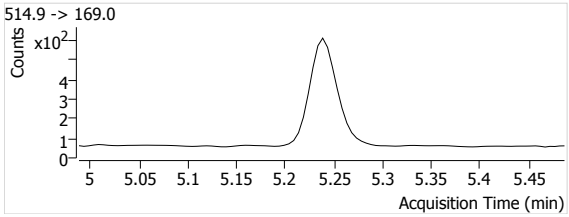

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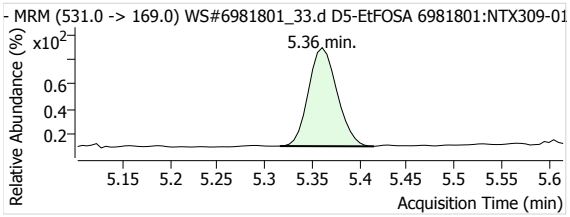
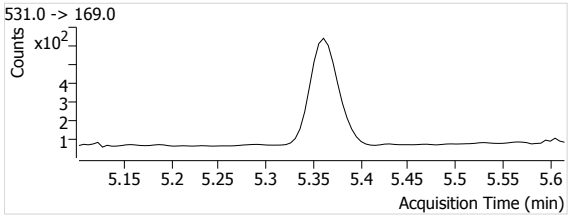




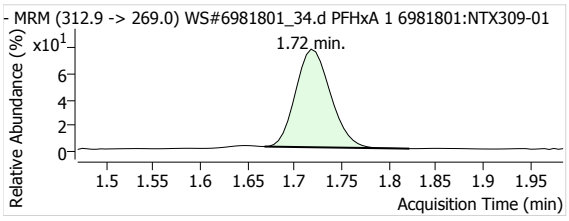
Quantitative Analysis Report

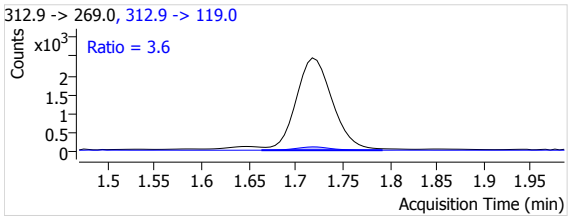
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX309-01	**Data File**	WS#6981801_34.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C9
Acq. Date-Time	2020/10/05 4:34:26 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0692	--	6088	1.72	62	0.4709	217	1.72	16	3.6
PFHpA 1	µg/L	--	0.0287	--	3232	2.16	35	0.2878	577	2.17	21	17.9
PFOA 1	µg/L	--	0.1135	--	8012	2.63	93	0.6815	2198	2.63	202	27.4
PFNA 1	µg/L	--	0.0058	--	565	3.06	13	0.0578	70	3.06	15	12.4
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0156	--	544	1.40	22	0.1270	237	1.40	17	43.6
PFHxS 1	µg/L	--	0.6763	--	11403	2.08	343	5.4300	5141	2.07	255	45.1
PFOS 1	µg/L	--	0.5879	--	9268	2.88	197	4.1358	4638	2.88	352	50.0
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	87.9584	--	12929	1.72	738		--	--	--	--
13C4-PFHpA	µg/L	--	89.9255	--	11229	2.16	1169		--	--	--	--
13C4-PFOA	µg/L	--	86.2383	--	11756	2.63	959		--	--	--	--
13C5-PFNA	µg/L	--	88.2571	--	9778	3.06	758		--	--	--	--
13C2-PFDA	µg/L	--	85.1663	--	8371	3.45	868		--	--	--	--
13C2-PFUnA	µg/L	--	82.0431	--	8722	3.78	544		--	--	--	--
13C2-PFDoA	µg/L	--	78.1690	--	8615	4.08	424		--	--	--	--
13C2-PFTeDA	µg/L	--	70.2577	--	6326	4.58	935		--	--	--	--
13C3-PFBS	µg/L	--	84.7843	--	4285	1.39	277		--	--	--	--
18O2-PFHxS	µg/L	--	82.6121	--	2100	2.12	537		--	--	--	--
13C4-PFOS	µg/L	--	83.8698	--	2241	2.93	419		--	--	--	--
D3-MeFOSA	µg/L	--	49.8437	--	1754	5.24	75		--	--	--	--
D5-EtFOSA	µg/L	--	49.7128	--	2077	5.36	45		--	--	--	--

PFHxA 1





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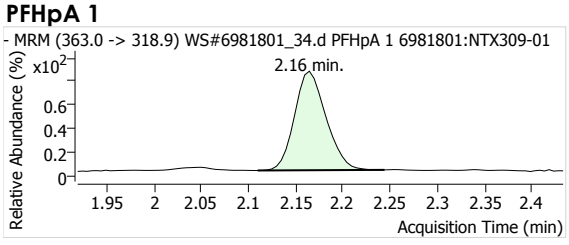

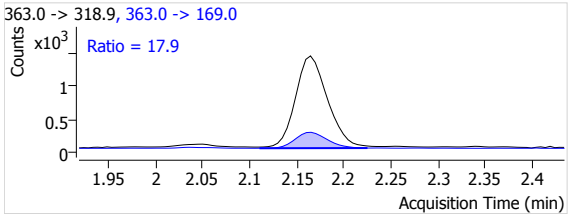

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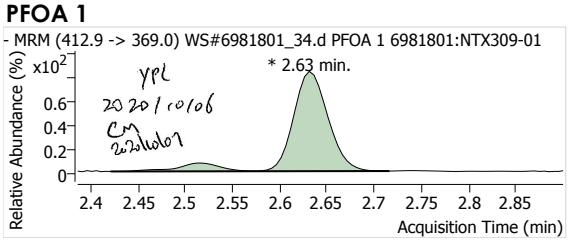

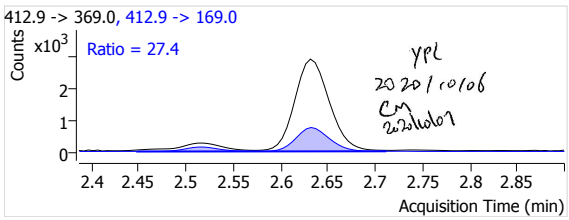

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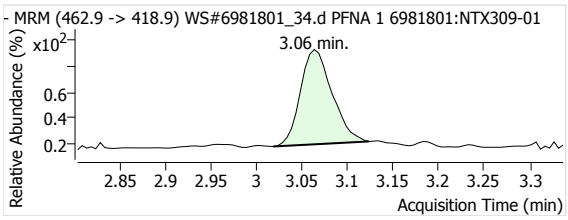

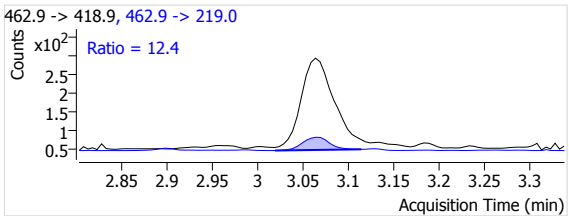

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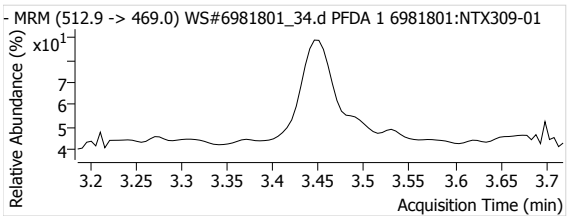

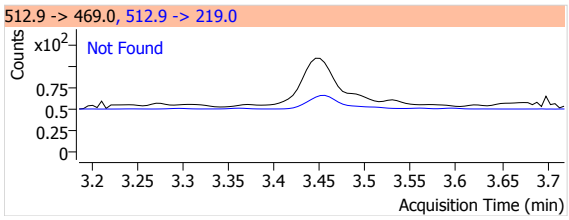

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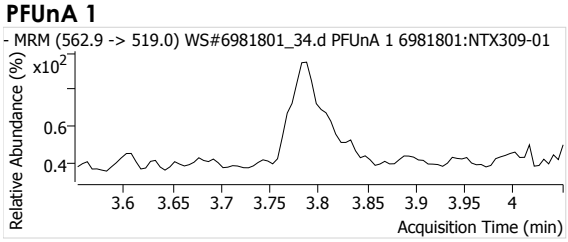

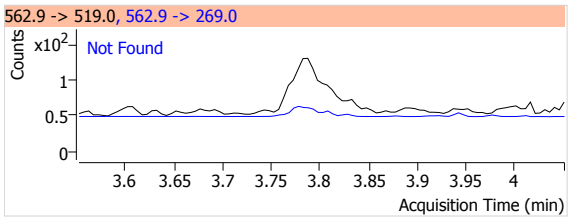

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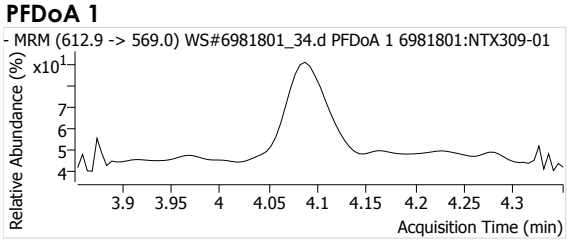

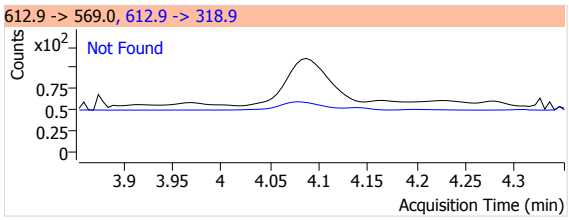

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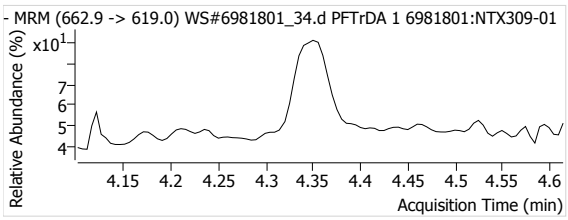

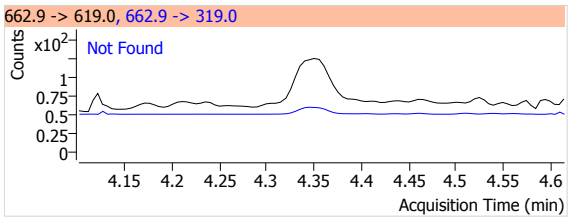

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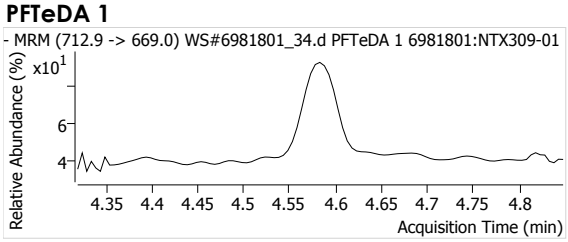

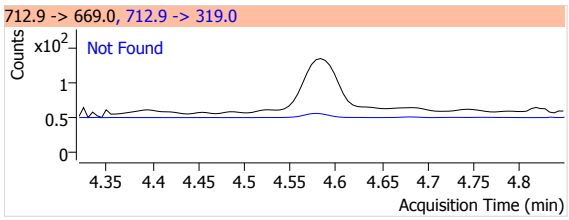

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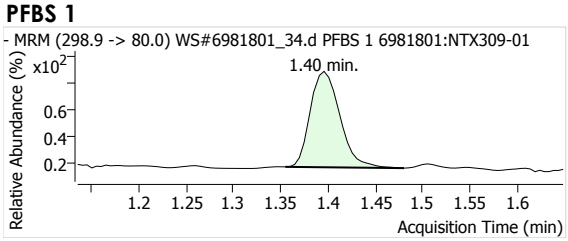

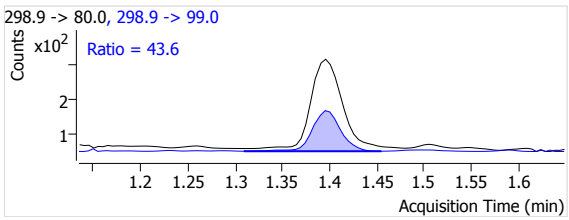

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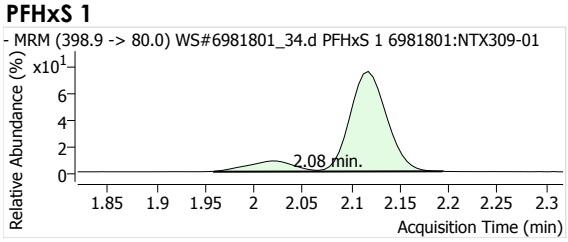

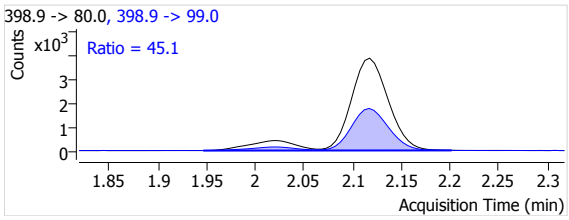

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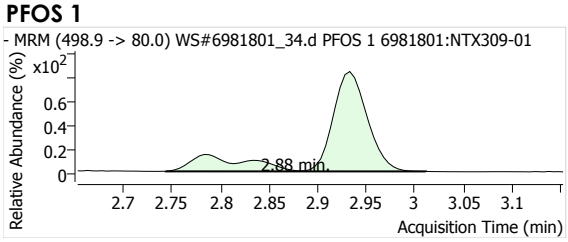

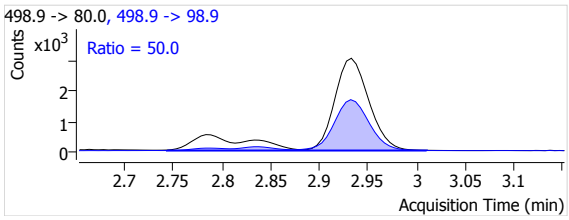

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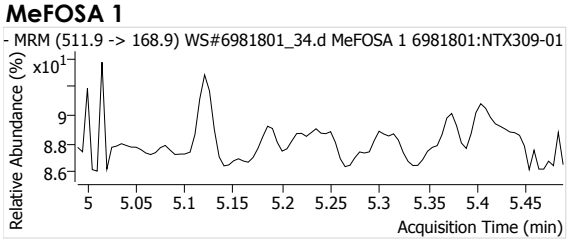

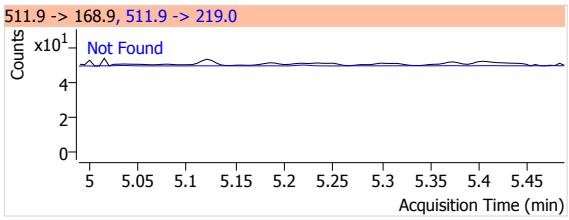

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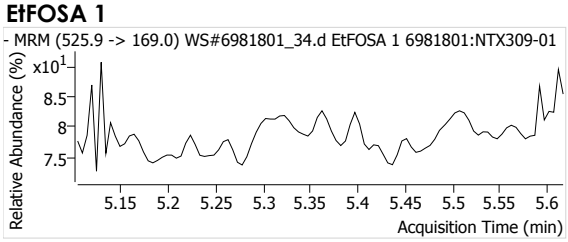

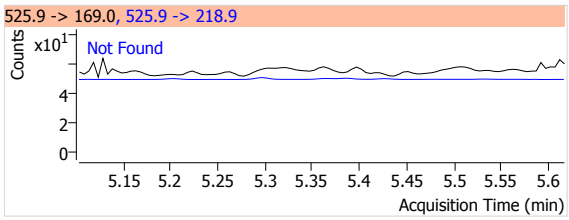

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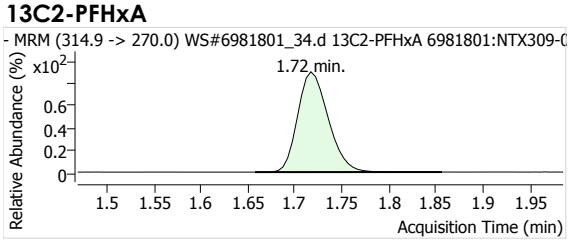

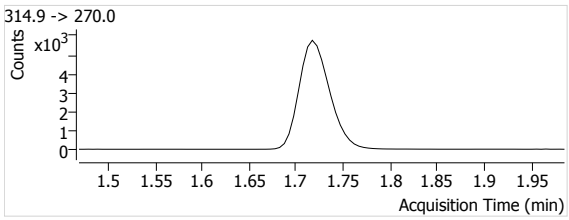

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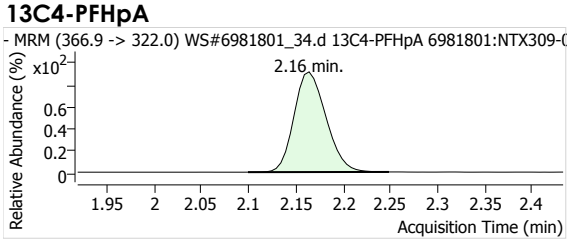

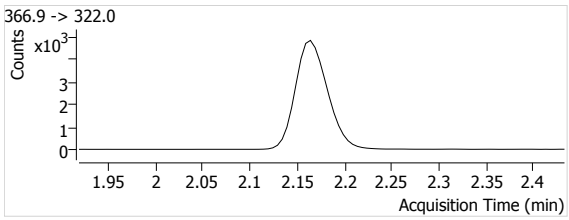

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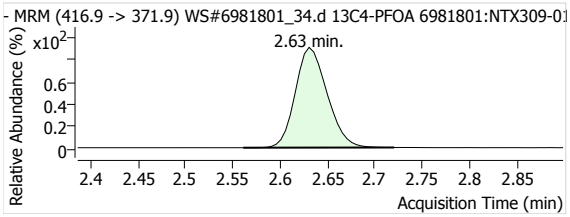

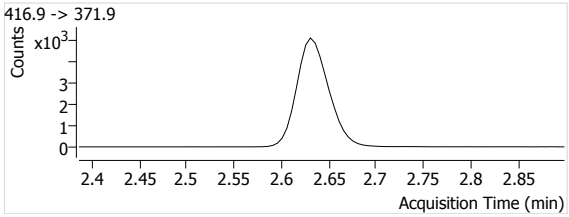

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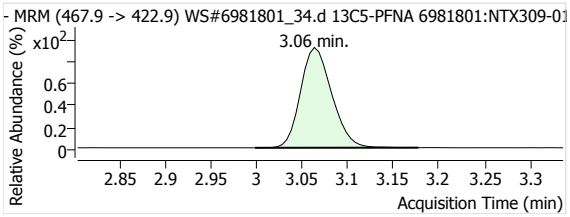

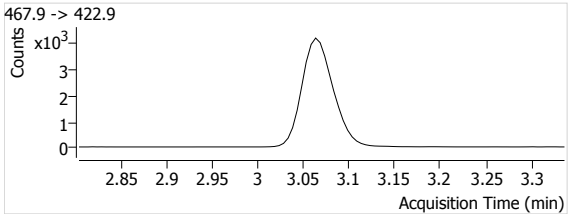

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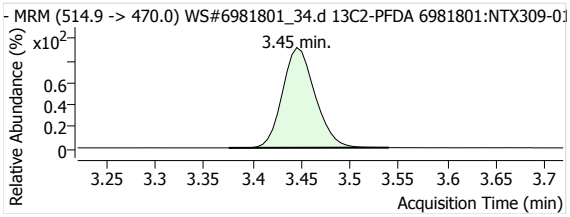

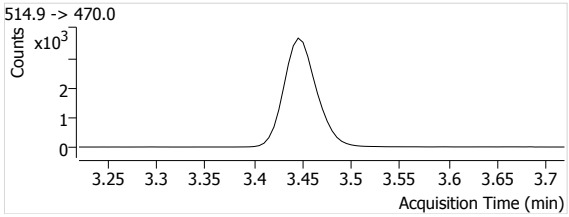

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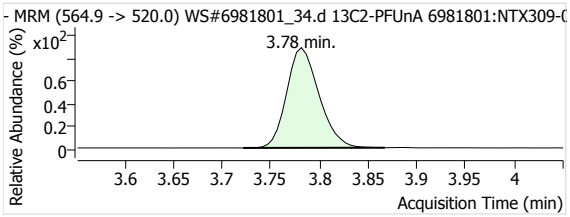

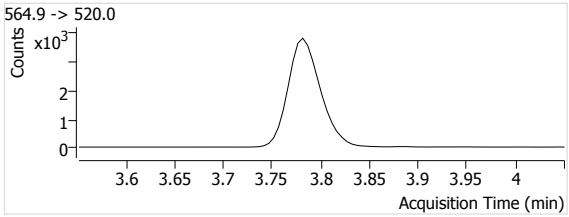

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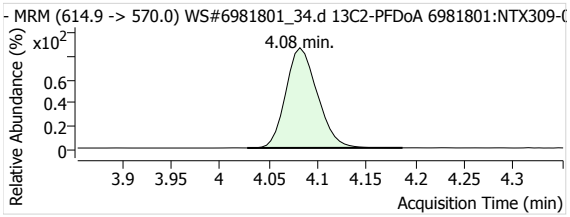

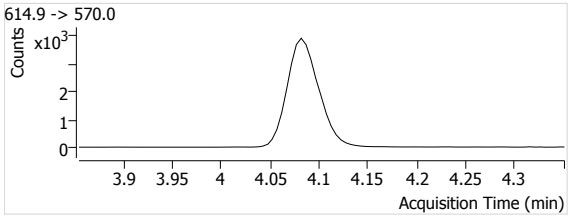

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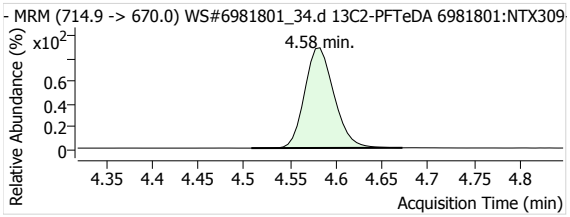

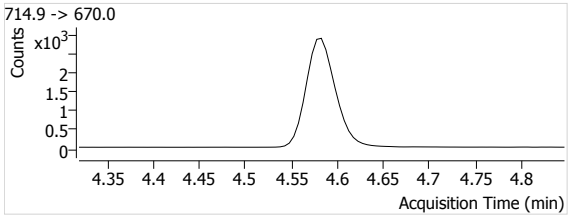

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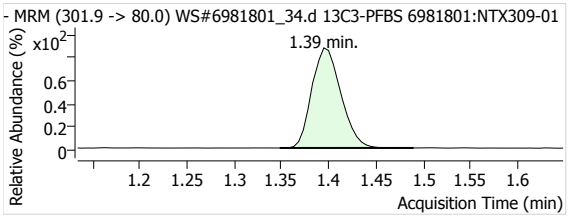

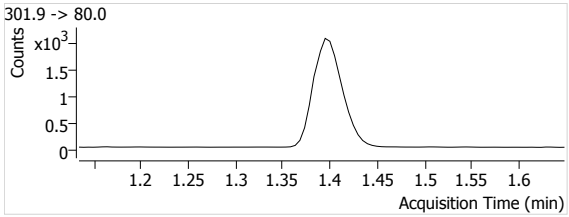

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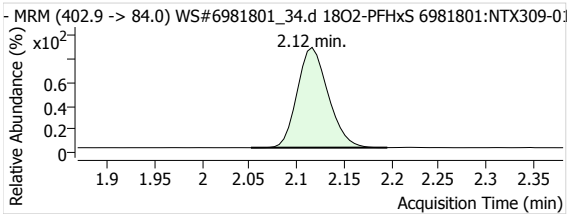

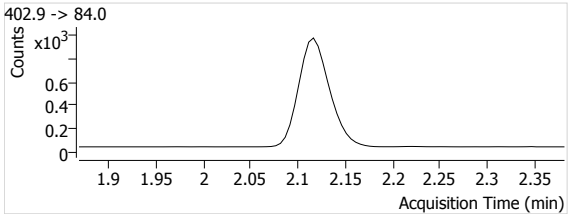

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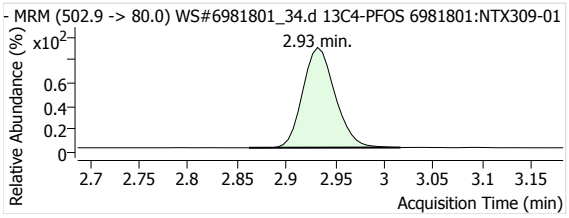

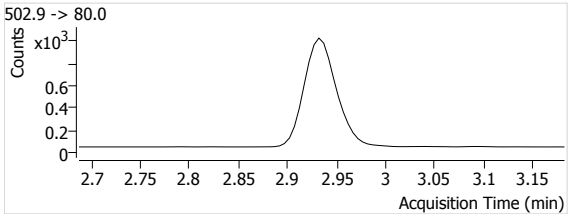

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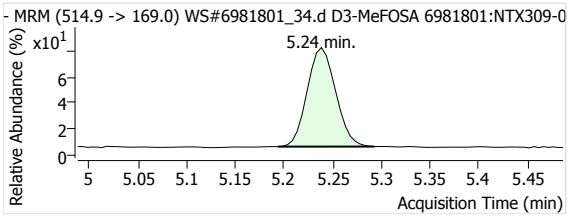

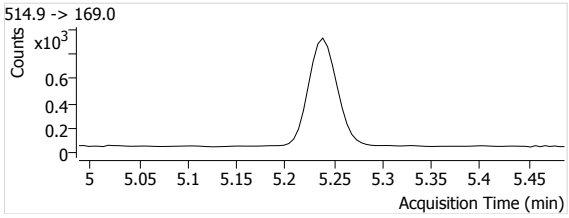

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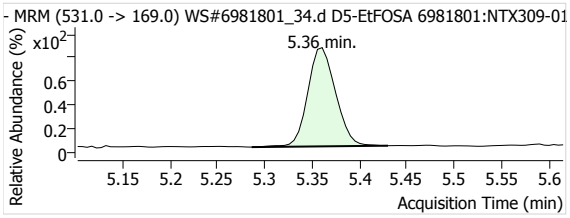
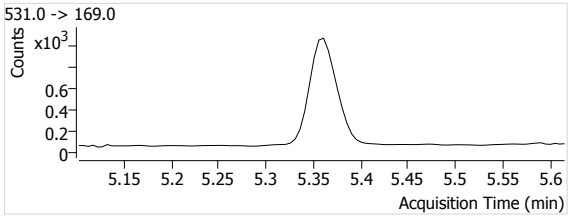




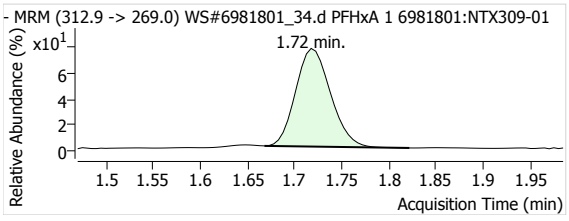
Quantitative Analysis Report

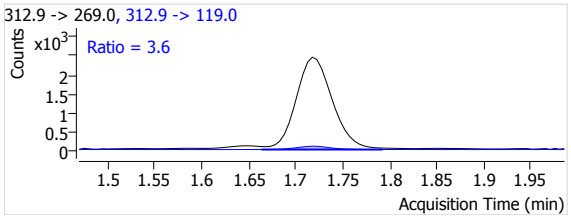
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX309-01	**Data File**	WS#6981801_34.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-C9
Acq. Date-Time	2020/10/05 4:34:26 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

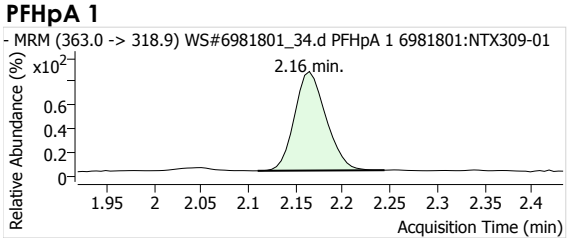
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0692	--	6088	1.72	62	0.4709	217	1.72	16	3.6
PFHpA 1	µg/L	--	0.0287	--	3232	2.16	35	0.2878	577	2.17	21	17.9
PFOA 1	µg/L	--	0.1015	--	7187	2.63	93	0.6113	1834	2.63	234	25.5
PFNA 1	µg/L	--	0.0058	--	565	3.06	13	0.0578	70	3.06	15	12.4
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0156	--	544	1.40	22	0.1270	237	1.40	17	43.6
PFHxS 1	µg/L	--	0.6763	--	11403	2.08	343	5.4300	5141	2.07	255	45.1
PFOS 1	µg/L	--	0.5879	--	9268	2.88	197	4.1358	4638	2.88	352	50.0
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	87.9584	--	12929	1.72	738		--	--	--	--
13C4-PFHpA	µg/L	--	89.9255	--	11229	2.16	1169		--	--	--	--
13C4-PFOA	µg/L	--	86.2383	--	11756	2.63	959		--	--	--	--
13C5-PFNA	µg/L	--	88.2571	--	9778	3.06	758		--	--	--	--
13C2-PFDA	µg/L	--	85.1663	--	8371	3.45	868		--	--	--	--
13C2-PFUnA	µg/L	--	82.0431	--	8722	3.78	544		--	--	--	--
13C2-PFDoA	µg/L	--	78.1690	--	8615	4.08	424		--	--	--	--
13C2-PFTeDA	µg/L	--	70.2577	--	6326	4.58	935		--	--	--	--
13C3-PFBS	µg/L	--	84.7843	--	4285	1.39	277		--	--	--	--
18O2-PFHxS	µg/L	--	82.6121	--	2100	2.12	537		--	--	--	--
13C4-PFOS	µg/L	--	83.8698	--	2241	2.93	419		--	--	--	--
D3-MeFOSA	µg/L	--	49.8437	--	1754	5.24	75		--	--	--	--
D5-EtFOSA	µg/L	--	49.7128	--	2077	5.36	45		--	--	--	--

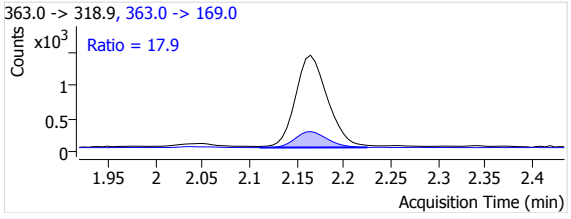
PFHxA 1





PFHpA 1





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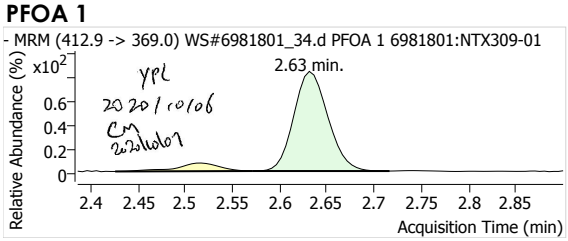

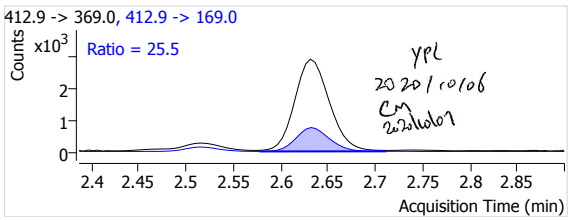

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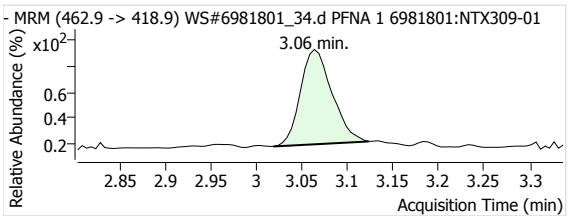

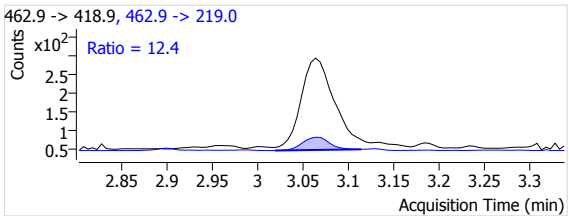

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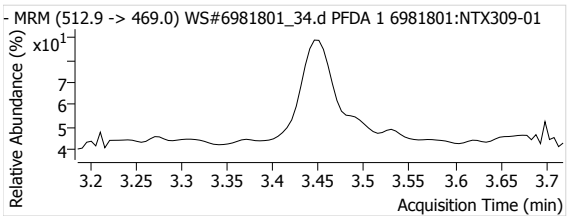

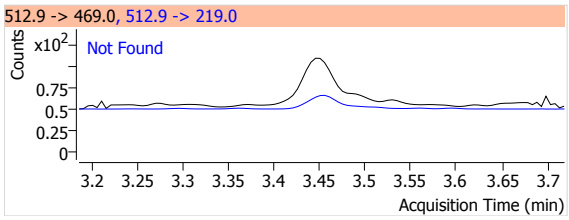

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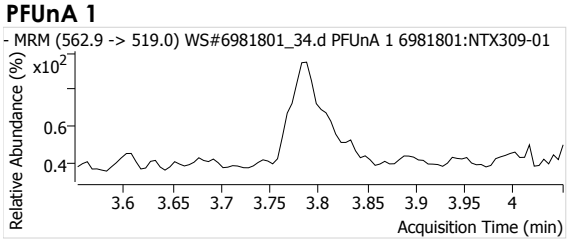

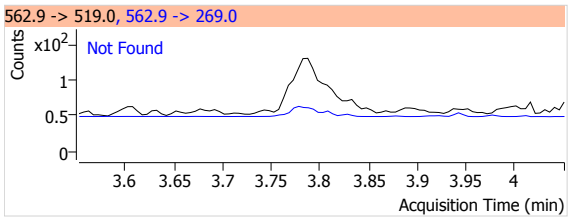

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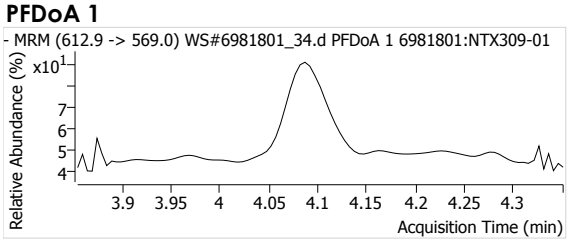

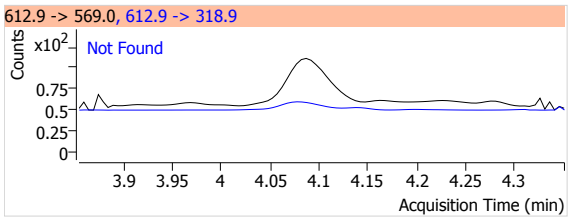

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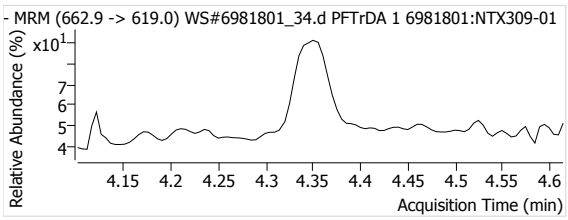

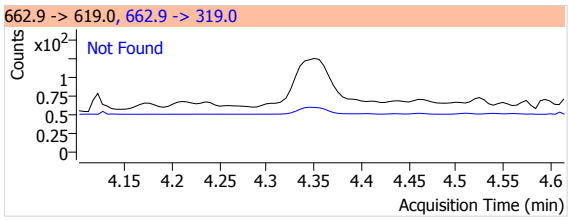

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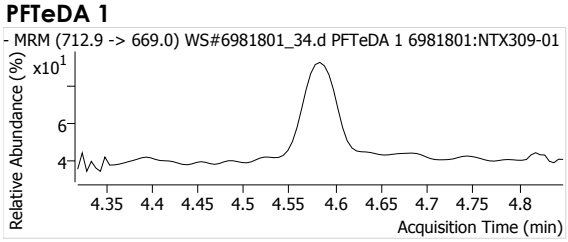

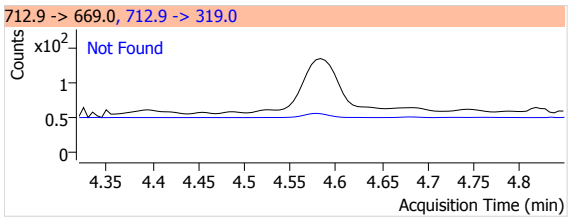

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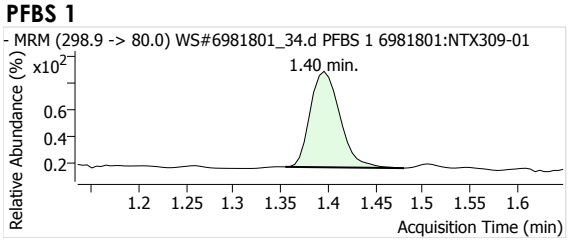

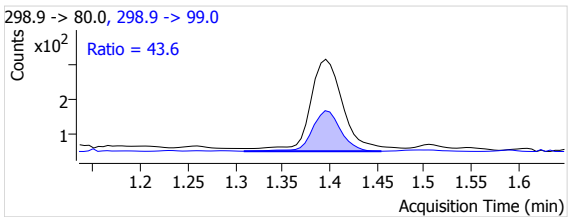

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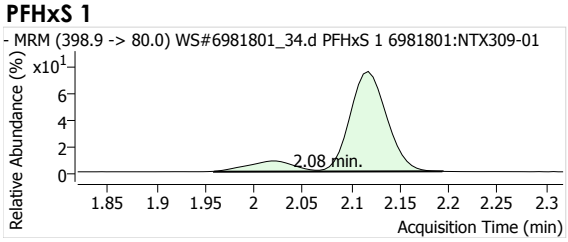

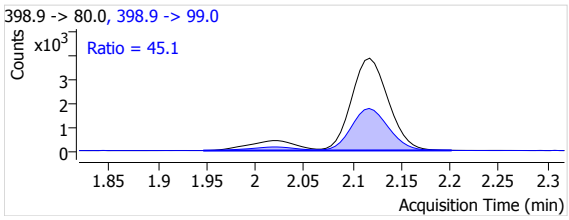

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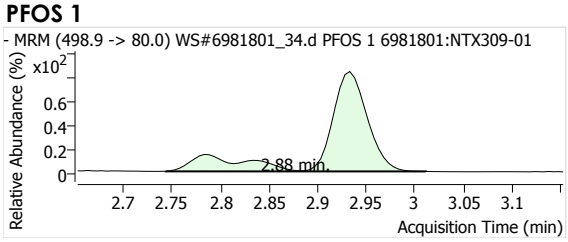

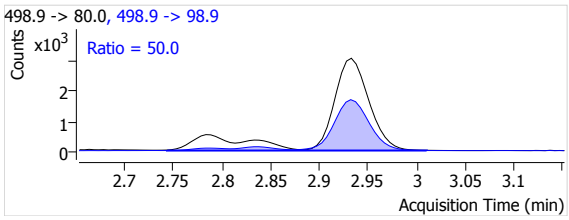

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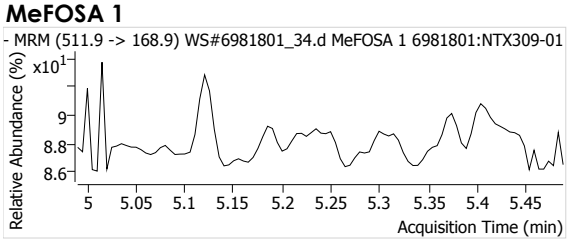

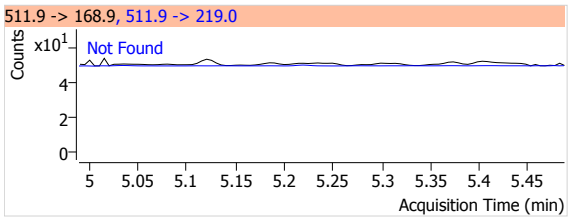

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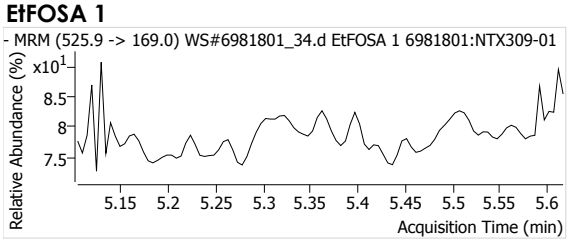

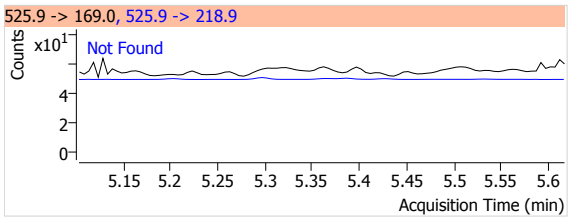

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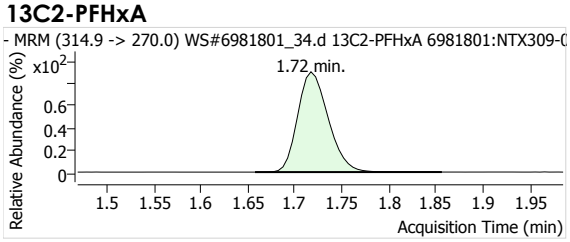

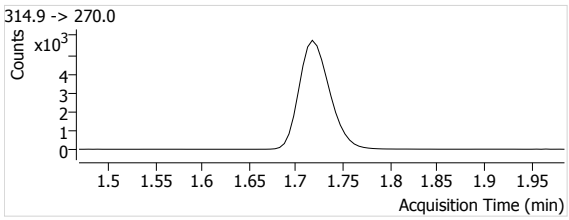

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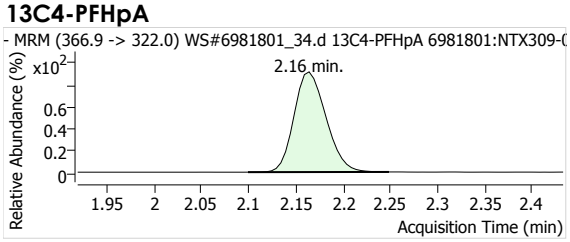

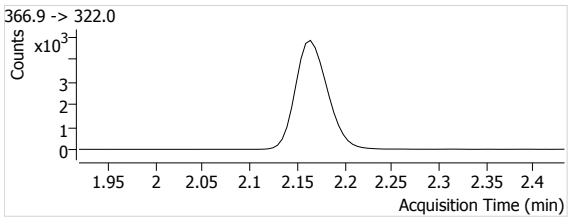

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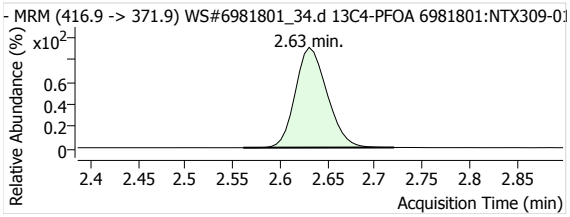

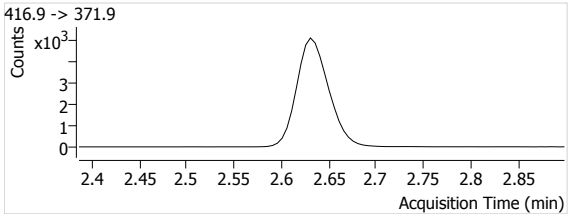

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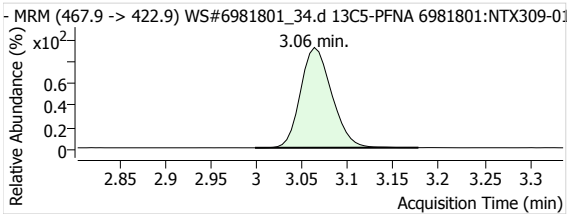

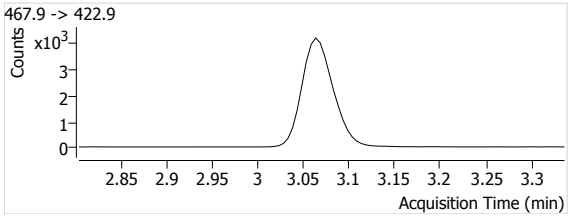

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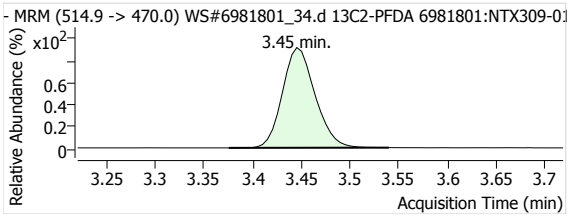

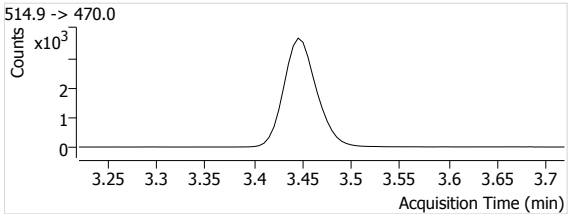

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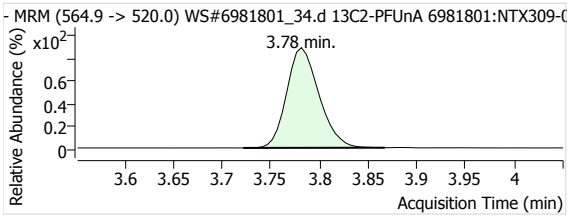

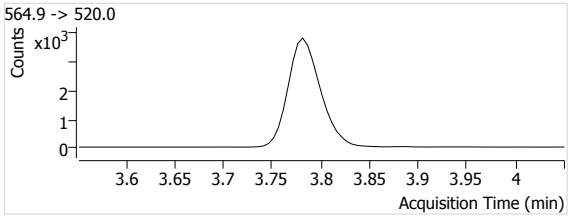

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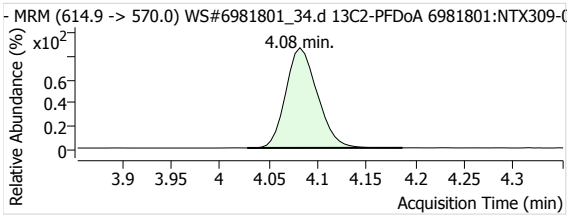

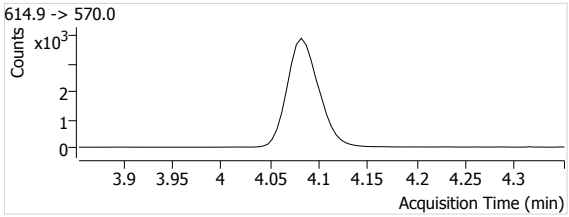

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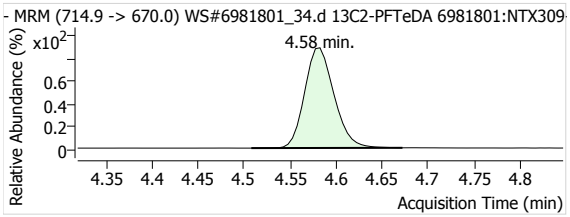

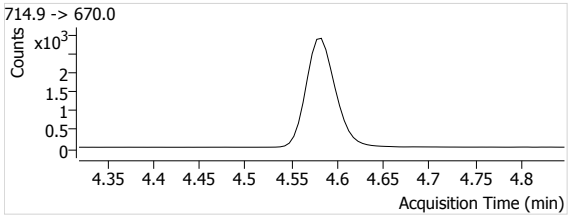

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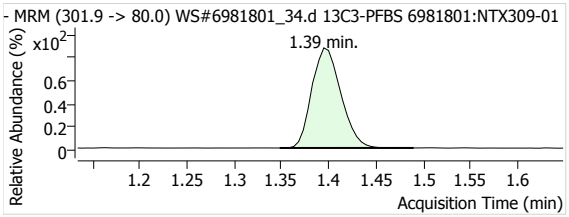

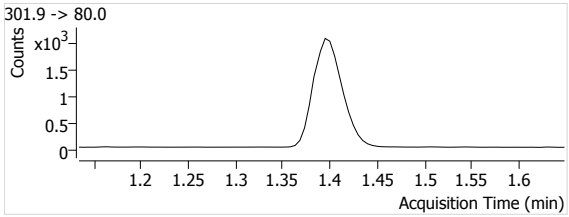

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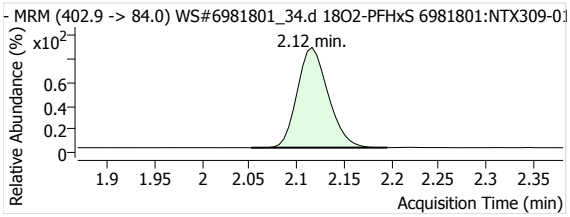

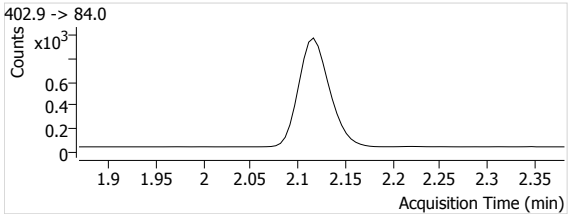

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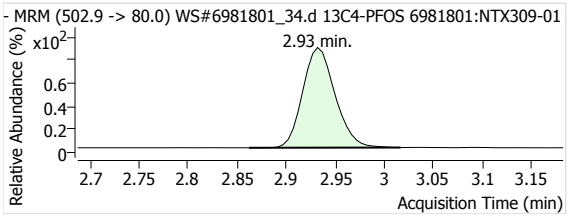
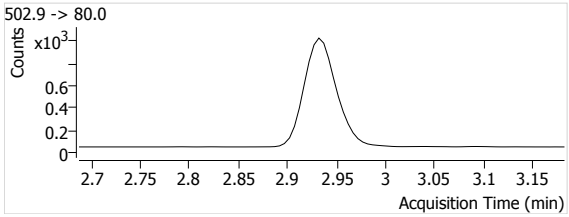
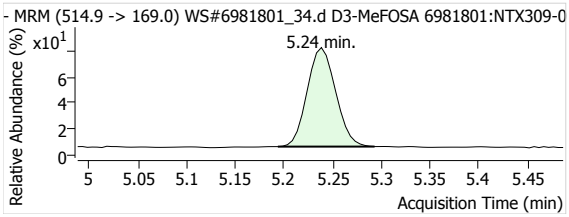
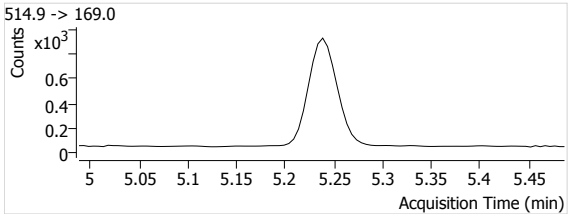




D3-MeFOSA





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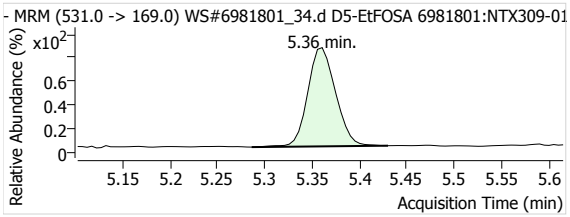
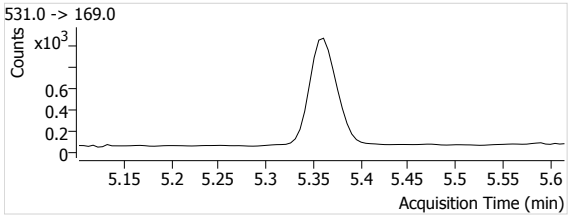




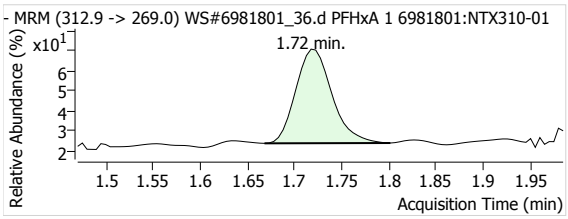
Quantitative Analysis Report

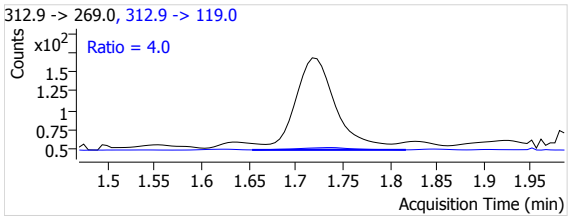
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX310-01	**Data File**	WS#6981801_36.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-D1
Acq. Date-Time	2020/10/05 4:48:23 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0000	--	298	1.72	7	0.0219	12	1.74	6	4.0
PFHpA 1	µg/L	--	0.0000	--	210	2.16	4	0.0182	41	2.17	5	19.5
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	181	4.09	5	0.0208	19	4.08	12	10.5
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0006	--	72	1.40	6	0.0186	32	1.41	8	44.4
PFHxS 1	µg/L	--	0.0019	--	84	2.08	24	0.0358	40	2.07	18	47.8
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	92.3668	--	13577	1.72	1049		--	--	--	--
13C4-PFHpA	µg/L	--	92.5362	--	11555	2.16	515		--	--	--	--
13C4-PFOA	µg/L	--	91.6373	--	12492	2.63	841		--	--	--	--
13C5-PFNA	µg/L	--	90.9829	--	10080	3.06	573		--	--	--	--
13C2-PFDA	µg/L	--	84.1388	--	8270	3.45	1001		--	--	--	--
13C2-PFUnA	µg/L	--	81.0648	--	8618	3.79	648		--	--	--	--
13C2-PFDoA	µg/L	--	79.0128	--	8708	4.09	456		--	--	--	--
13C2-PFTeDA	µg/L	--	75.7330	--	6819	4.58	751		--	--	--	--
13C3-PFBS	µg/L	--	76.7709	--	3880	1.40	503		--	--	--	--
18O2-PFHxS	µg/L	--	92.4862	--	2351	2.12	888		--	--	--	--
13C4-PFOS	µg/L	--	87.5749	--	2340	2.93	554		--	--	--	--
D3-MeFOSA	µg/L	--	49.6732	--	1748	5.24	82		--	--	--	--
D5-EtFOSA	µg/L	--	49.0665	--	2050	5.36	46		--	--	--	--

PFHxA 1





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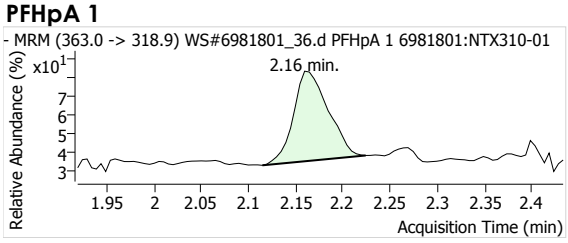

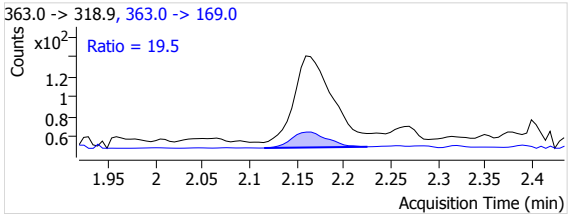

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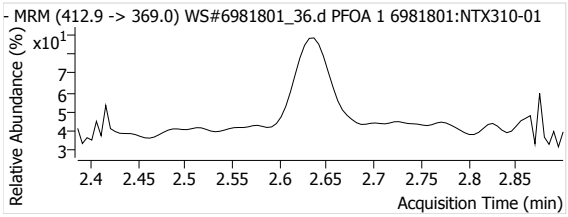

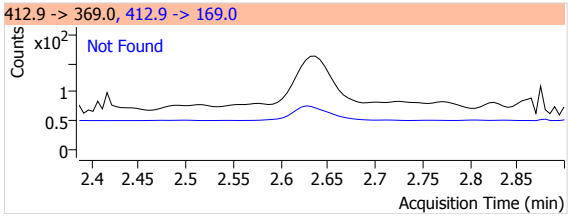

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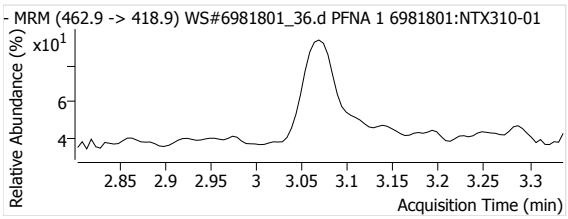

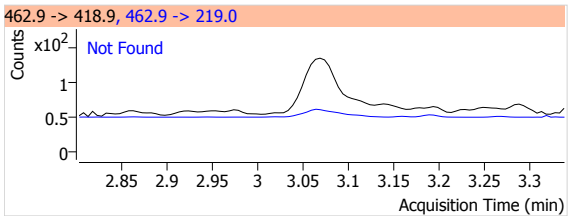

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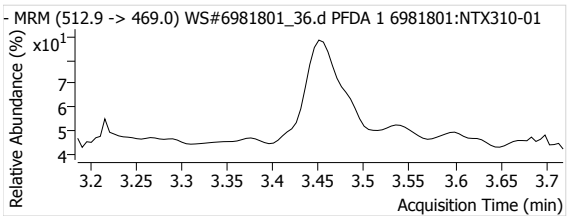

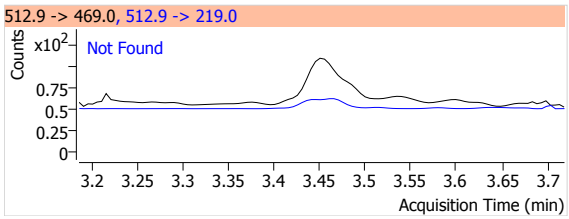

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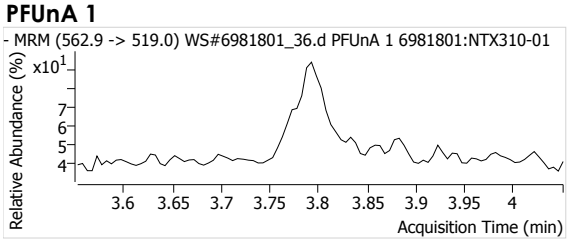

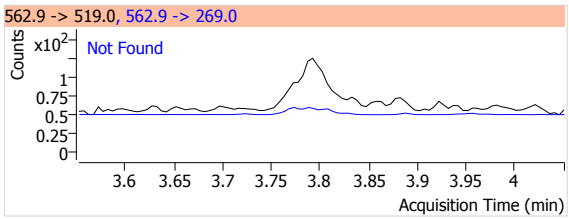

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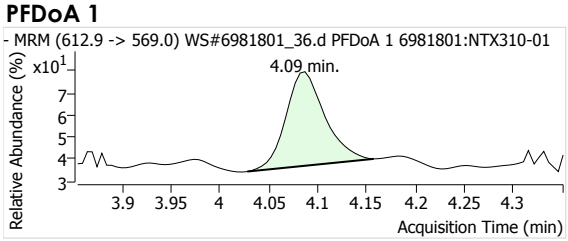

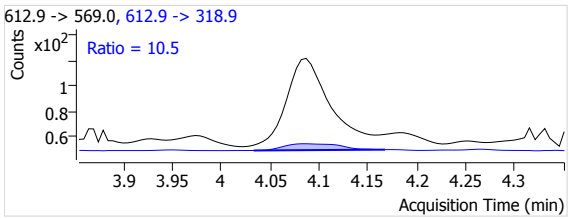

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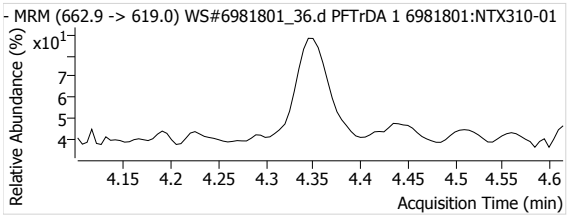

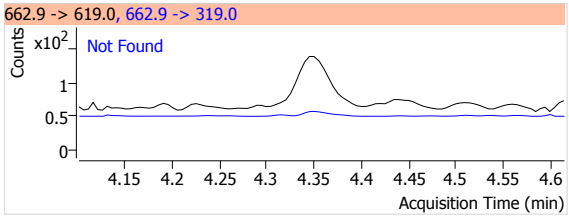

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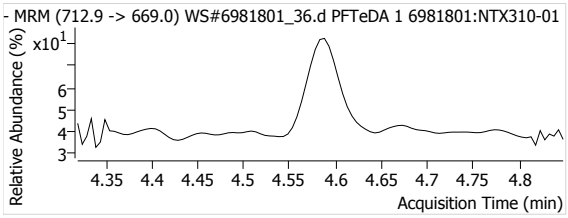

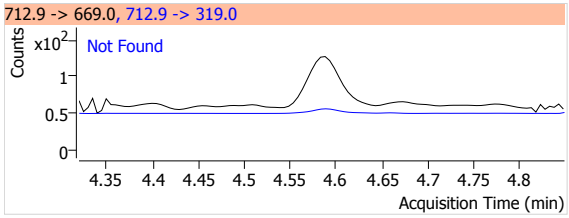

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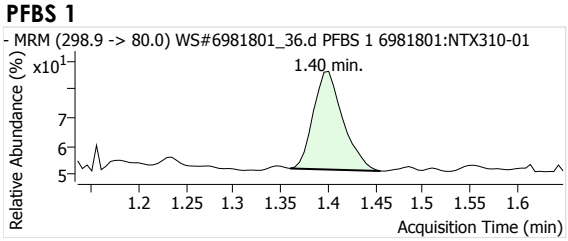

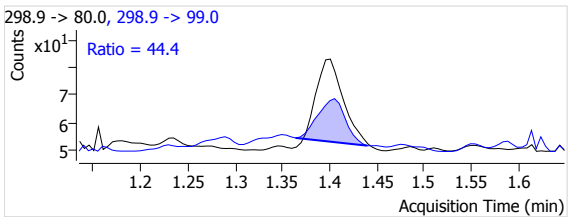

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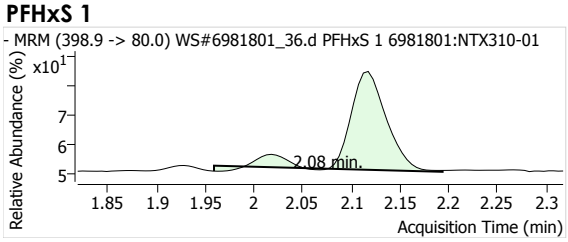

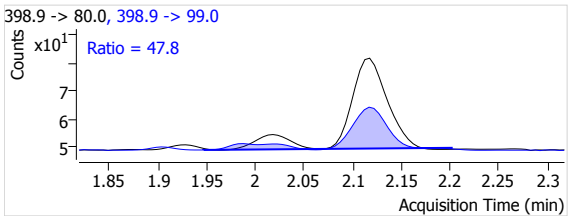

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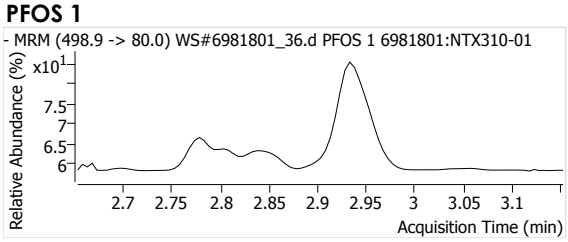

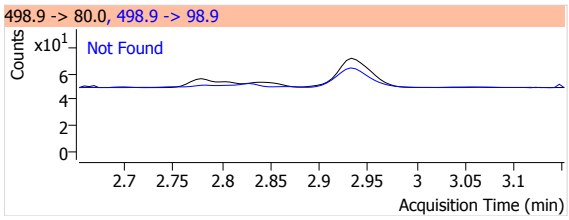

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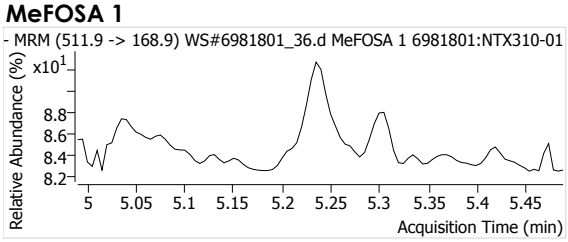

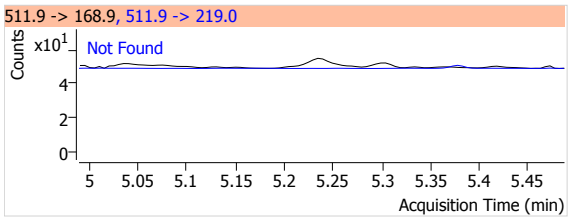

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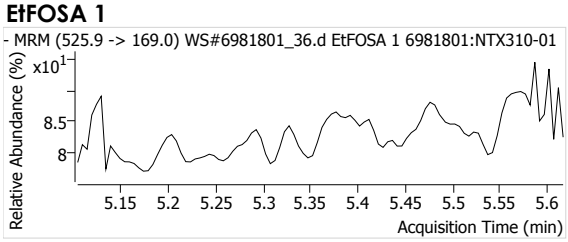

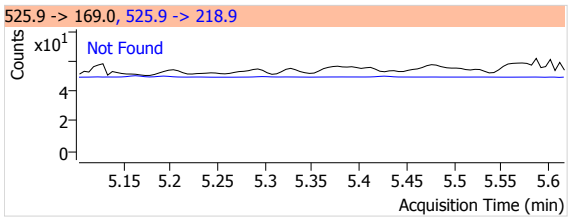

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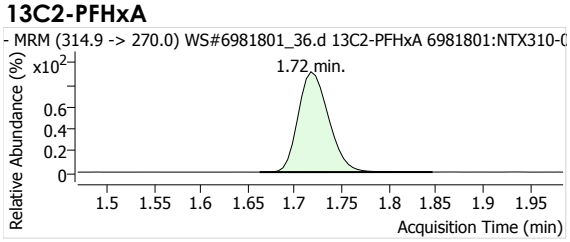

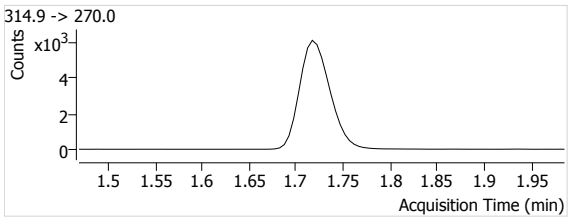

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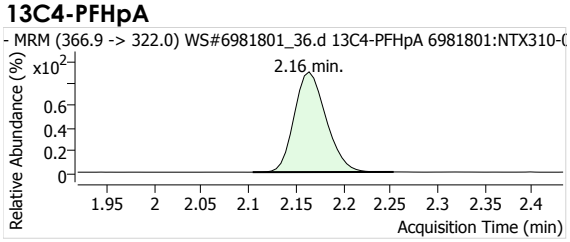

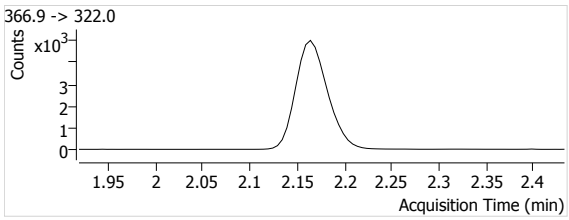

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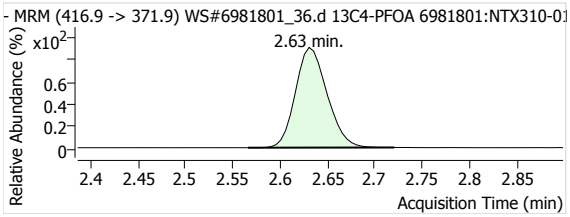

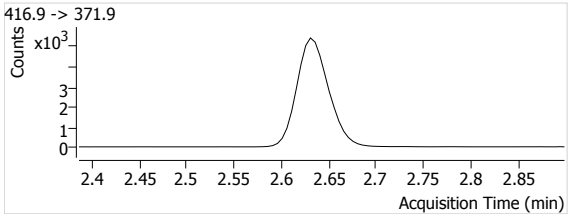

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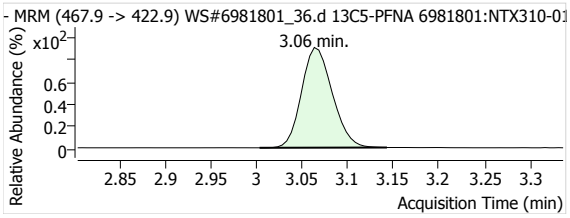

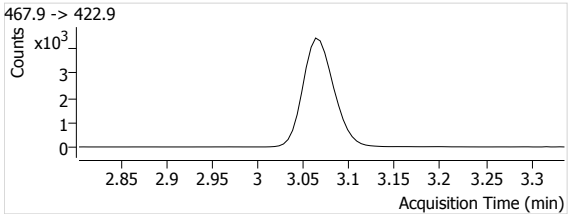

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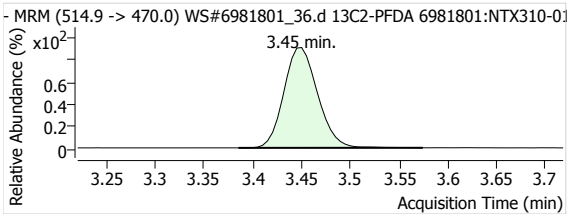

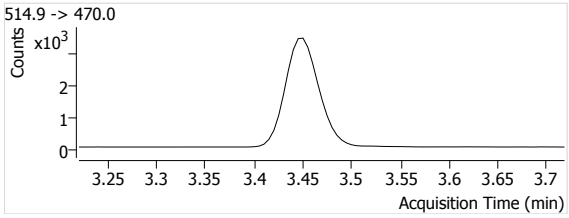

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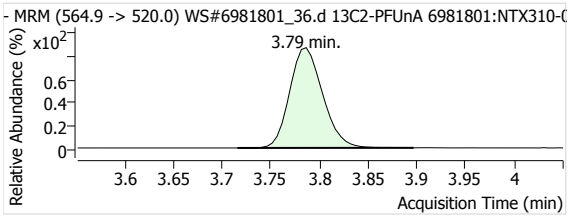

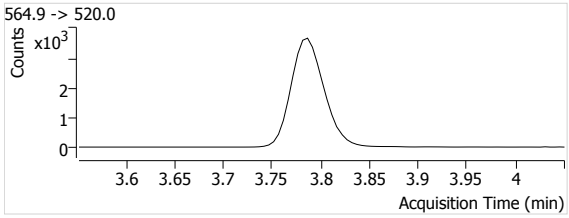

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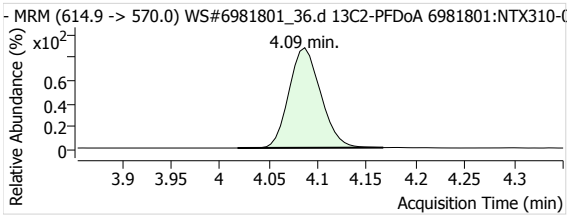

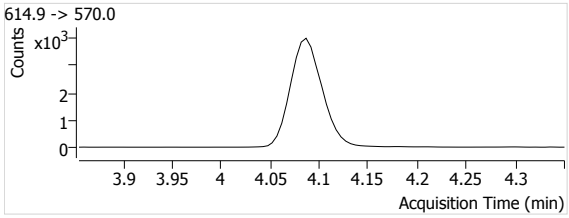

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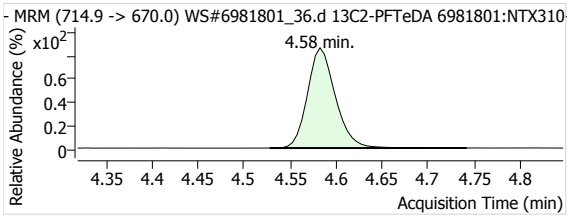

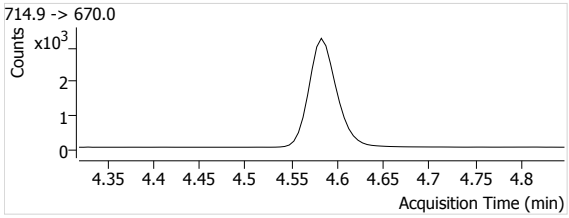

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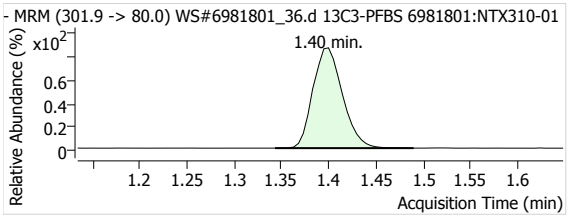

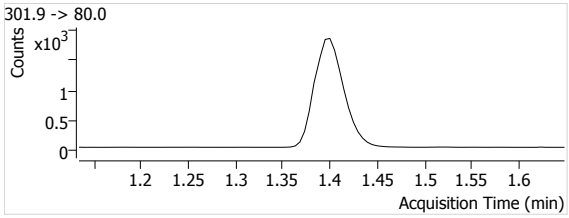

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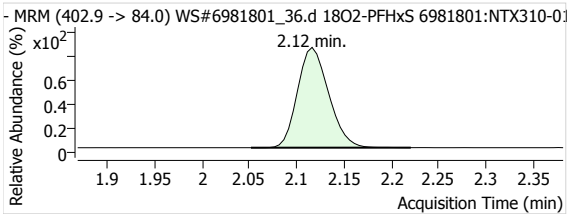

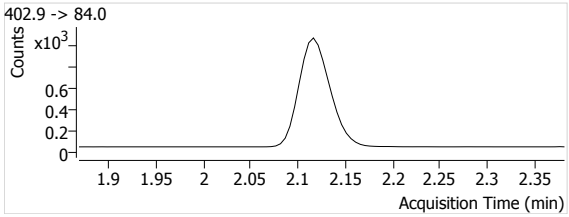

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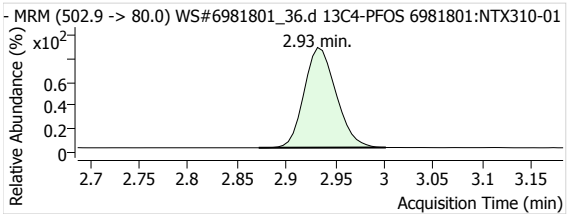

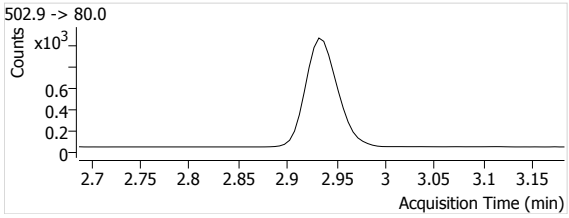

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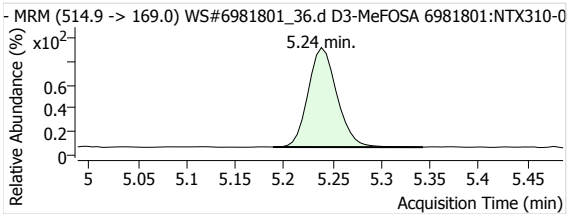

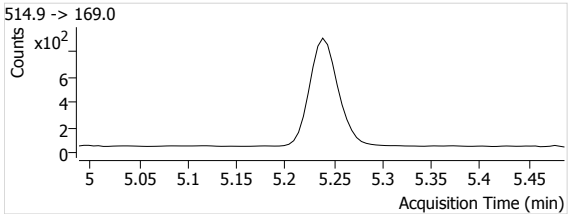

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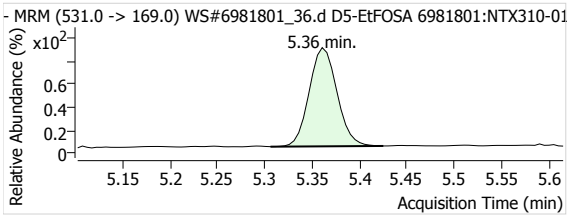
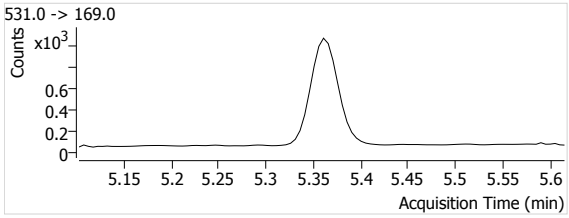




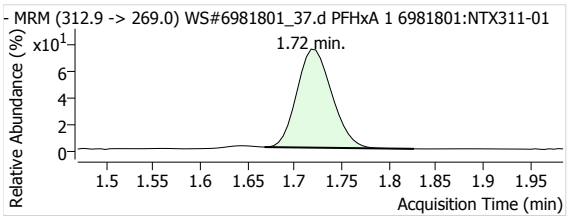
Quantitative Analysis Report

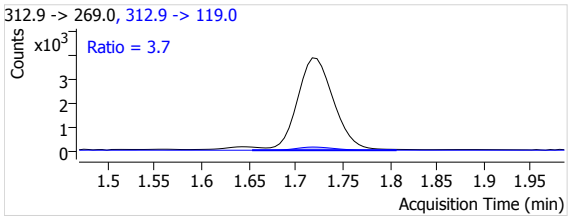
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX311-01	**Data File**	WS#6981801_37.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-D2
Acq. Date-Time	2020/10/05 4:55:23 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.1034	--	9782	1.72	62	0.7620	363	1.72	41	3.7
PFHpA 1	µg/L	--	0.0252	--	3090	2.16	44	0.2802	495	2.17	69	16.0
PFOA 1	µg/L	--	0.0954	--	7573	2.63	107	0.6338	2175	2.63	239	28.7
PFNA 1	µg/L	--	0.0055	--	589	3.06	18	0.0599	95	3.06	9	16.1
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0345	--	1294	1.40	39	0.2908	523	1.40	40	40.4
PFHxS 1	µg/L	--	0.5984	--	11418	2.08	314	5.3057	5267	2.07	744	46.1
PFOS 1	µg/L	--	0.2724	--	4963	2.88	147	2.1264	2362	2.88	325	47.6
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	87.3393	--	12838	1.72	988		--	--	--	--
13C4-PFHpA	µg/L	--	88.3078	--	11027	2.16	1258		--	--	--	--
13C4-PFOA	µg/L	--	87.6467	--	11948	2.63	1451		--	--	--	--
13C5-PFNA	µg/L	--	88.7806	--	9836	3.06	622		--	--	--	--
13C2-PFDA	µg/L	--	87.4351	--	8594	3.45	713		--	--	--	--
13C2-PFUnA	µg/L	--	84.3853	--	8971	3.78	687		--	--	--	--
13C2-PFDoA	µg/L	--	80.7005	--	8894	4.08	579		--	--	--	--
13C2-PFTeDA	µg/L	--	76.1550	--	6857	4.58	602		--	--	--	--
13C3-PFBS	µg/L	--	88.0491	--	4450	1.39	367		--	--	--	--
18O2-PFHxS	µg/L	--	84.6577	--	2152	2.12	423		--	--	--	--
13C4-PFOS	µg/L	--	87.3503	--	2334	2.93	248		--	--	--	--
D3-MeFOSA	µg/L	--	55.2145	--	1943	5.24	70		--	--	--	--
D5-EtFOSA	µg/L	--	52.4892	--	2193	5.36	52		--	--	--	--

PFHxA 1





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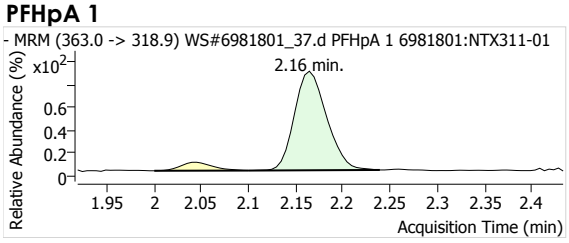

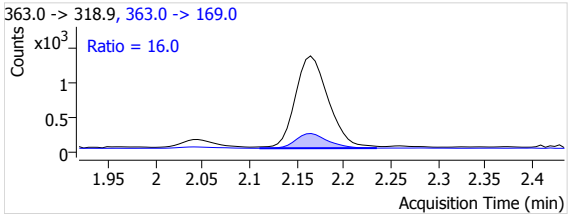

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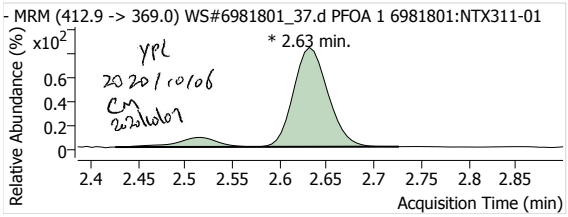

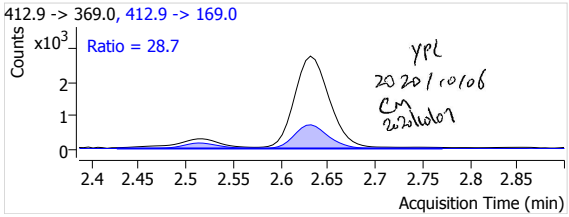

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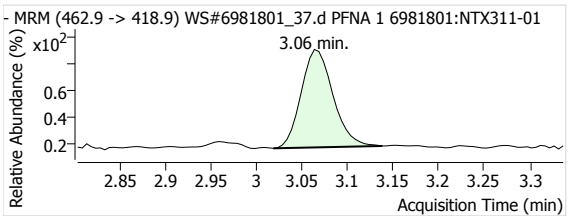

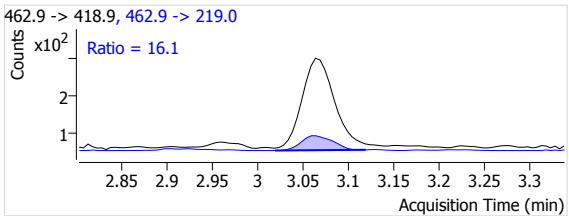

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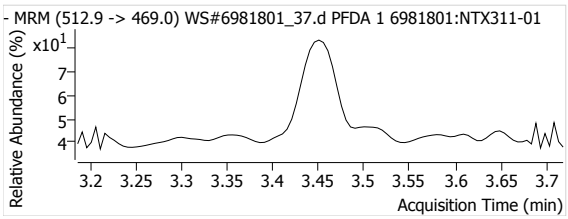

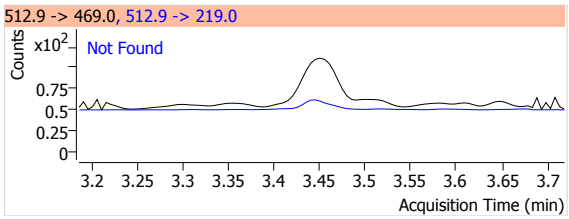

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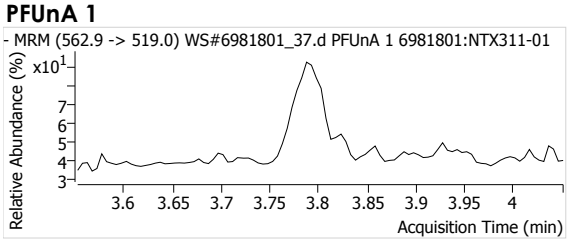

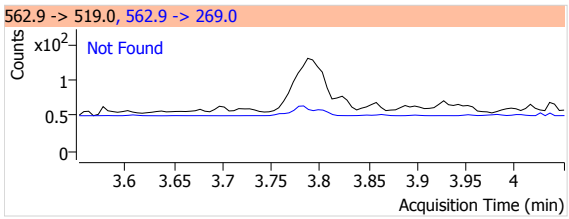

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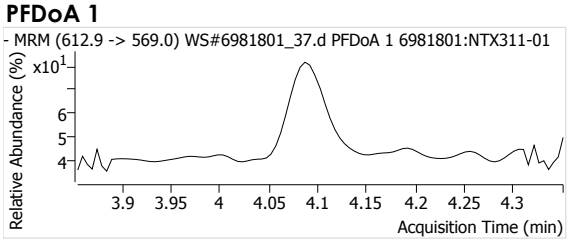

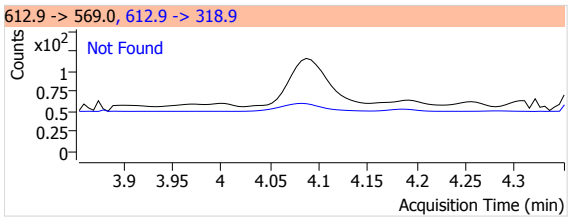

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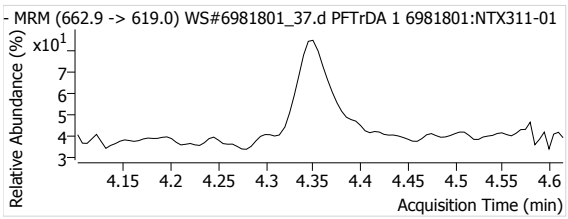

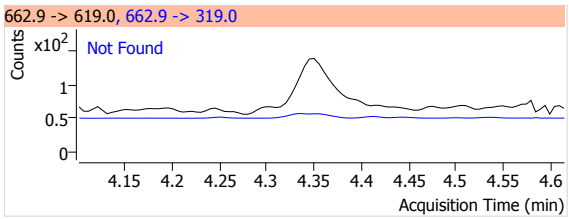

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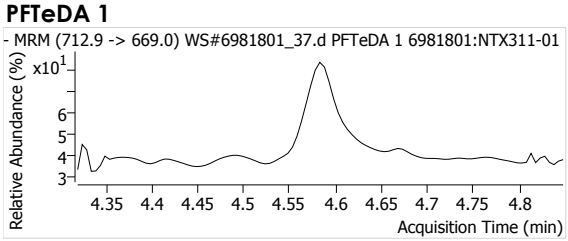

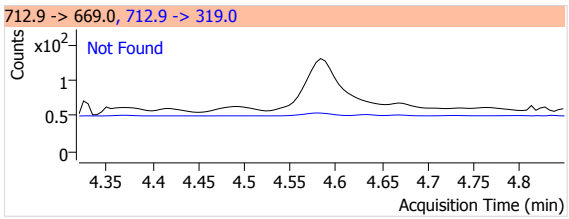

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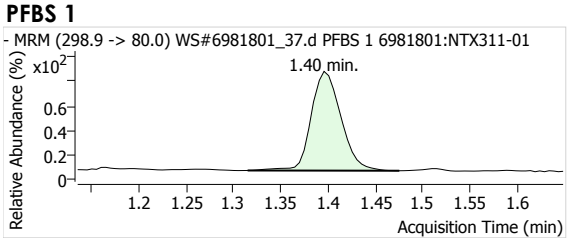

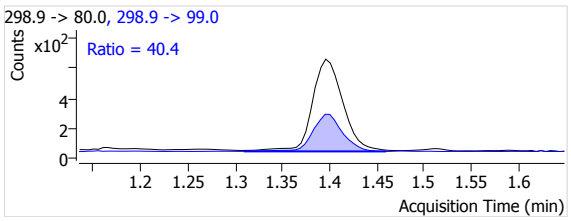

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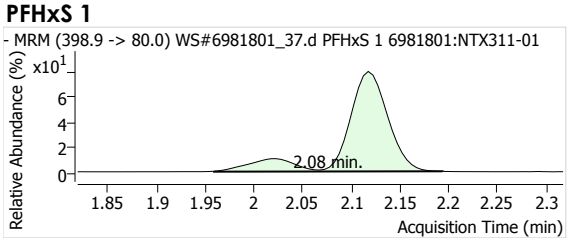

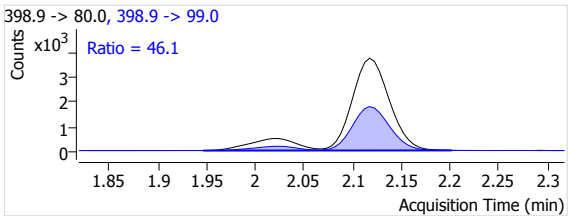

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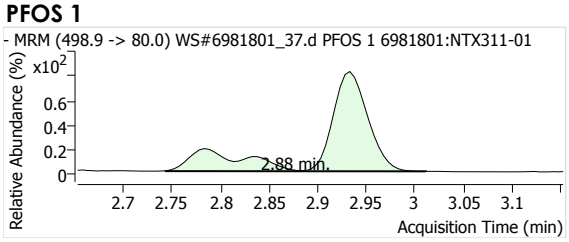

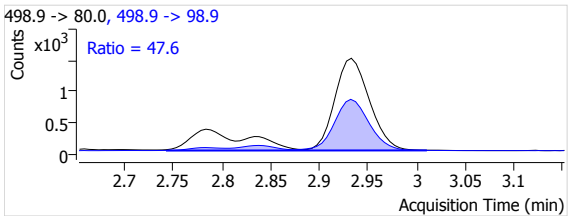

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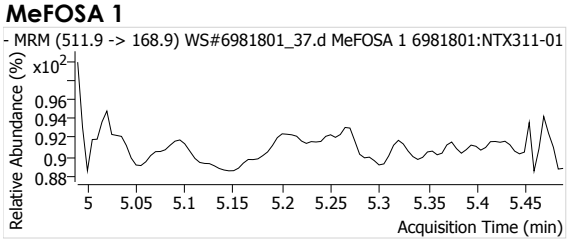

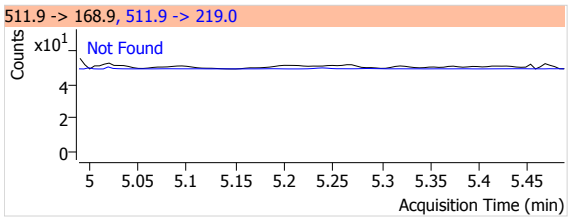

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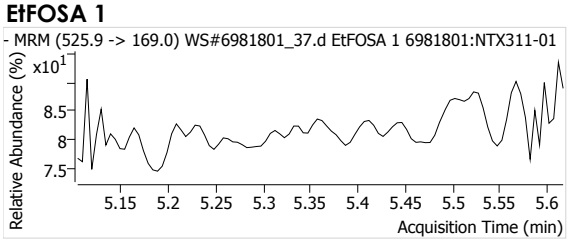

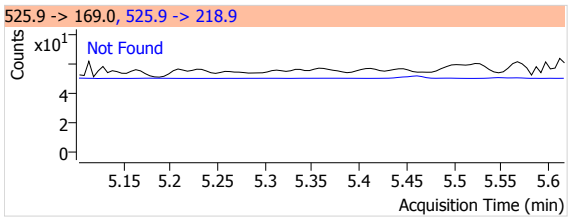

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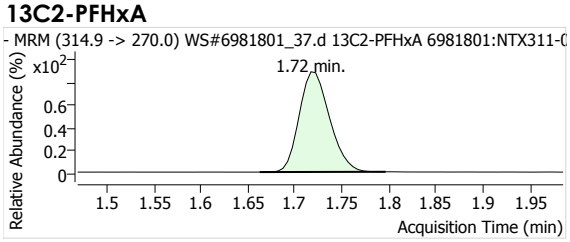

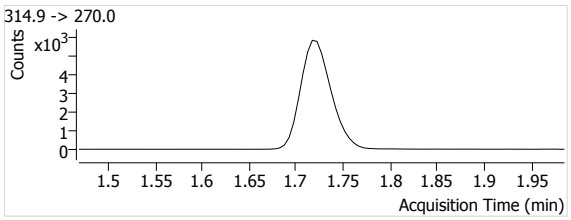

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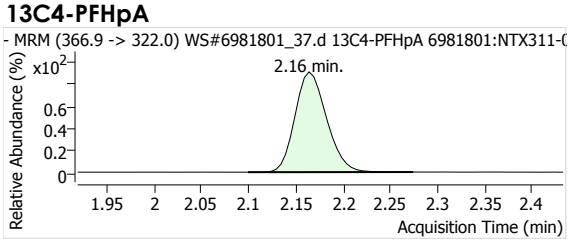

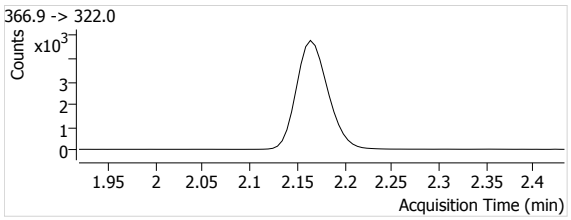

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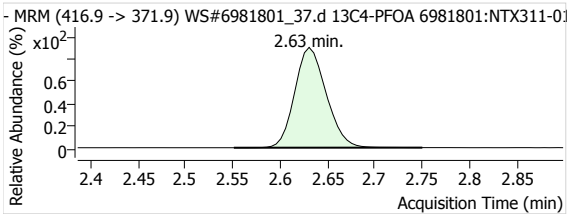

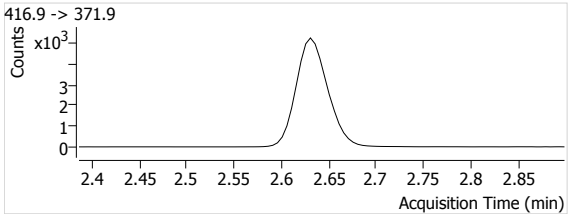

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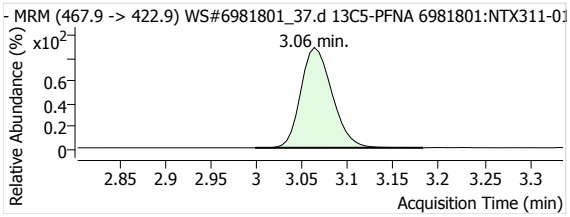

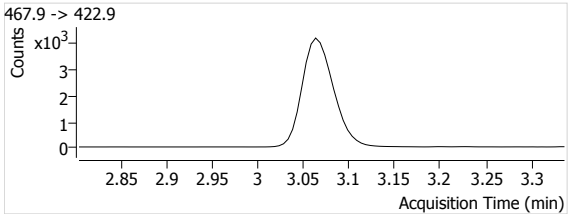

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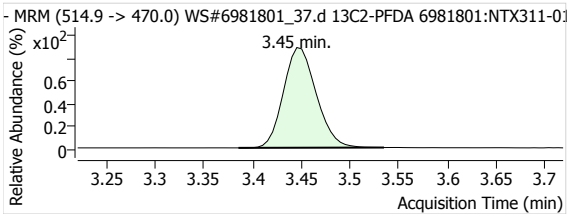

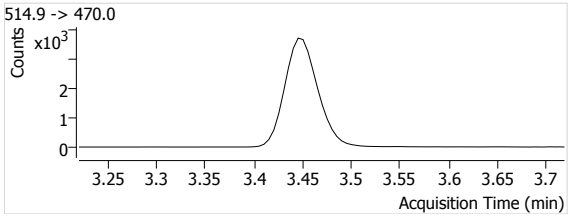

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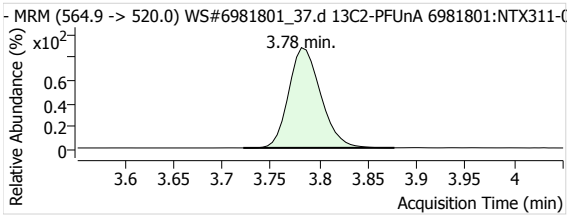

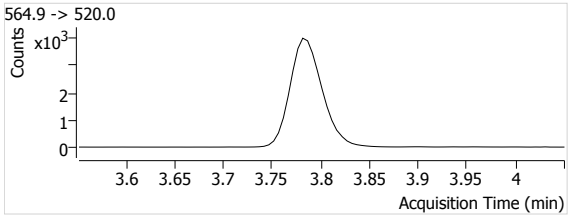

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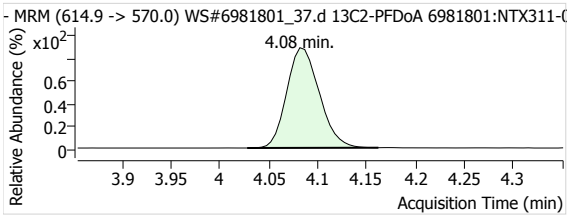

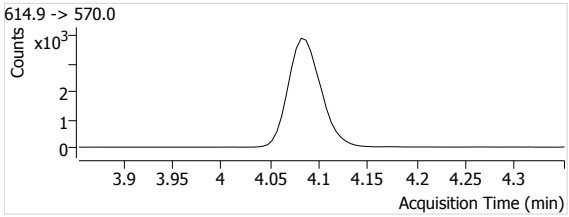

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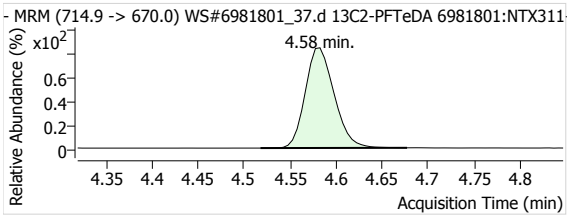

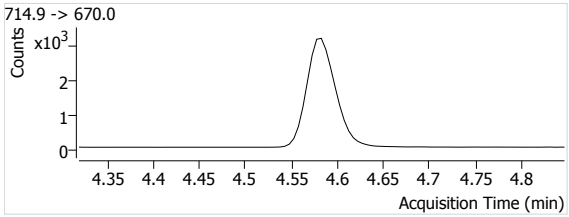

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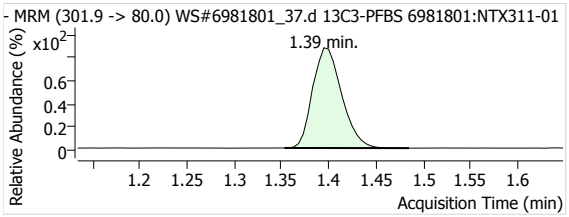

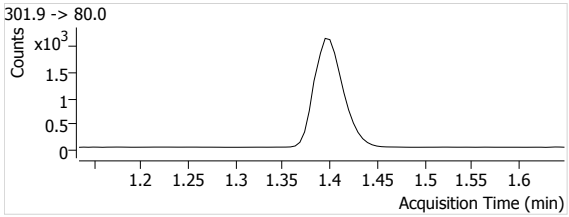

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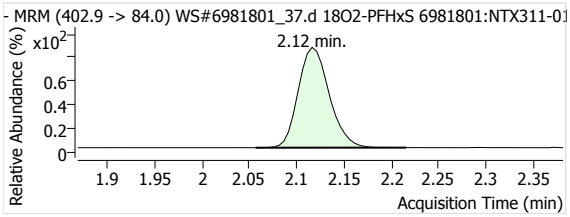

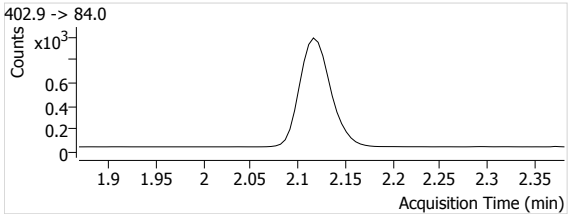

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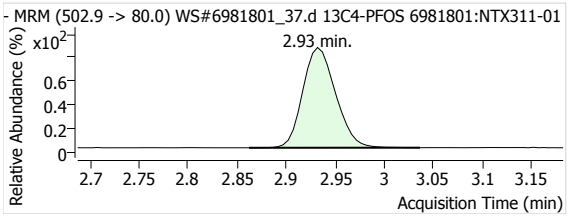
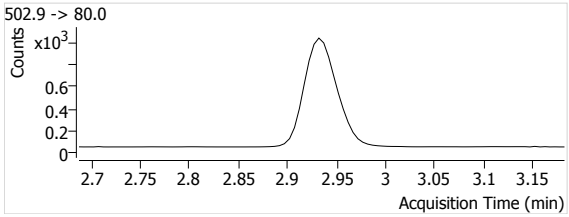
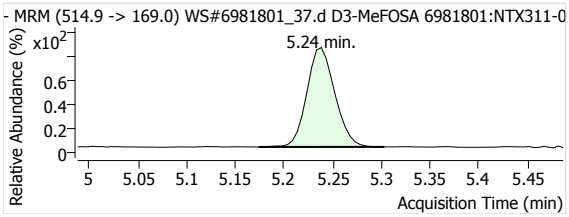
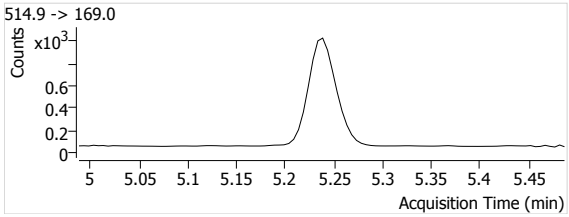




D3-MeFOSA





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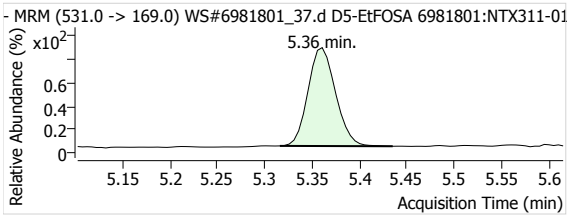
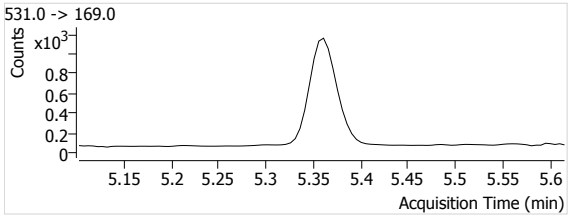




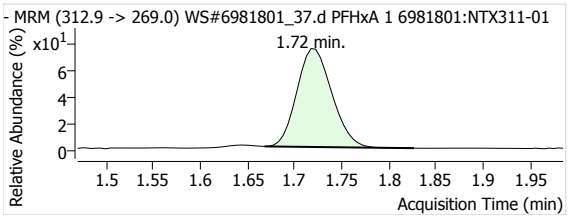
Quantitative Analysis Report

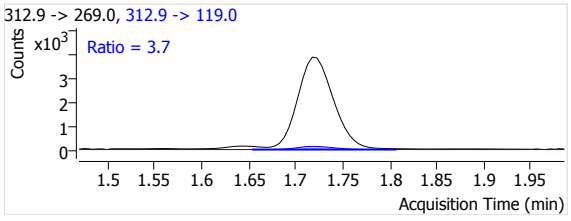
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX311-01	**Data File**	WS#6981801_37.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-D2
Acq. Date-Time	2020/10/05 4:55:23 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.1034	--	9782	1.72	62	0.7620	363	1.72	41	3.7
PFHpA 1	µg/L	--	0.0252	--	3090	2.16	44	0.2802	495	2.17	69	16.0
PFOA 1	µg/L	--	0.0845	--	6727	2.63	118	0.5630	1726	2.63	237	25.7
PFNA 1	µg/L	--	0.0055	--	589	3.06	18	0.0599	95	3.06	9	16.1
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0345	--	1294	1.40	39	0.2908	523	1.40	40	40.4
PFHxS 1	µg/L	--	0.5984	--	11418	2.08	314	5.3057	5267	2.07	744	46.1
PFOS 1	µg/L	--	0.2724	--	4963	2.88	147	2.1264	2362	2.88	325	47.6
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	87.3393	--	12838	1.72	988		--	--	--	--
13C4-PFHpA	µg/L	--	88.3078	--	11027	2.16	1258		--	--	--	--
13C4-PFOA	µg/L	--	87.6467	--	11948	2.63	1451		--	--	--	--
13C5-PFNA	µg/L	--	88.7806	--	9836	3.06	622		--	--	--	--
13C2-PFDA	µg/L	--	87.4351	--	8594	3.45	713		--	--	--	--
13C2-PFUnA	µg/L	--	84.3853	--	8971	3.78	687		--	--	--	--
13C2-PFDoA	µg/L	--	80.7005	--	8894	4.08	579		--	--	--	--
13C2-PFTeDA	µg/L	--	76.1550	--	6857	4.58	602		--	--	--	--
13C3-PFBS	µg/L	--	88.0491	--	4450	1.39	367		--	--	--	--
18O2-PFHxS	µg/L	--	84.6577	--	2152	2.12	423		--	--	--	--
13C4-PFOS	µg/L	--	87.3503	--	2334	2.93	248		--	--	--	--
D3-MeFOSA	µg/L	--	55.2145	--	1943	5.24	70		--	--	--	--
D5-EtFOSA	µg/L	--	52.4892	--	2193	5.36	52		--	--	--	--

PFHxA 1





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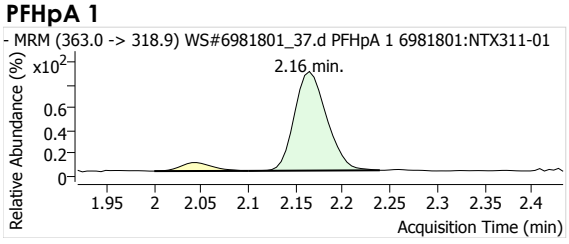

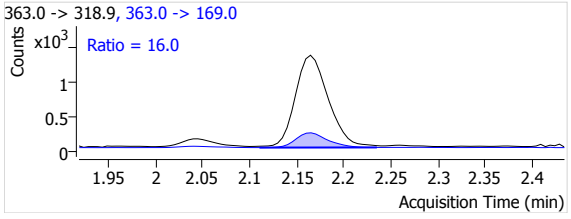

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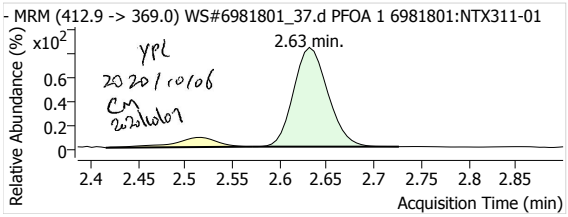

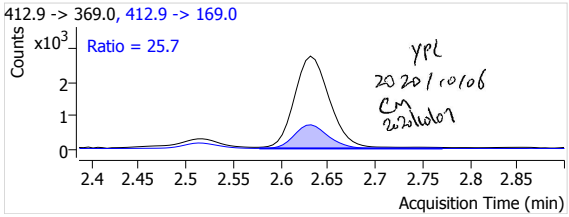

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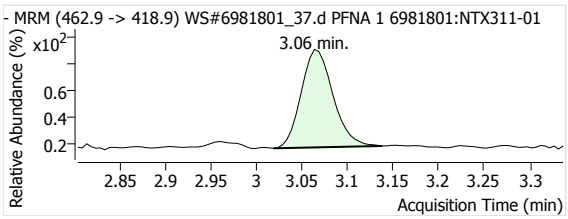

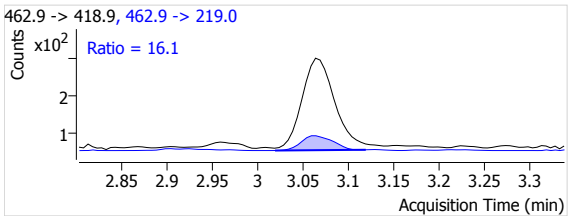

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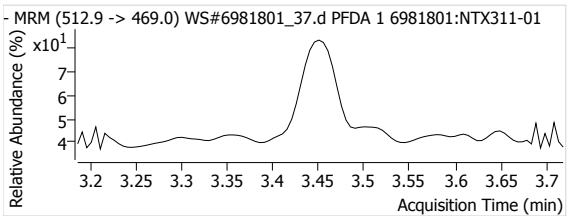

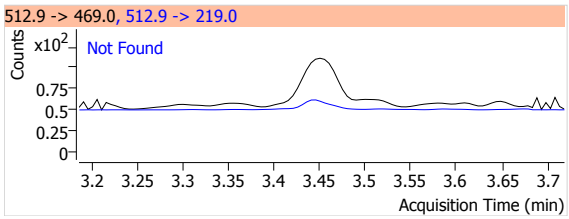

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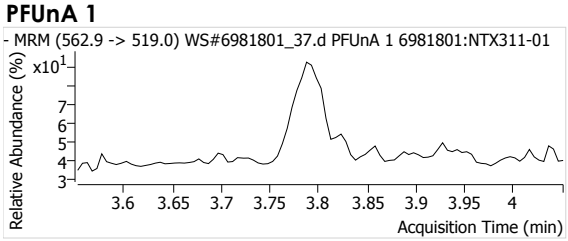

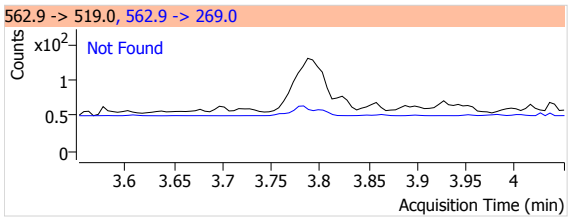

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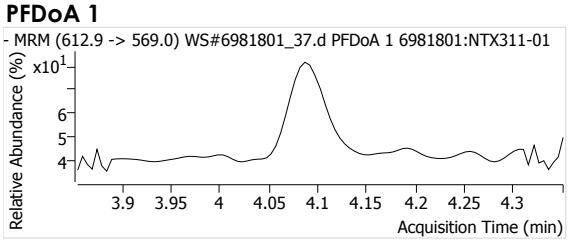

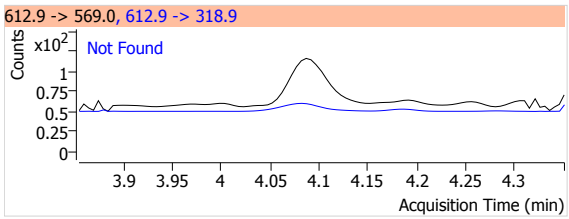

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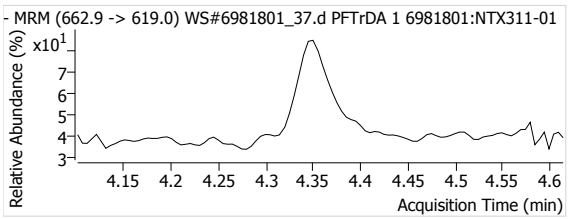

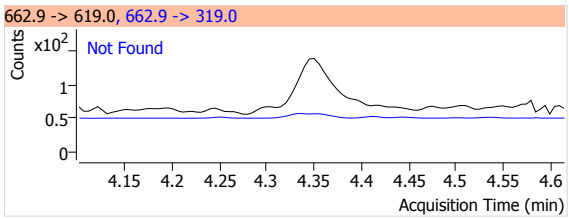

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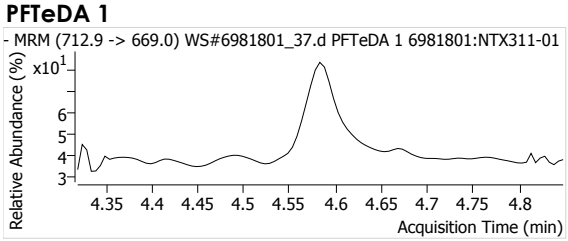

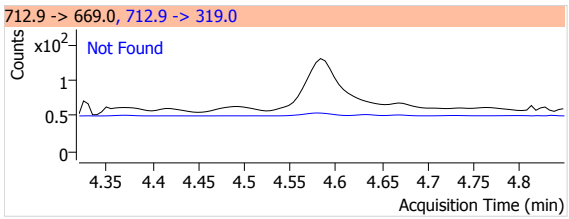

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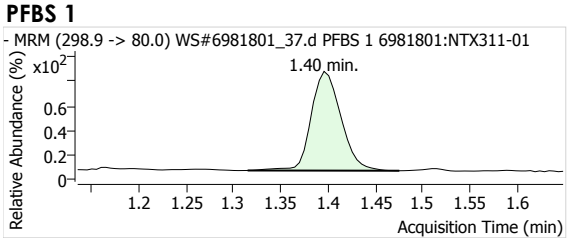

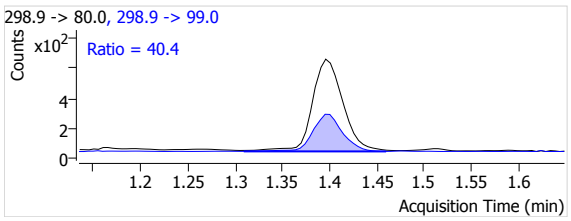

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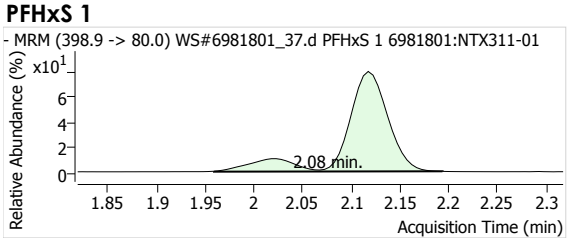

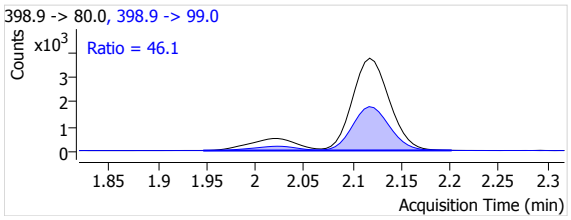

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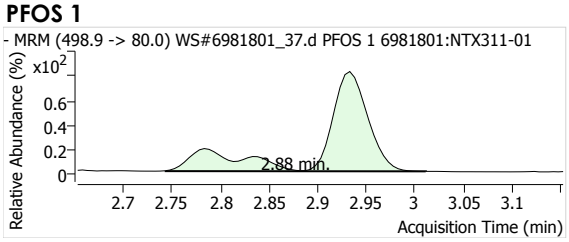

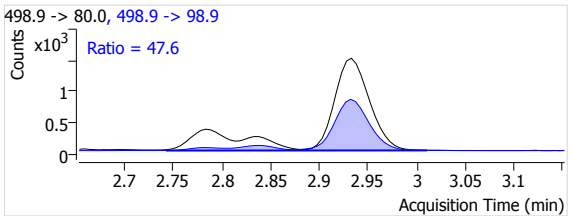

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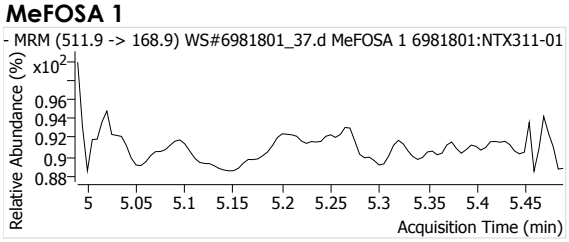

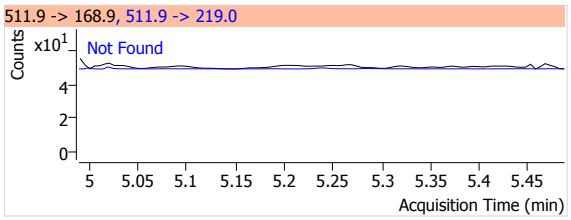

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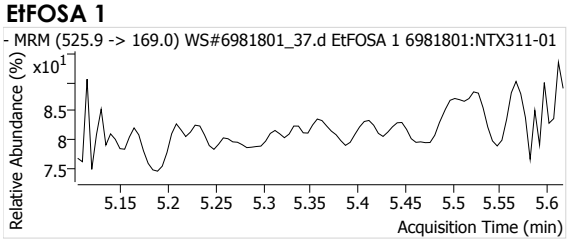

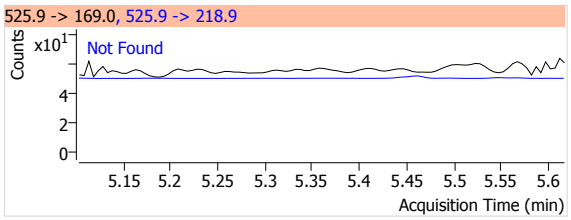

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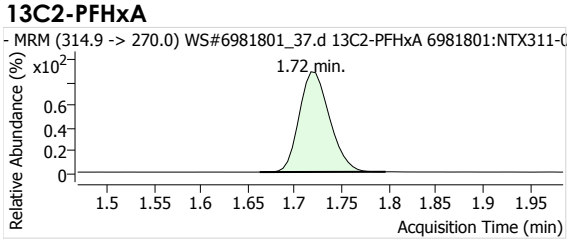

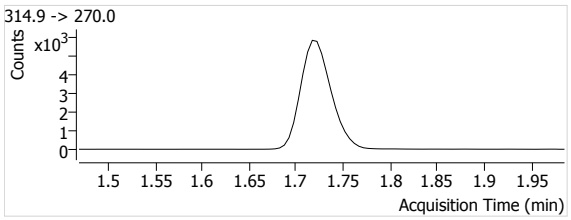

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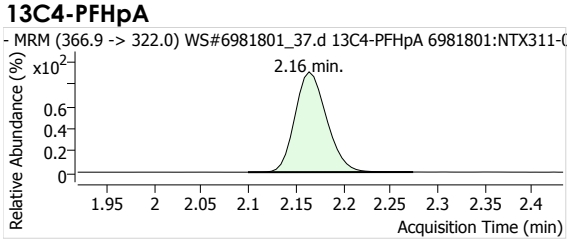

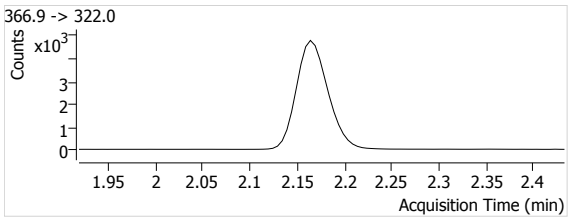

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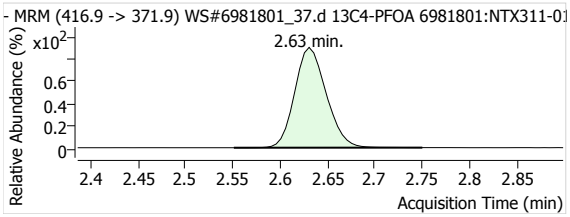

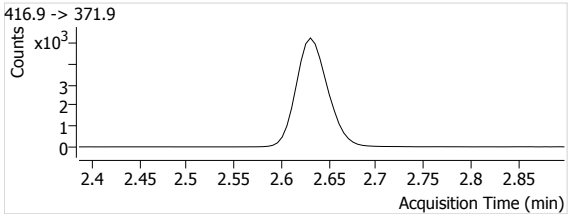

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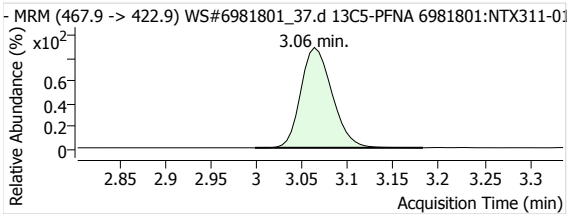

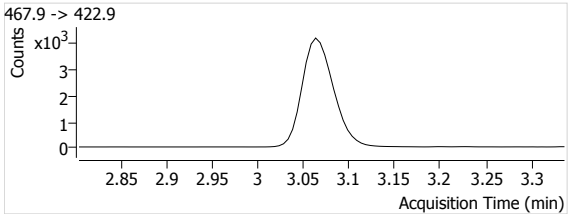

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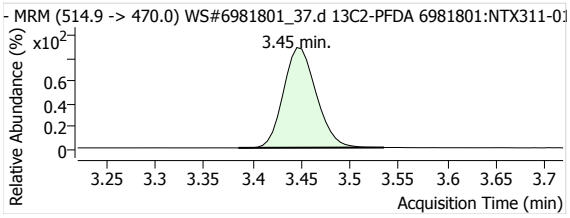

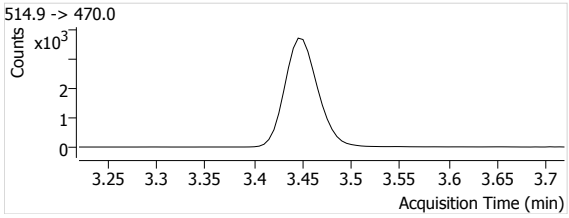

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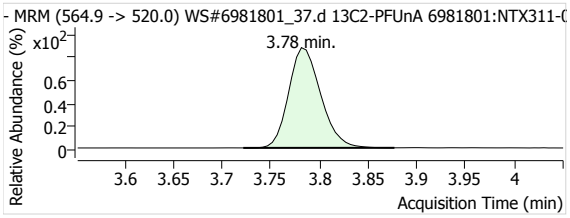

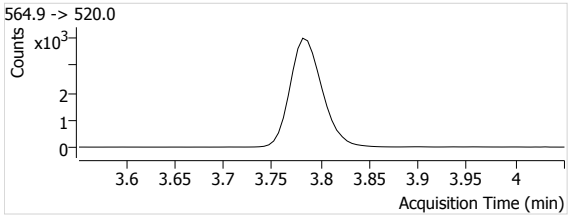

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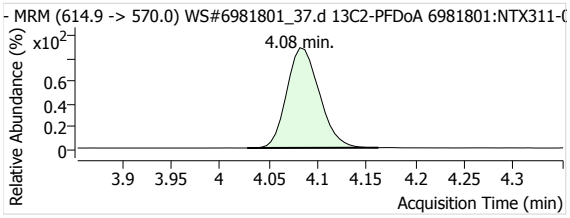

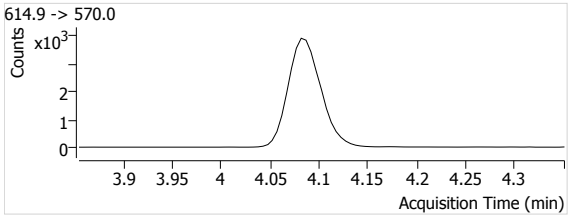

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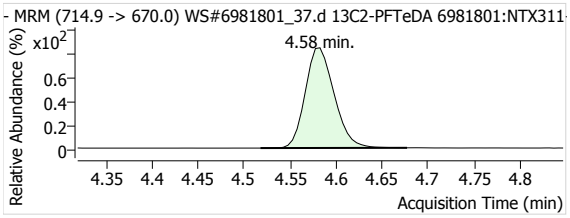

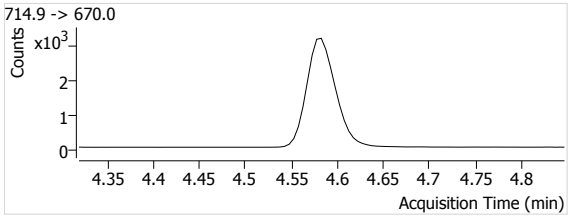

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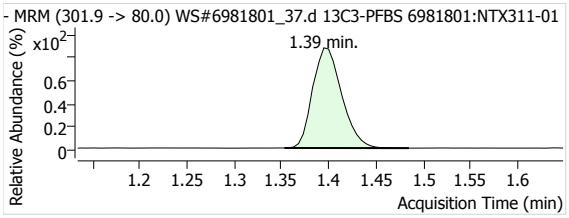

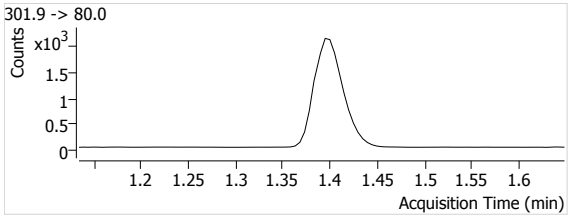

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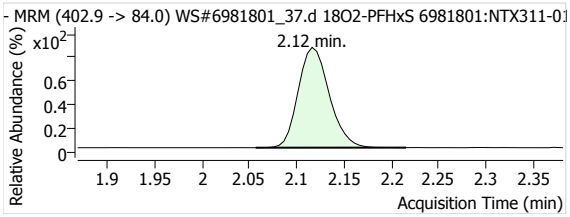

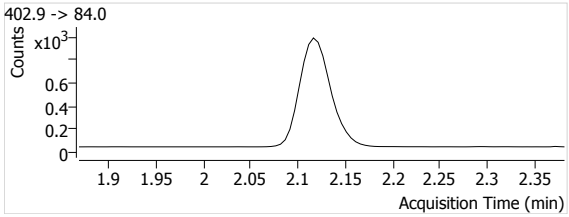

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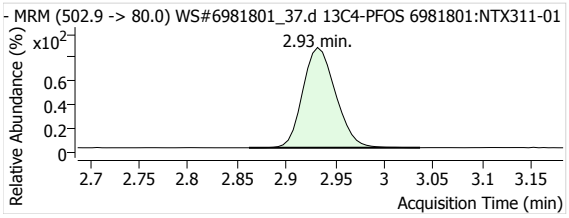

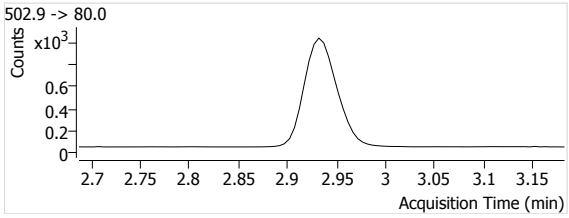

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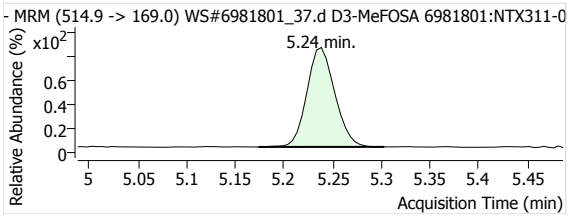

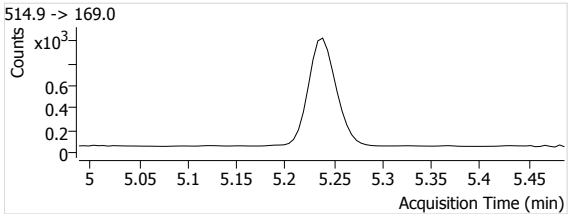

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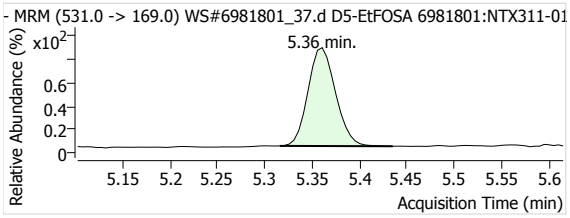
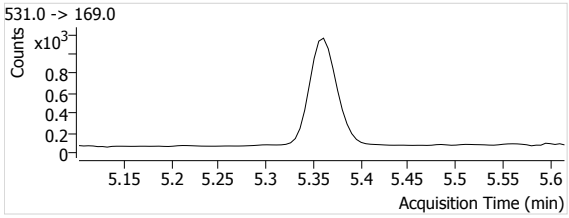




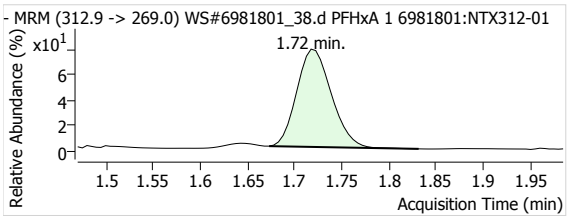
Quantitative Analysis Report

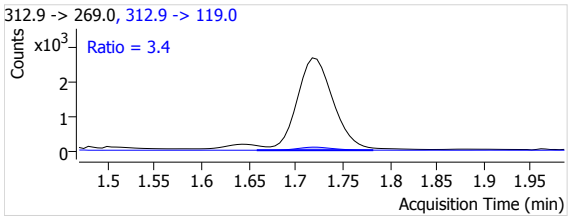
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX312-01	**Data File**	WS#6981801_38.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-D3
Acq. Date-Time	2020/10/05 5:02:22 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0739	--	6599	1.72	34	0.5507	226	1.72	20	3.4
PFHpA 1	µg/L	--	0.0121	--	1577	2.16	11	0.1539	257	2.17	33	16.3
PFOA 1	µg/L	--	0.0720	--	5145	2.63	51	0.4827	1399	2.63	232	27.2
PFNA 1	µg/L	--	0.0078	--	641	3.07	9	0.0775	114	3.07	12	17.8
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0002	--	182	4.09	4	0.0249	18	4.09	5	9.9
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0137	--	541	1.40	18	0.1240	246	1.40	22	45.5
PFHxS 1	µg/L	--	0.3260	--	5928	2.08	219	2.8987	2655	2.07	501	44.8
PFOS 1	µg/L	--	0.4409	--	7314	2.88	107	3.4288	3190	2.88	246	43.6
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	81.5157	--	11982	1.72	904		--	--	--	--
13C4-PFHpA	µg/L	--	82.0854	--	10250	2.16	456		--	--	--	--
13C4-PFOA	µg/L	--	78.1910	--	10659	2.63	1082		--	--	--	--
13C5-PFNA	µg/L	--	74.6818	--	8274	3.06	972		--	--	--	--
13C2-PFDA	µg/L	--	70.6990	--	6949	3.45	426		--	--	--	--
13C2-PFUnA	µg/L	--	69.3444	--	7372	3.79	352		--	--	--	--
13C2-PFDoA	µg/L	--	66.4368	--	7322	4.09	574		--	--	--	--
13C2-PFTeDA	µg/L	--	53.1430	--	4785	4.58	494		--	--	--	--
13C3-PFBS	µg/L	--	86.3277	--	4363	1.39	226		--	--	--	--
18O2-PFHxS	µg/L	--	80.4485	--	2045	2.12	628		--	--	--	--
13C4-PFOS	µg/L	--	79.8278	--	2133	2.94	548		--	--	--	--
D3-MeFOSA	µg/L	--	22.9611	--	808	5.24	40		--	--	--	--
D5-EtFOSA	µg/L	--	23.5519	--	984	5.36	22		--	--	--	--

PFHxA 1





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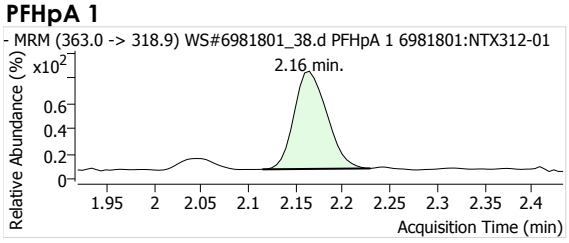

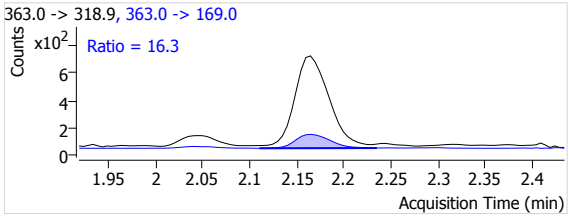

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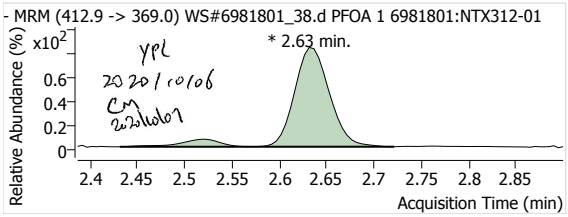

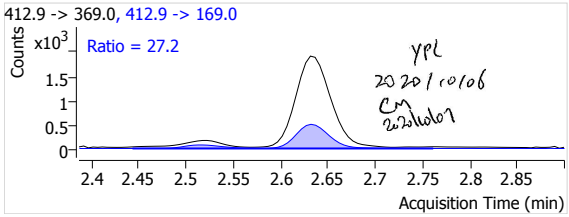

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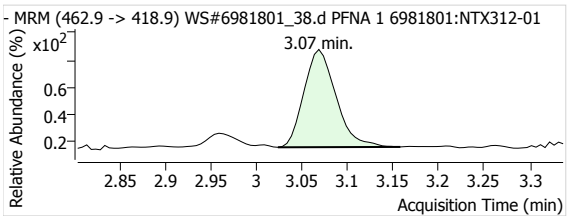

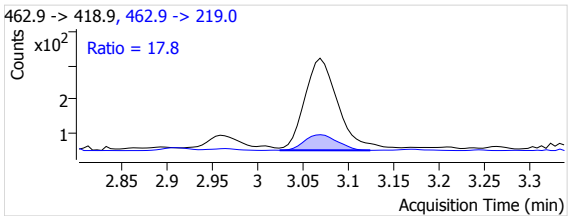

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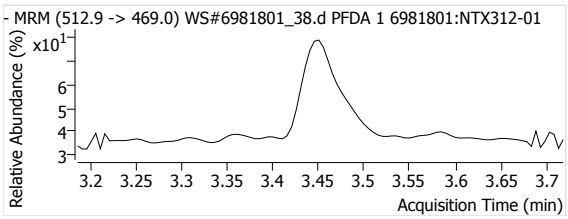

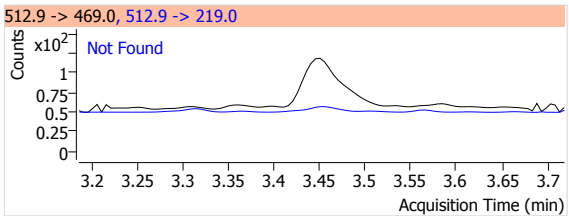

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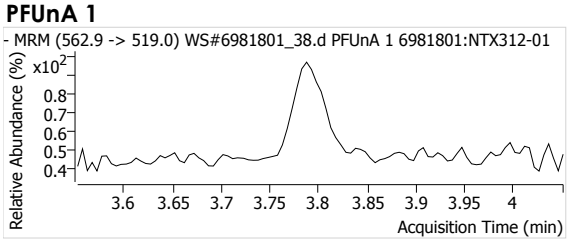

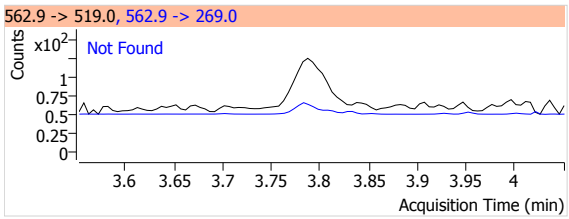

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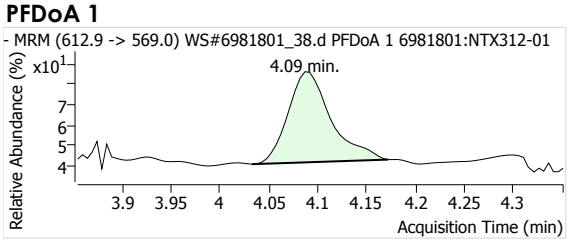

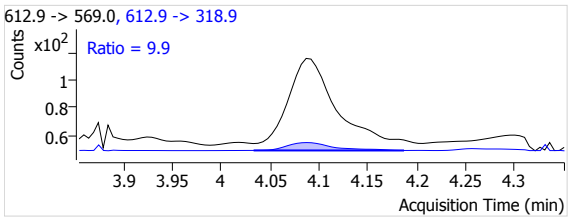

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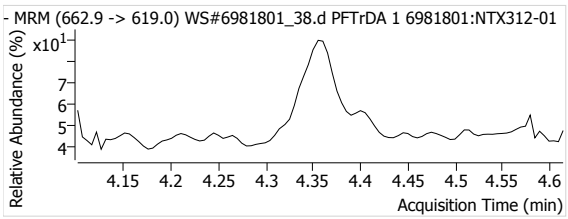

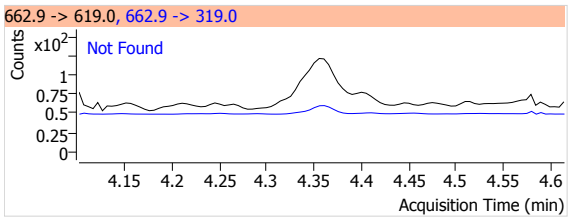

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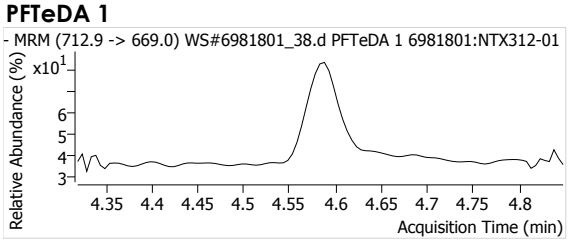

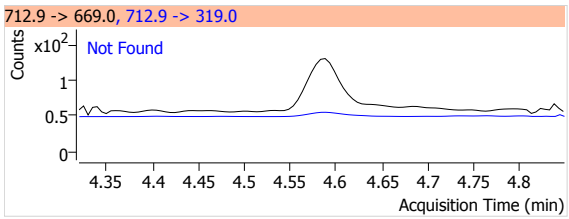

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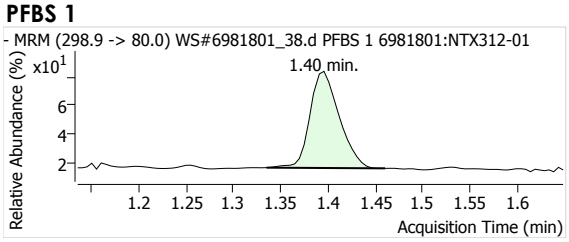

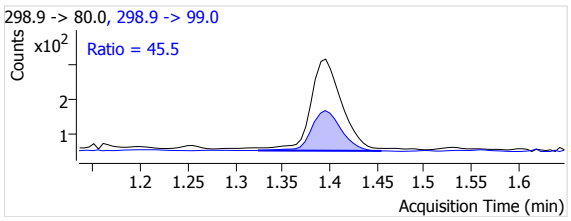

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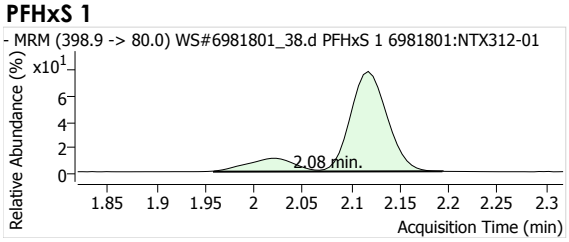

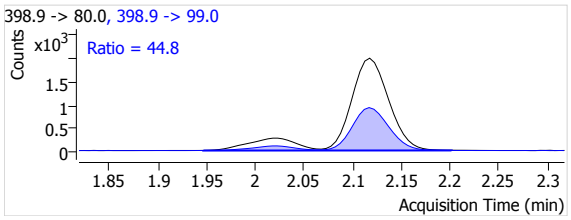

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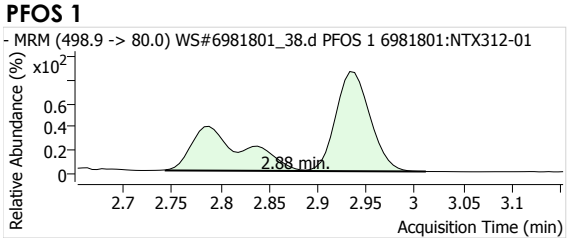

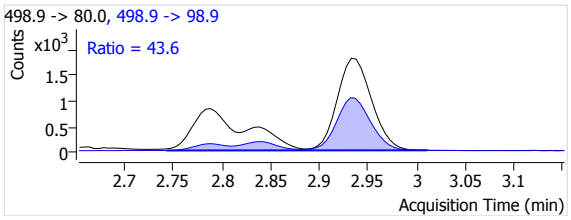

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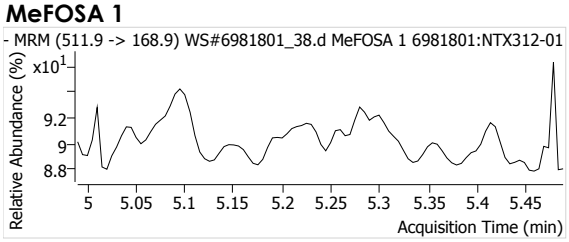

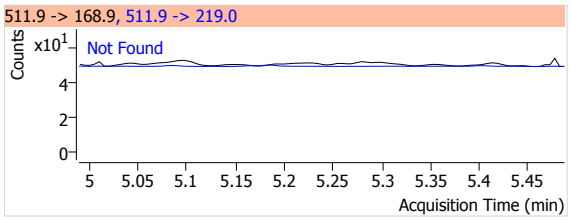

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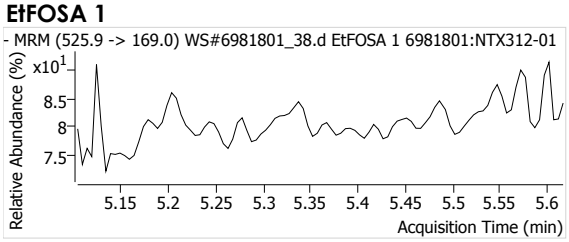

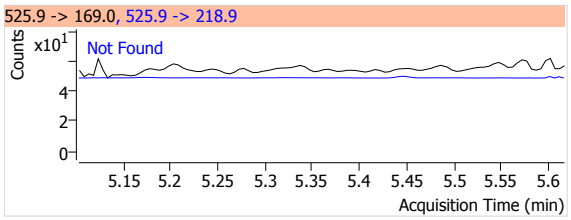

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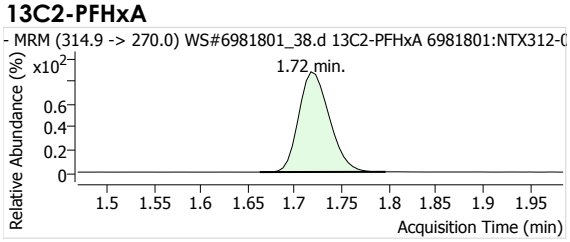

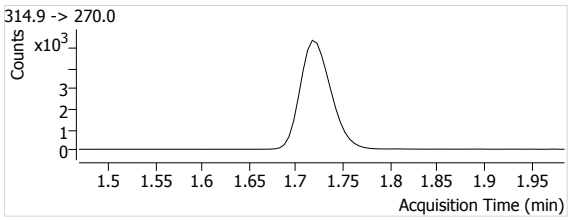

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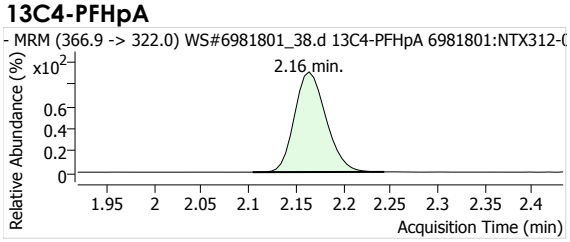

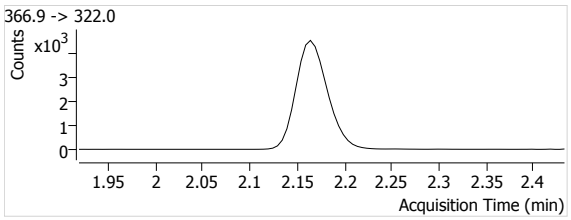

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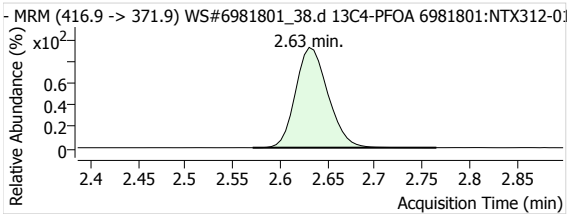

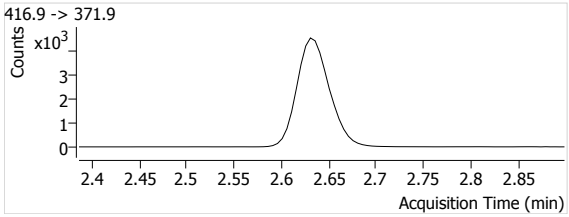

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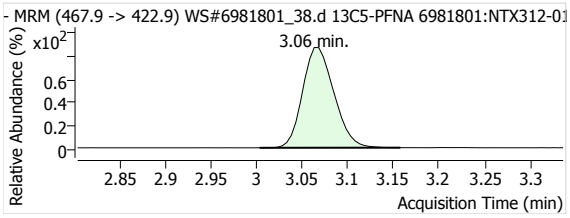

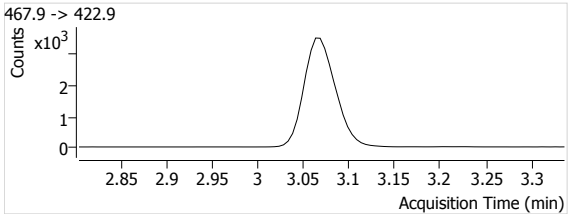

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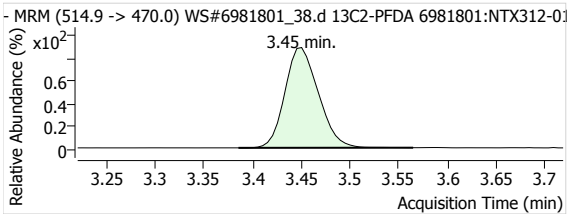

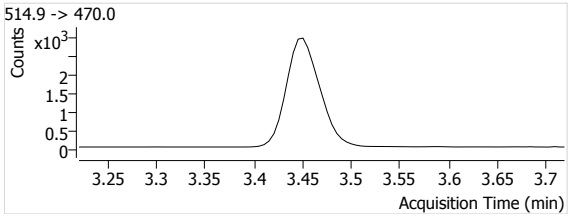

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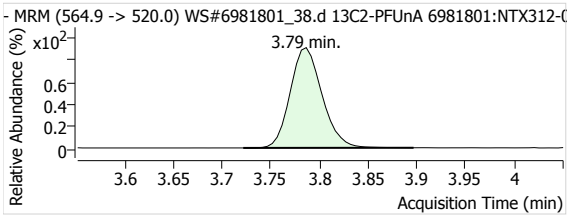

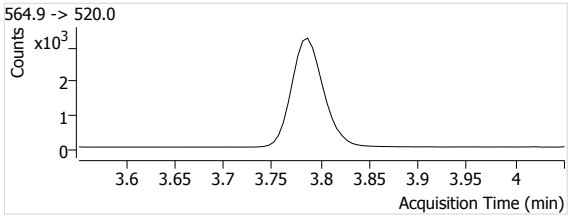

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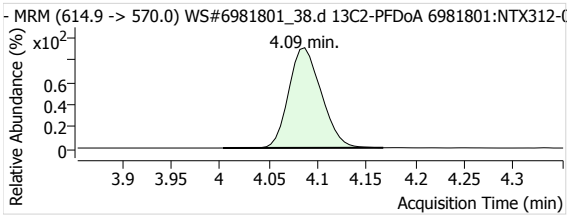

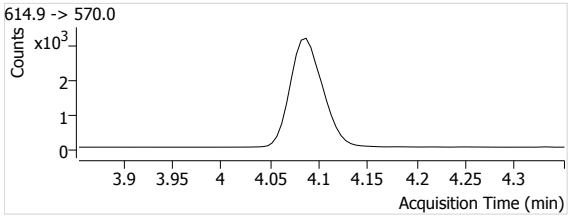

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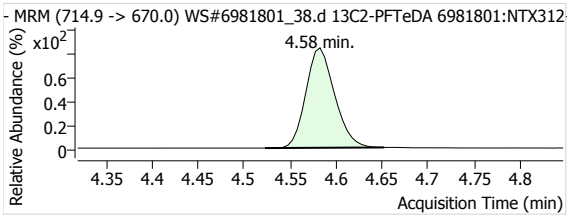

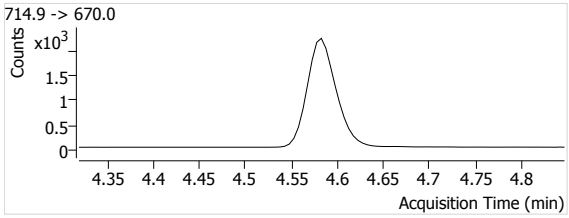

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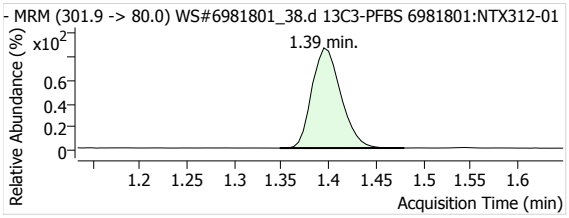
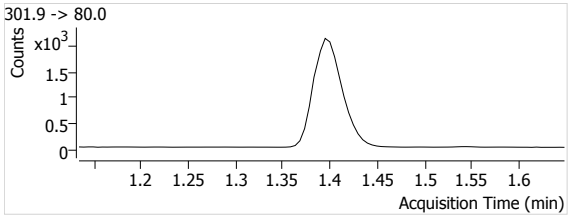
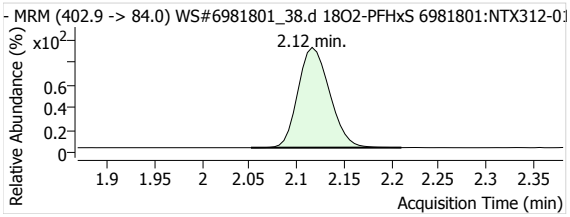
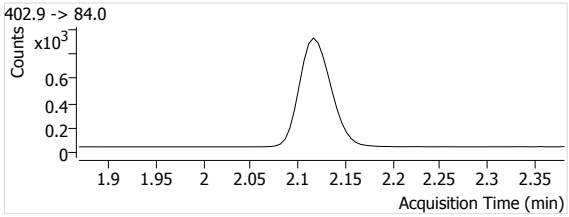


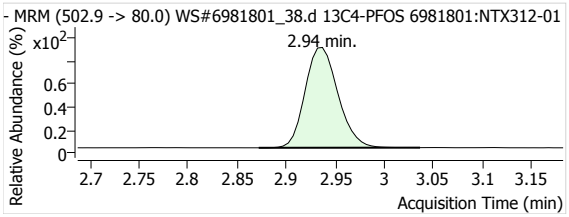


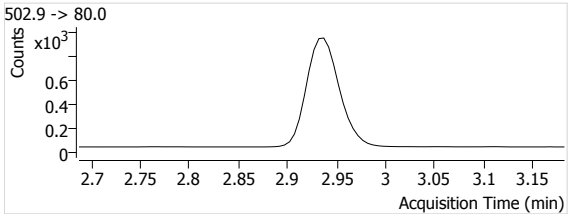
18O2-PFHxS



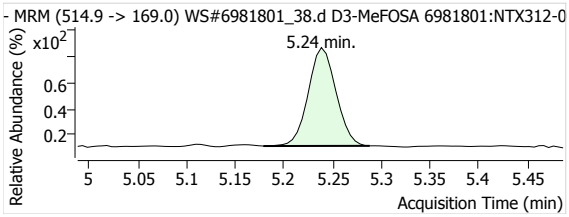


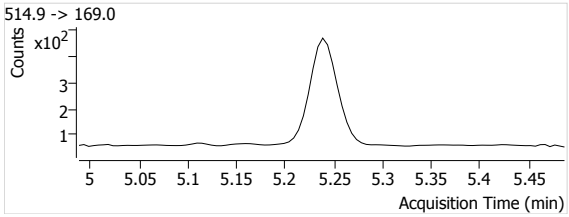
13C4-PFOS





D3-MeFOSA





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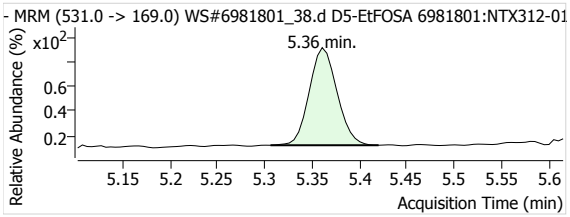
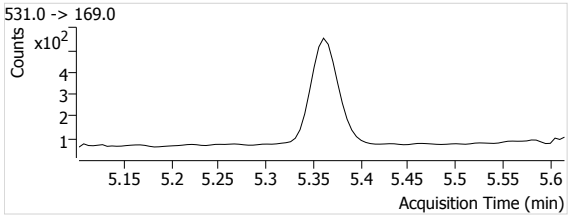




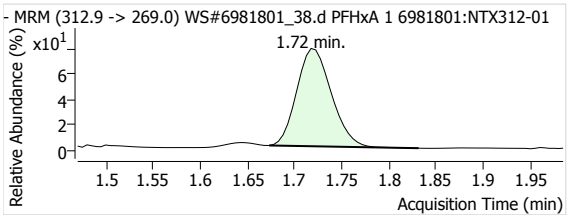
Quantitative Analysis Report

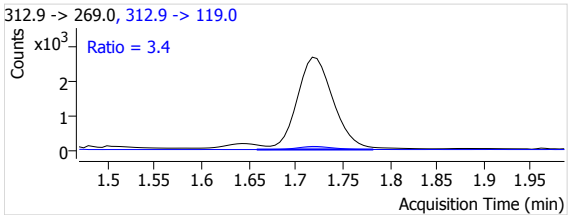
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX312-01	**Data File**	WS#6981801_38.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-D3
Acq. Date-Time	2020/10/05 5:02:22 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0739	--	6599	1.72	34	0.5507	226	1.72	20	3.4
PFHpA 1	µg/L	--	0.0121	--	1577	2.16	11	0.1539	257	2.17	33	16.3
PFOA 1	µg/L	--	0.0655	--	4694	2.63	51	0.4404	1193	2.63	172	25.4
PFNA 1	µg/L	--	0.0078	--	641	3.07	9	0.0775	114	3.07	12	17.8
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0002	--	182	4.09	4	0.0249	18	4.09	5	9.9
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0137	--	541	1.40	18	0.1240	246	1.40	22	45.5
PFHxS 1	µg/L	--	0.3260	--	5928	2.08	219	2.8987	2655	2.07	501	44.8
PFOS 1	µg/L	--	0.4409	--	7314	2.88	107	3.4288	3190	2.88	246	43.6
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	81.5157	--	11982	1.72	904		--	--	--	--
13C4-PFHpA	µg/L	--	82.0854	--	10250	2.16	456		--	--	--	--
13C4-PFOA	µg/L	--	78.1910	--	10659	2.63	1082		--	--	--	--
13C5-PFNA	µg/L	--	74.6818	--	8274	3.06	972		--	--	--	--
13C2-PFDA	µg/L	--	70.6990	--	6949	3.45	426		--	--	--	--
13C2-PFUnA	µg/L	--	69.3444	--	7372	3.79	352		--	--	--	--
13C2-PFDoA	µg/L	--	66.4368	--	7322	4.09	574		--	--	--	--
13C2-PFTeDA	µg/L	--	53.1430	--	4785	4.58	494		--	--	--	--
13C3-PFBS	µg/L	--	86.3277	--	4363	1.39	226		--	--	--	--
18O2-PFHxS	µg/L	--	80.4485	--	2045	2.12	628		--	--	--	--
13C4-PFOS	µg/L	--	79.8278	--	2133	2.94	548		--	--	--	--
D3-MeFOSA	µg/L	--	22.9611	--	808	5.24	40		--	--	--	--
D5-EtFOSA	µg/L	--	23.5519	--	984	5.36	22		--	--	--	--

PFHxA 1





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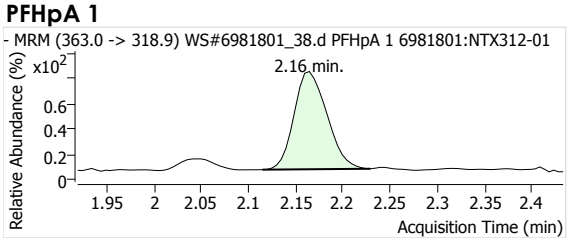

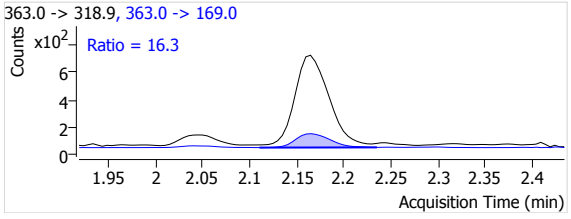

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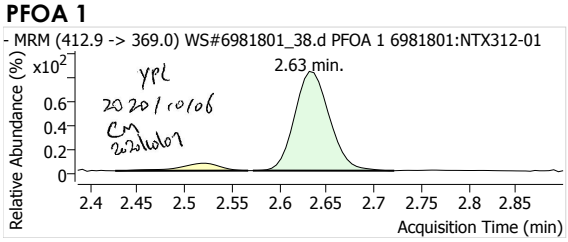

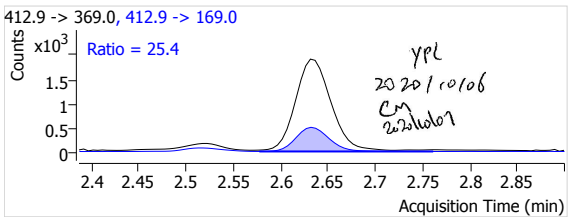

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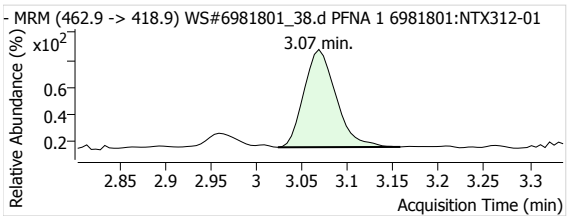

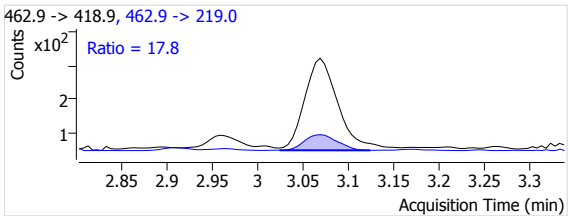

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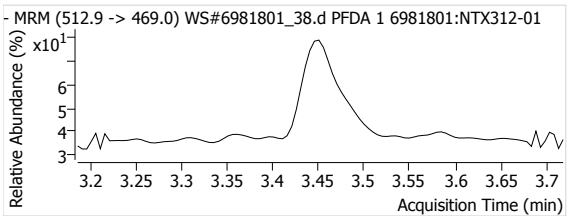

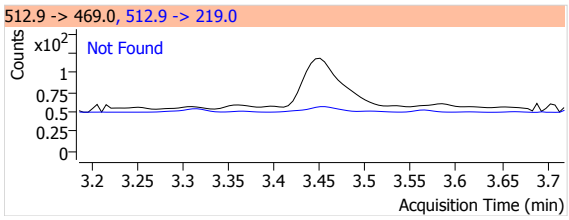

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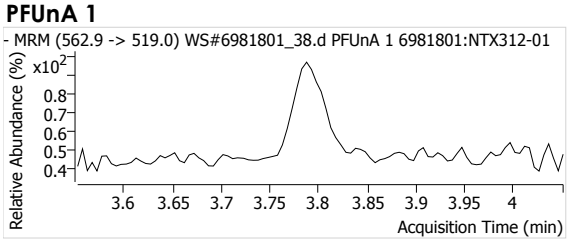

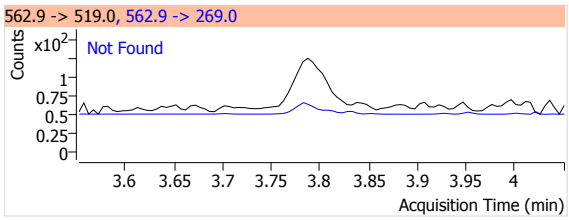

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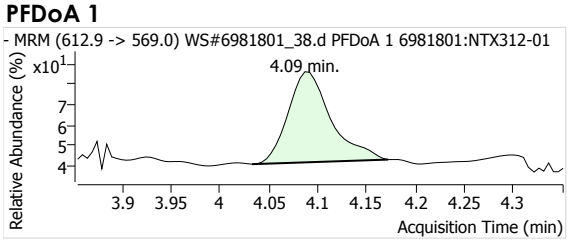

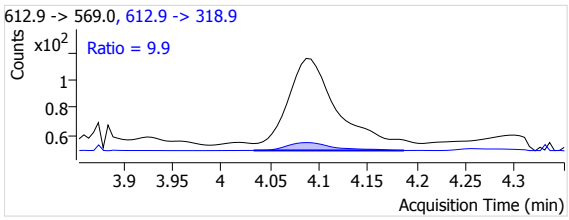

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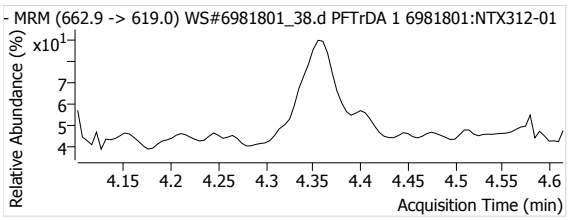

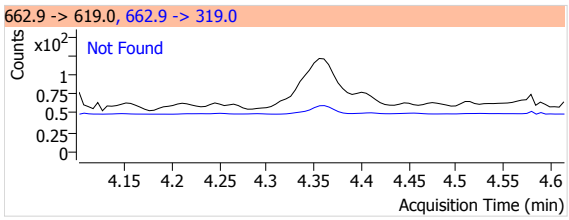

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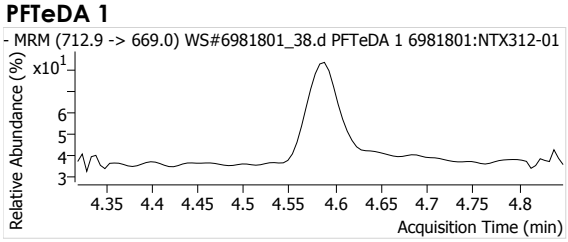

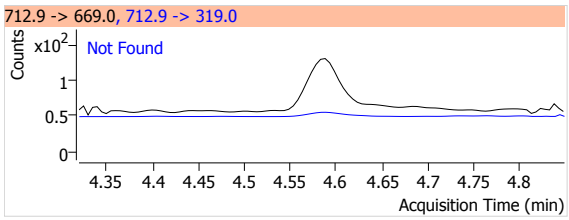

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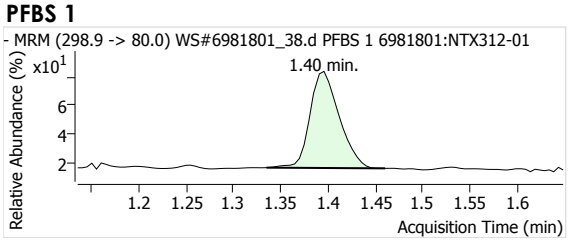

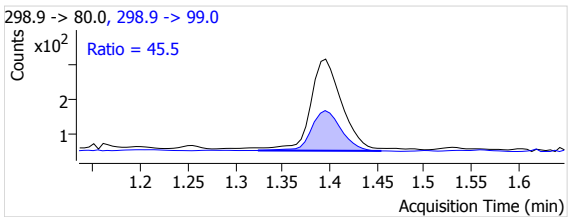

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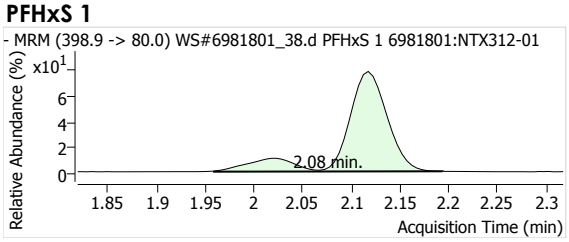

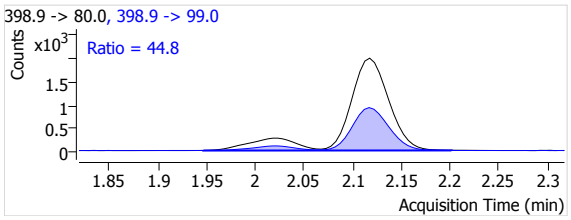

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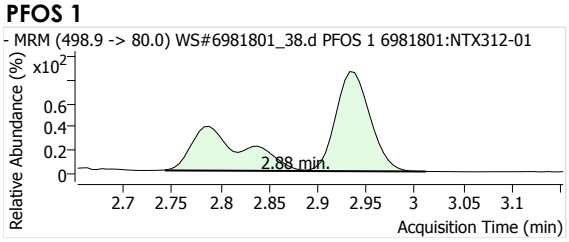
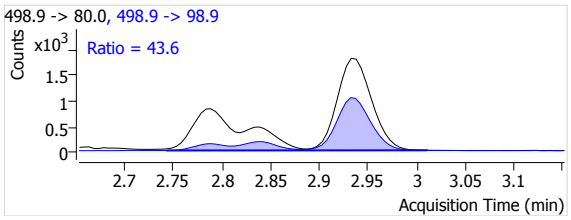
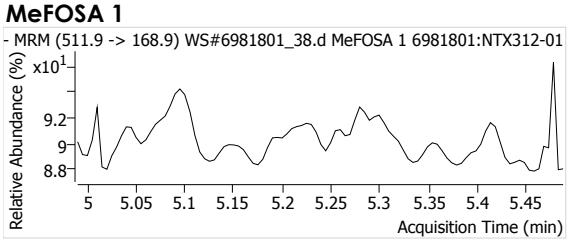
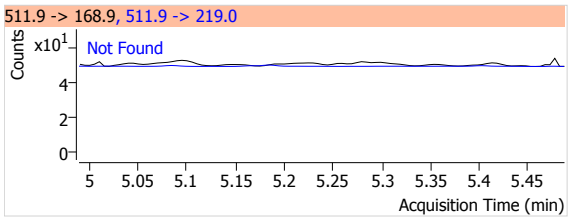




MeFOSA 1





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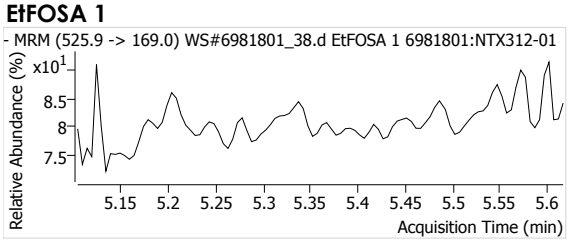
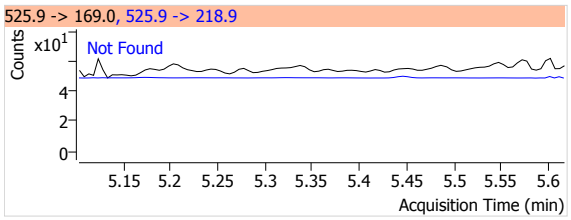
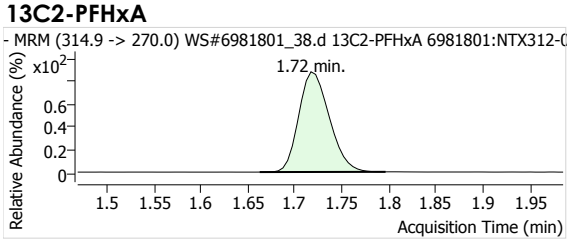
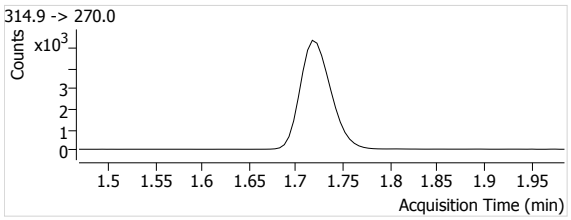




13C2-PFHxA





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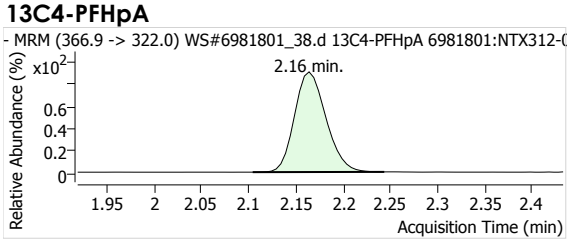

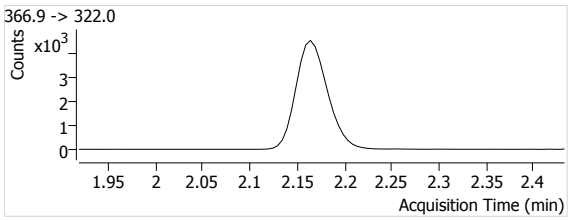

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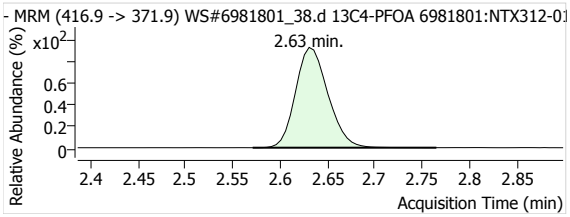

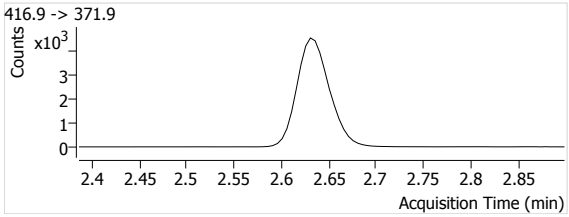

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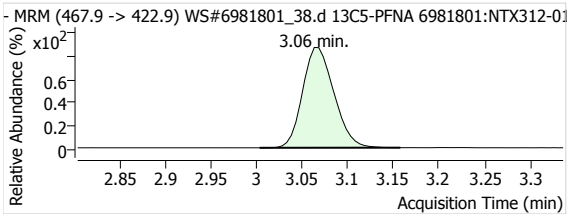

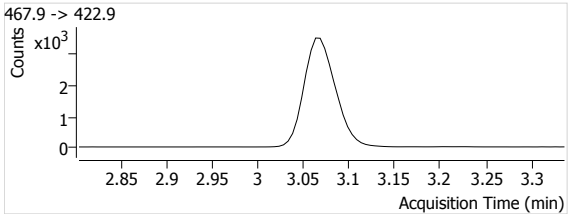

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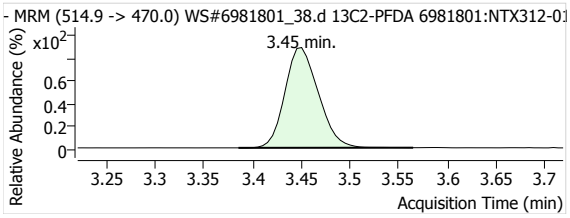
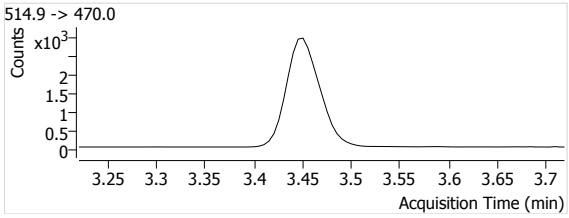
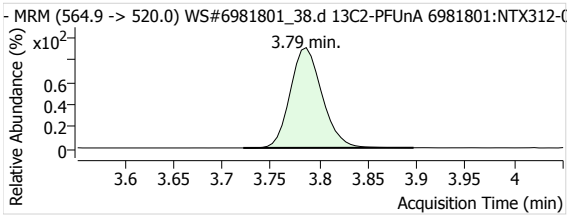
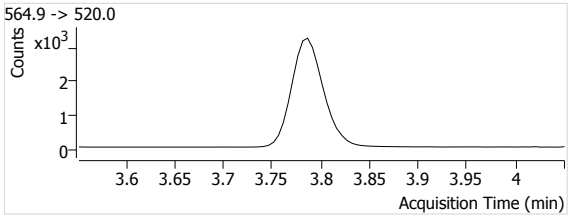




13C2-PFUnA





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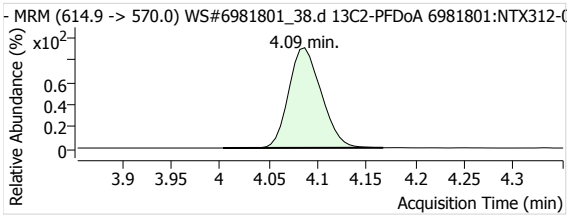

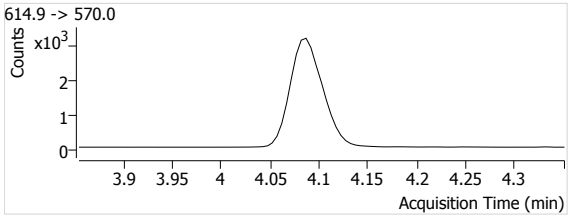

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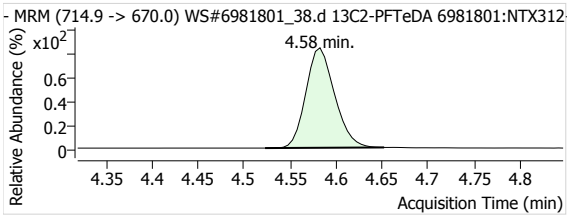

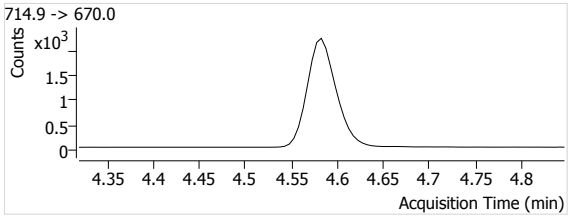

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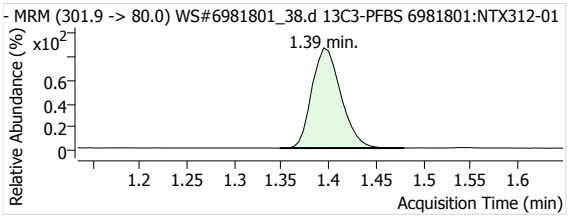
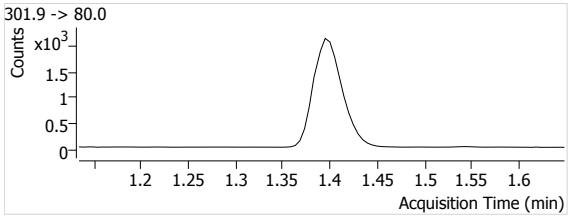
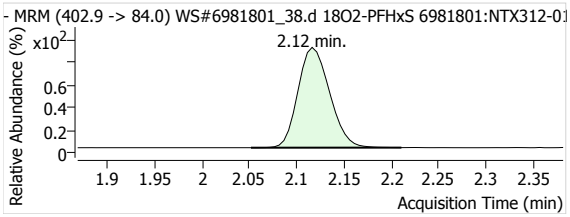
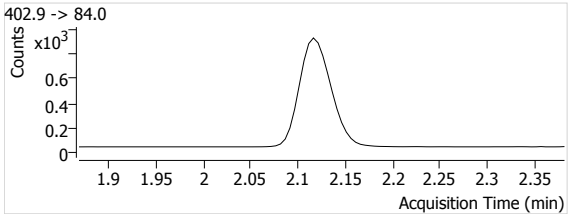




18O2-PFHxS





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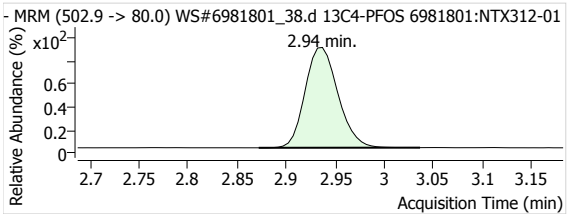
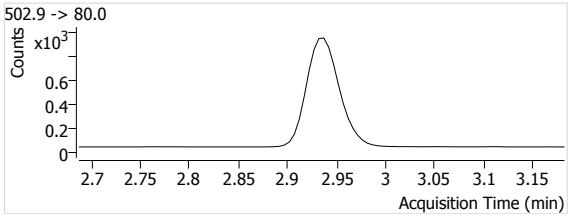
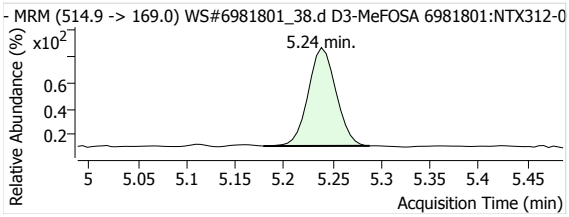
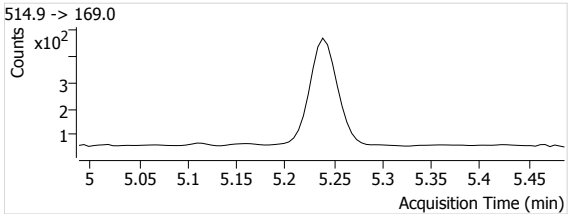




D3-MeFOSA





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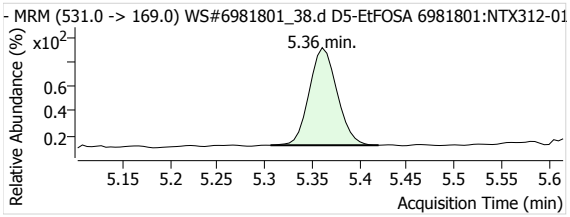
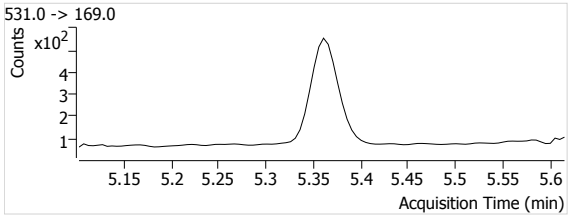




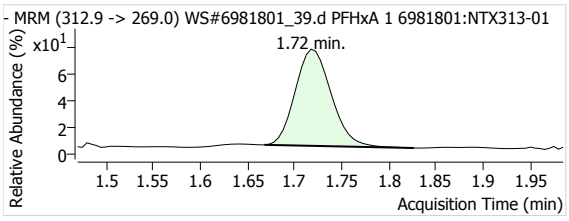
Quantitative Analysis Report

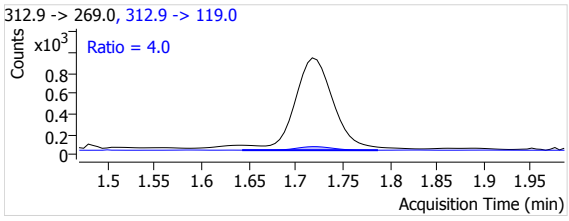
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX313-01	**Data File**	WS#6981801_39.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-D4
Acq. Date-Time	2020/10/05 5:09:21 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0200	--	2301	1.72	23	0.1660	91	1.72	12	4.0
PFHpA 1	µg/L	--	0.0061	--	1111	2.16	15	0.0961	167	2.17	13	15.0
PFOA 1	µg/L	--	0.0284	--	2518	2.63	36	0.2004	658	2.63	47	26.1
PFNA 1	µg/L	--	0.0050	--	556	3.07	15	0.0560	55	3.06	18	9.9
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	0.0000	--	187	3.78	5	0.0204	25	3.79	6	13.4
PFDoA 1	µg/L	--	0.0000	--	193	4.09	2	0.0208	29	4.08	28	15.0
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0058	--	281	1.40	12	0.0602	103	1.40	6	36.7
PFHxS 1	µg/L	--	0.1193	--	2518	2.08	196	1.0732	1196	2.07	84	47.5
PFOS 1	µg/L	--	0.1935	--	3644	2.88	161	1.5166	1820	2.88	109	49.9
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	94.2921	--	13860	1.72	1008		--	--	--	--
13C4-PFHpA	µg/L	--	92.5843	--	11561	2.16	744		--	--	--	--
13C4-PFOA	µg/L	--	92.1948	--	12568	2.63	876		--	--	--	--
13C5-PFNA	µg/L	--	89.5388	--	9920	3.06	667		--	--	--	--
13C2-PFDA	µg/L	--	87.3537	--	8586	3.45	603		--	--	--	--
13C2-PFUnA	µg/L	--	86.0408	--	9147	3.78	718		--	--	--	--
13C2-PFDoA	µg/L	--	84.3844	--	9300	4.08	340		--	--	--	--
13C2-PFTeDA	µg/L	--	78.6761	--	7084	4.58	515		--	--	--	--
13C3-PFBS	µg/L	--	92.3823	--	4669	1.39	325		--	--	--	--
18O2-PFHxS	µg/L	--	92.2895	--	2346	2.12	462		--	--	--	--
13C4-PFOS	µg/L	--	89.9326	--	2403	2.93	583		--	--	--	--
D3-MeFOSA	µg/L	--	52.5149	--	1848	5.24	63		--	--	--	--
D5-EtFOSA	µg/L	--	53.3748	--	2230	5.36	65		--	--	--	--

PFHxA 1





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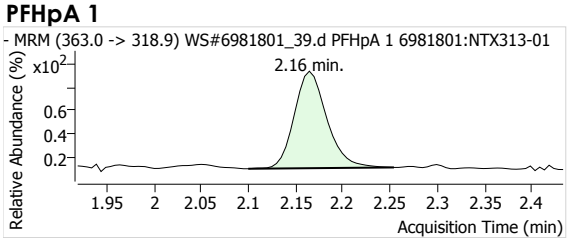

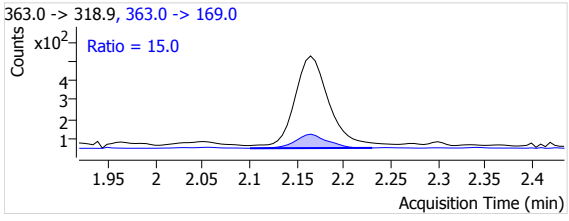

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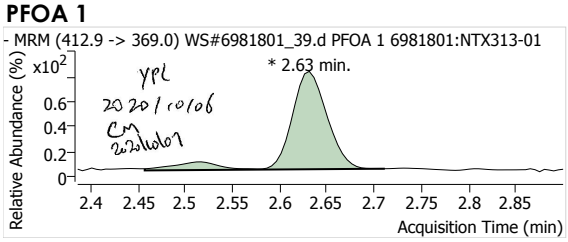

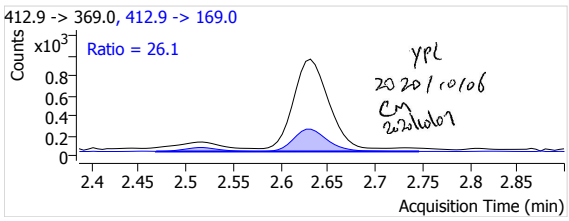

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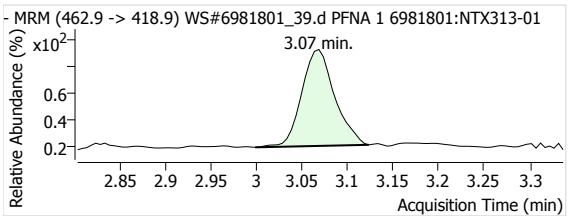

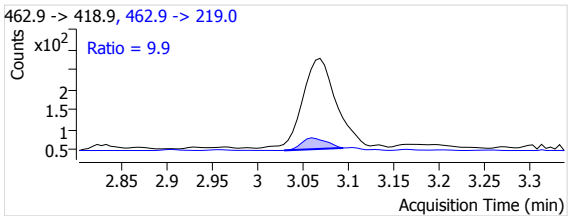

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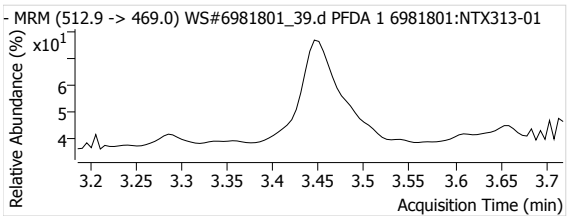

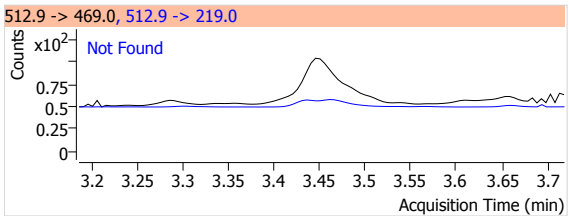

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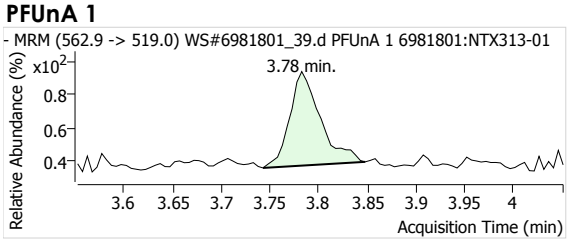

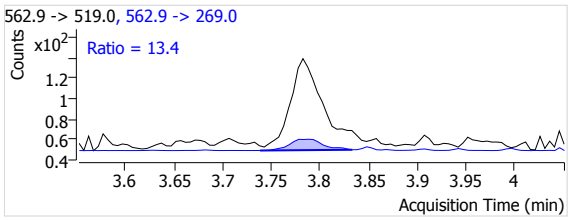

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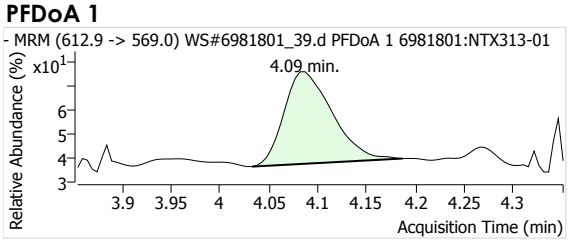

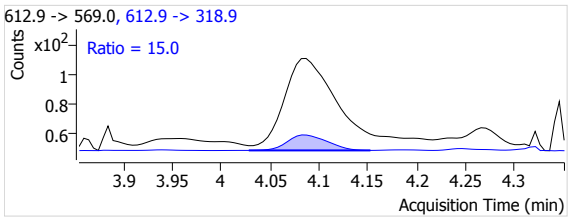

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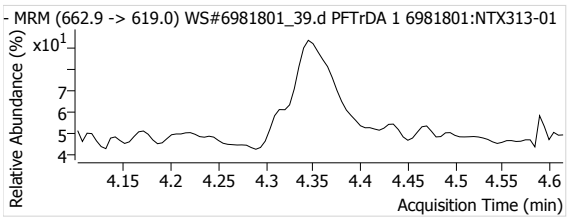

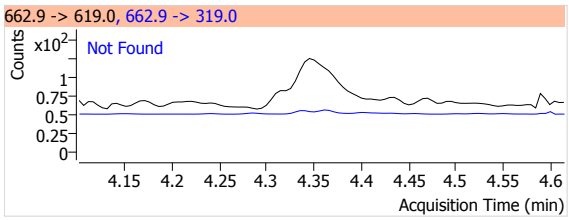

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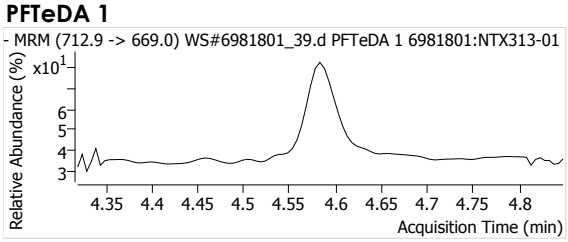

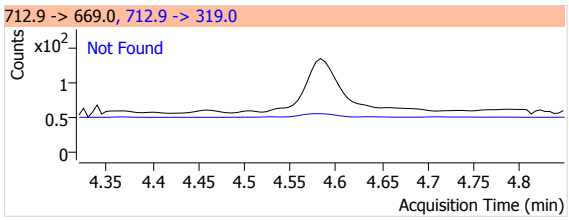

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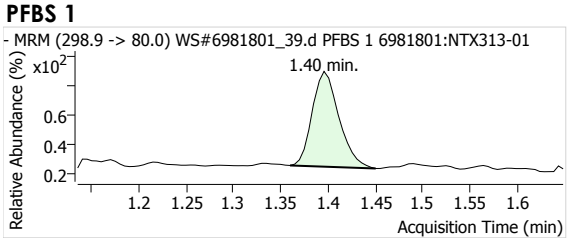

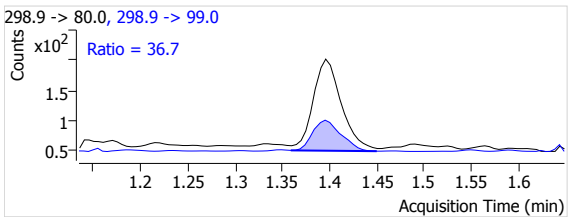

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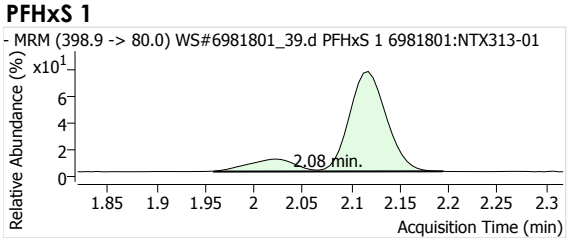

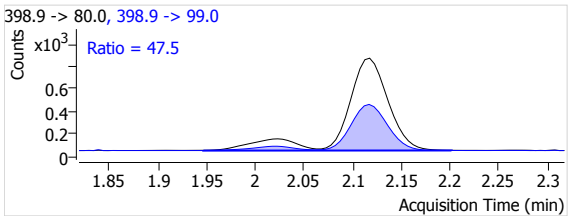

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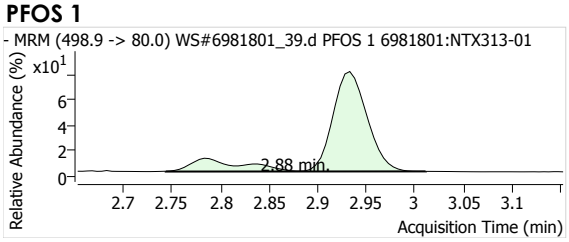

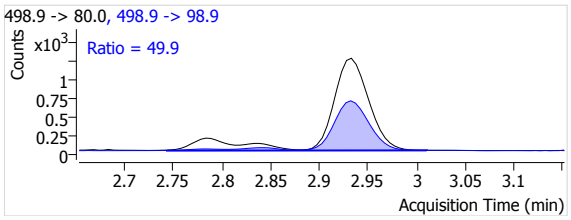

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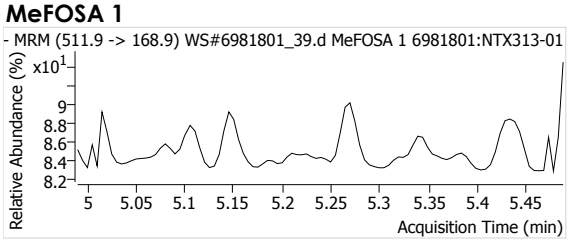

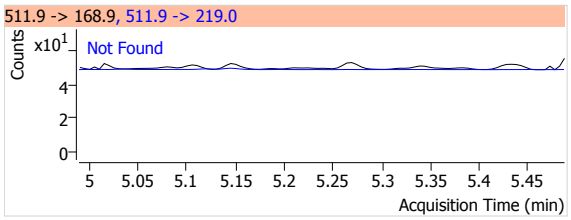

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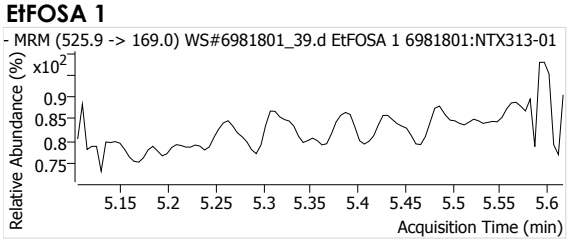

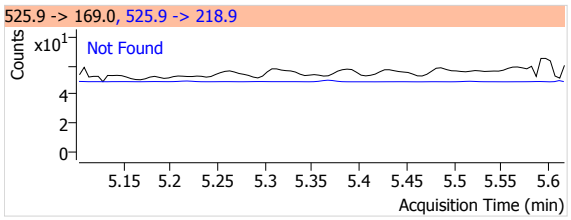

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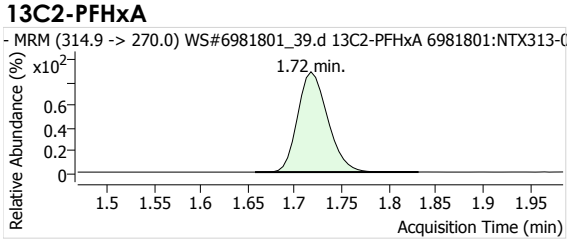

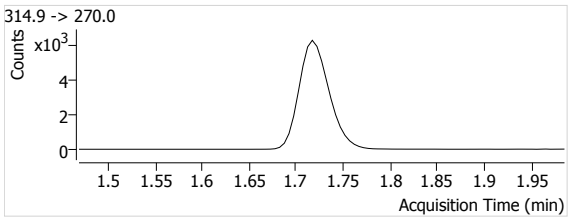

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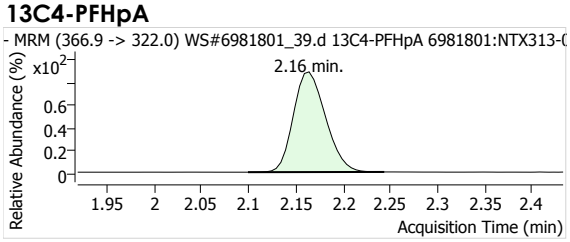

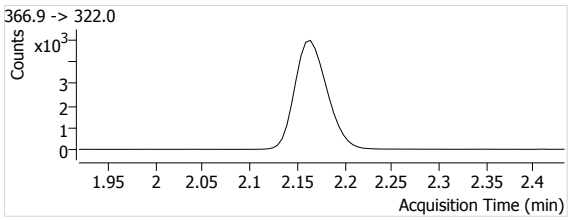

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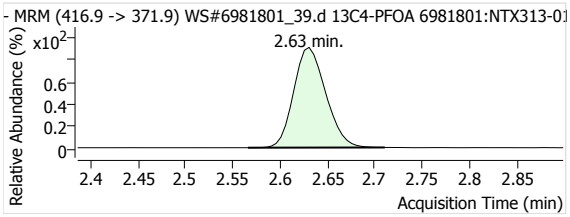

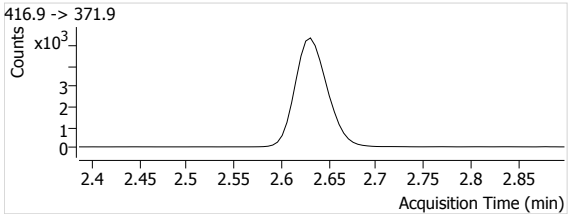

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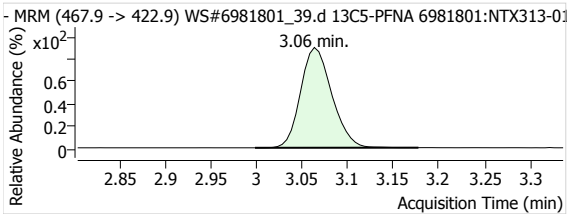

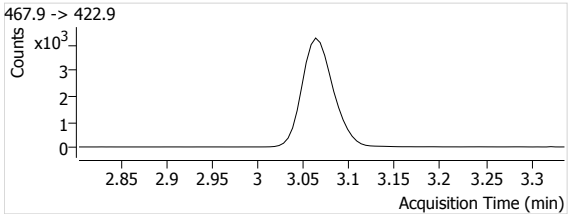

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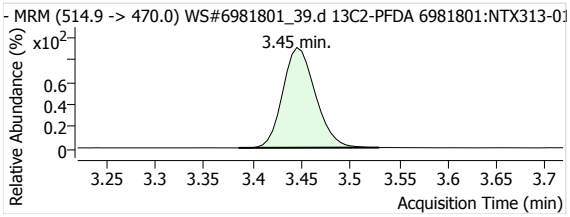

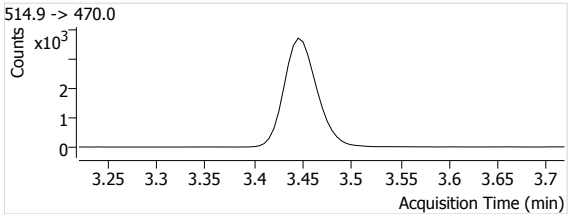

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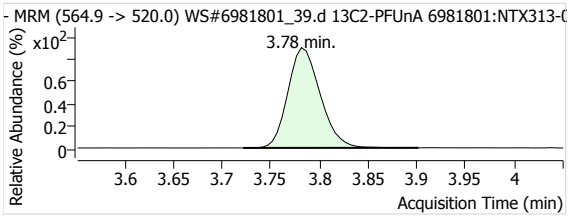

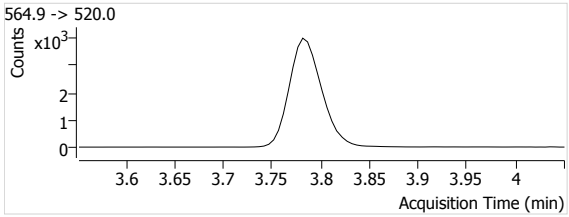

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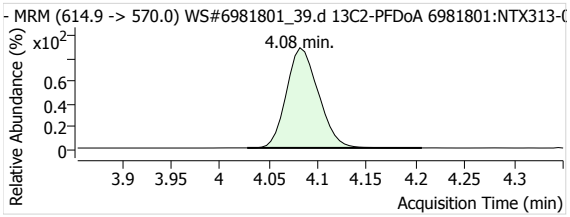

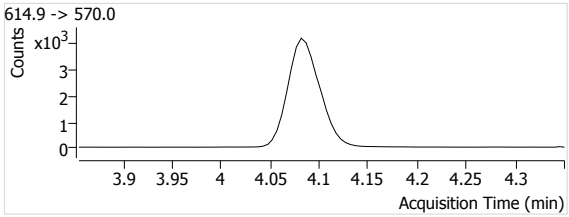

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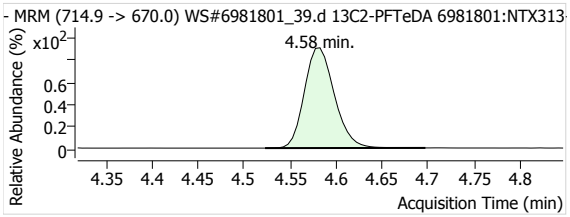

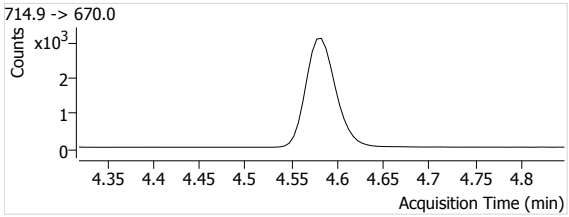

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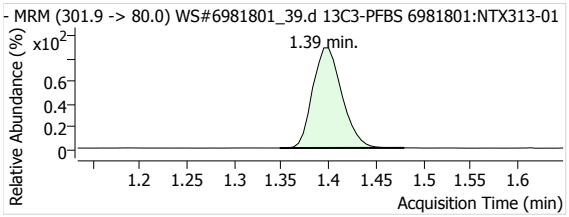

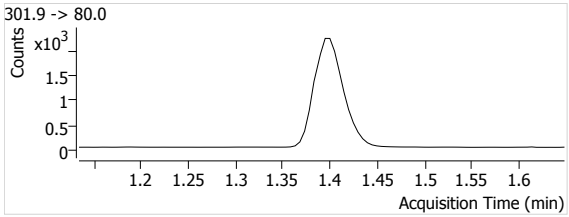

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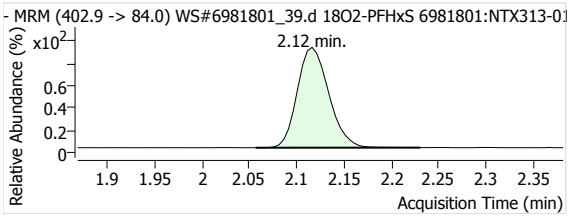

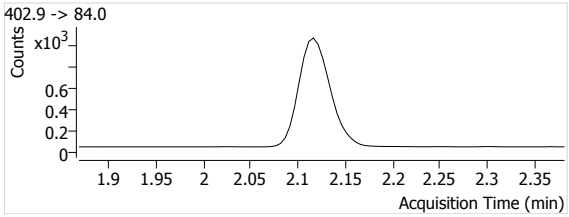

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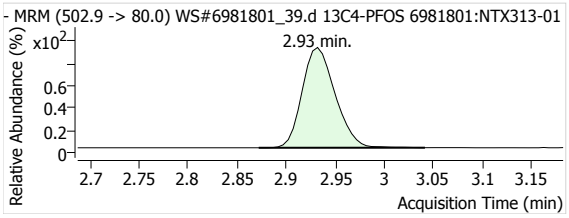
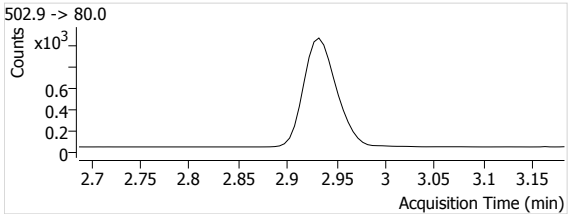
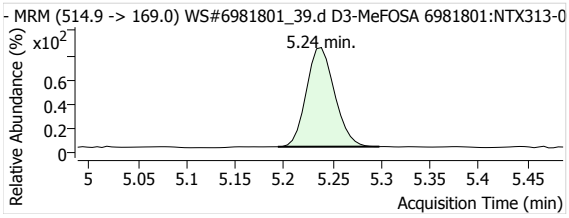
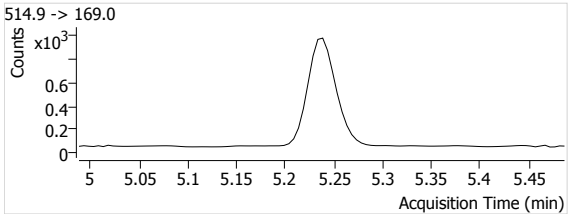




D3-MeFOSA





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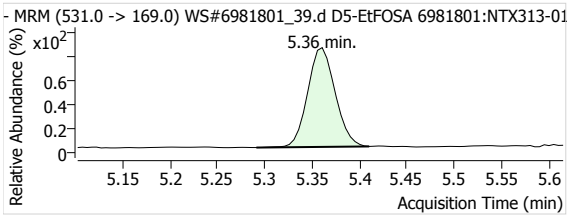
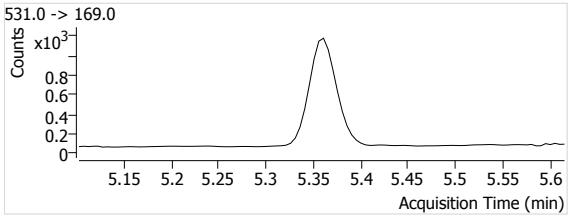




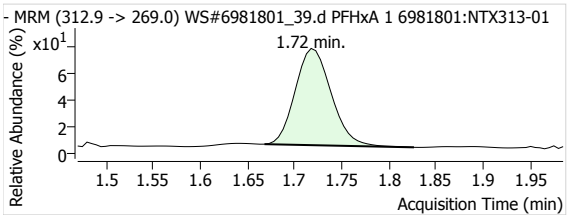
Quantitative Analysis Report

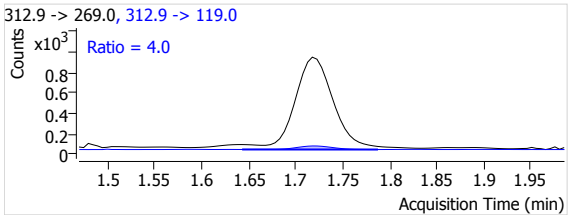
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:NTX313-01	**Data File**	WS#6981801_39.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-D4
Acq. Date-Time	2020/10/05 5:09:21 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0200	--	2301	1.72	23	0.1660	91	1.72	12	4.0
PFHpA 1	µg/L	--	0.0061	--	1111	2.16	15	0.0961	167	2.17	13	15.0
PFOA 1	µg/L	--	0.0250	--	2240	2.63	18	0.1782	555	2.63	47	24.8
PFNA 1	µg/L	--	0.0050	--	556	3.07	15	0.0560	55	3.06	18	9.9
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	0.0000	--	187	3.78	5	0.0204	25	3.79	6	13.4
PFDoA 1	µg/L	--	0.0000	--	193	4.09	2	0.0208	29	4.08	28	15.0
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0058	--	281	1.40	12	0.0602	103	1.40	6	36.7
PFHxS 1	µg/L	--	0.1193	--	2518	2.08	196	1.0732	1196	2.07	84	47.5
PFOS 1	µg/L	--	0.1935	--	3644	2.88	161	1.5166	1820	2.88	109	49.9
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	94.2921	--	13860	1.72	1008		--	--	--	--
13C4-PFHpA	µg/L	--	92.5843	--	11561	2.16	744		--	--	--	--
13C4-PFOA	µg/L	--	92.1948	--	12568	2.63	876		--	--	--	--
13C5-PFNA	µg/L	--	89.5388	--	9920	3.06	667		--	--	--	--
13C2-PFDA	µg/L	--	87.3537	--	8586	3.45	603		--	--	--	--
13C2-PFUnA	µg/L	--	86.0408	--	9147	3.78	718		--	--	--	--
13C2-PFDoA	µg/L	--	84.3844	--	9300	4.08	340		--	--	--	--
13C2-PFTeDA	µg/L	--	78.6761	--	7084	4.58	515		--	--	--	--
13C3-PFBS	µg/L	--	92.3823	--	4669	1.39	325		--	--	--	--
18O2-PFHxS	µg/L	--	92.2895	--	2346	2.12	462		--	--	--	--
13C4-PFOS	µg/L	--	89.9326	--	2403	2.93	583		--	--	--	--
D3-MeFOSA	µg/L	--	52.5149	--	1848	5.24	63		--	--	--	--
D5-EtFOSA	µg/L	--	53.3748	--	2230	5.36	65		--	--	--	--

PFHxA 1





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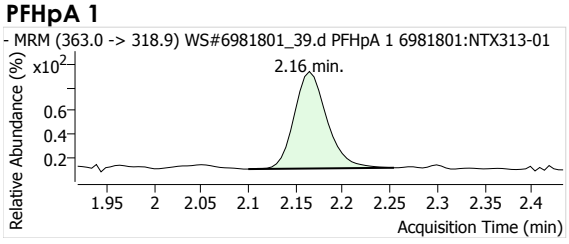

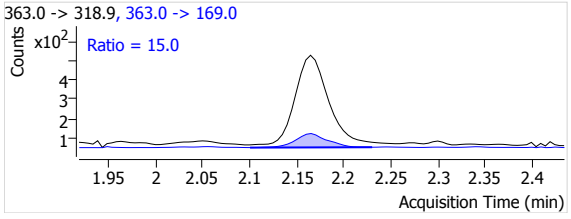

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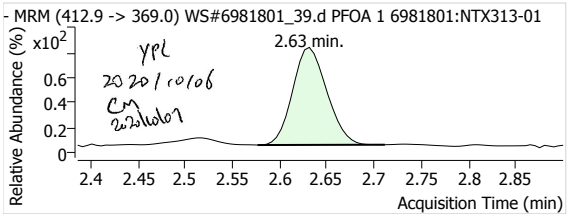

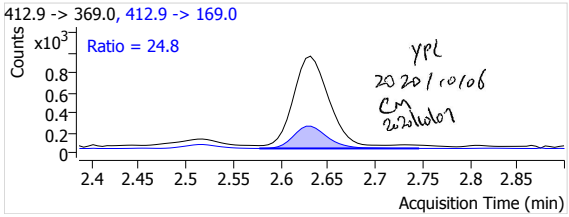

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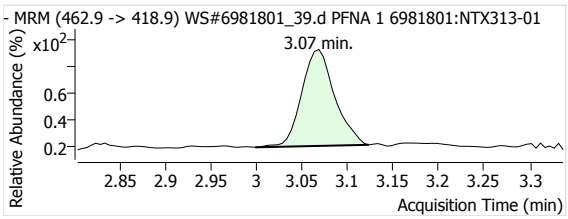

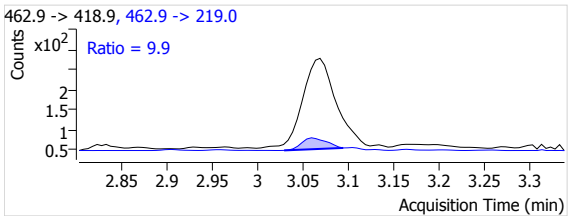

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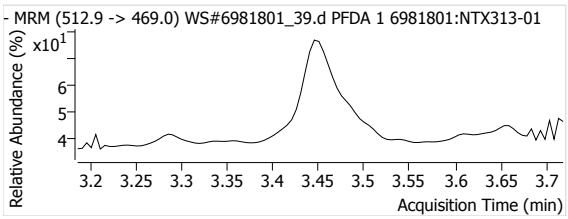

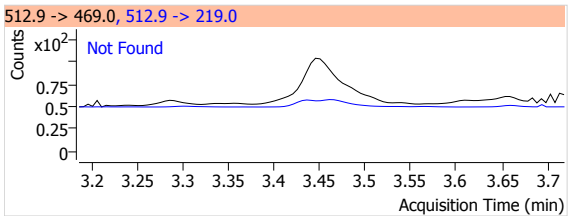

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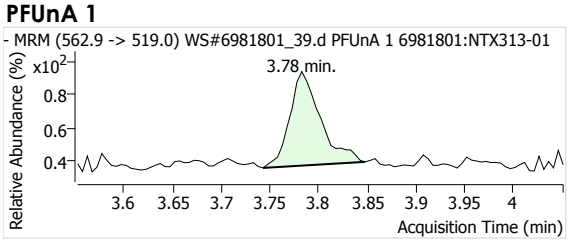

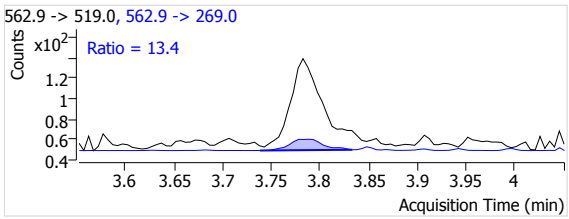

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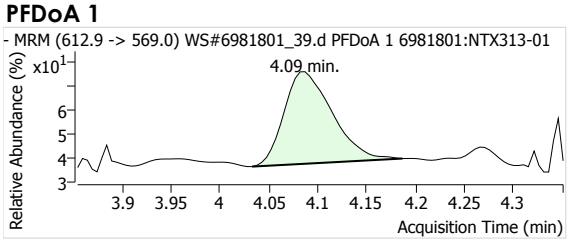

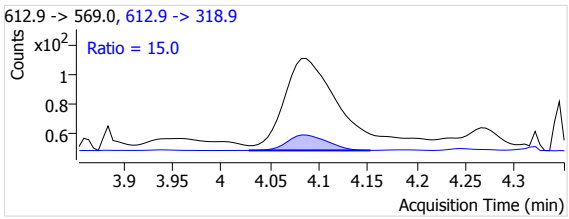

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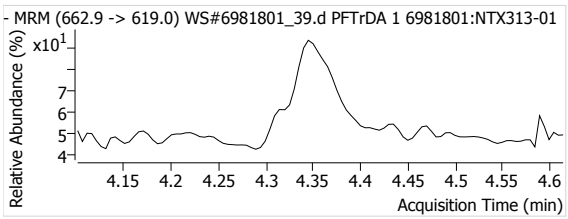

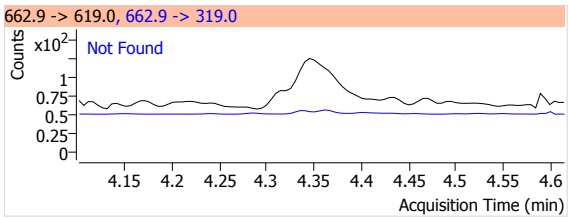

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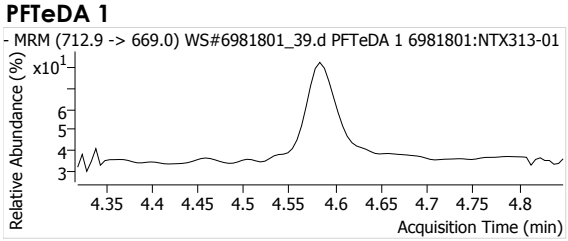

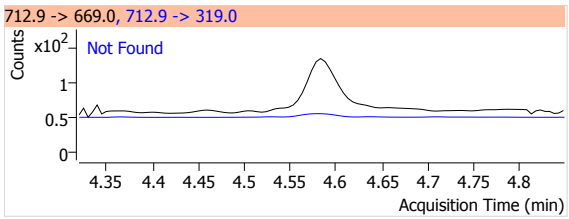

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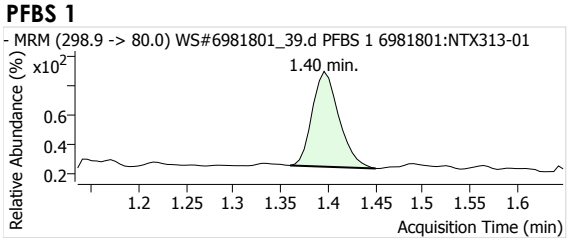

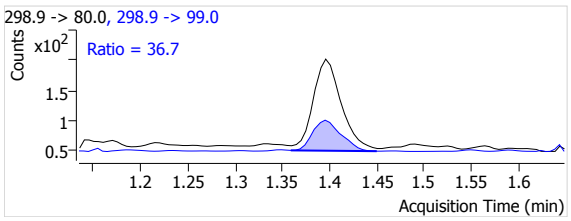

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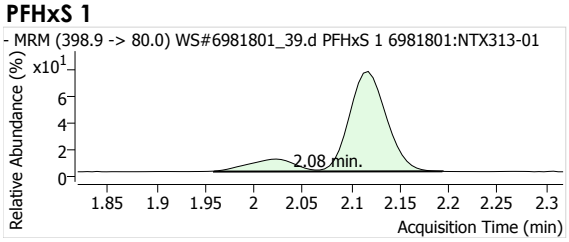

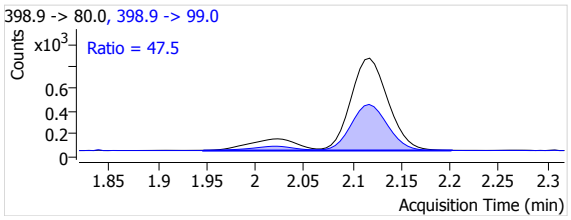

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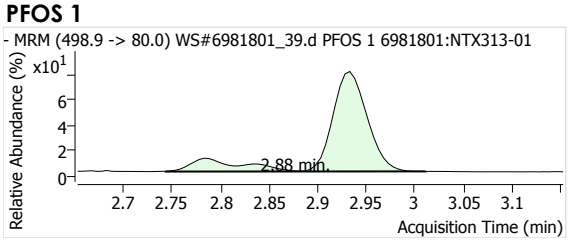

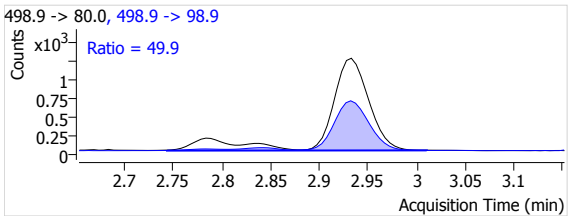

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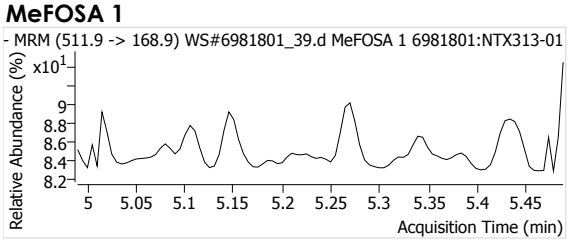

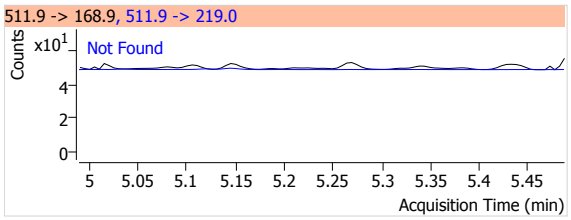

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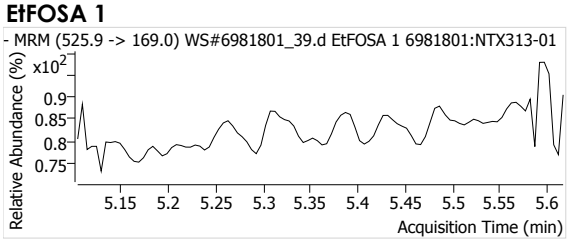

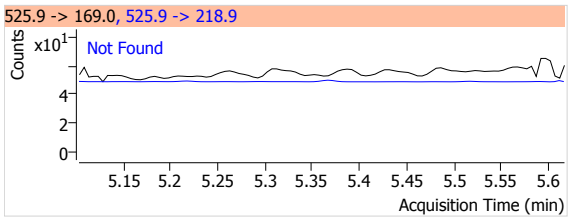

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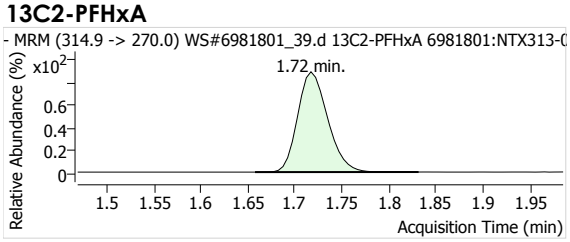

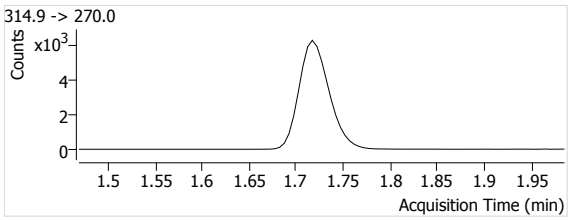

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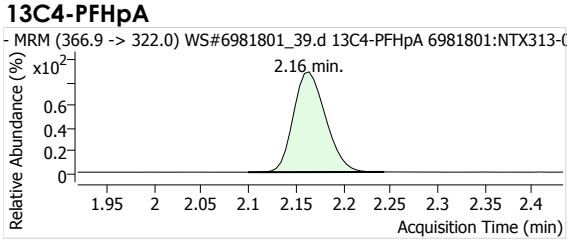

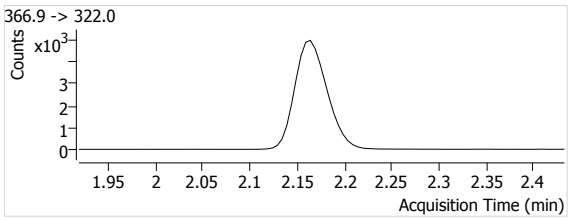

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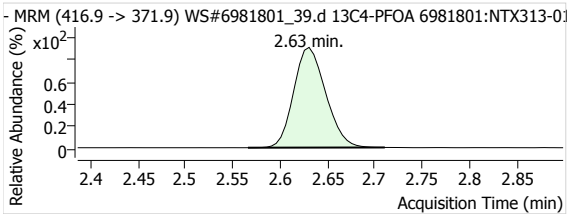

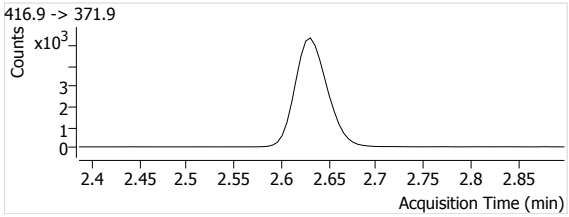

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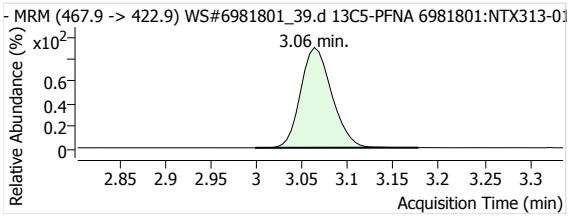

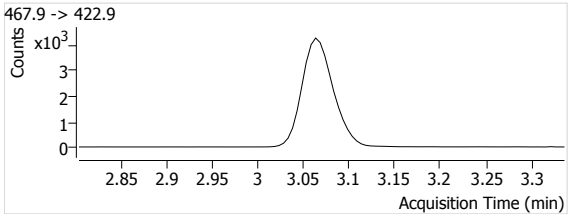

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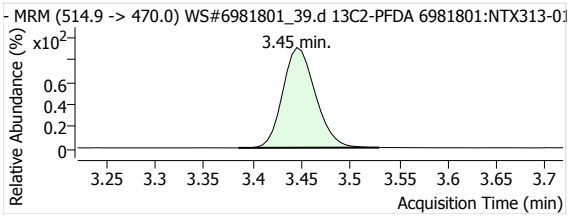

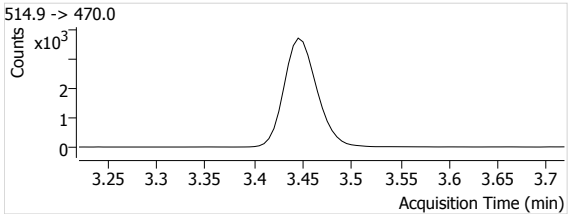

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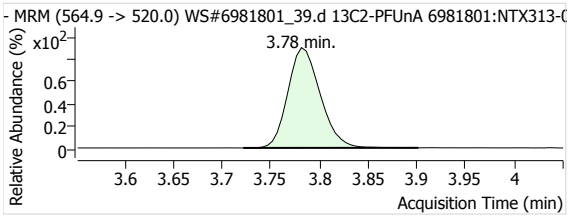

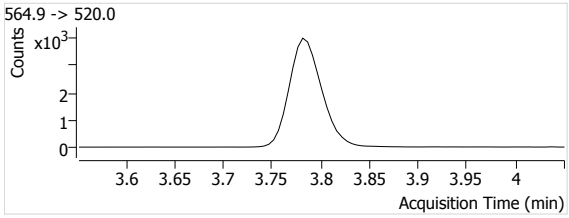

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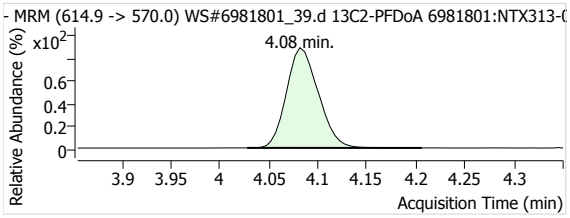

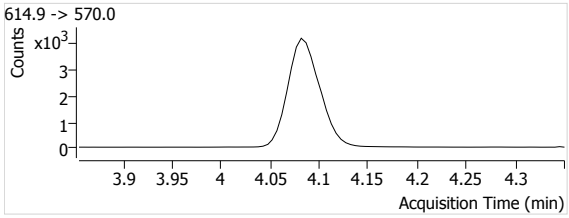

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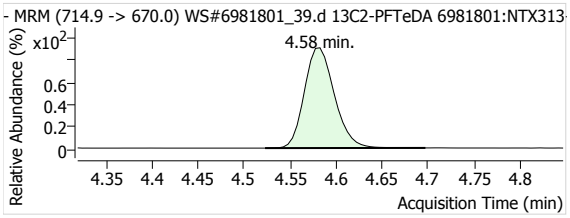

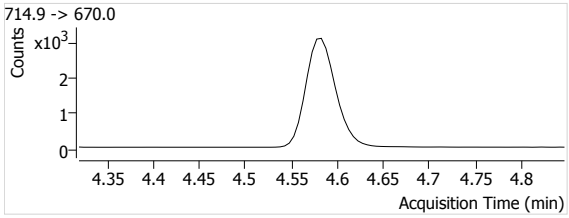

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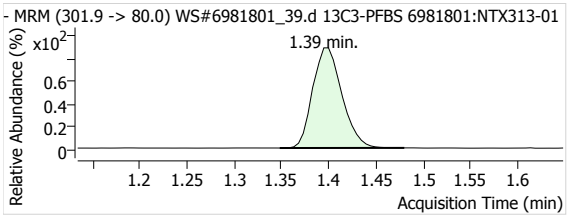

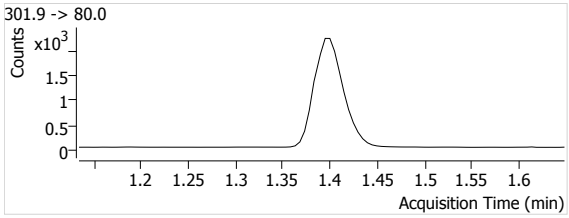

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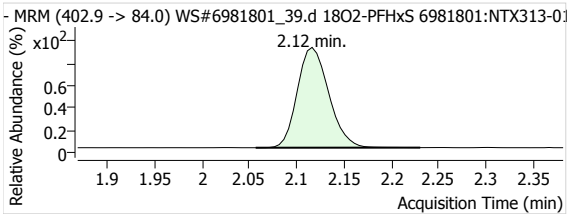

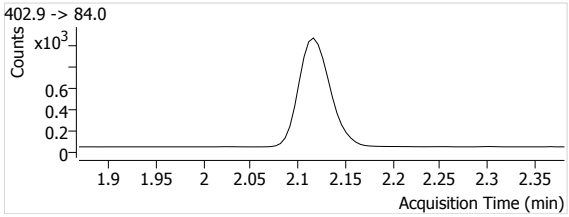

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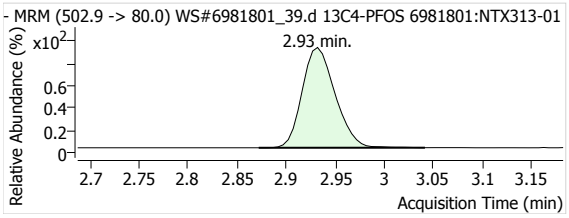

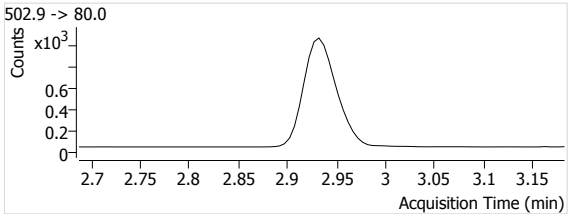

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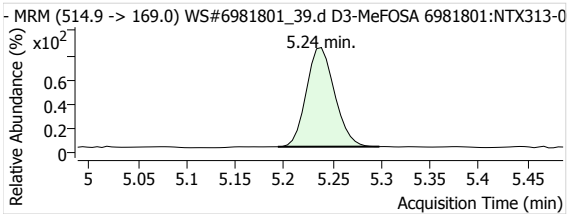

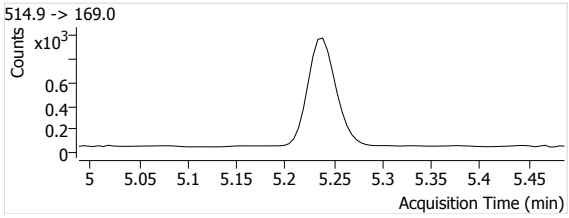

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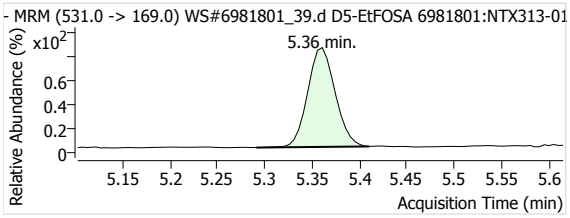
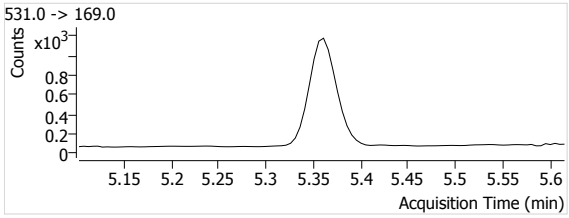




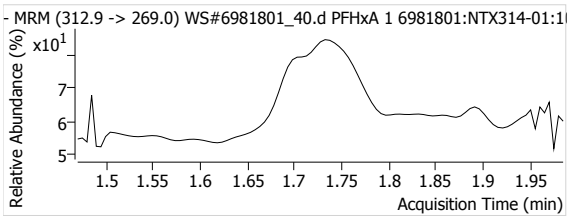
Quantitative Analysis Report

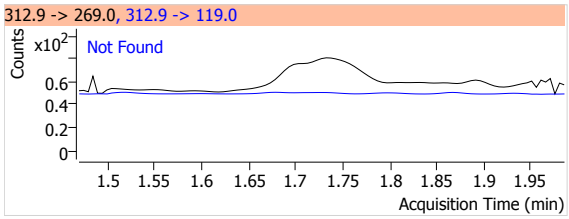
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX314-01:10x	**Data File**	WS#6981801_40.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-D5
Acq. Date-Time	2020/10/05 5:16:20 PM	**Dil.**	0.2
Comment	Not reported		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	193	4.09	5	0.0204	24	4.09	9	12.4
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	0.0000	--	214	4.58	6	0.0301	7	4.58	9	3.3
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	93.2853	--	13712	1.72	709		--	--	--	--
13C4-PFHpA	µg/L	--	92.0477	--	11494	2.16	903		--	--	--	--
13C4-PFOA	µg/L	--	90.8451	--	12384	2.63	1052		--	--	--	--
13C5-PFNA	µg/L	--	90.0803	--	9980	3.06	758		--	--	--	--
13C2-PFDA	µg/L	--	85.5631	--	8410	3.45	582		--	--	--	--
13C2-PFUnA	µg/L	--	85.9562	--	9138	3.78	641		--	--	--	--
13C2-PFDoA	µg/L	--	85.8180	--	9458	4.08	669		--	--	--	--
13C2-PFTeDA	µg/L	--	78.8538	--	7100	4.58	874		--	--	--	--
13C3-PFBS	µg/L	--	89.7705	--	4537	1.39	521		--	--	--	--
18O2-PFHxS	µg/L	--	89.4178	--	2273	2.12	914		--	--	--	--
13C4-PFOS	µg/L	--	90.9805	--	2431	2.93	367		--	--	--	--
D3-MeFOSA	µg/L	--	40.1535	--	1413	5.24	70		--	--	--	--
D5-EtFOSA	µg/L	--	40.0910	--	1675	5.36	46		--	--	--	--

PFHxA 1





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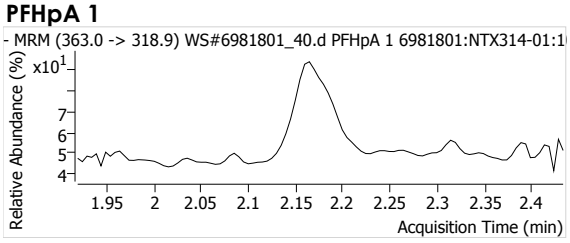

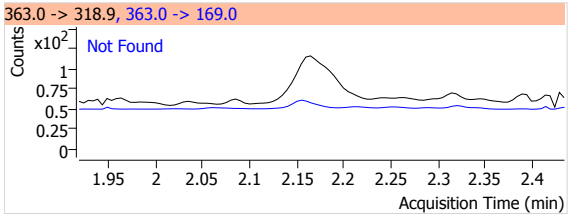

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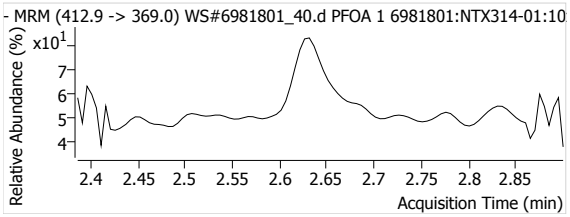

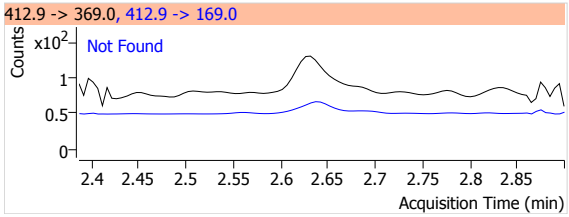

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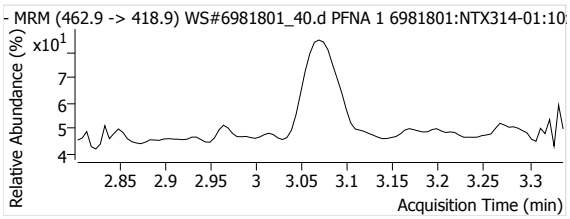

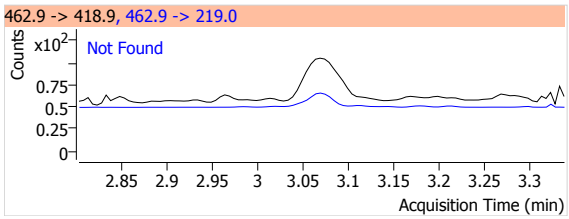

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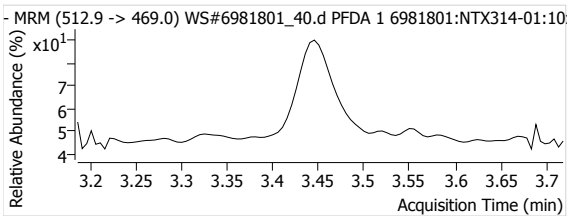

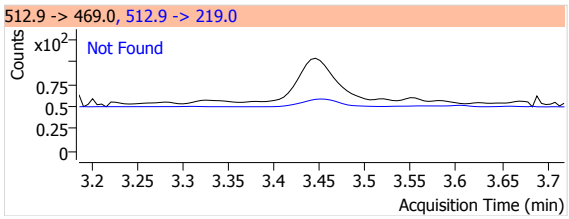

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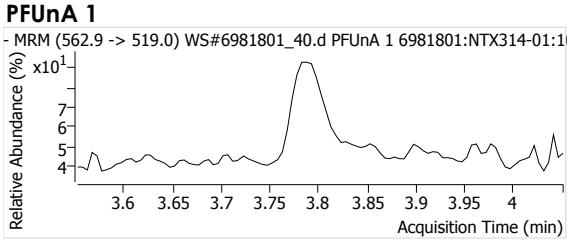

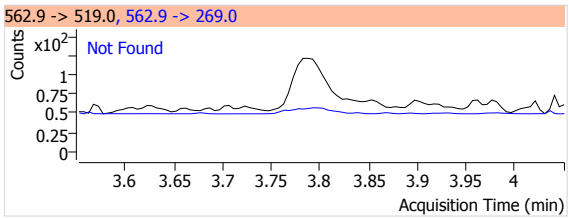

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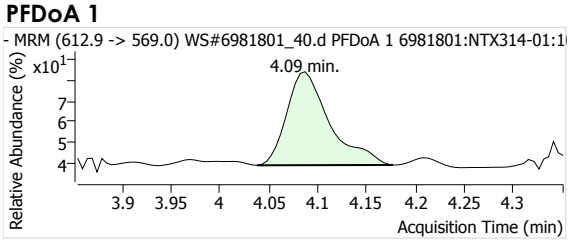

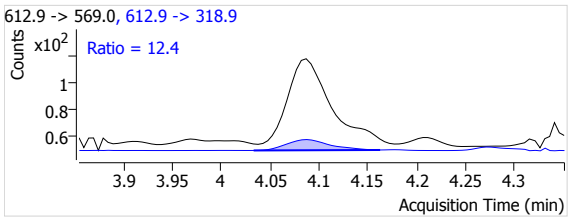

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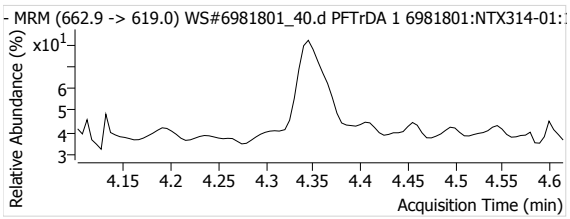

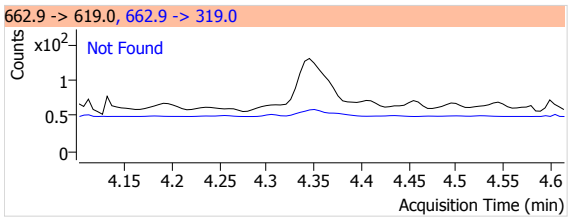

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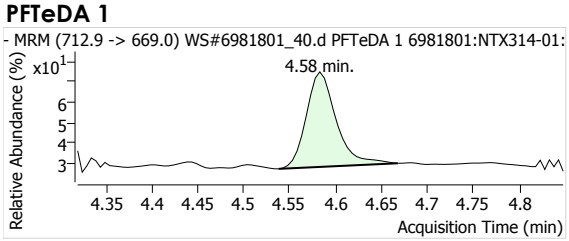

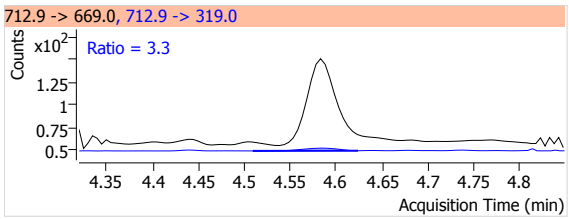

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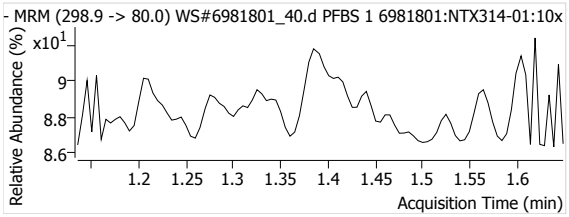

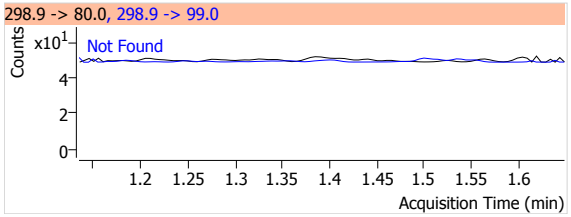

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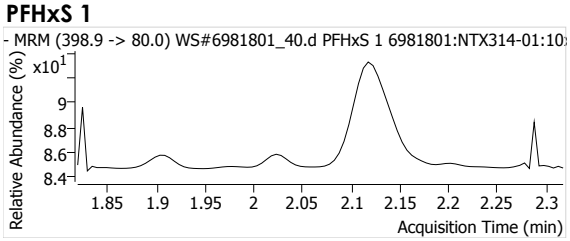
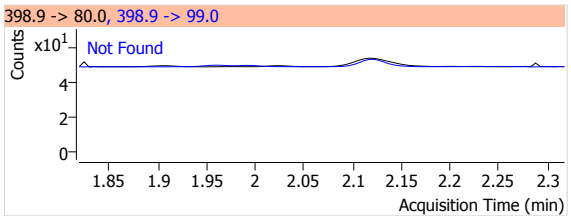
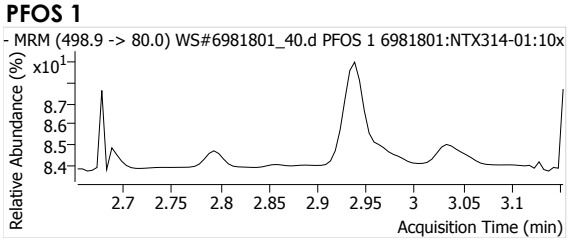
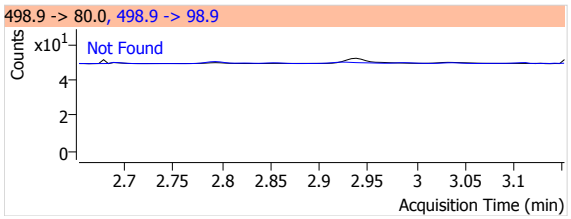




PFOS 1





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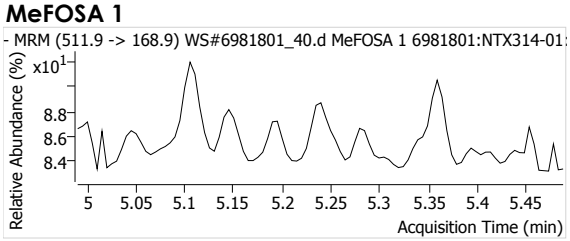

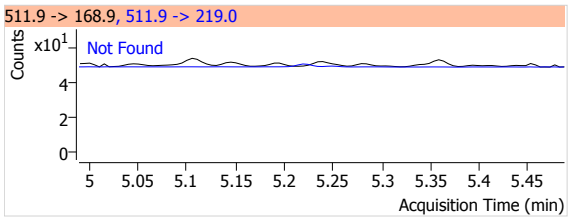

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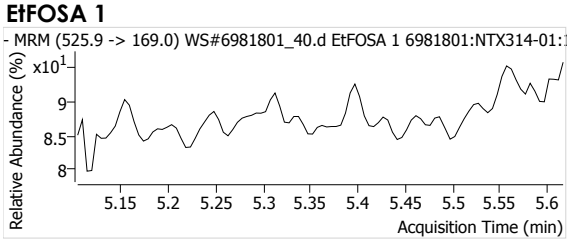

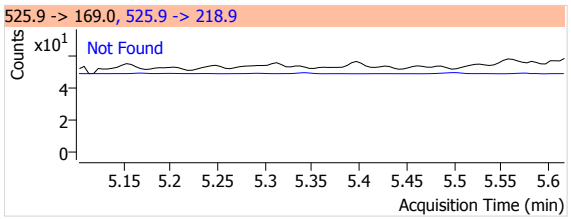

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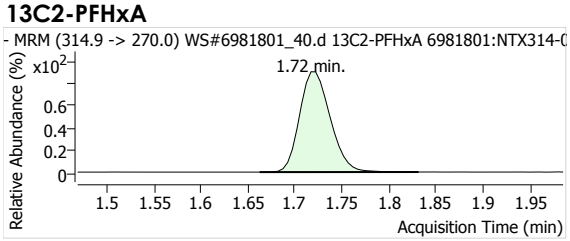

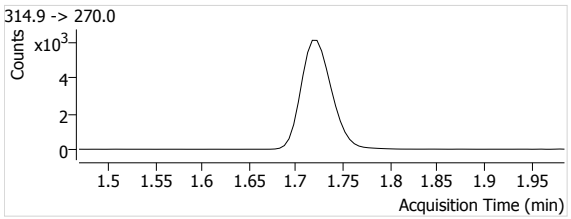

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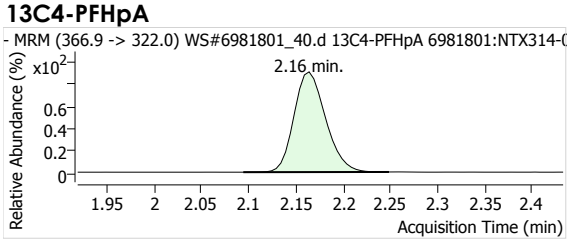

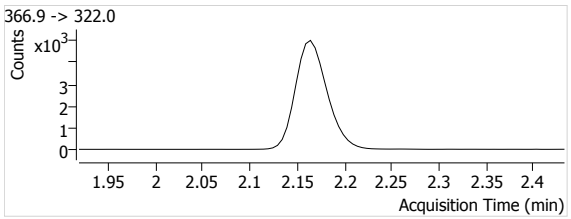

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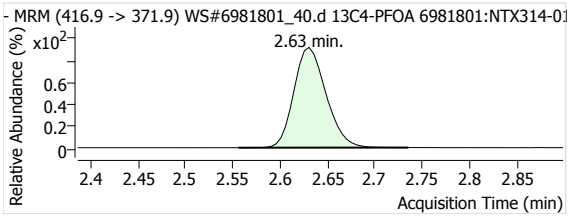

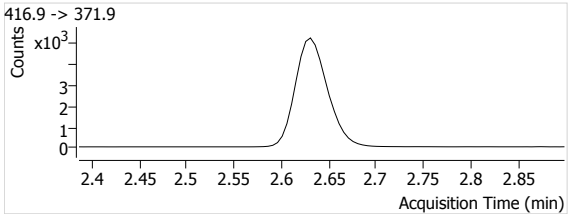

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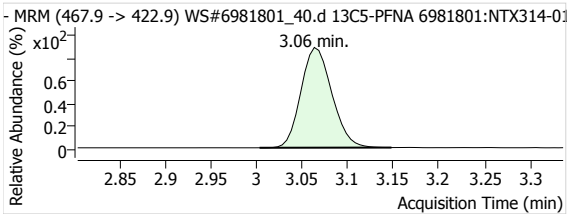

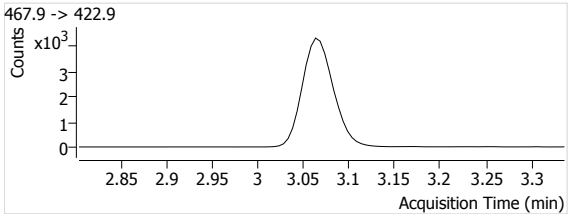

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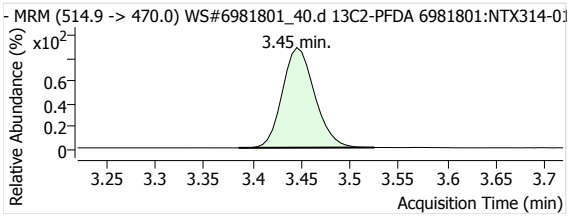

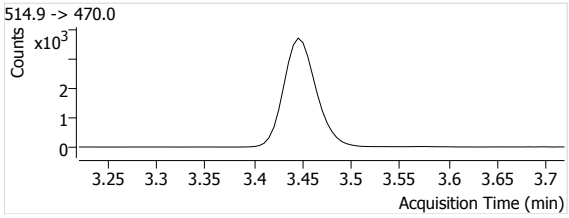

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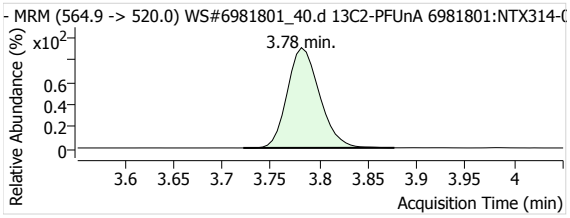

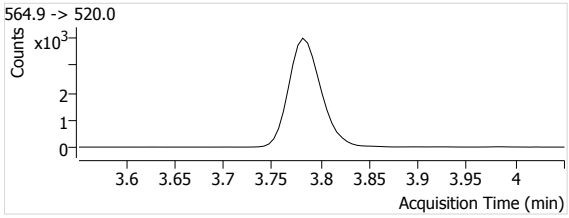

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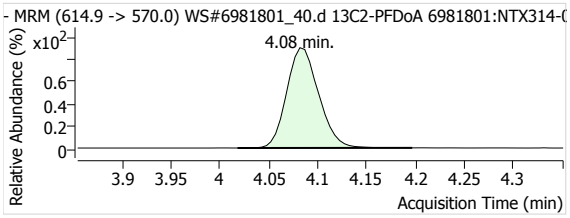

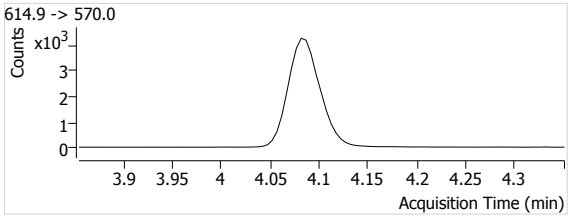

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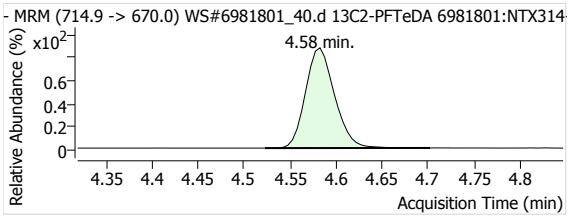

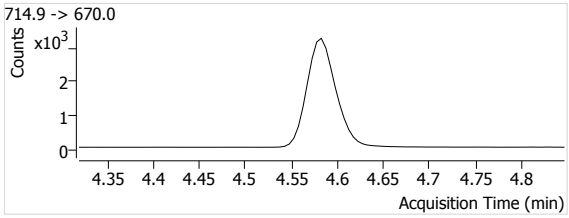

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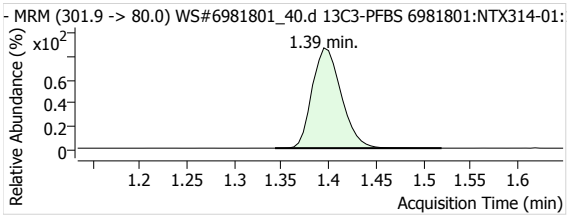

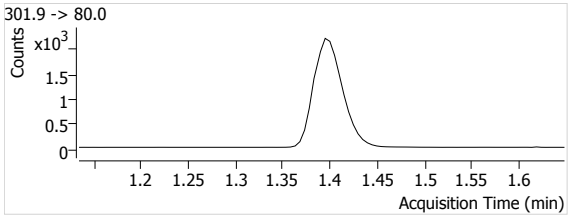

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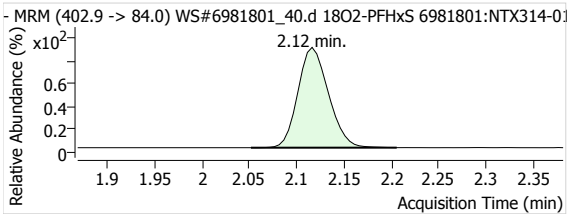

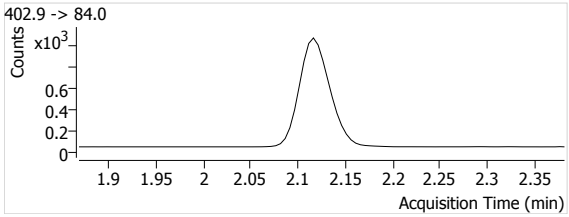

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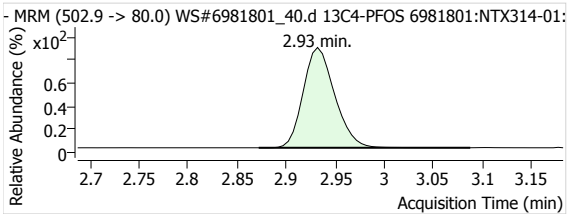
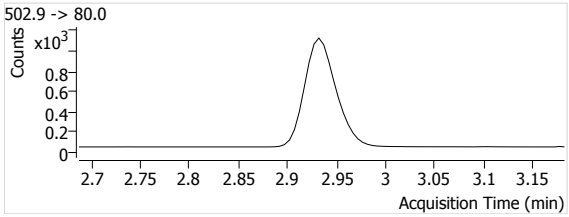
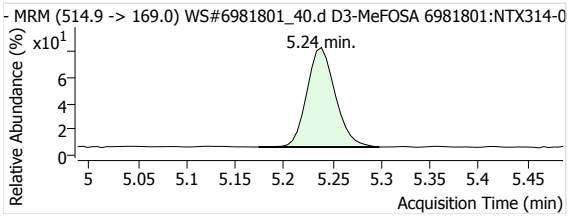
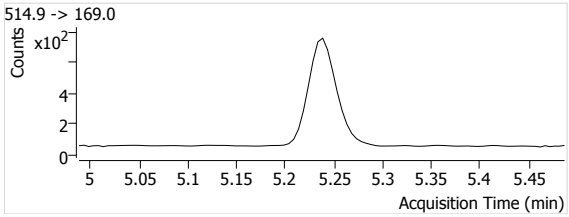




D3-MeFOSA





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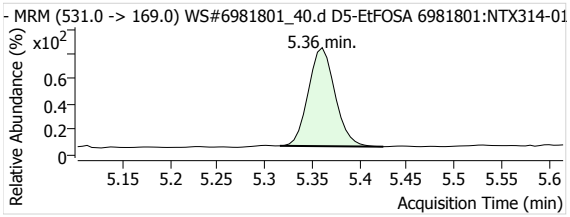
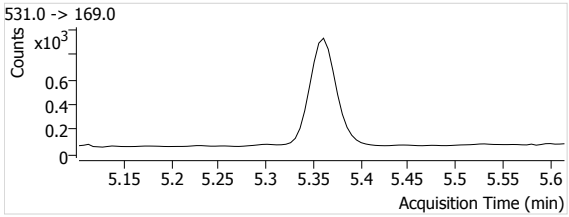




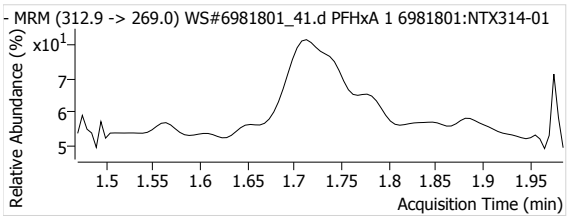
Quantitative Analysis Report

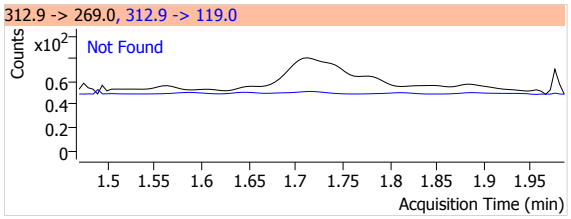
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX314-01	**Data File**	WS#6981801_41.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-D6
Acq. Date-Time	2020/10/05 5:23:19 PM	**Dil.**	0.0
Comment	Re-work, due to lack of Ext.IS.		
User Defined			

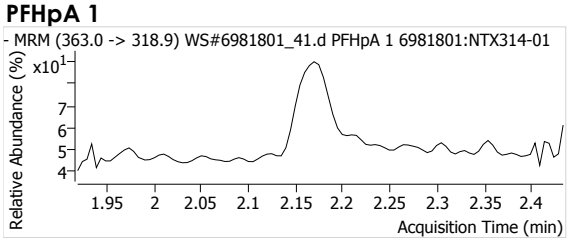
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	175	4.09	2		28	4.08	13	16.0
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	4.9799	--	732	1.72	186		--	--	--	--
13C4-PFHpA	µg/L	--	--	--	--	--	--		--	--	--	--
13C4-PFOA	µg/L	--	--	--	--	--	--		--	--	--	--
13C5-PFNA	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFDA	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFUnA	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFDoA	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFTeDA	µg/L	--	--	--	--	--	--		--	--	--	--
13C3-PFBS	µg/L	--	--	--	--	--	--		--	--	--	--
18O2-PFHxS	µg/L	--	--	--	--	--	--		--	--	--	--
13C4-PFOS	µg/L	--	--	--	--	--	--		--	--	--	--
D3-MeFOSA	µg/L	--	--	--	--	--	--		--	--	--	--
D5-EtFOSA	µg/L	--	--	--	--	--	--		--	--	--	--

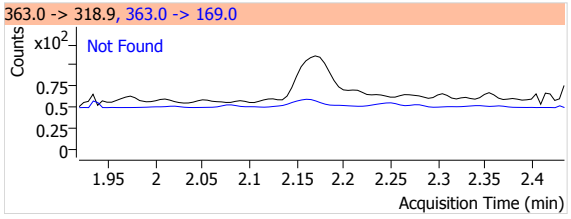
PFHxA 1



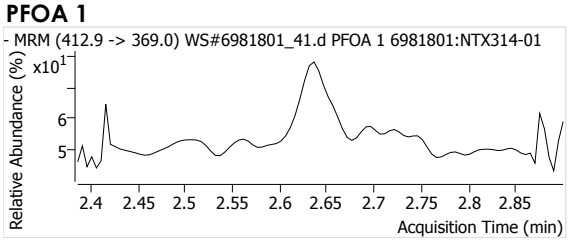


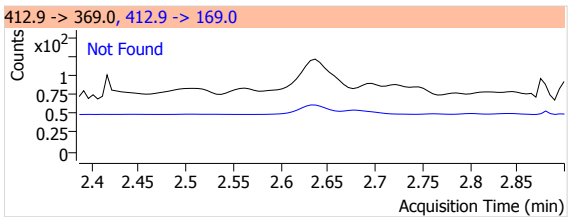
PFHpA 1





PFOA 1





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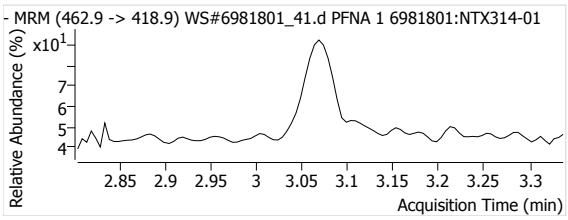
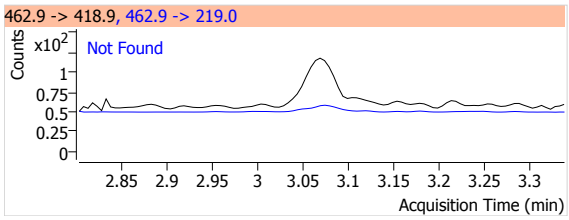
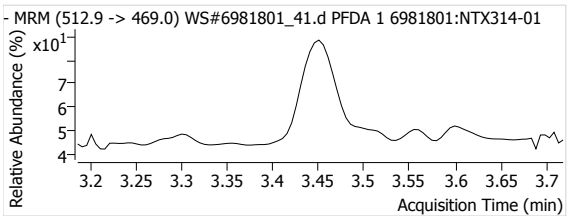
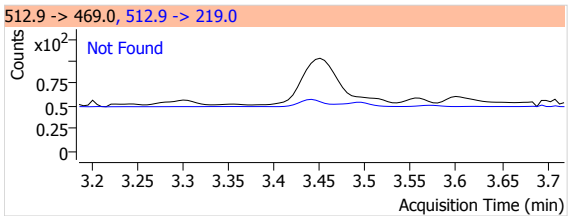




PFDA 1





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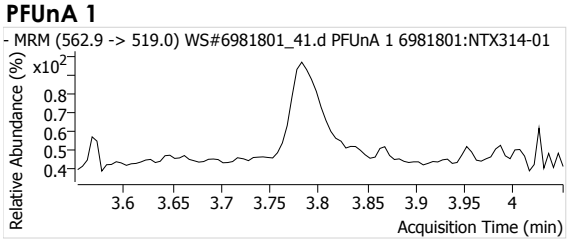
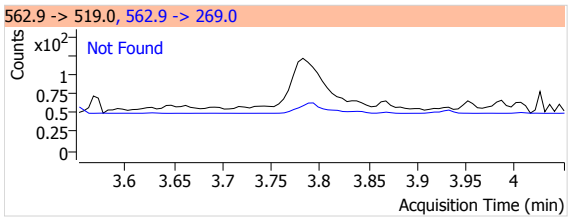
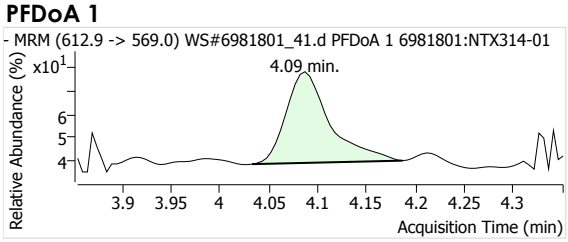
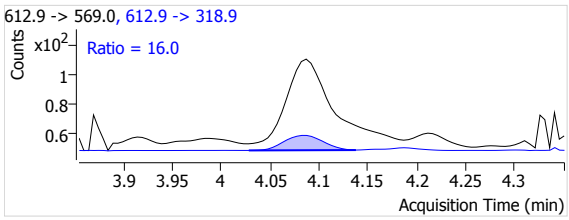




PFDoA 1





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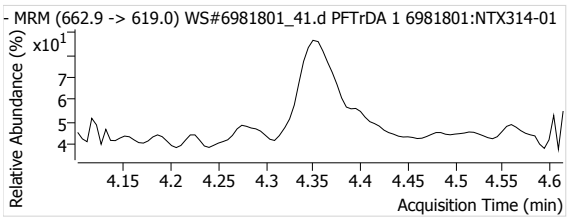

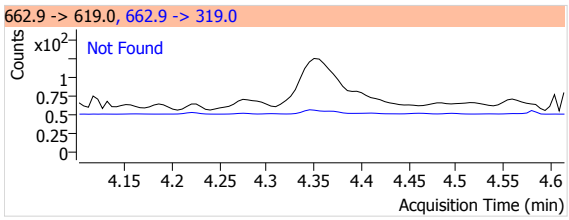

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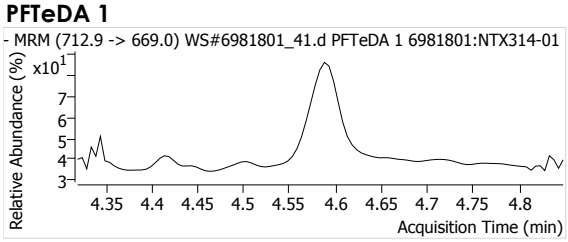

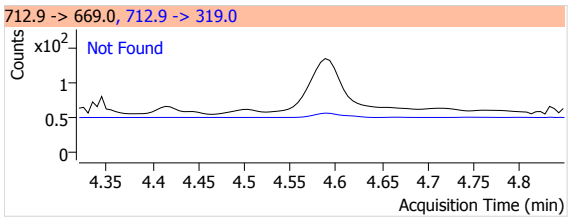

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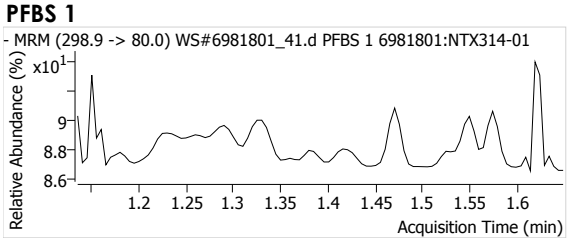

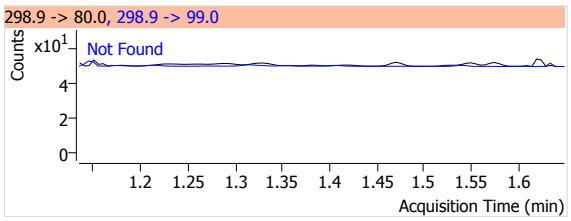

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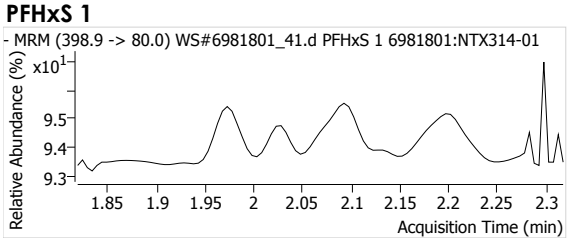

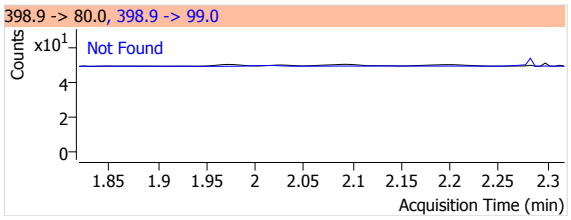

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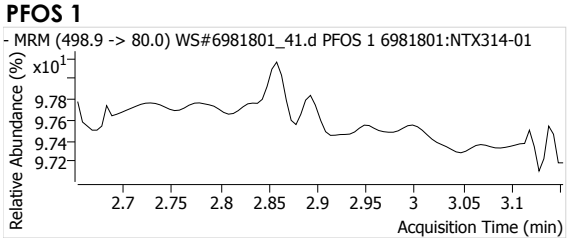

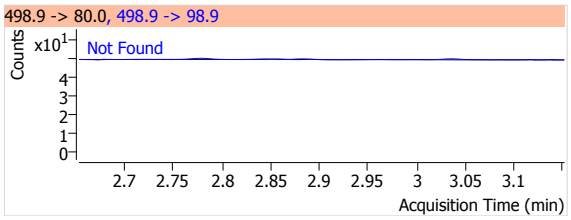

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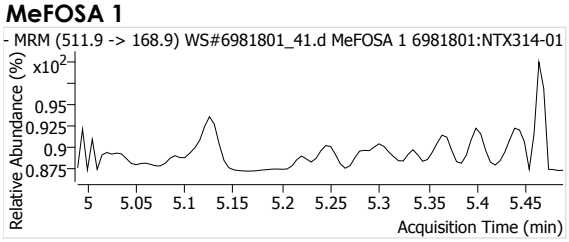

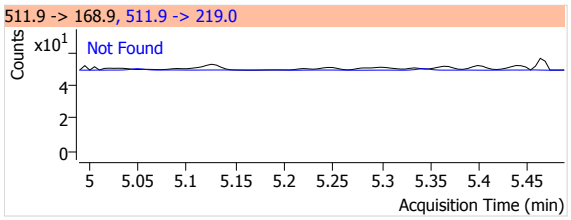

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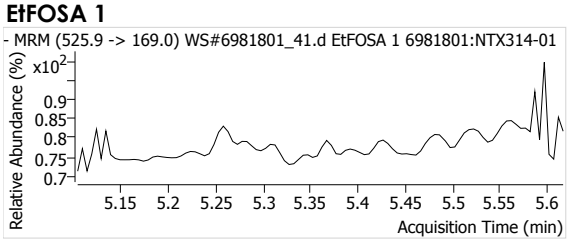

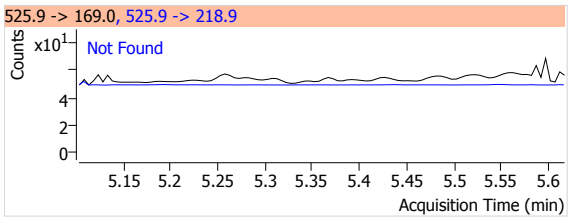

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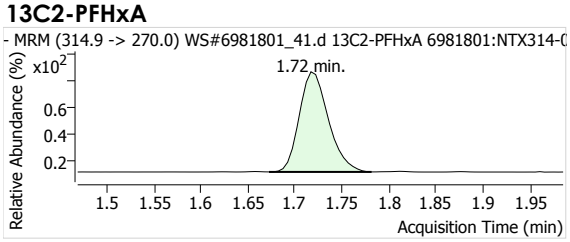

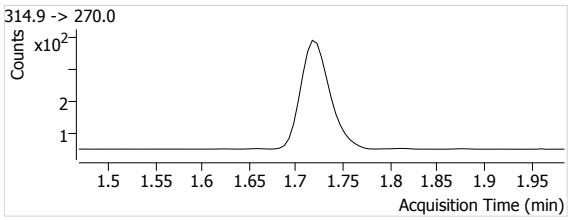

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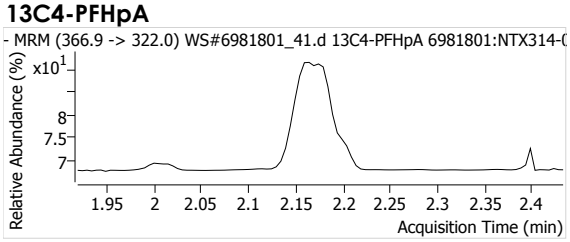

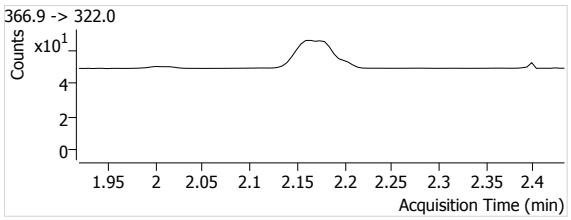

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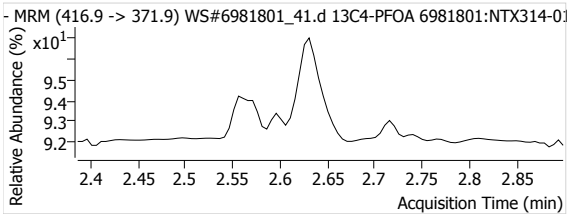

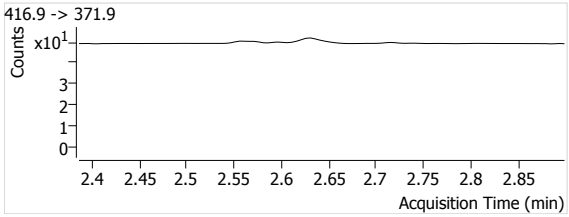

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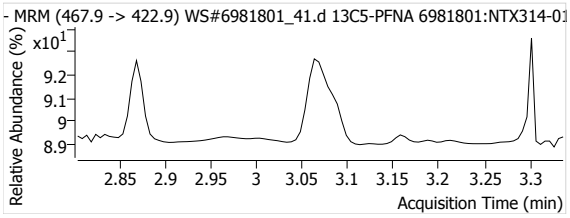

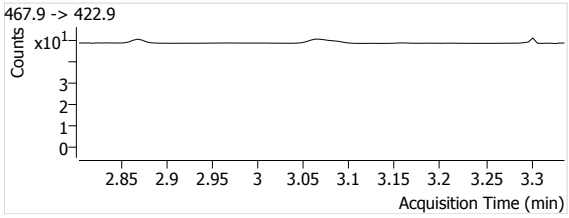

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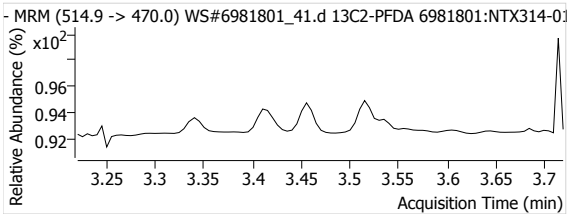

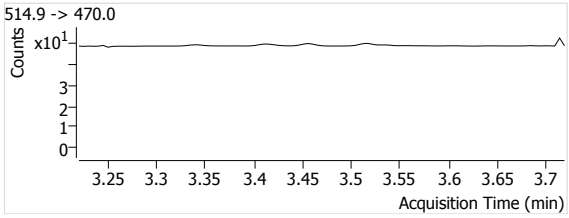

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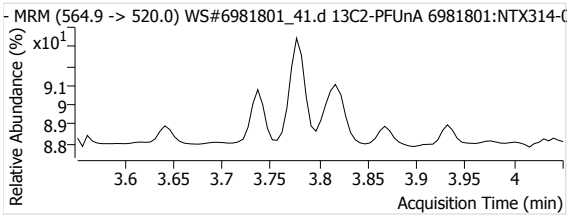

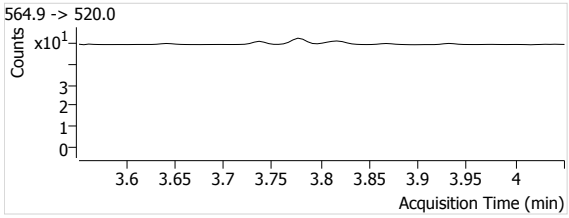

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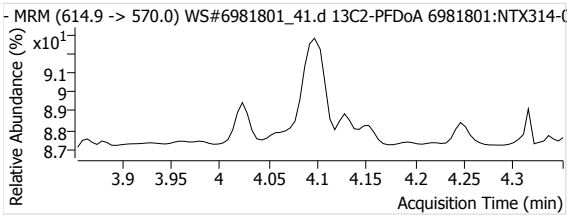

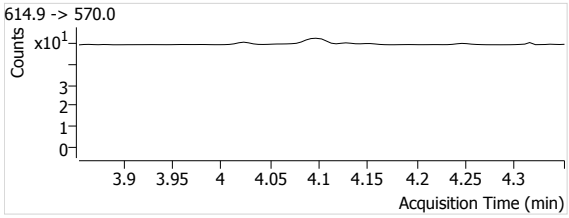

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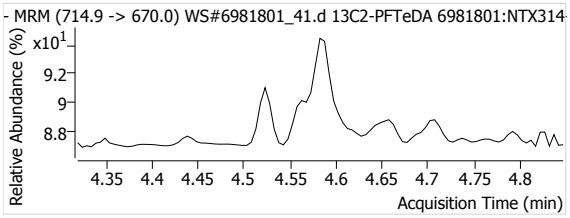

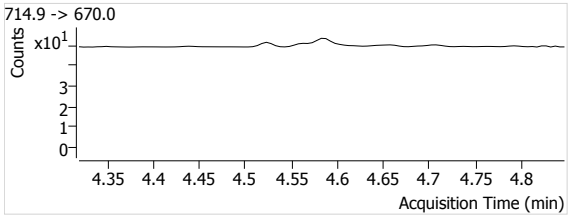

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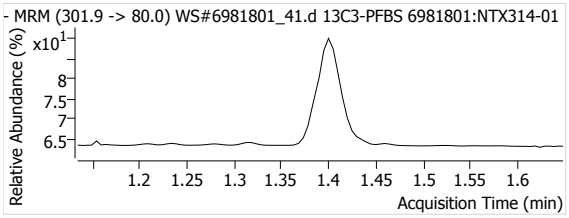

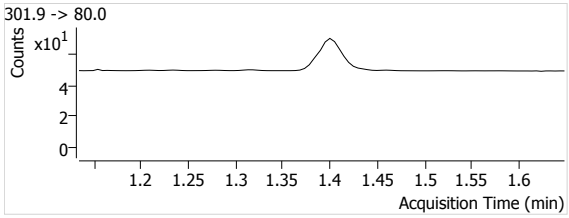

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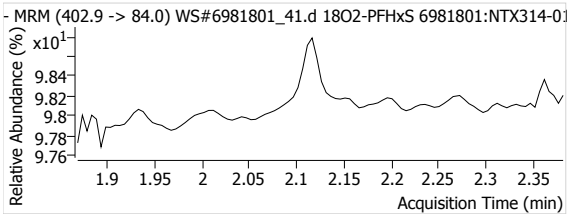

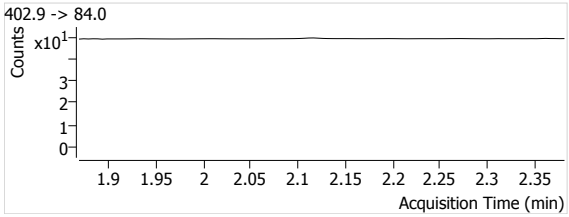

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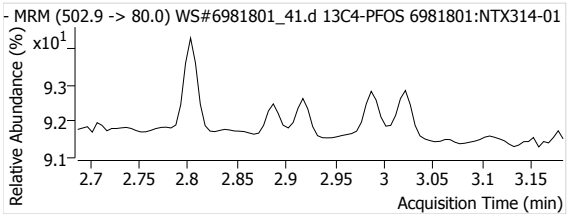

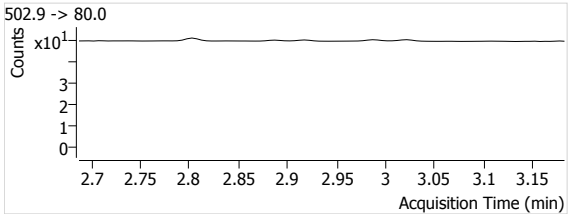

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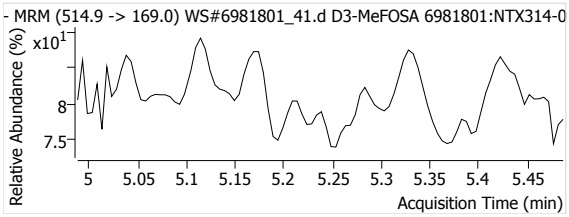

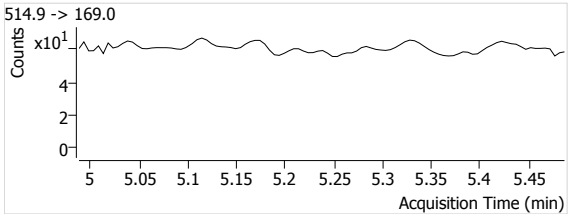

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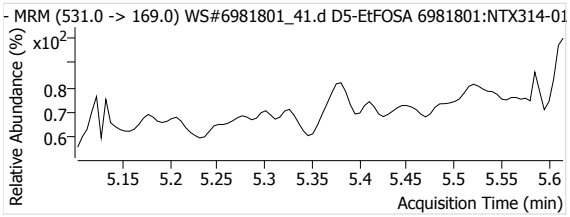
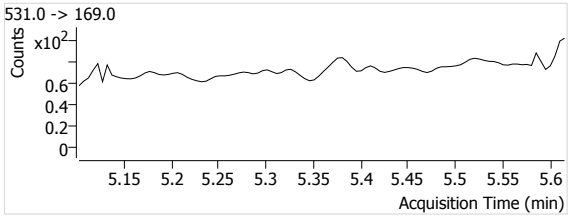




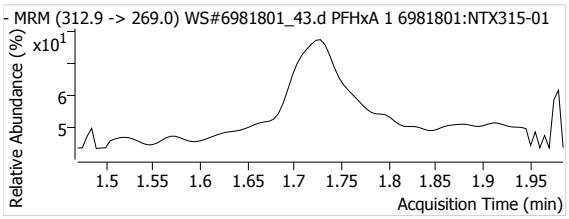
Quantitative Analysis Report

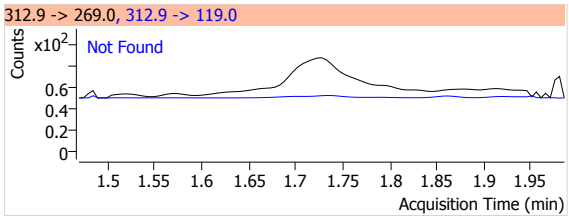
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:NTX315-01	**Data File**	WS#6981801_43.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-D7
Acq. Date-Time	2020/10/05 5:37:17 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	80.2095	--	11790	1.72	1359		--	--	--	--
13C4-PFHpA	µg/L	--	82.2135	--	10266	2.16	611		--	--	--	--
13C4-PFOA	µg/L	--	84.2723	--	11488	2.63	860		--	--	--	--
13C5-PFNA	µg/L	--	83.6267	--	9265	3.06	480		--	--	--	--
13C2-PFDA	µg/L	--	74.8906	--	7361	3.45	320		--	--	--	--
13C2-PFUnA	µg/L	--	67.0492	--	7128	3.79	520		--	--	--	--
13C2-PFDoA	µg/L	--	66.1737	--	7293	4.08	1106		--	--	--	--
13C2-PFTeDA	µg/L	--	66.2928	--	5969	4.58	761		--	--	--	--
13C3-PFBS	µg/L	--	38.7812	--	1960	1.39	435		--	--	--	--
18O2-PFHxS	µg/L	--	59.0873	--	1502	2.12	189		--	--	--	--
13C4-PFOS	µg/L	--	66.7290	--	1783	2.93	286		--	--	--	--
D3-MeFOSA	µg/L	--	54.6746	--	1924	5.24	67		--	--	--	--
D5-EtFOSA	µg/L	--	49.8564	--	2083	5.36	53		--	--	--	--

PFHxA 1





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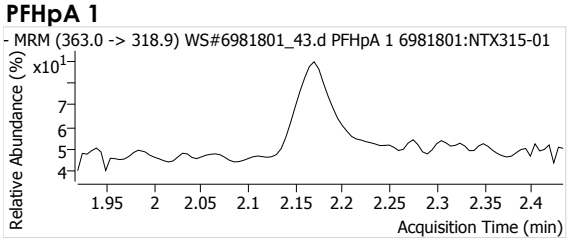
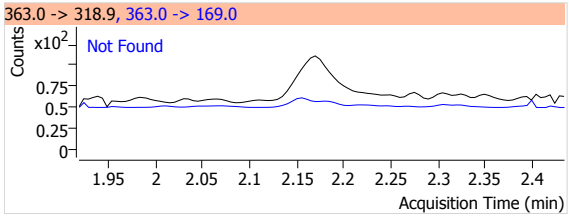
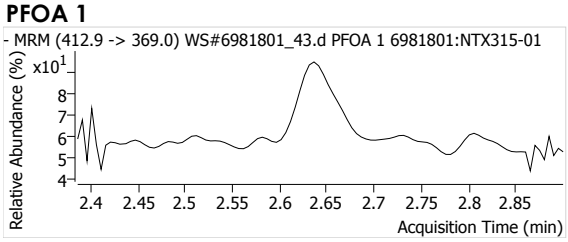
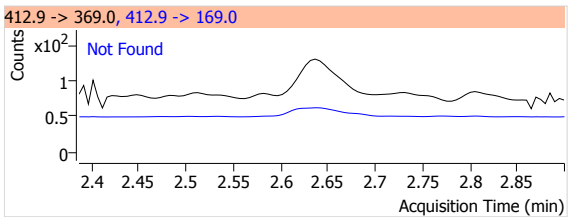




PFOA 1





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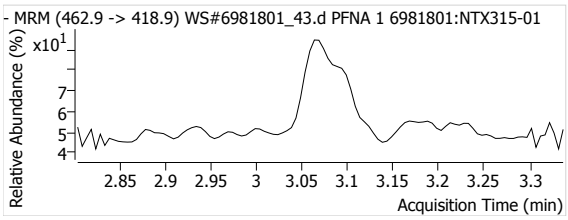

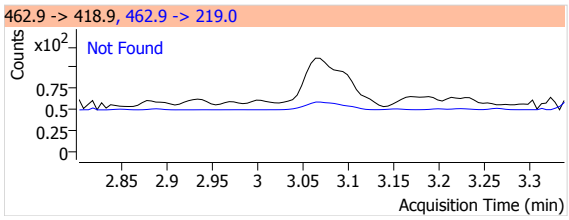

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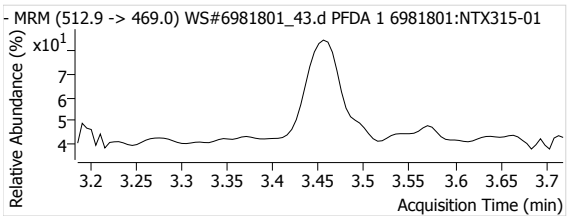

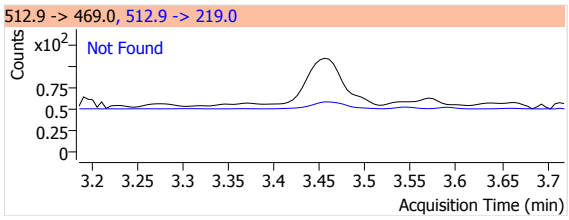

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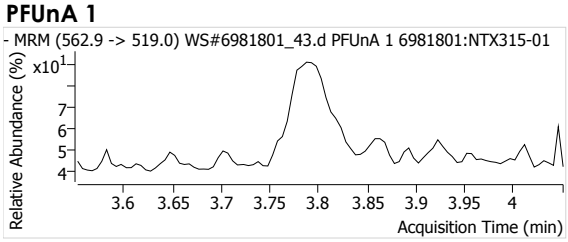

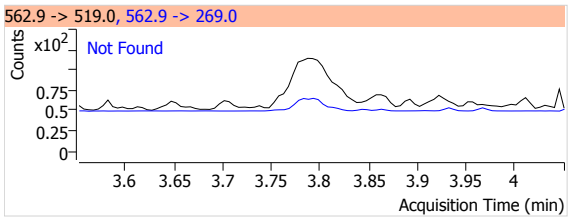

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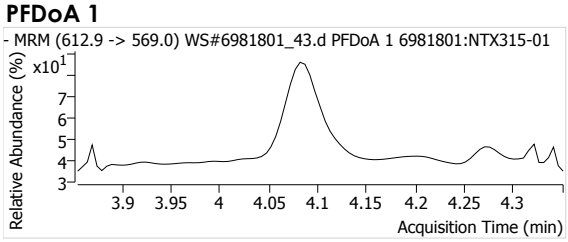

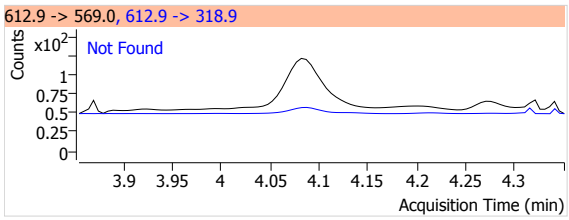

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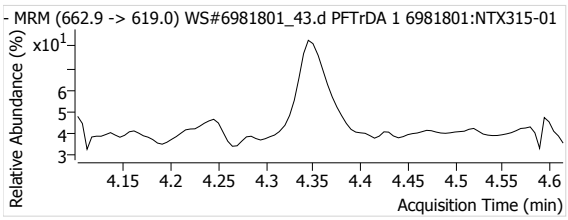

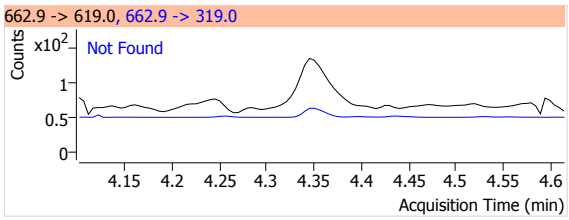

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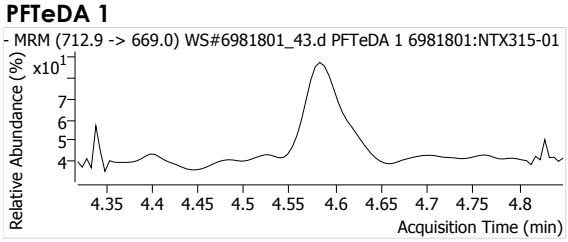

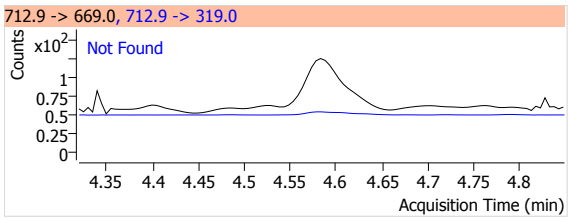

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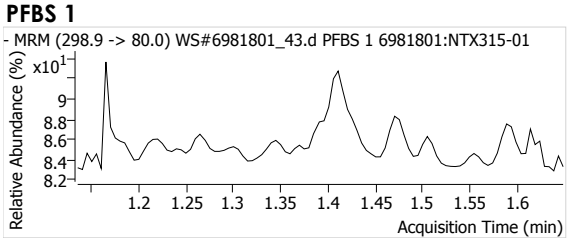

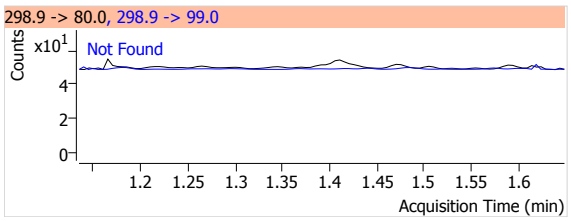

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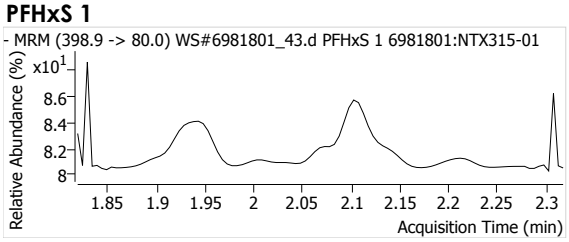

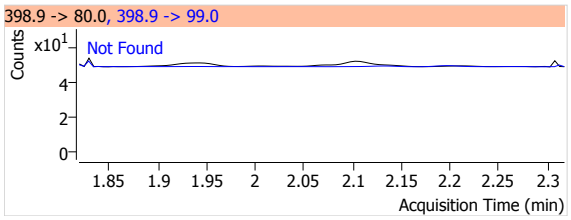

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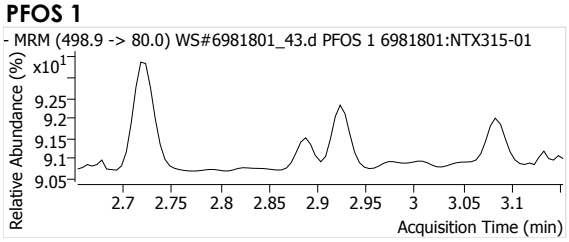

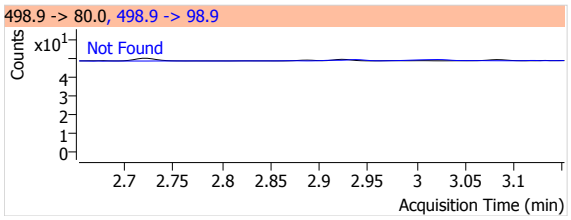

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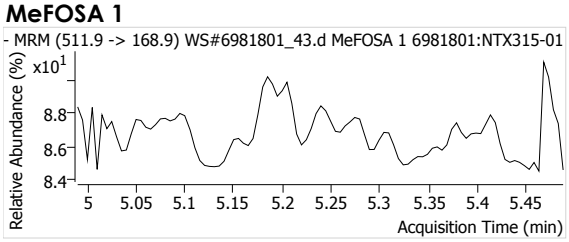

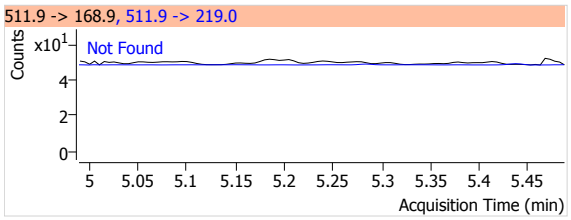

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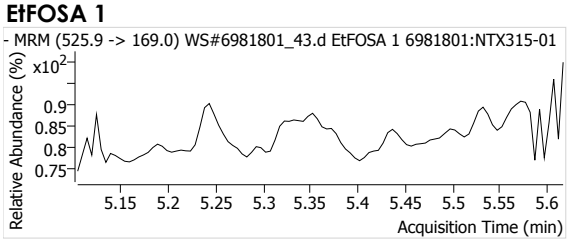

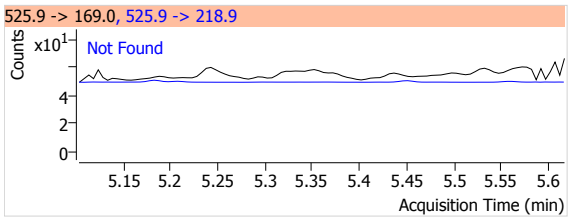

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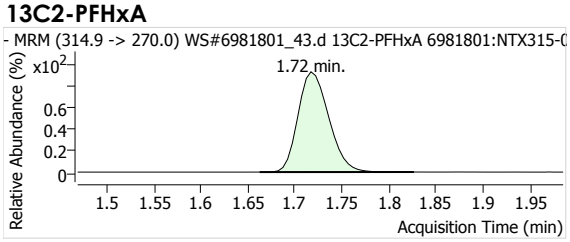

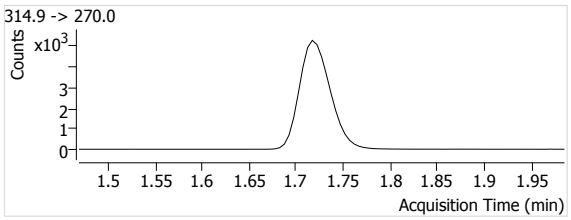

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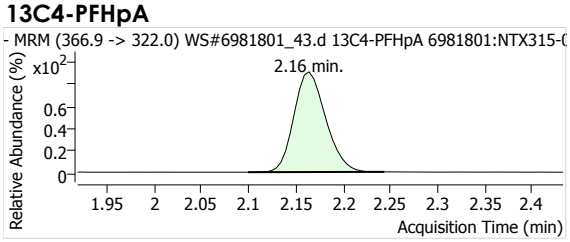

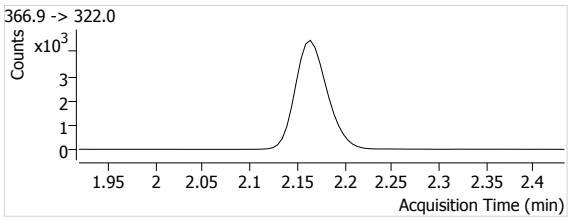

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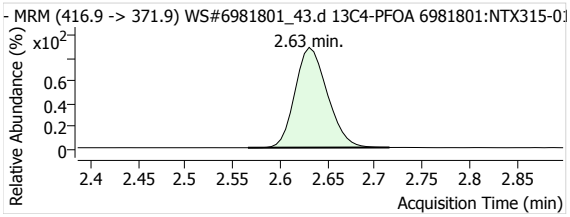

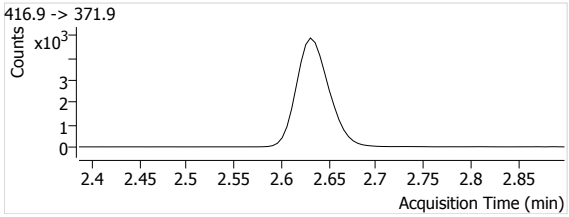

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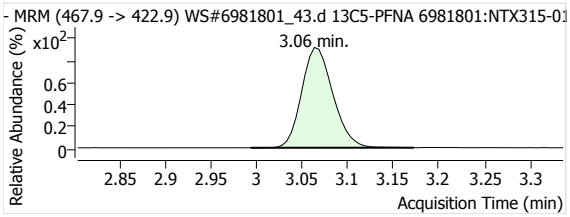

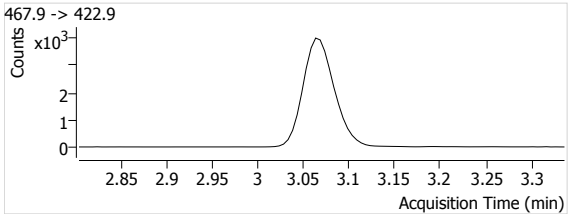

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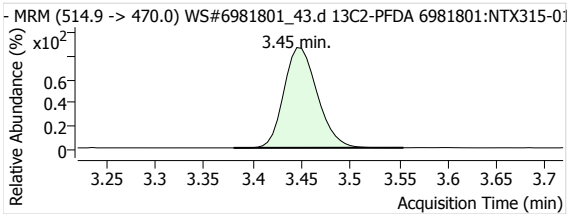

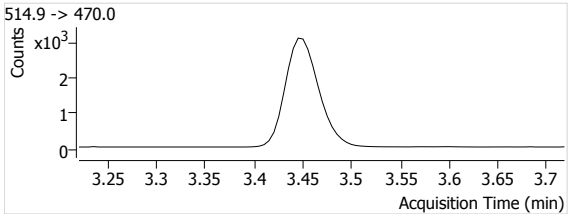

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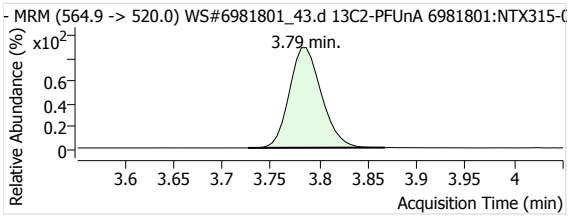

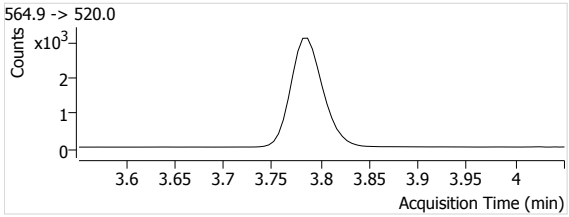

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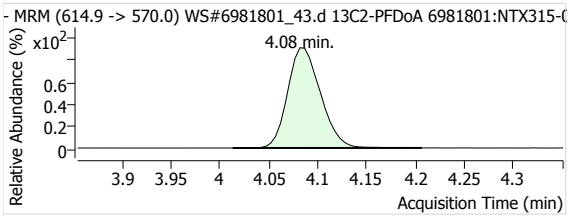

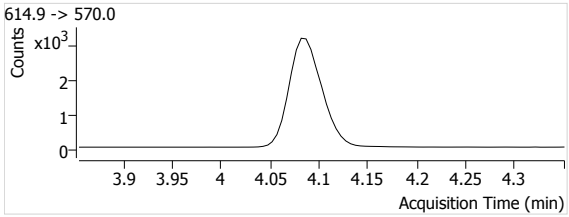

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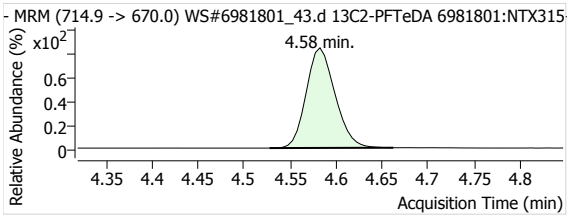

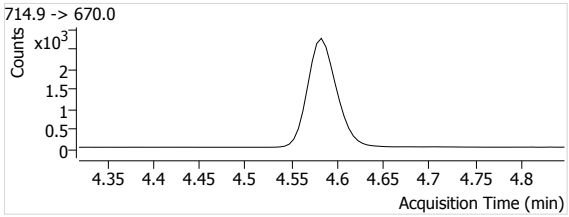

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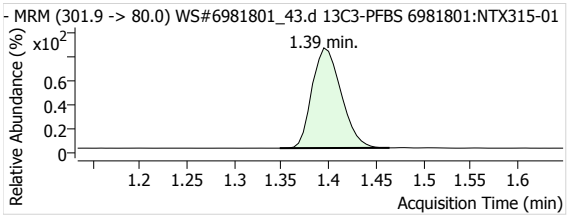

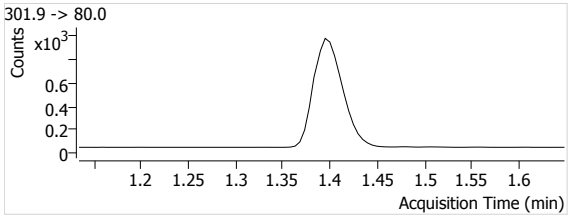

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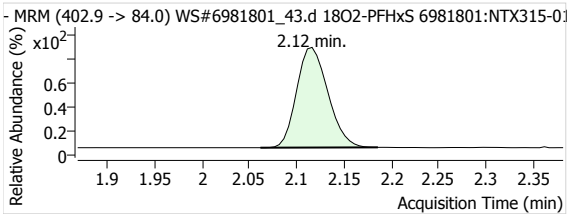

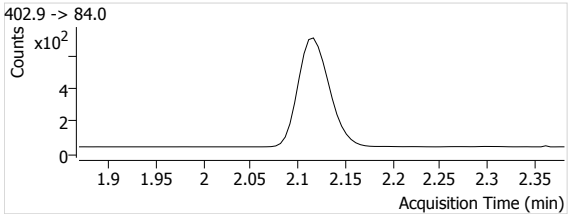

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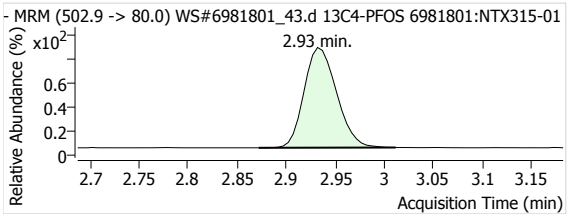

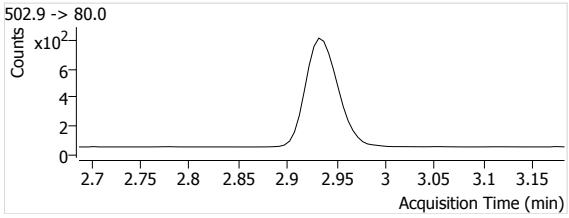

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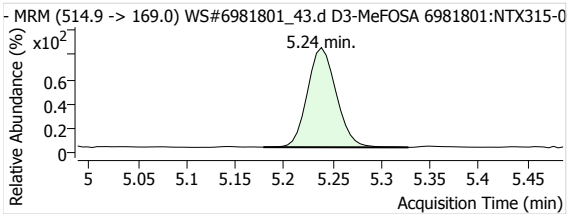

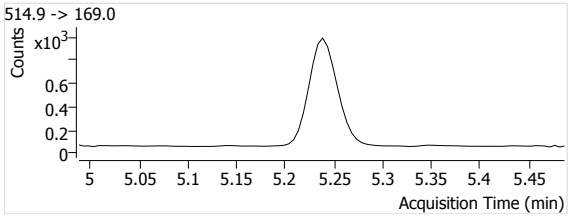

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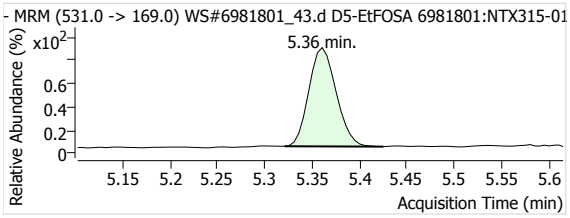
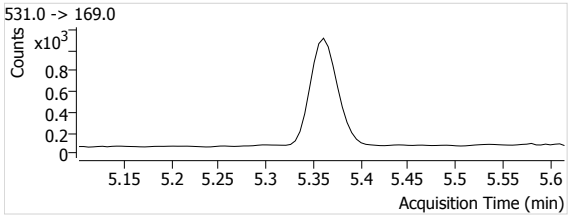




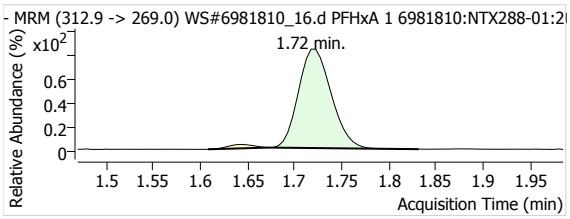
Quantitative Analysis Report

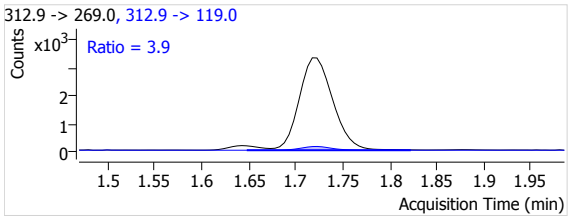
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX288-01:20x	**Data File**	WS#6981810_16.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B5
Acq. Date-Time	2020/10/05 9:06:37 AM	**Dil.**	0.5
Comment	Reported PFOS		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.5380	--	7954	1.72	209	0.5838	310	1.72	27	3.9
PFHpA 1	µg/L	--	0.3835	--	2456	2.16	40	0.2130	413	2.17	26	16.8
PFOA 1	µg/L	--	0.9719	--	4098	2.63	49	0.3333	1073	2.63	389	26.2
PFNA 1	µg/L	--	0.0163	--	332	3.07	7	0.0344	55	3.07	20	16.6
PFDA 1	µg/L	--	0.0000	--	156	3.46	5	0.0187	26	3.46	11	16.7
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1043	--	218	1.40	32	0.0493	82	1.40	12	37.6
PFHxS 1	µg/L	--	1.2340	--	1316	2.07	166	0.5792	617	2.07	351	46.9
PFOS 1	µg/L	--	10.4515	--	9198	2.89	123	4.1923	4331	2.89	192	47.1
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	109.5786	--	13625	1.72	793		--	--	--	--
13C4-PFHpA	µg/L	--	111.0469	--	11530	2.16	768		--	--	--	--
13C4-PFOA	µg/L	--	109.0079	--	12295	2.64	824		--	--	--	--
13C5-PFNA	µg/L	--	108.9522	--	9639	3.07	737		--	--	--	--
13C2-PFDA	µg/L	--	106.7881	--	8322	3.45	981		--	--	--	--
13C2-PFUnA	µg/L	--	103.0364	--	8755	3.79	292		--	--	--	--
13C2-PFDoA	µg/L	--	100.2534	--	9099	4.09	655		--	--	--	--
13C2-PFTeDA	µg/L	--	104.8230	--	7520	4.58	462		--	--	--	--
13C3-PFBS	µg/L	--	103.6829	--	4420	1.39	438		--	--	--	--
18O2-PFHxS	µg/L	--	110.3984	--	2272	2.11	407		--	--	--	--
13C4-PFOS	µg/L	--	104.0303	--	2194	2.93	181		--	--	--	--
D3-MeFOSA	µg/L	--	29.2236	--	813	5.24	38		--	--	--	--
D5-EtFOSA	µg/L	--	26.9913	--	898	5.36	19		--	--	--	--

PFHxA 1





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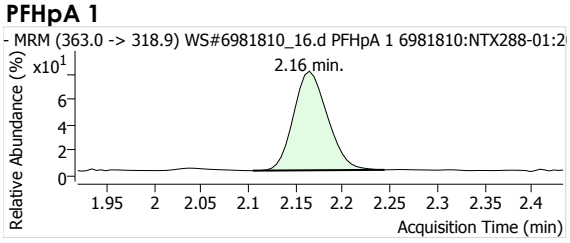

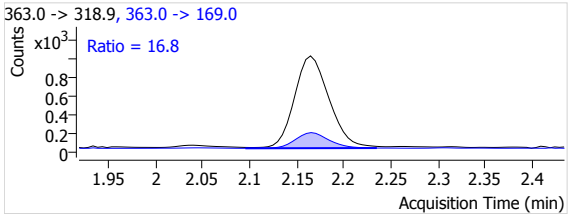

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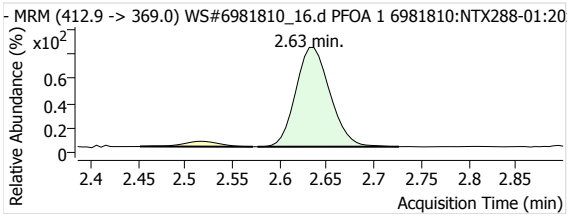

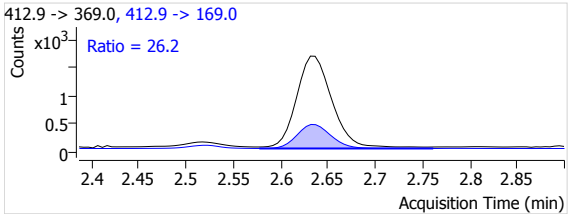

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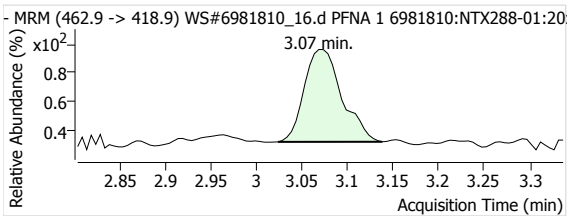

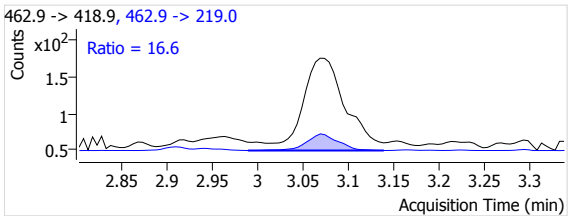

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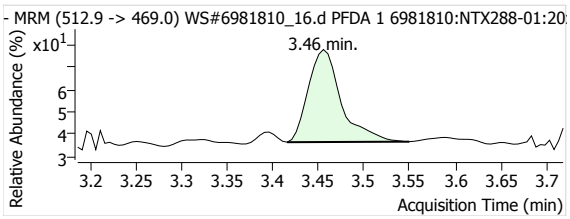
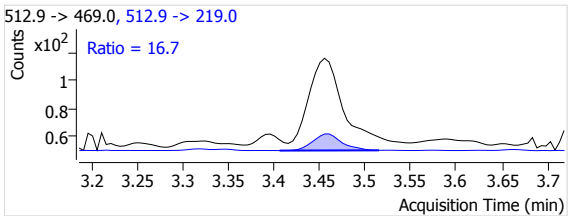
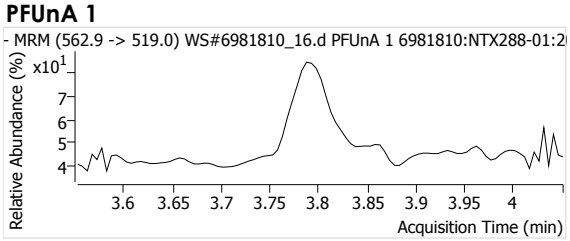
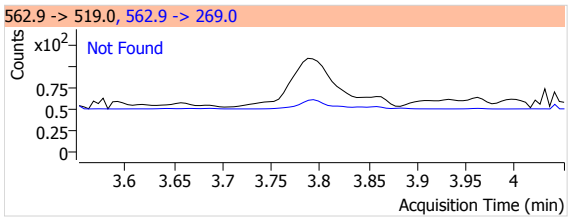




PFUnA 1





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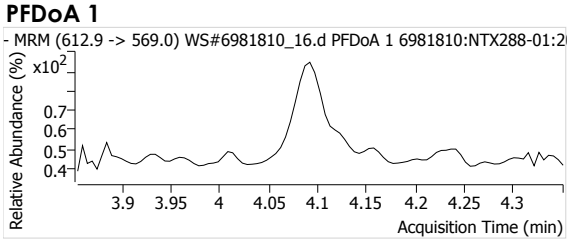

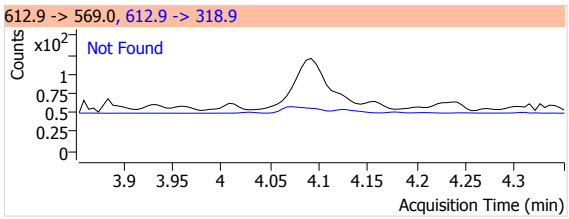

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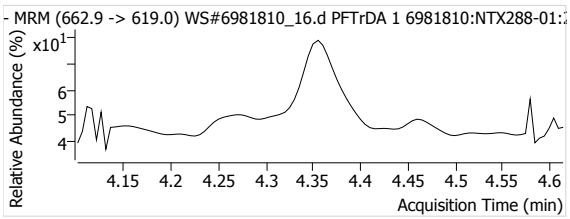

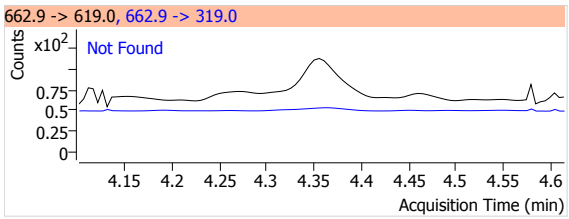

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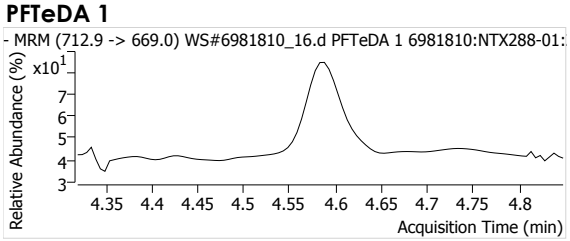

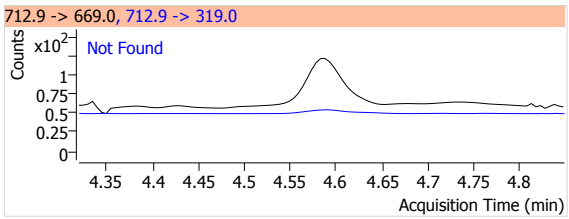

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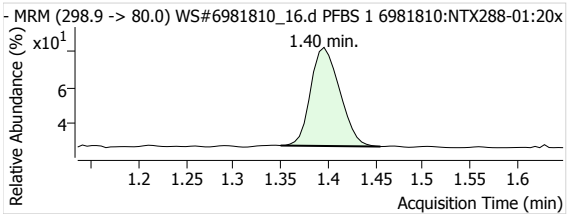

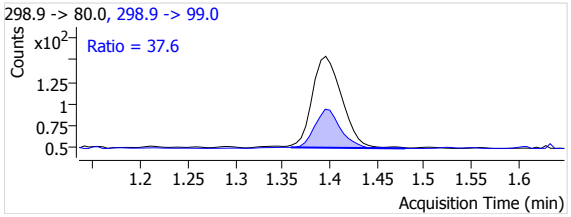

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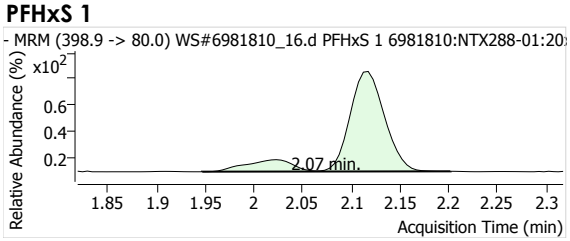

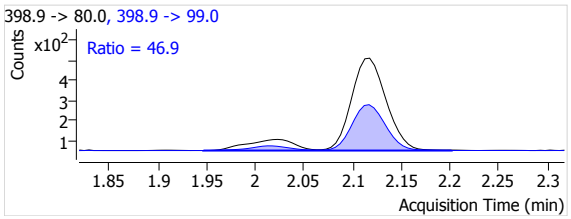

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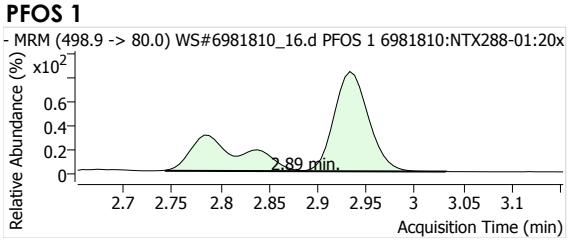

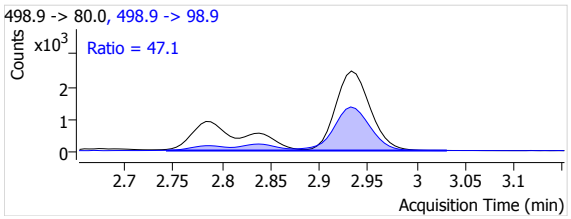

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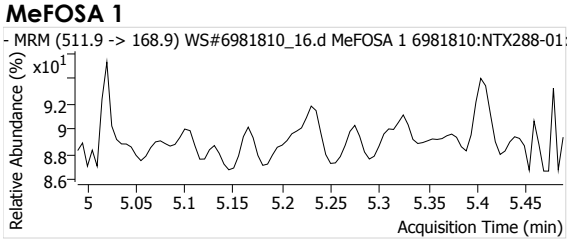

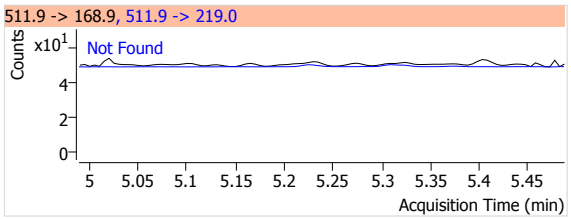

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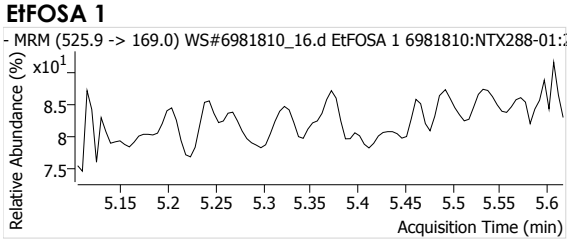
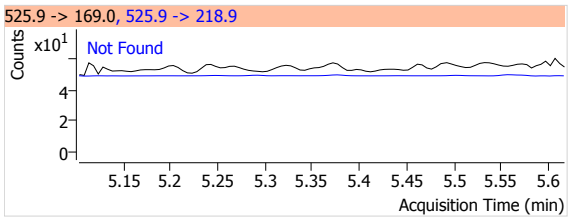
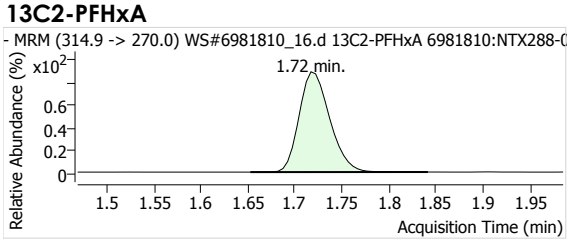
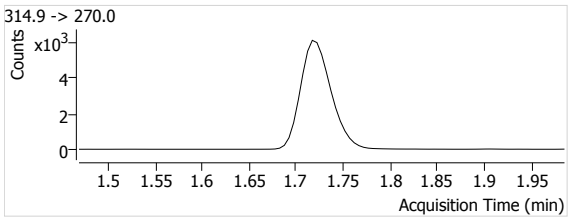




13C2-PFHxA





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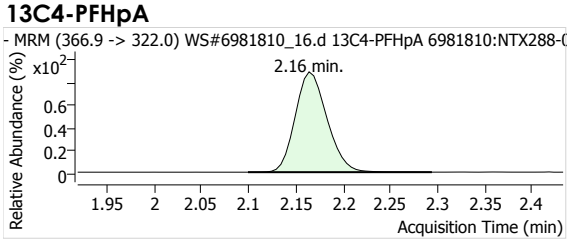

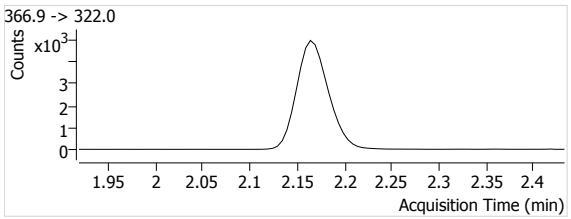

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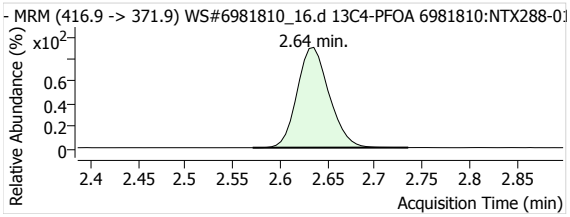

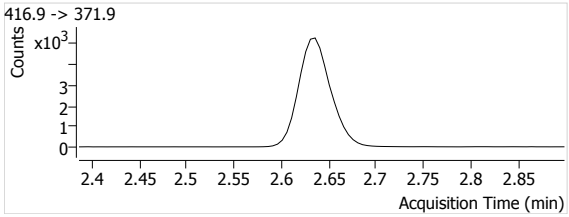

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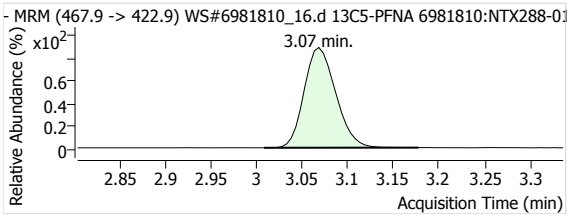

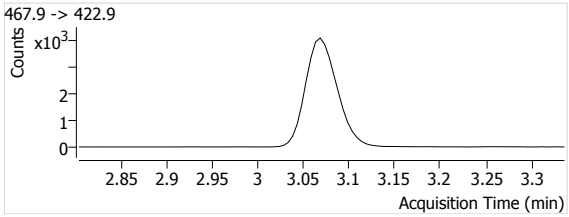

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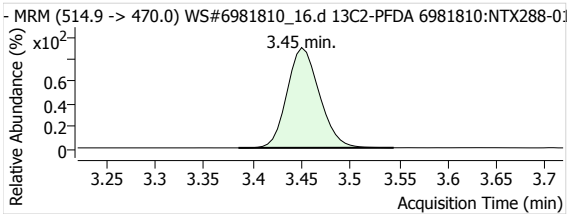

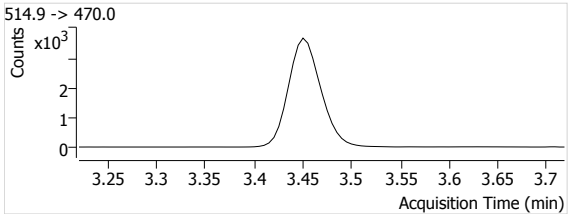

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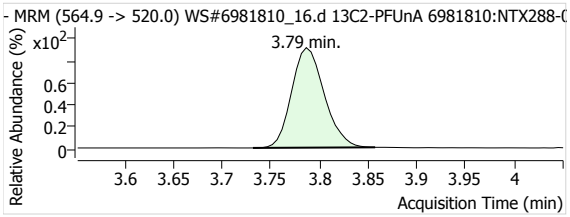

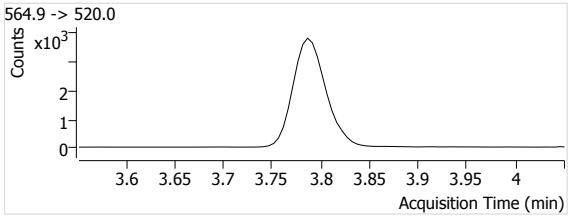

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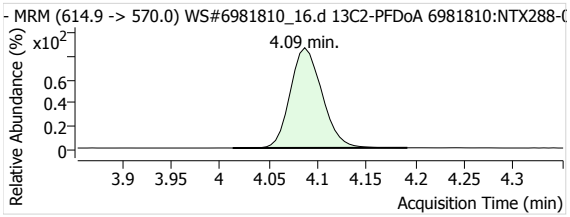

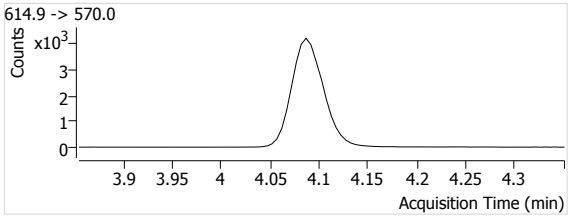

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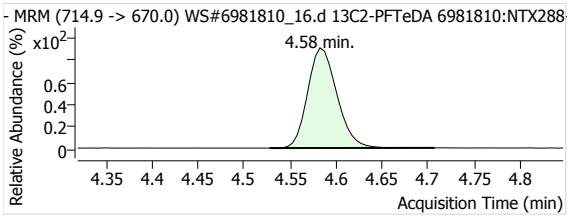

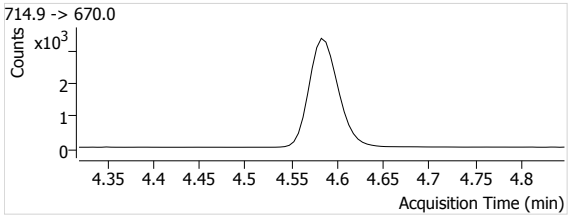

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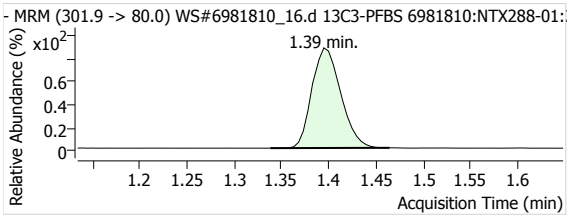

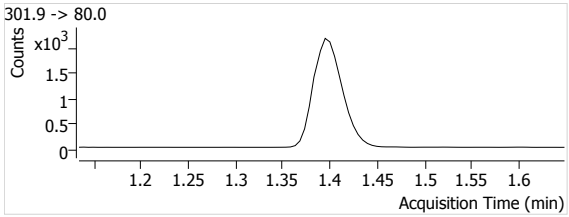

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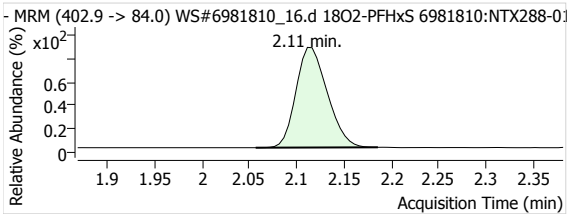

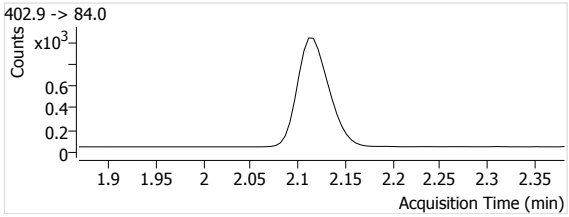

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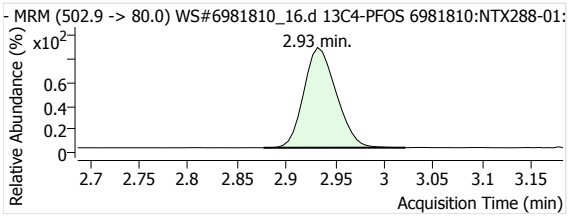

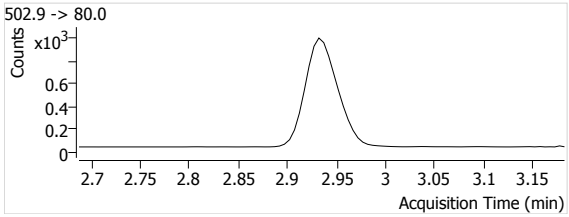

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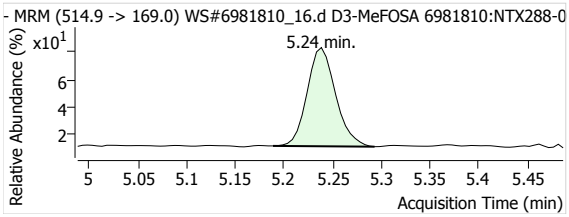

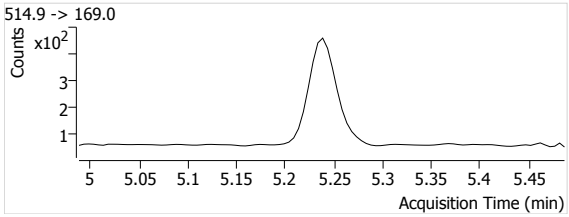

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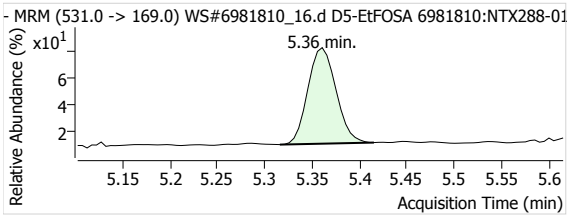

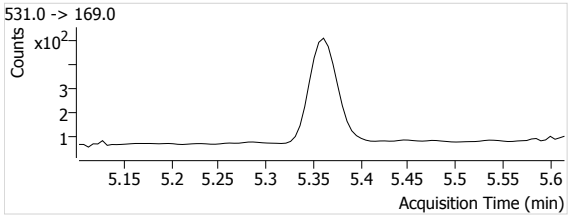

Quantitative Analysis Report

Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX288-01:2x	**Data File**	WS#6981810_17.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B6
Acq. Date-Time	2020/10/05 9:13:36 AM	**Dil.**	0.0
Comment	Reported all except PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.6209	--	72440	1.72	683	5.9997	2651	1.72	309	3.7
PFHpA 1	µg/L	--	0.3981	--	21886	2.16	263	2.0171	3615	2.17	49	16.5
PFOA 1	µg/L	--	1.0690	--	40780	2.63	361	3.5804	10506	2.63	1366	25.8
PFNA 1	µg/L	--	0.0459	--	1959	3.07	23	0.2056	317	3.06	23	16.2
PFDA 1	µg/L	--	0.0122	--	525	3.45	13	0.0656	83	3.45	10	15.8
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0013	--	188	4.35	3	0.0275	7	4.37	1	3.7
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1030	--	1906	1.40	49	0.4308	764	1.40	51	40.1
PFHxS 1	µg/L	--	1.2623	--	12729	2.07	708	5.7833	5811	2.07	777	45.7
PFOS 1	µg/L	--	10.4484	--	83168	2.89	163	41.8981	38470	2.89	425	46.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	97.1047	--	12074	1.72	699		--	--	--	--
13C4-PFHpA	µg/L	--	104.4977	--	10850	2.16	1334		--	--	--	--
13C4-PFOA	µg/L	--	100.9841	--	11390	2.64	924		--	--	--	--
13C5-PFNA	µg/L	--	107.6749	--	9526	3.07	895		--	--	--	--
13C2-PFDA	µg/L	--	102.7461	--	8007	3.45	646		--	--	--	--
13C2-PFUnA	µg/L	--	102.3655	--	8698	3.79	1344		--	--	--	--
13C2-PFDoA	µg/L	--	94.6342	--	8589	4.09	984		--	--	--	--
13C2-PFTeDA	µg/L	--	95.2607	--	6834	4.58	903		--	--	--	--
13C3-PFBS	µg/L	--	103.7767	--	4424	1.39	343		--	--	--	--
18O2-PFHxS	µg/L	--	106.9485	--	2201	2.12	628		--	--	--	--
13C4-PFOS	µg/L	--	94.1204	--	1985	2.93	351		--	--	--	--
D3-MeFOSA	µg/L	--	74.5147	--	2073	5.24	90		--	--	--	--
D5-EtFOSA	µg/L	--	68.6504	--	2284	5.36	51		--	--	--	--

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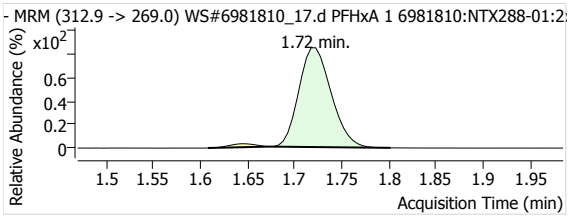

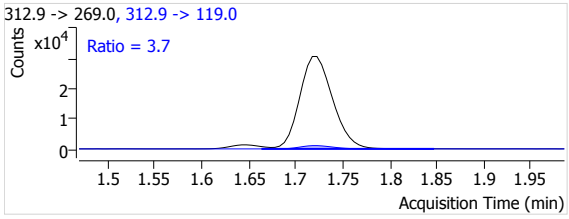

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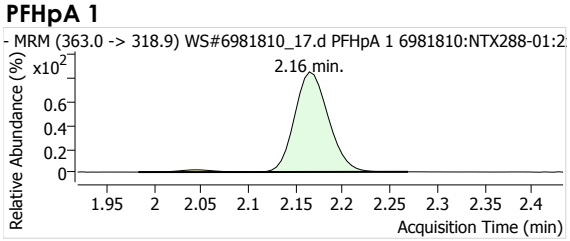

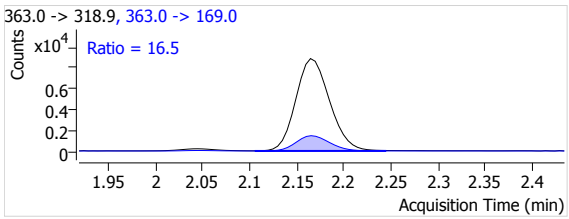

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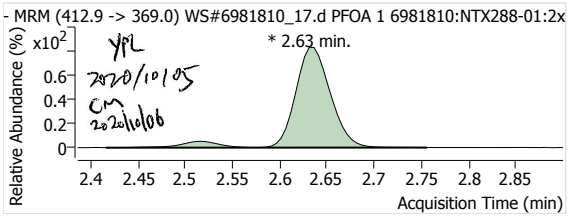

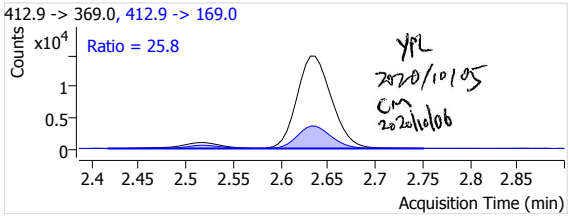

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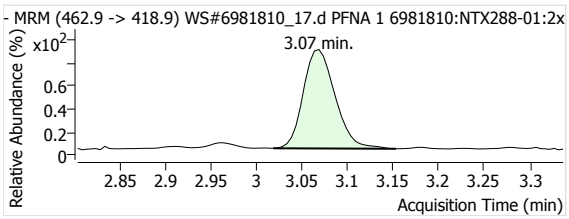

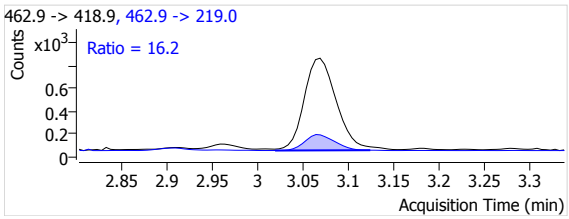

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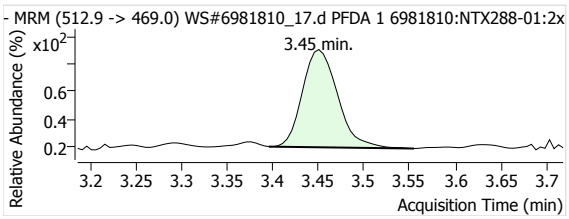

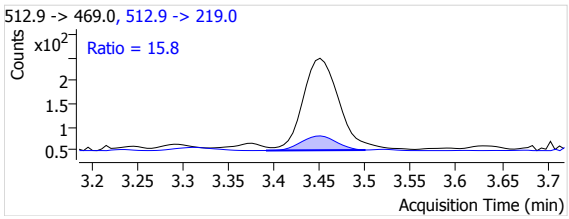

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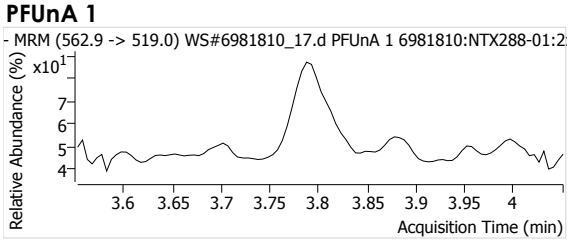

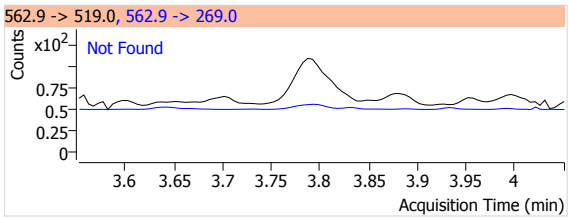

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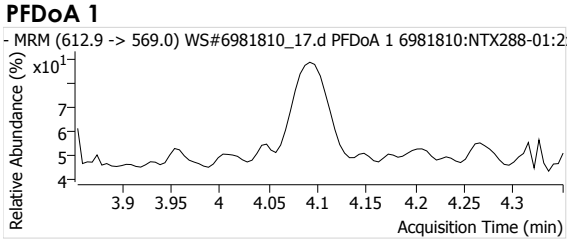

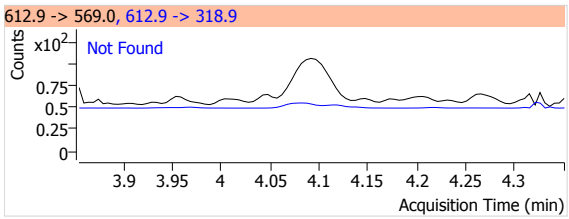

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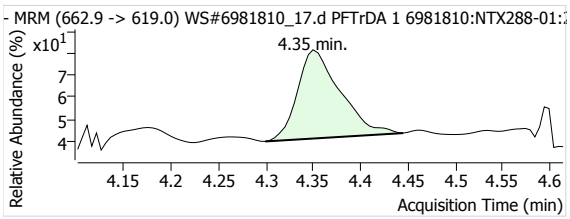

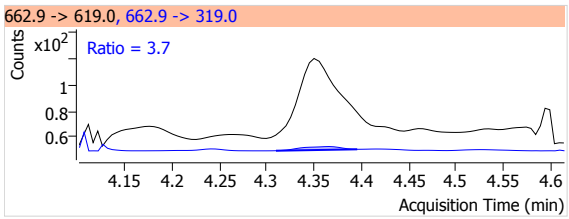

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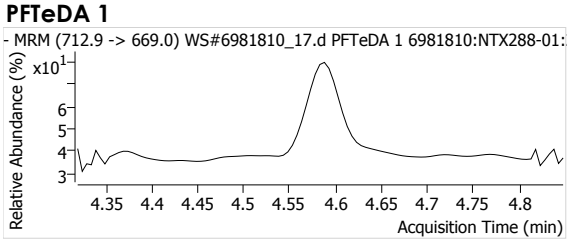

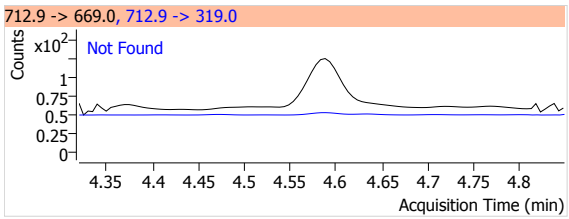

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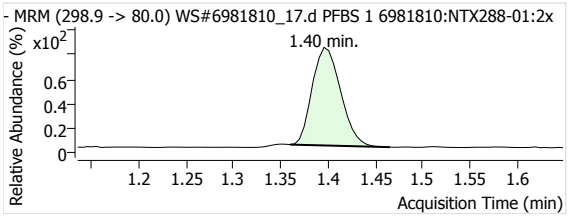

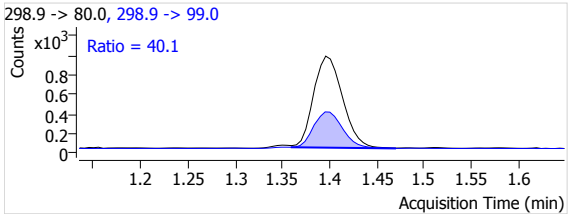

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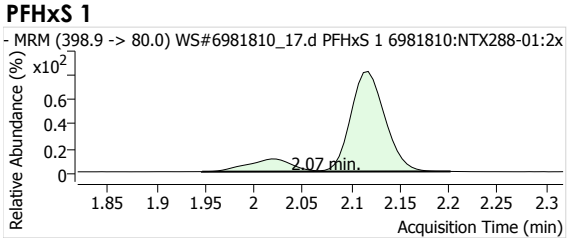

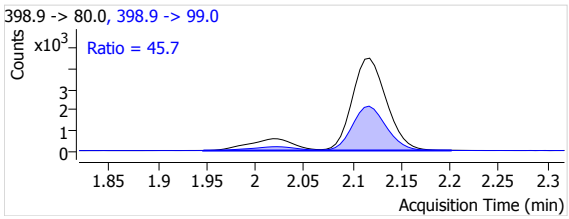

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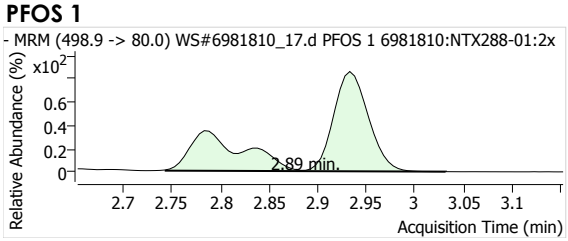

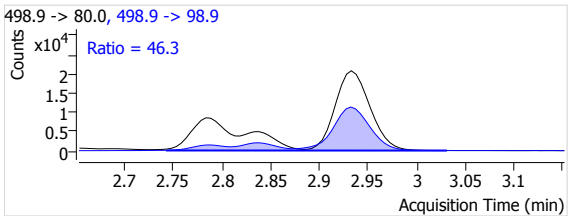

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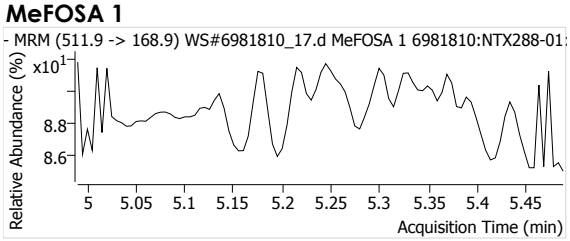

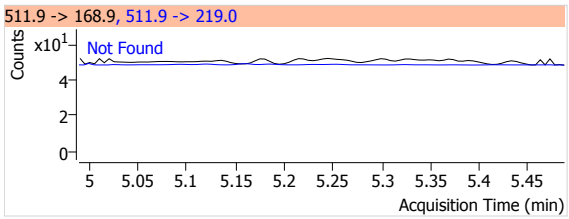

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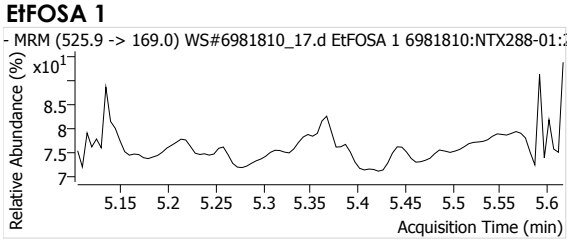

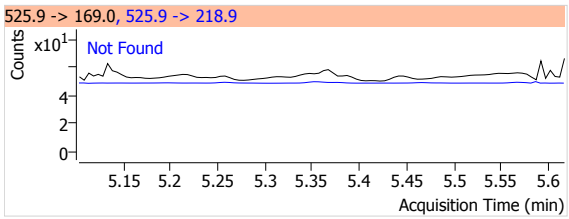

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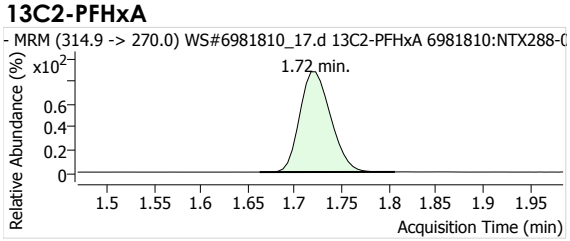

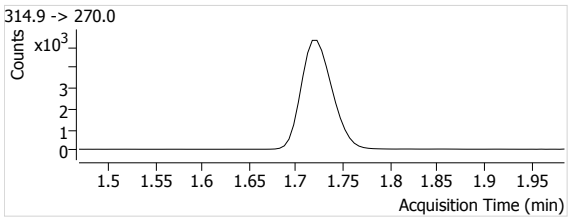

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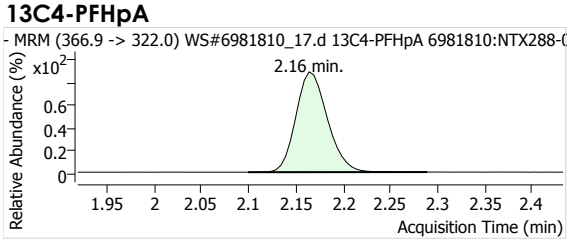

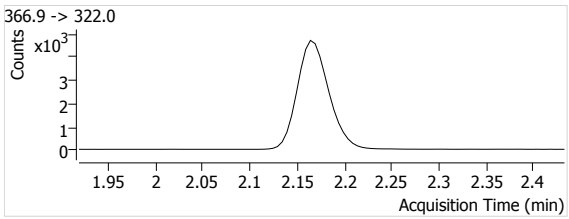

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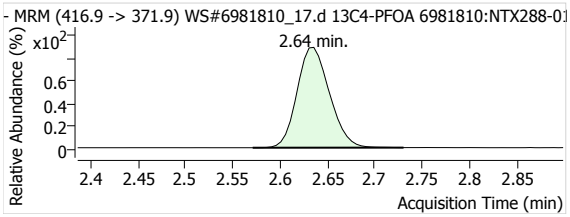

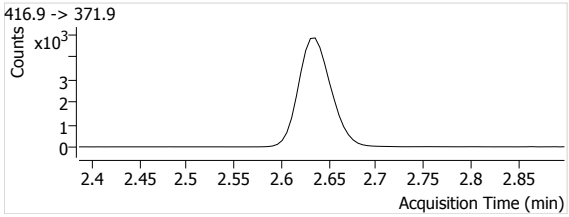

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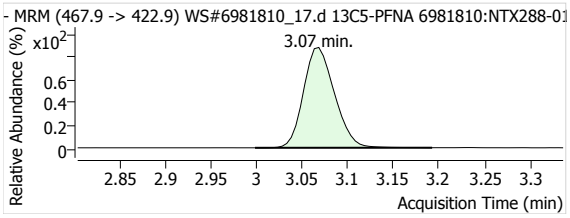

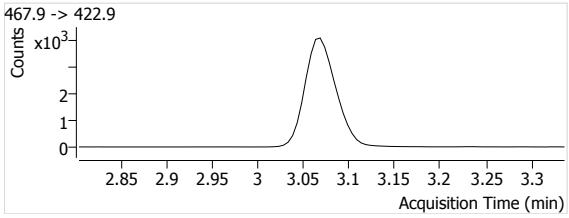

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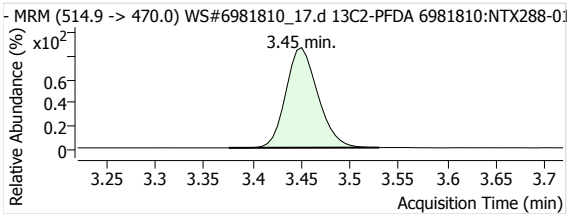

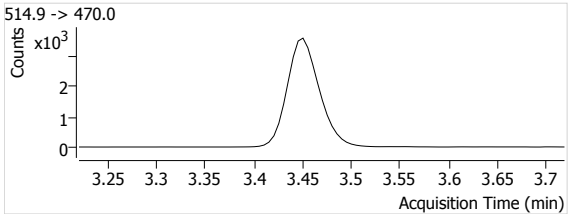

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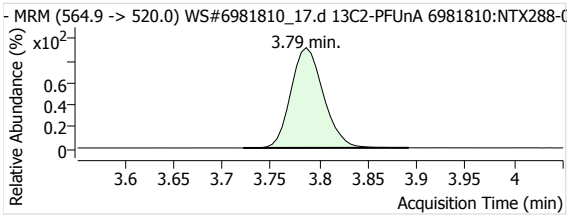

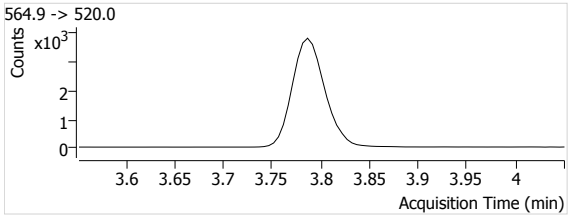

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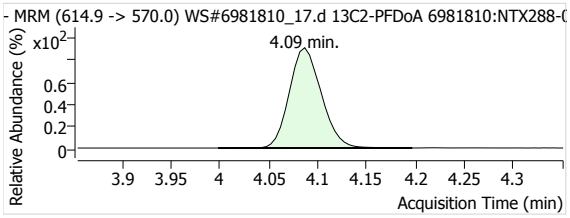

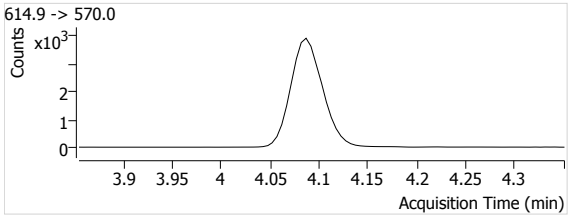

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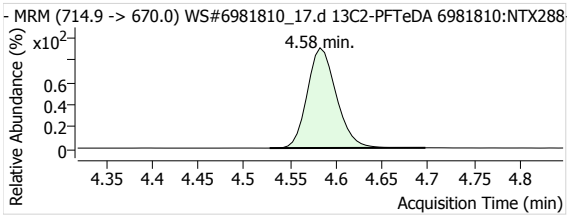

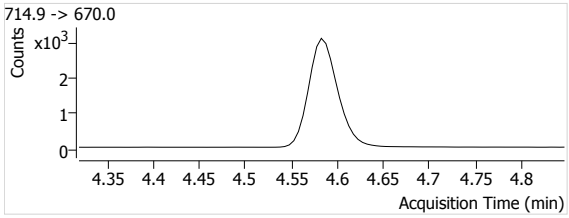

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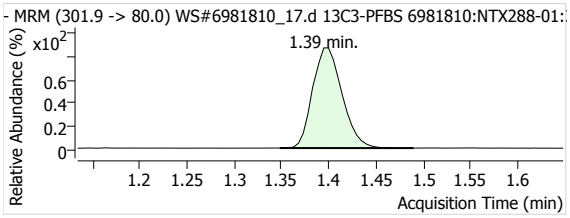

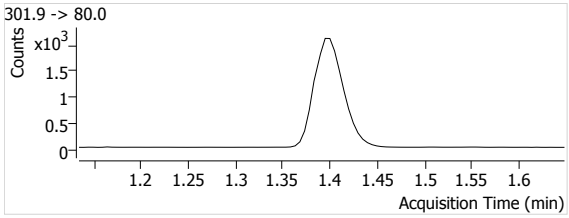

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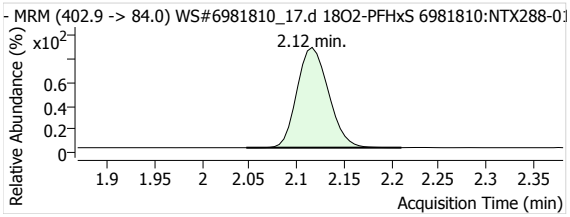

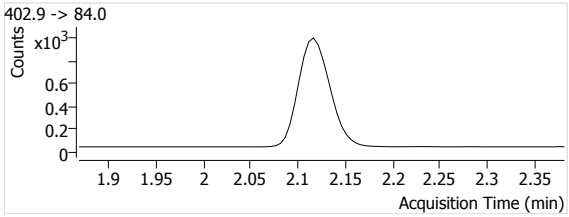

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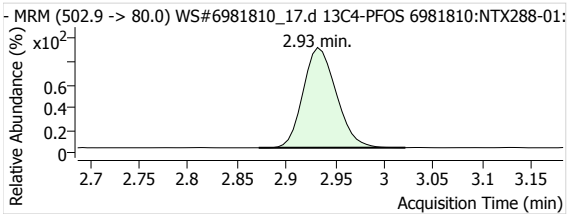

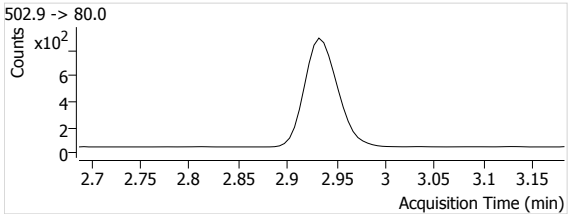

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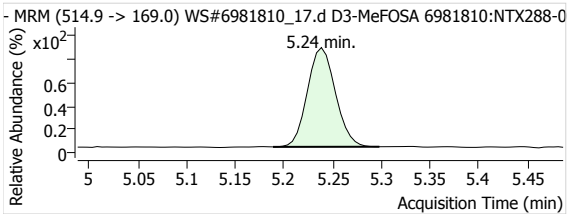

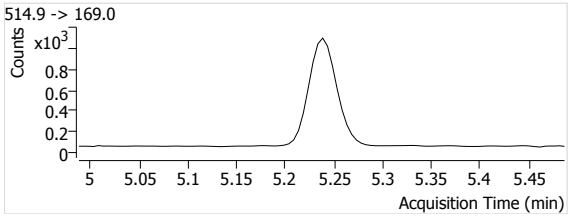

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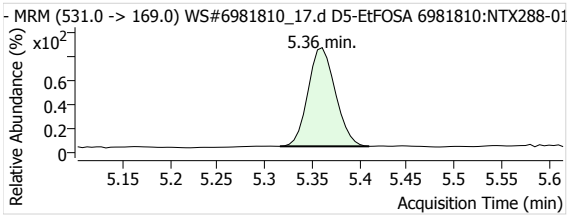
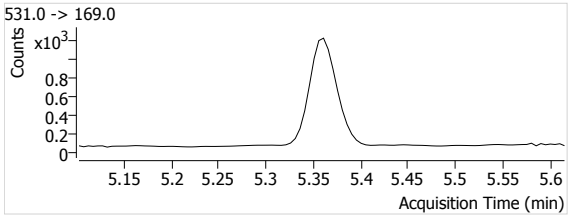




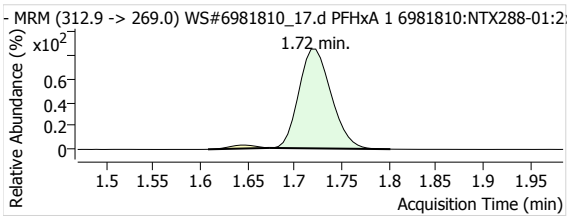
Quantitative Analysis Report

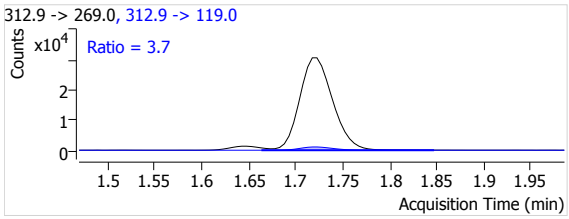
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX288-01:2x	**Data File**	WS#6981810_17.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B6
Acq. Date-Time	2020/10/05 9:13:36 AM	**Dil.**	0.0
Comment	Reported all except PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.6209	--	72440	1.72	683	5.9997	2651	1.72	309	3.7
PFHpA 1	µg/L	--	0.3981	--	21886	2.16	263	2.0171	3615	2.17	49	16.5
PFOA 1	µg/L	--	0.9883	--	37708	2.63	360	3.3106	9090	2.63	1350	24.1
PFNA 1	µg/L	--	0.0459	--	1959	3.07	23	0.2056	317	3.06	23	16.2
PFDA 1	µg/L	--	0.0122	--	525	3.45	13	0.0656	83	3.45	10	15.8
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0013	--	188	4.35	3	0.0275	7	4.37	1	3.7
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1030	--	1906	1.40	49	0.4308	764	1.40	51	40.1
PFHxS 1	µg/L	--	1.2623	--	12729	2.07	708	5.7833	5811	2.07	777	45.7
PFOS 1	µg/L	--	10.4484	--	83168	2.89	163	41.8981	38470	2.89	425	46.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	97.1047	--	12074	1.72	699		--	--	--	--
13C4-PFHpA	µg/L	--	104.4977	--	10850	2.16	1334		--	--	--	--
13C4-PFOA	µg/L	--	100.9841	--	11390	2.64	924		--	--	--	--
13C5-PFNA	µg/L	--	107.6749	--	9526	3.07	895		--	--	--	--
13C2-PFDA	µg/L	--	102.7461	--	8007	3.45	646		--	--	--	--
13C2-PFUnA	µg/L	--	102.3655	--	8698	3.79	1344		--	--	--	--
13C2-PFDoA	µg/L	--	94.6342	--	8589	4.09	984		--	--	--	--
13C2-PFTeDA	µg/L	--	95.2607	--	6834	4.58	903		--	--	--	--
13C3-PFBS	µg/L	--	103.7767	--	4424	1.39	343		--	--	--	--
18O2-PFHxS	µg/L	--	106.9485	--	2201	2.12	628		--	--	--	--
13C4-PFOS	µg/L	--	94.1204	--	1985	2.93	351		--	--	--	--
D3-MeFOSA	µg/L	--	74.5147	--	2073	5.24	90		--	--	--	--
D5-EtFOSA	µg/L	--	68.6504	--	2284	5.36	51		--	--	--	--

PFHxA 1





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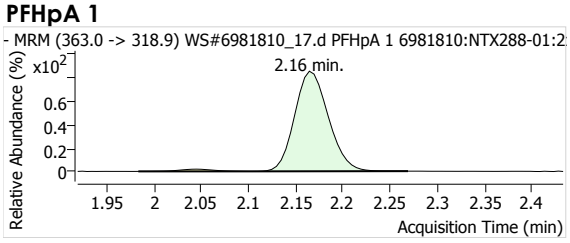

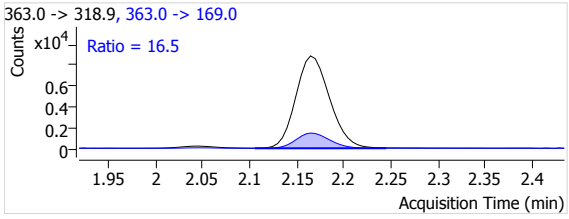

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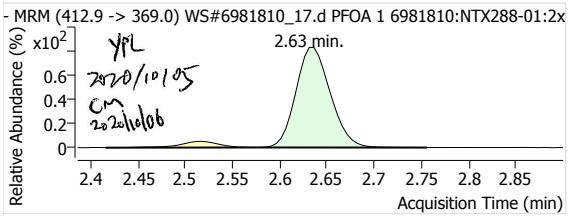

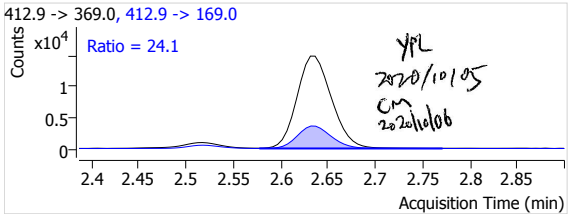

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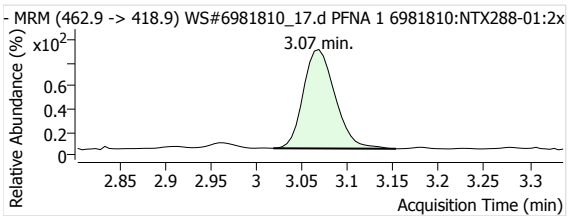

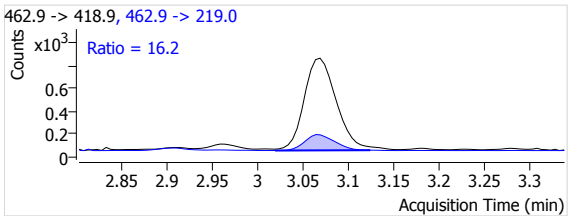

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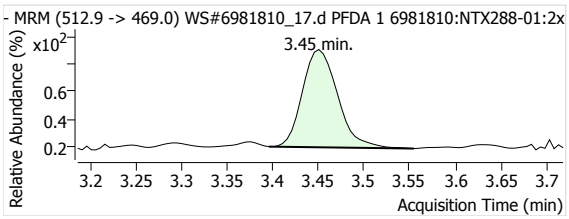

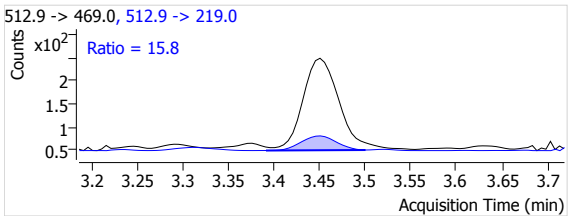

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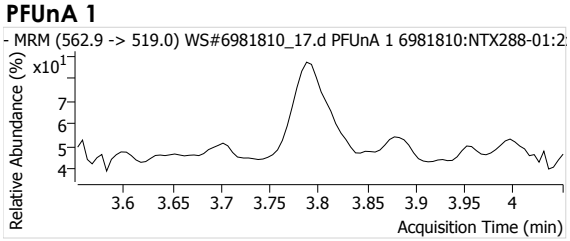

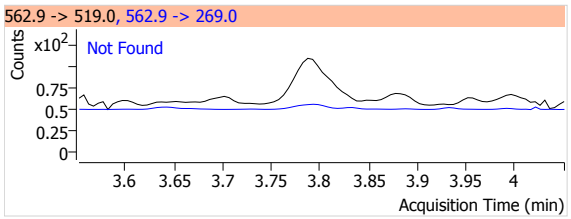

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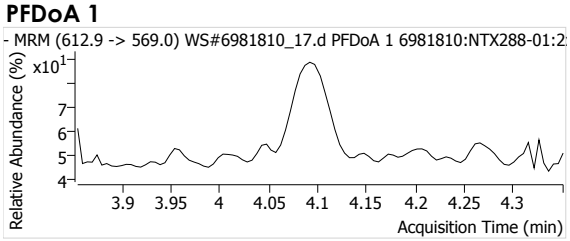

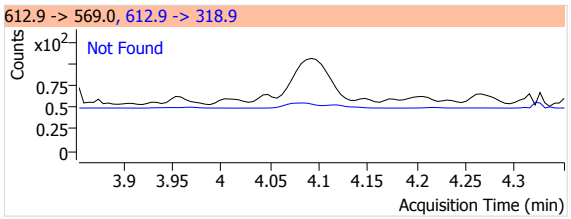

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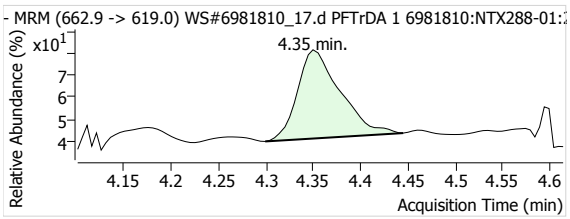

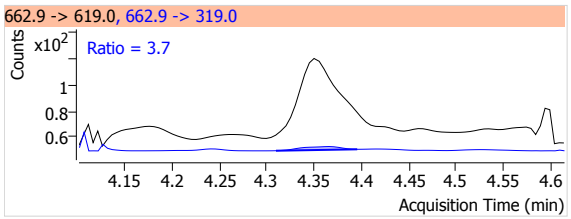

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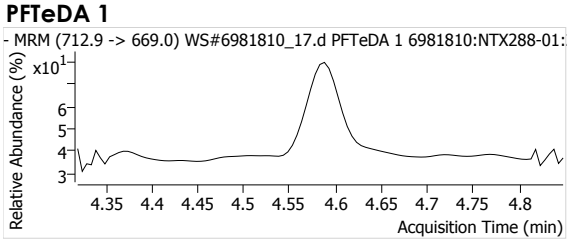

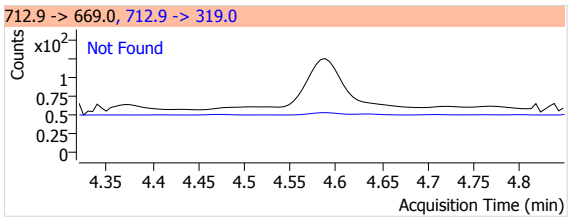

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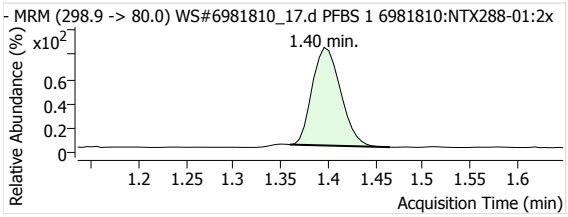

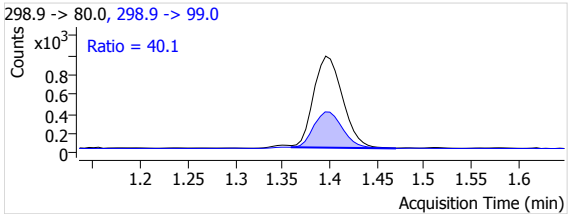

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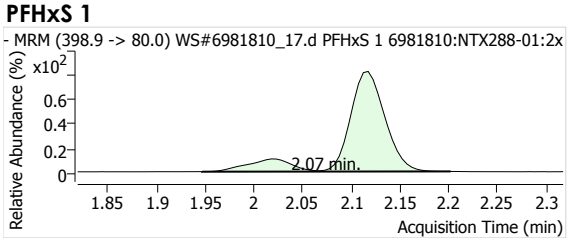

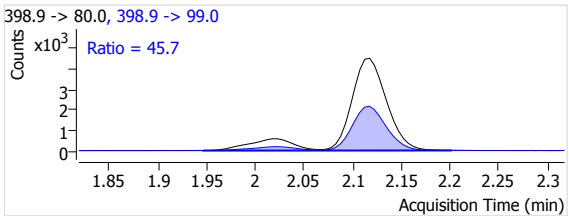

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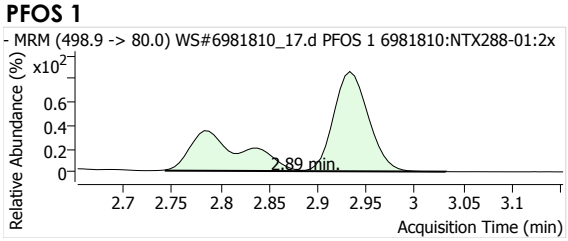

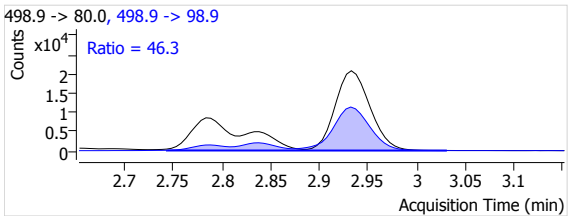

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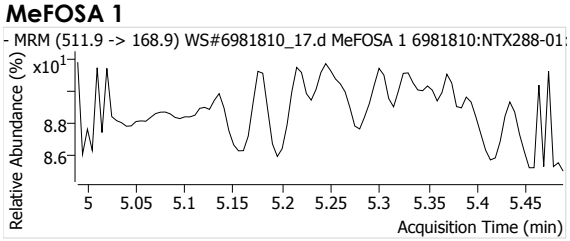

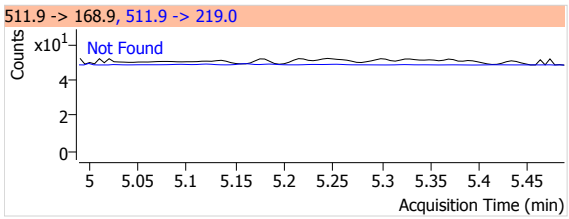

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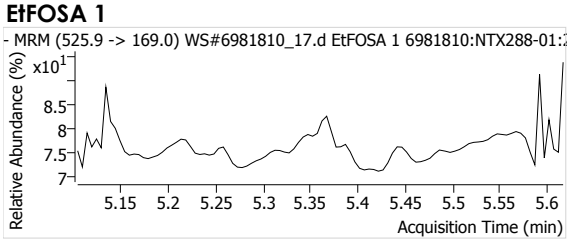
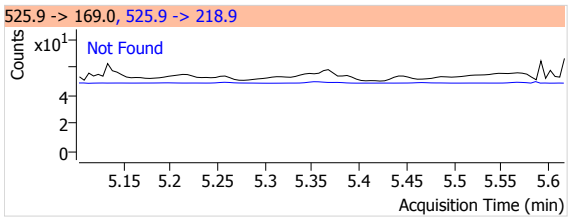
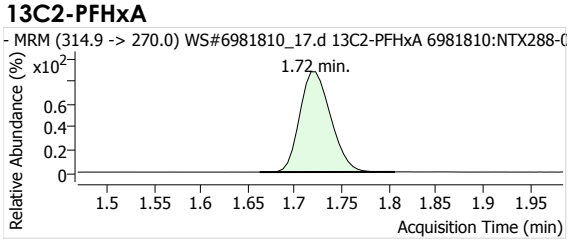
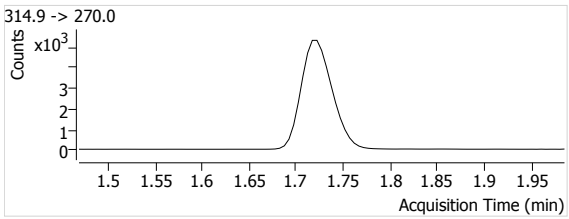




13C2-PFHxA





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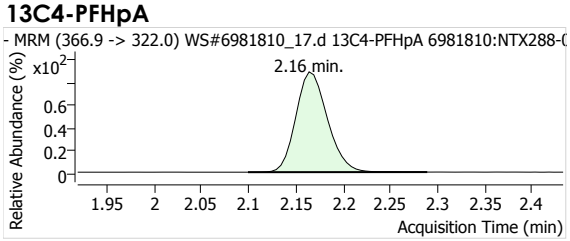

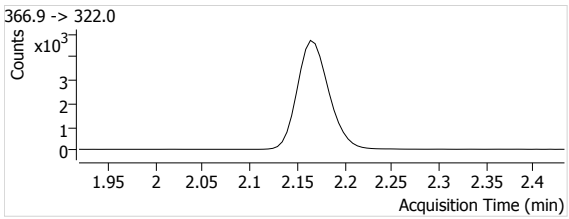

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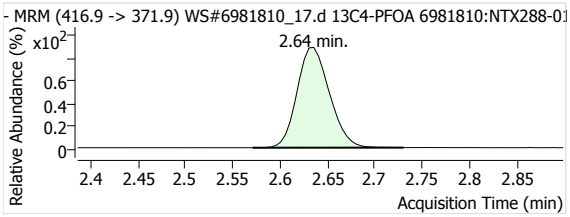

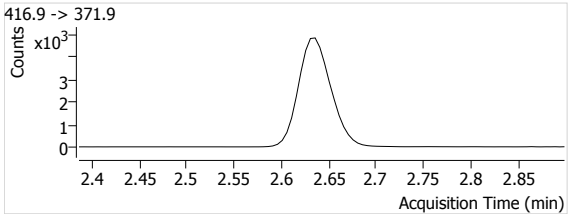

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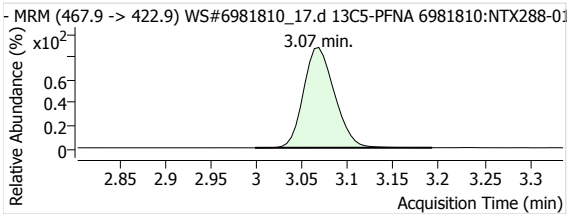

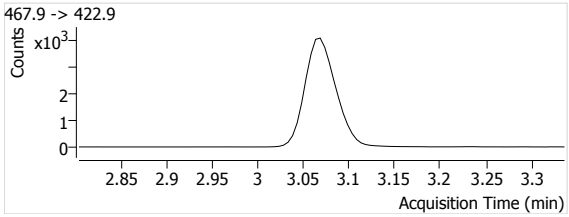

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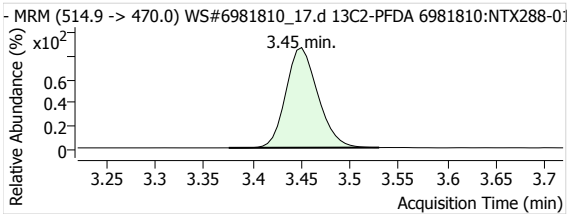

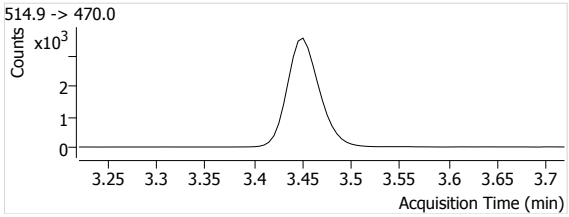

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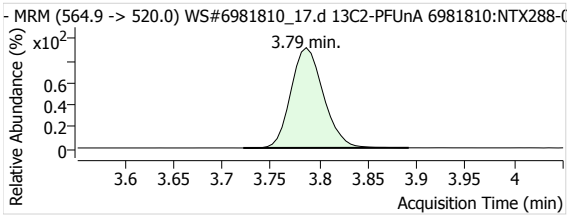

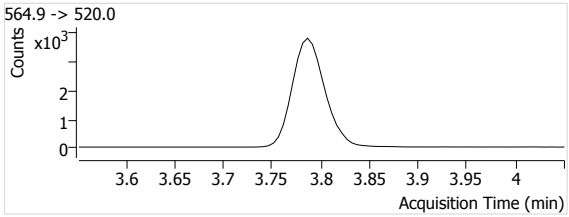

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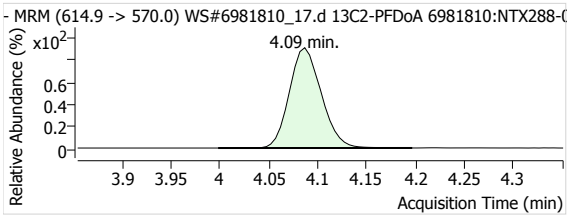

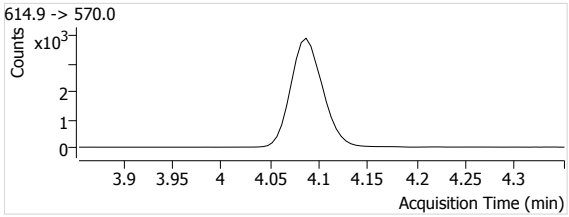

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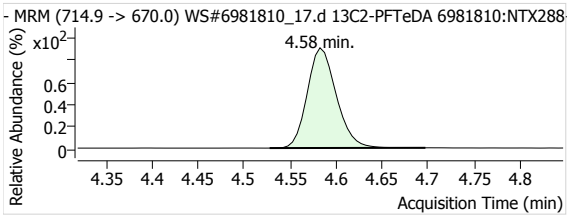
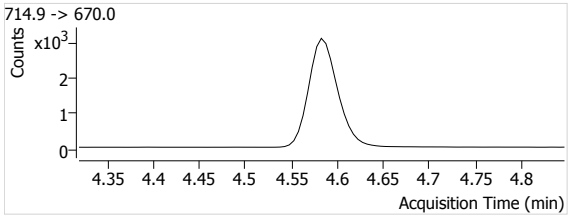
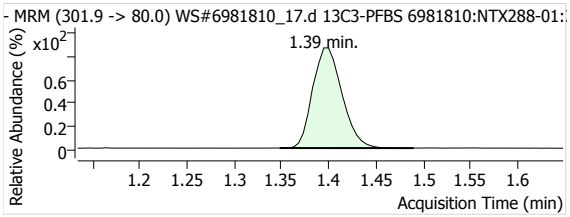
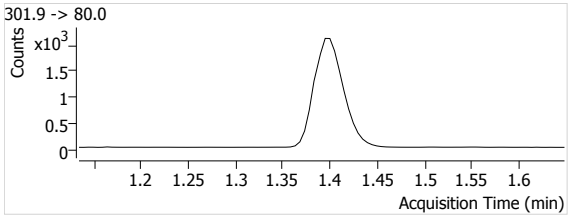




13C3-PFBS





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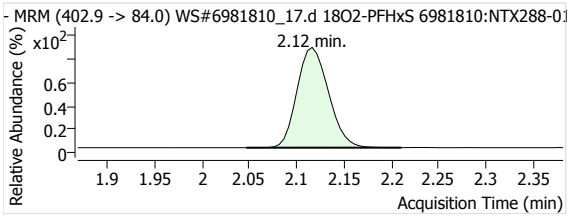

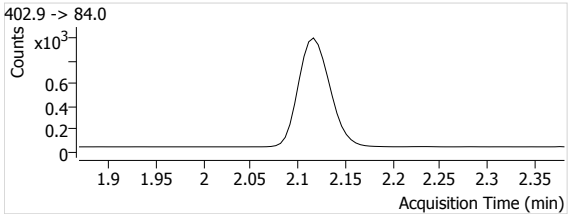

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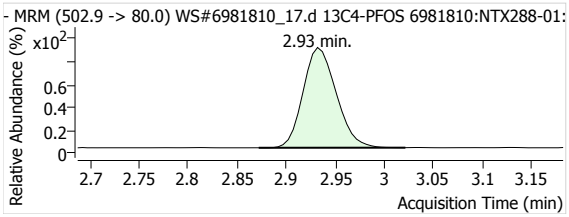

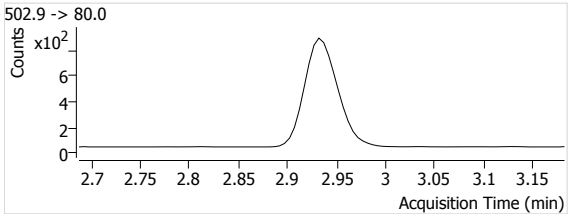

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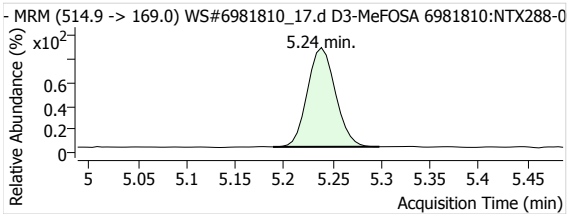

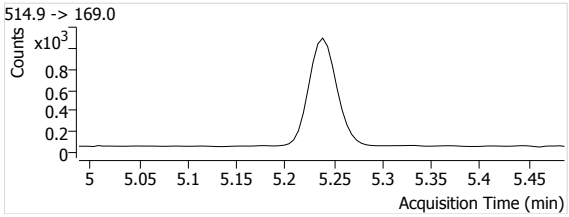

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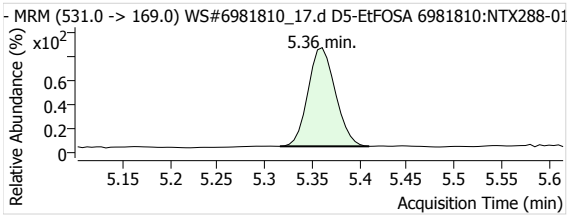
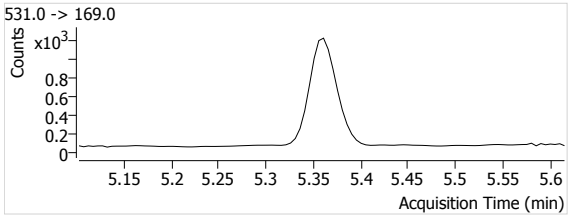




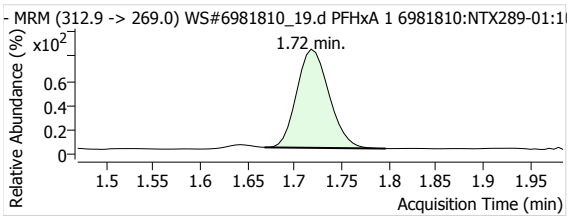
Quantitative Analysis Report

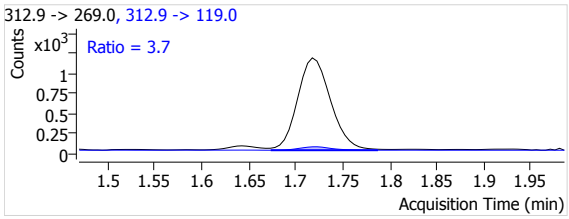
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX289-01:10x	**Data File**	WS#6981810_19.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B7
Acq. Date-Time	2020/10/05 9:27:35 AM	**Dil.**	0.2
Comment	Reported PFOS		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2538	--	2683	1.72	34	0.2034	100	1.72	34	3.7
PFHpA 1	µg/L	--	0.1399	--	1831	2.16	26	0.1610	306	2.17	25	16.7
PFOA 1	µg/L	--	0.5645	--	4699	2.63	82	0.3858	1213	2.63	170	25.8
PFNA 1	µg/L	--	0.0000	--	257	3.07	6	0.0268	44	3.06	7	17.1
PFDA 1	µg/L	--	0.0000	--	157	3.45	6	0.0195	24	3.44	6	15.3
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	167	4.35	3	0.0223	23	4.35	5	13.8
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0204	--	104	1.40	12	0.0232	51	1.40	7	49.0
PFHxS 1	µg/L	--	0.6307	--	1324	2.07	428	0.5917	594	2.07	321	44.9
PFOS 1	µg/L	--	2.0594	--	3666	2.89	62	1.6530	1714	2.89	156	46.7
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	106.0721	--	13189	1.72	982		--	--	--	--
13C4-PFHpA	µg/L	--	109.5637	--	11376	2.16	1243		--	--	--	--
13C4-PFOA	µg/L	--	107.9883	--	12180	2.63	1072		--	--	--	--
13C5-PFNA	µg/L	--	108.2288	--	9575	3.06	1101		--	--	--	--
13C2-PFDA	µg/L	--	103.4390	--	8061	3.45	846		--	--	--	--
13C2-PFUnA	µg/L	--	99.8470	--	8484	3.78	426		--	--	--	--
13C2-PFDoA	µg/L	--	99.7686	--	9055	4.09	894		--	--	--	--
13C2-PFTeDA	µg/L	--	104.1678	--	7473	4.58	813		--	--	--	--
13C3-PFBS	µg/L	--	105.2545	--	4487	1.39	916		--	--	--	--
18O2-PFHxS	µg/L	--	108.7464	--	2238	2.11	1114		--	--	--	--
13C4-PFOS	µg/L	--	105.1683	--	2218	2.93	416		--	--	--	--
D3-MeFOSA	µg/L	--	35.1186	--	977	5.24	41		--	--	--	--
D5-EtFOSA	µg/L	--	34.6558	--	1153	5.36	26		--	--	--	--

PFHxA 1





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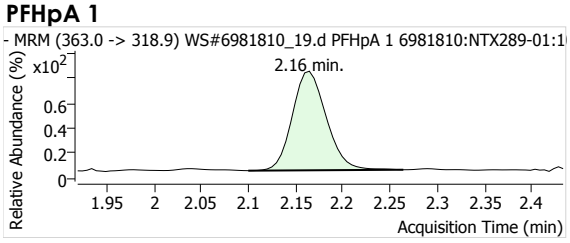

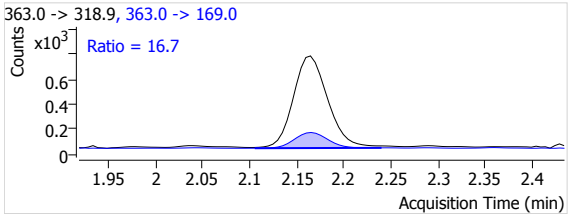

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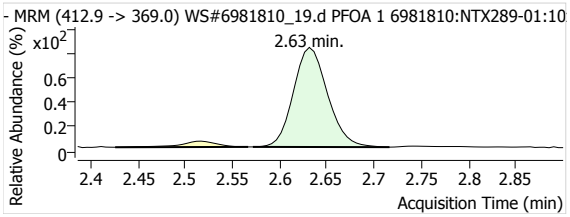

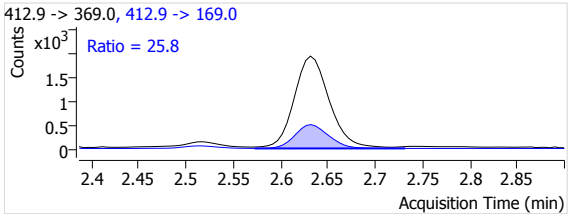

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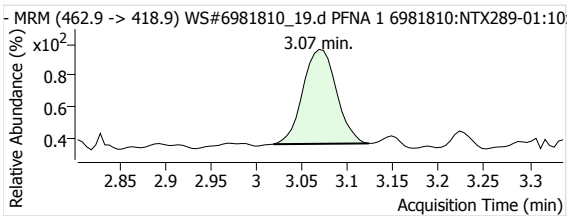

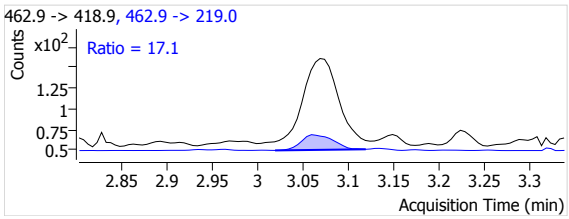

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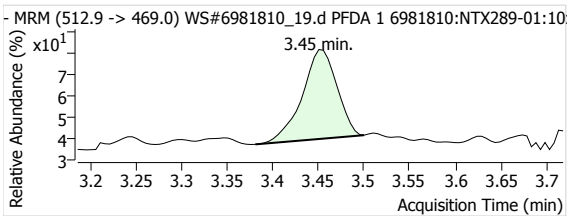

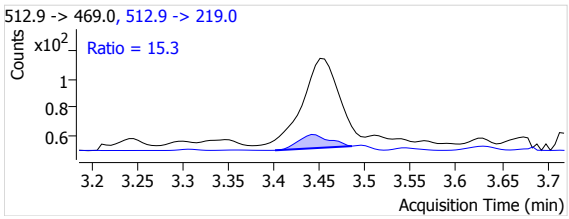

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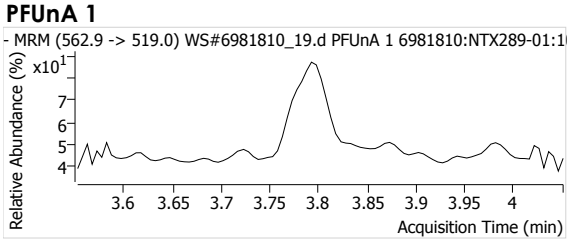

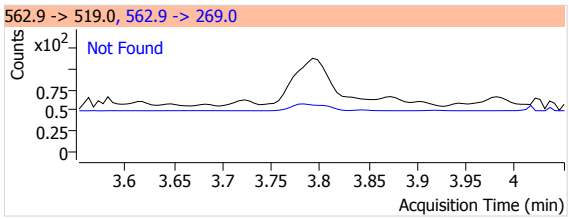

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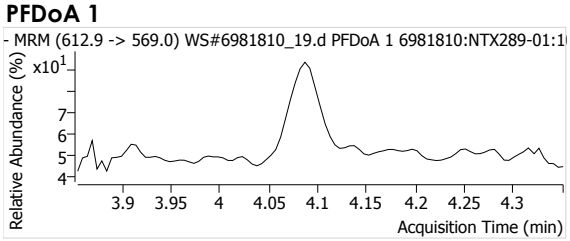

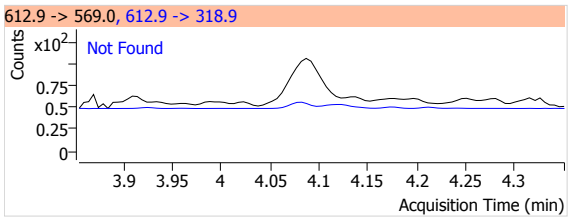

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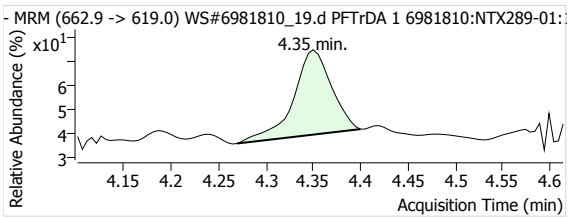

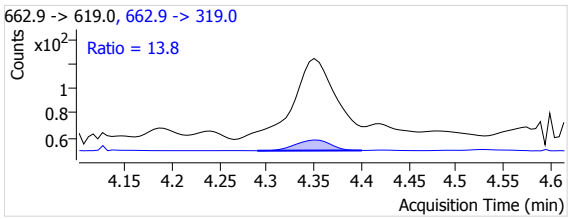

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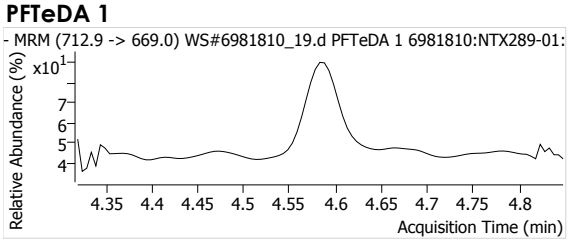

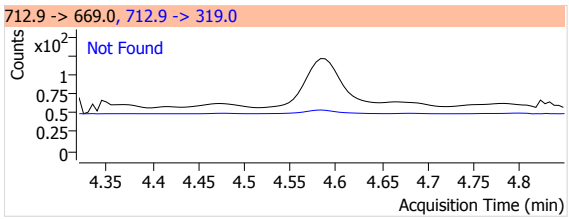

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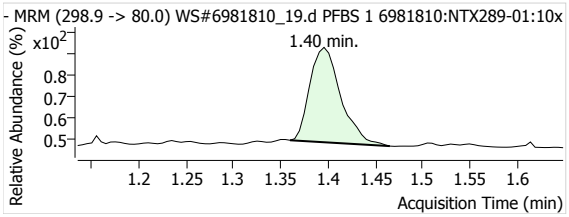

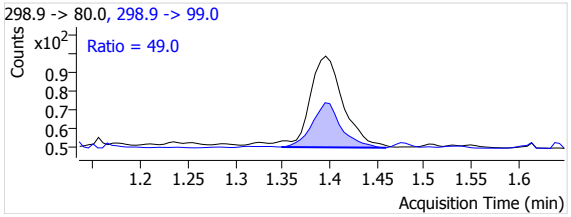

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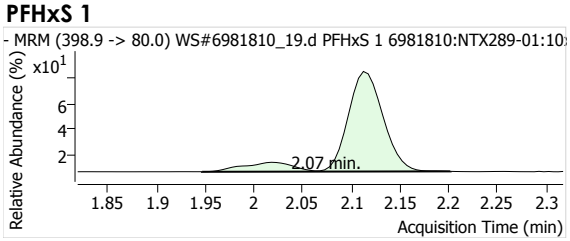

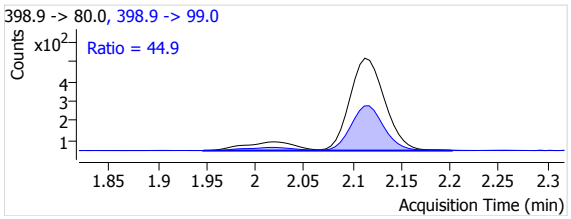

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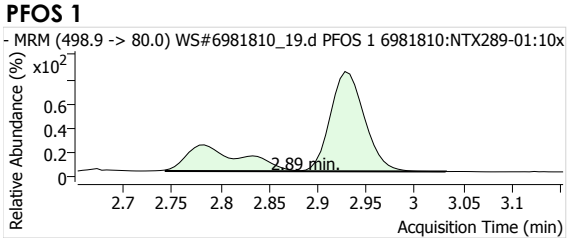

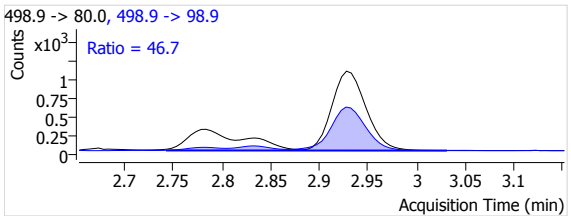

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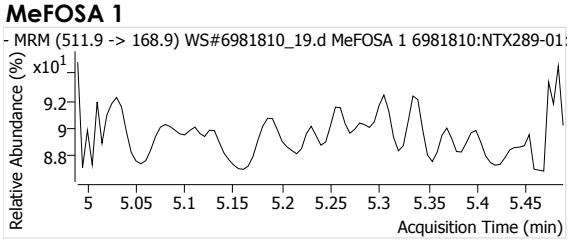

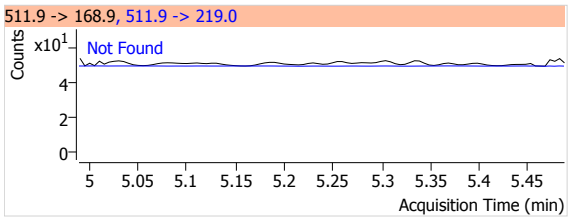

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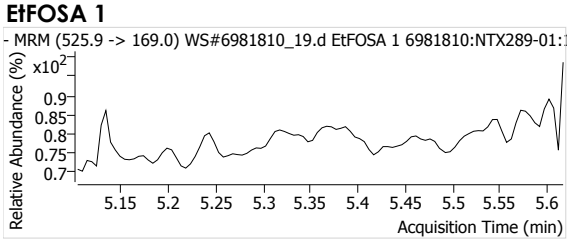

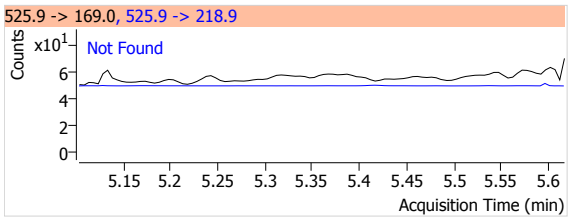

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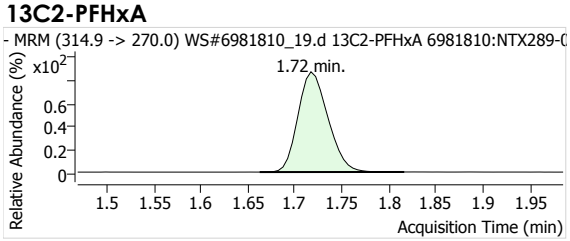

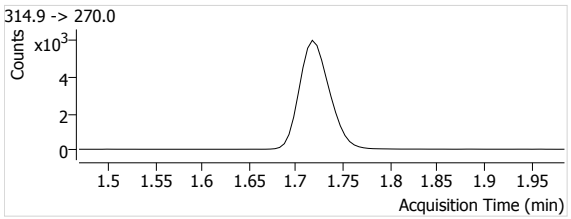

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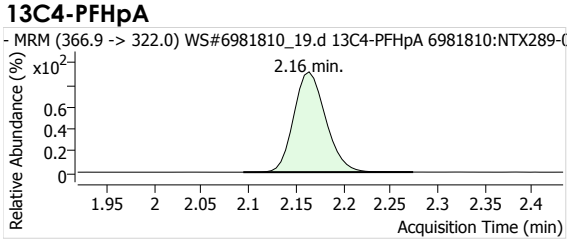

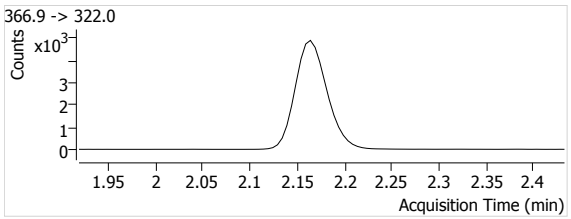

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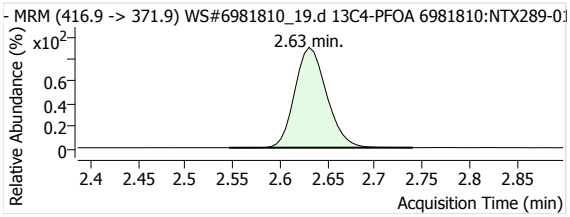

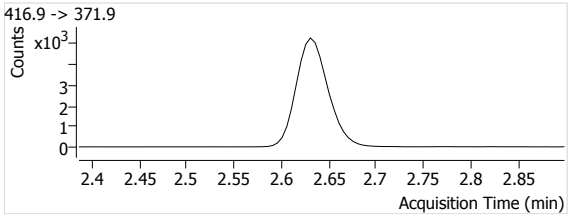

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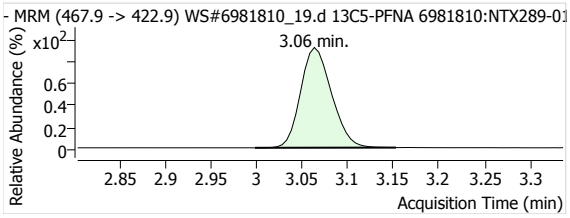

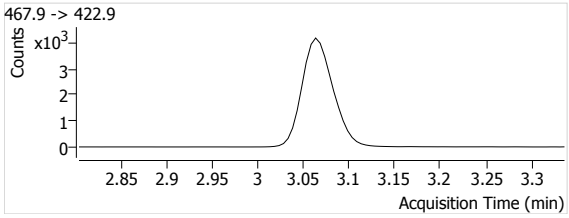

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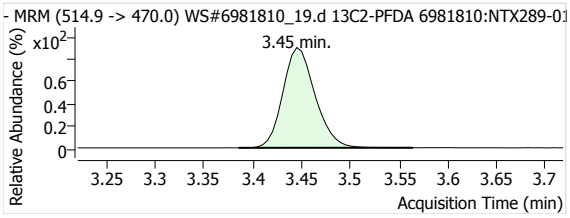

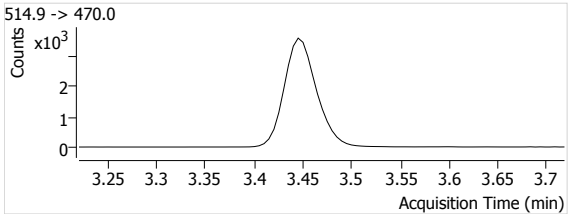

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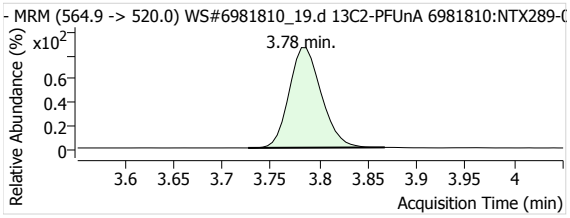

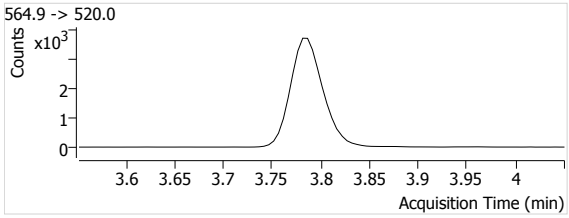

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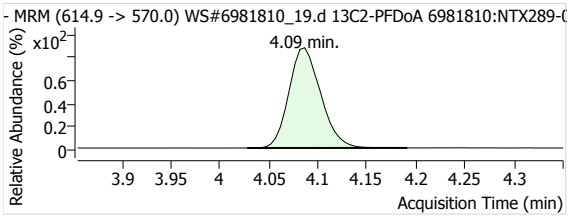

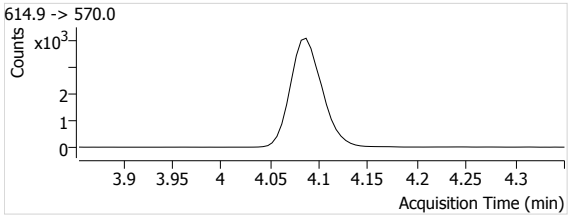

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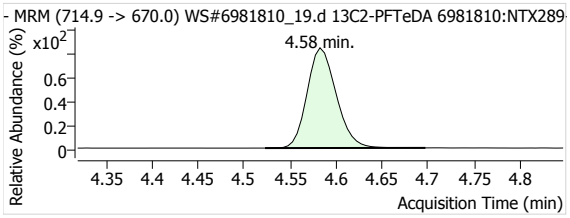

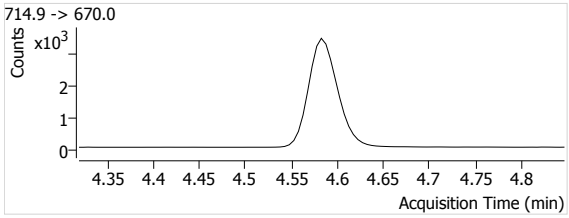

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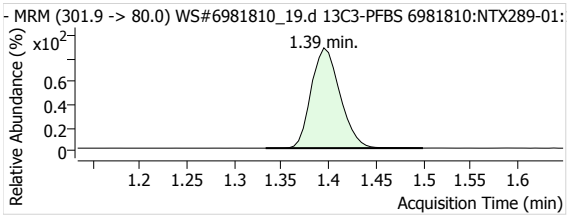

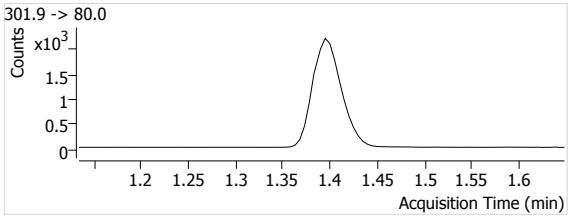

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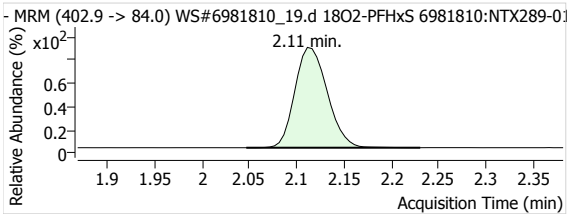

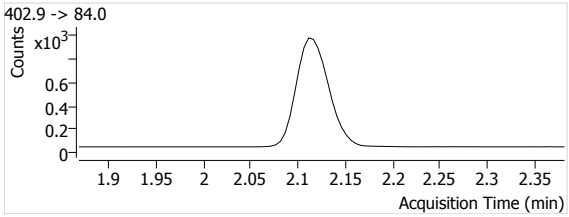

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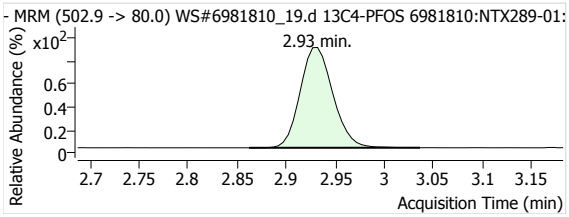

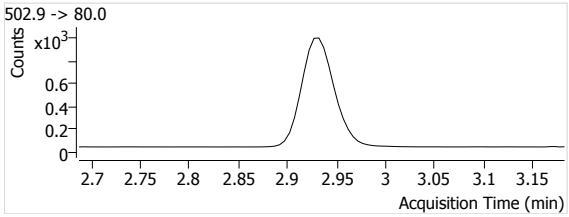

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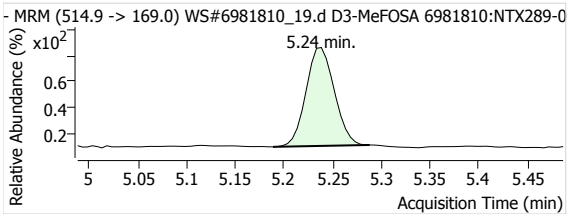

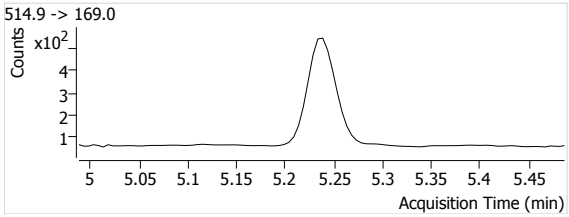

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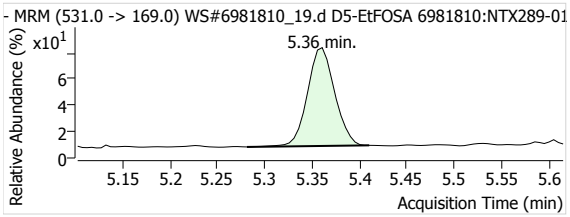
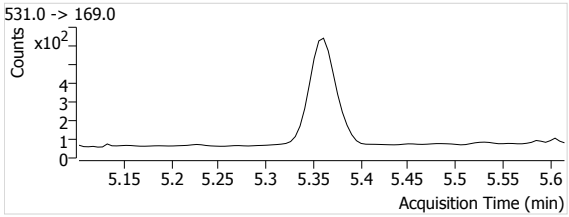




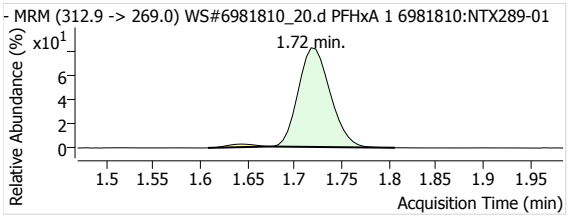
Quantitative Analysis Report

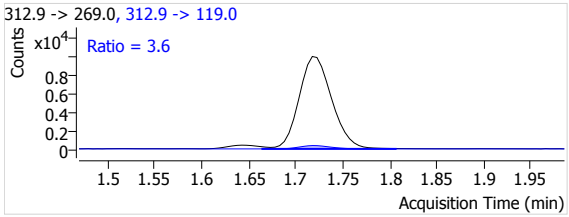
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX289-01	**Data File**	WS#6981810_20.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B8
Acq. Date-Time	2020/10/05 9:34:36 AM	**Dil.**	0.0
Comment	Reported all except PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2755	--	23412	1.72	303	1.8041	839	1.72	134	3.6
PFHpA 1	µg/L	--	0.1578	--	15590	2.16	227	1.4118	2585	2.17	62	16.6
PFOA 1	µg/L	--	0.6490	--	45168	2.63	558	3.8213	11643	2.63	1485	25.8
PFNA 1	µg/L	--	0.0144	--	1228	3.06	27	0.1262	198	3.06	34	16.1
PFDA 1	µg/L	--	0.0056	--	464	3.45	16	0.0570	63	3.45	17	13.6
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0277	--	916	1.40	47	0.2070	392	1.40	33	42.8
PFHxS 1	µg/L	--	0.6717	--	12069	2.07	875	5.4121	5429	2.07	740	45.0
PFOS 1	µg/L	--	2.0626	--	31996	2.89	178	14.5436	15121	2.89	375	47.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	104.3671	--	12977	1.72	721		--	--	--	--
13C4-PFHpA	µg/L	--	106.3565	--	11043	2.16	942		--	--	--	--
13C4-PFOA	µg/L	--	104.7965	--	11820	2.63	996		--	--	--	--
13C5-PFNA	µg/L	--	109.9582	--	9728	3.06	589		--	--	--	--
13C2-PFDA	µg/L	--	104.4912	--	8143	3.45	461		--	--	--	--
13C2-PFUnA	µg/L	--	104.1544	--	8850	3.79	496		--	--	--	--
13C2-PFDoA	µg/L	--	99.0194	--	8987	4.09	797		--	--	--	--
13C2-PFTeDA	µg/L	--	96.5431	--	6926	4.58	371		--	--	--	--
13C3-PFBS	µg/L	--	103.8236	--	4426	1.39	394		--	--	--	--
18O2-PFHxS	µg/L	--	108.3576	--	2230	2.12	641		--	--	--	--
13C4-PFOS	µg/L	--	104.3148	--	2200	2.93	629		--	--	--	--
D3-MeFOSA	µg/L	--	69.7699	--	1941	5.24	92		--	--	--	--
D5-EtFOSA	µg/L	--	66.2459	--	2204	5.36	46		--	--	--	--

PFHxA 1





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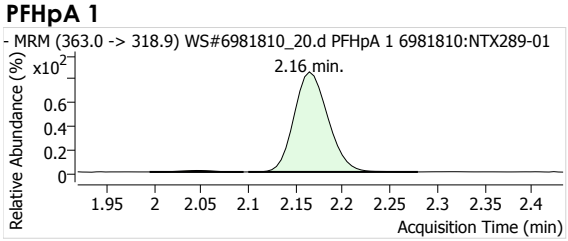

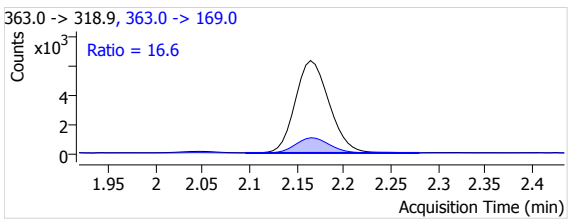

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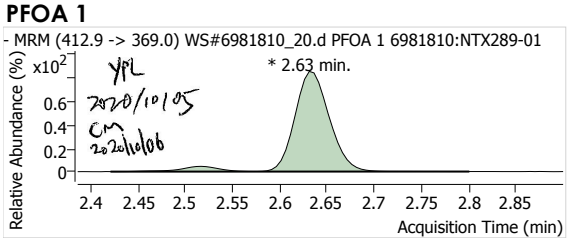

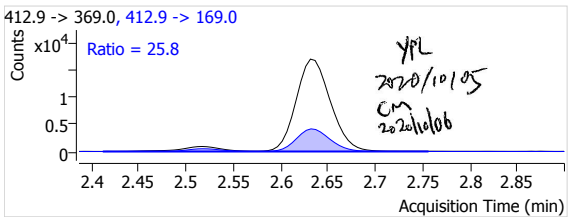

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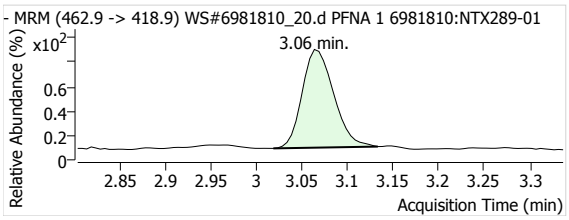

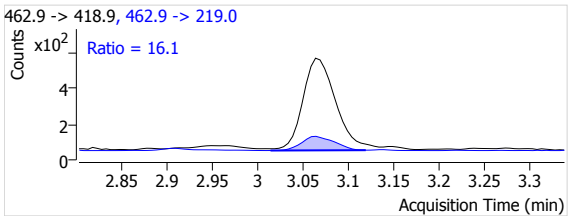

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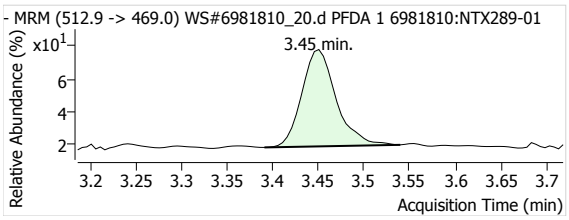

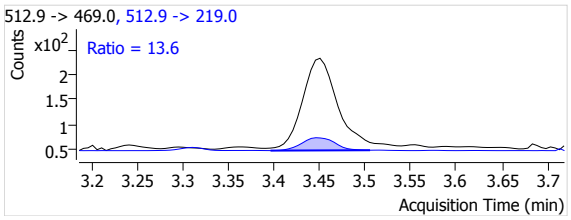

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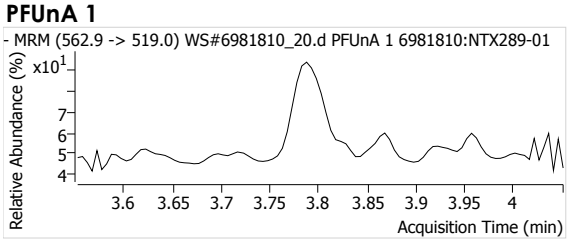

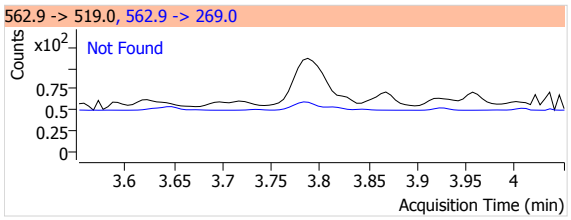

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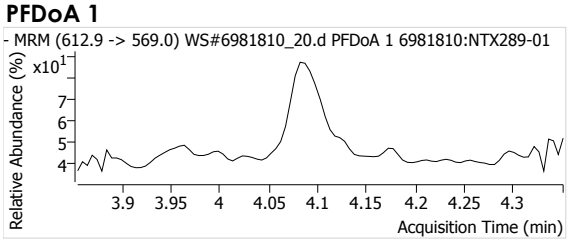

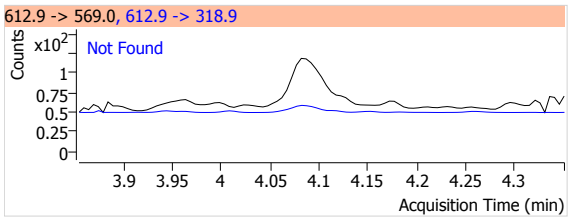

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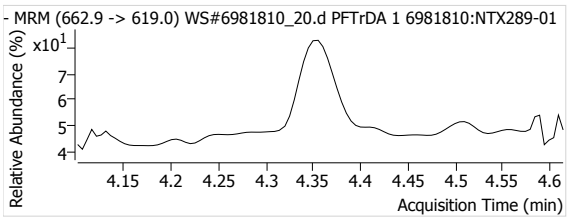

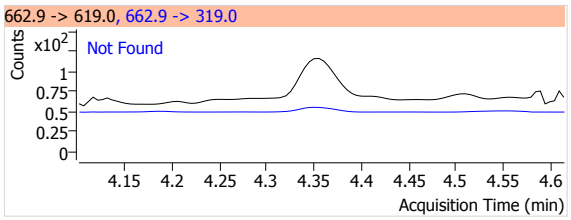

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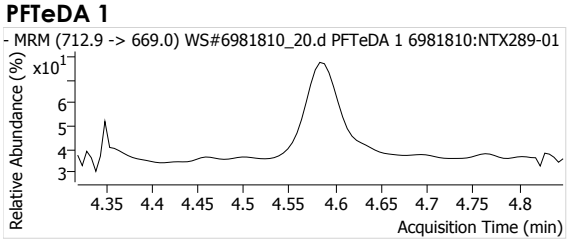

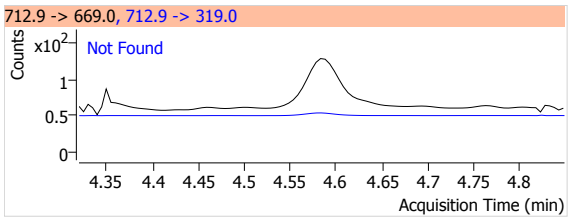

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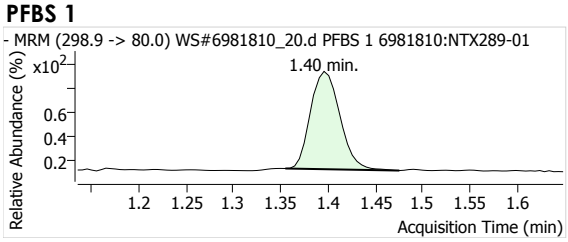

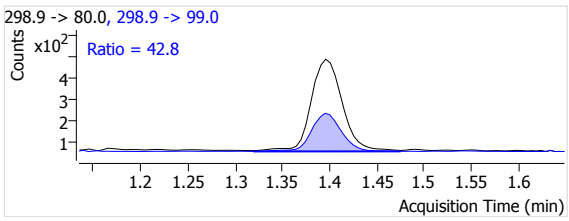

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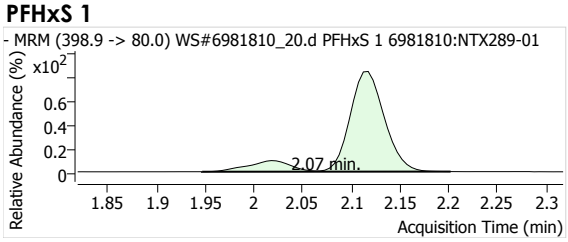

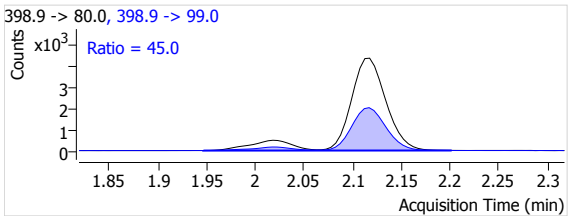

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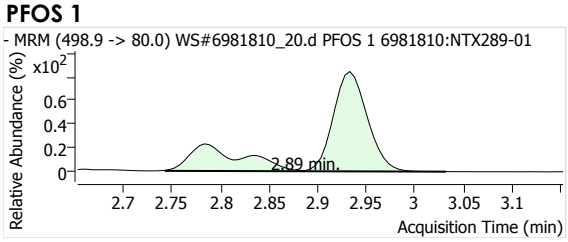

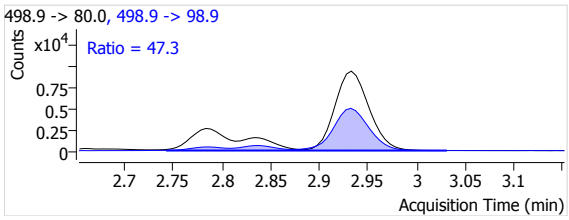

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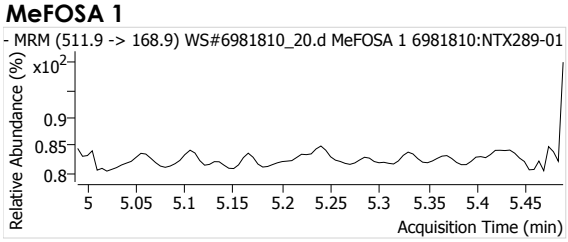

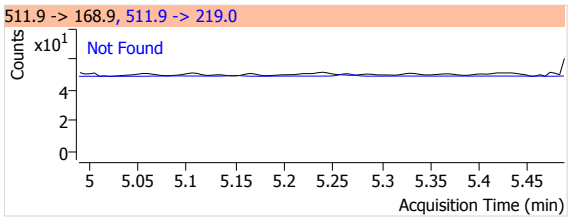

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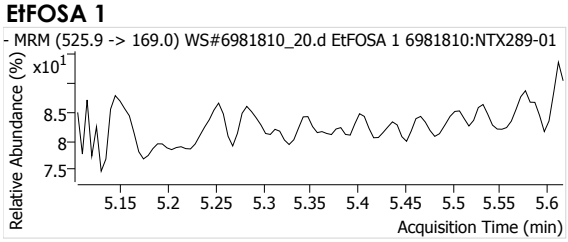

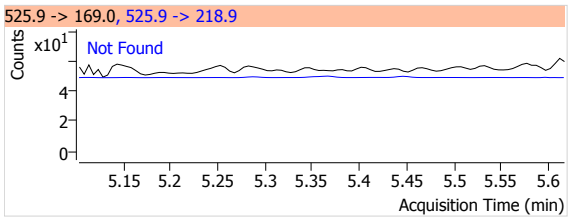

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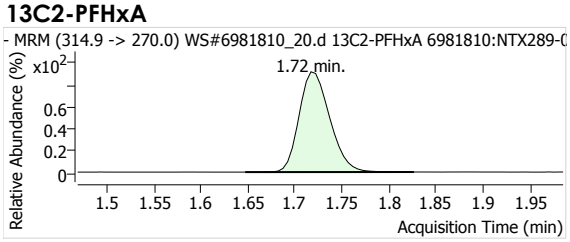

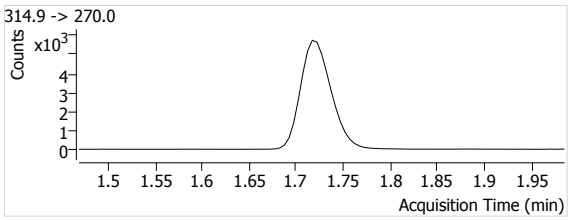

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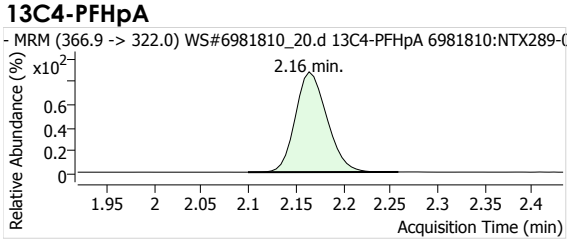

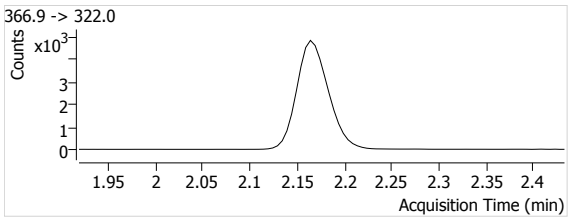

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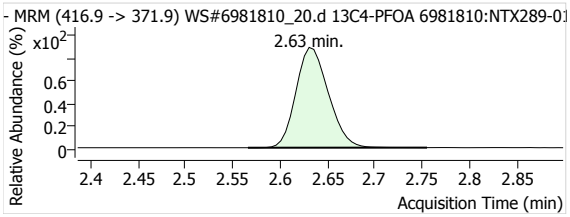

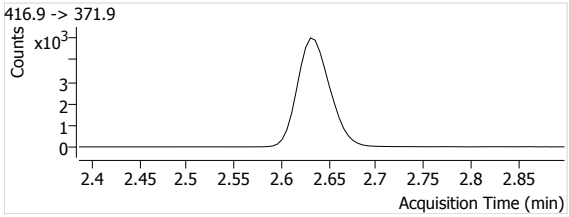

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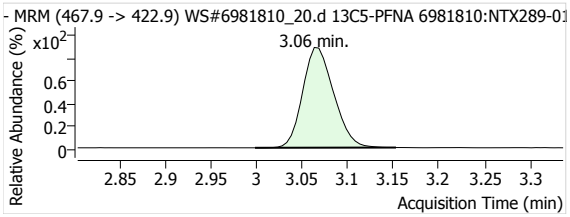
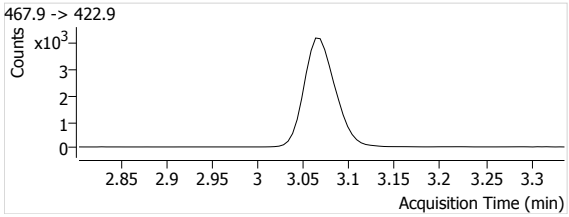
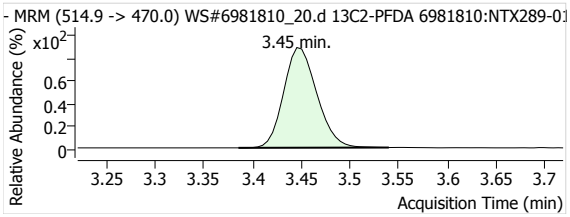
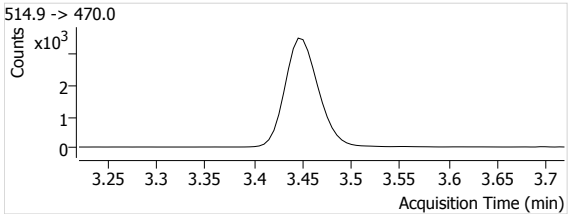


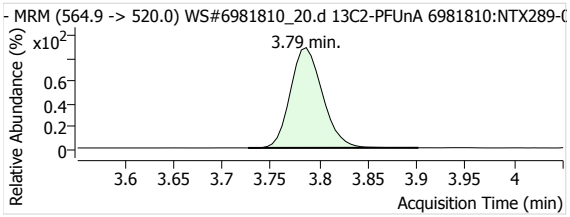


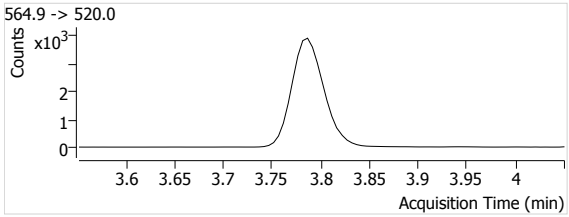
13C2-PFDA



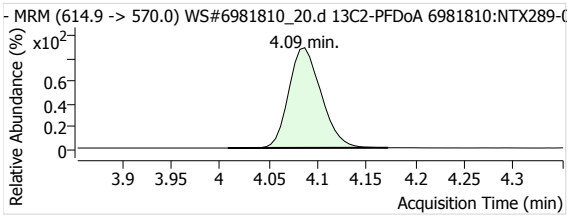


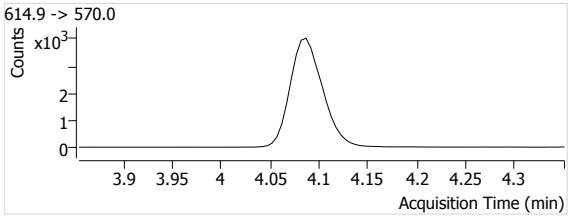
13C2-PFUnA





13C2-PFDoA





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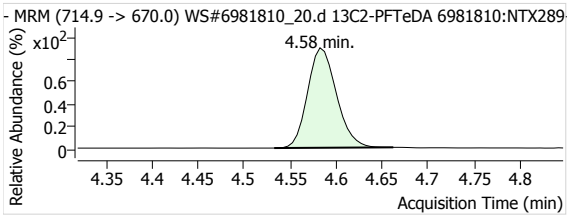
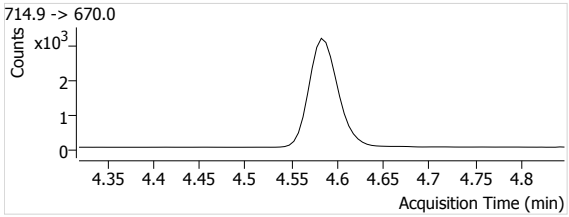
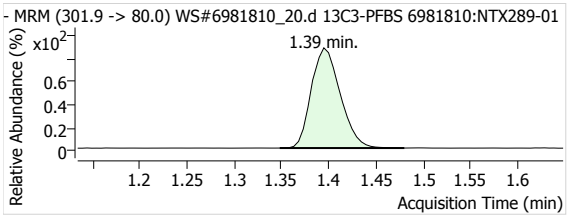
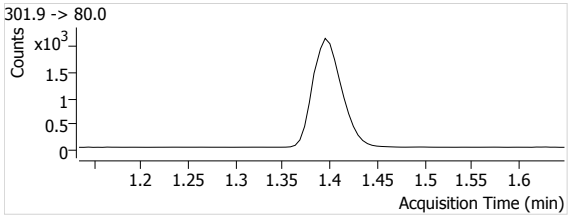


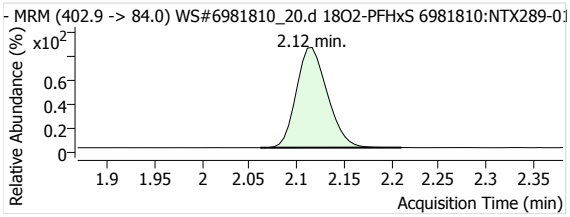


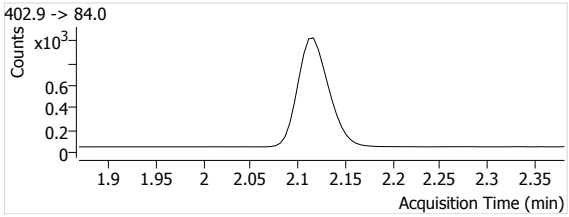
13C3-PFBS



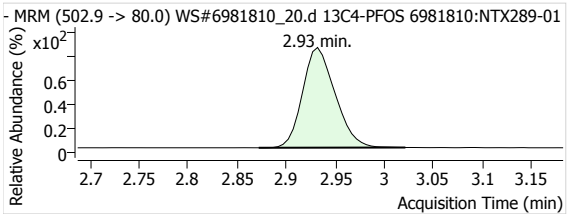


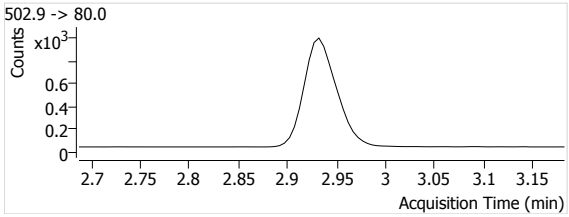
18O2-PFHxS



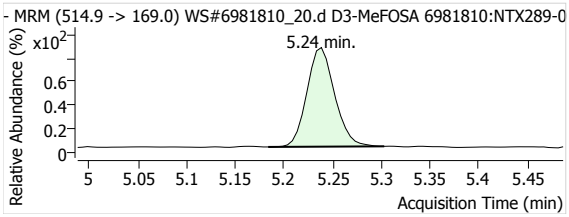


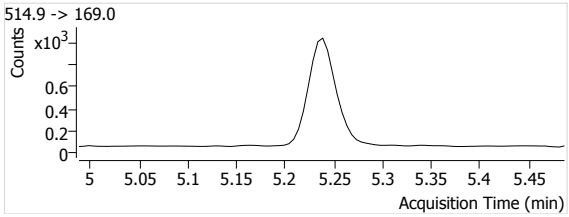
13C4-PFOS



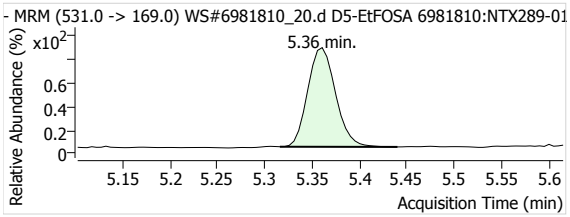


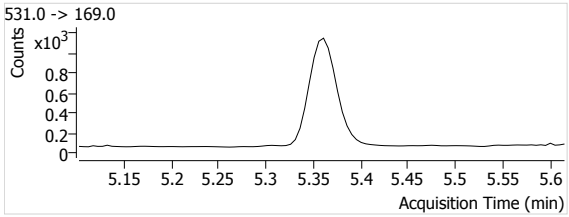
D3-MeFOSA





D5-EtFOSA





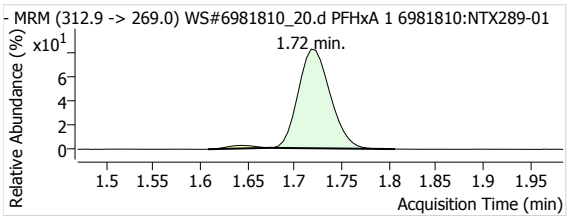
Quantitative Analysis Report

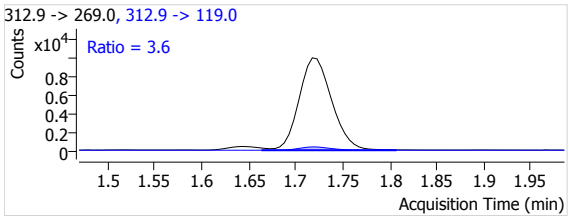
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX289-01	**Data File**	WS#6981810_20.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B8
Acq. Date-Time	2020/10/05 9:34:36 AM	**Dil.**	0.0
Comment	Reported all except PFOS		
User Defined	MI PFOA		

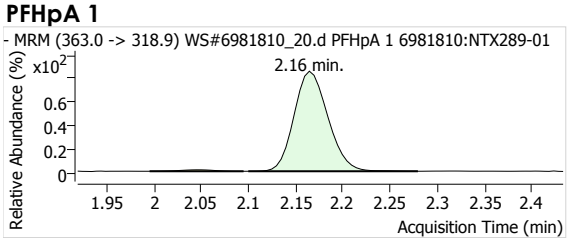
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2755	--	23412	1.72	303	1.8041	839	1.72	134	3.6
PFHpA 1	µg/L	--	0.1578	--	15590	2.16	227	1.4118	2585	2.17	62	16.6
PFOA 1	µg/L	--	0.6073	--	42270	2.63	558	3.5761	10222	2.63	1483	24.2
PFNA 1	µg/L	--	0.0144	--	1228	3.06	27	0.1262	198	3.06	34	16.1
PFDA 1	µg/L	--	0.0056	--	464	3.45	16	0.0570	63	3.45	17	13.6
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0277	--	916	1.40	47	0.2070	392	1.40	33	42.8
PFHxS 1	µg/L	--	0.6717	--	12069	2.07	875	5.4121	5429	2.07	740	45.0
PFOS 1	µg/L	--	2.0626	--	31996	2.89	178	14.5436	15121	2.89	375	47.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	104.3671	--	12977	1.72	721		--	--	--	--
13C4-PFHpA	µg/L	--	106.3565	--	11043	2.16	942		--	--	--	--
13C4-PFOA	µg/L	--	104.7965	--	11820	2.63	996		--	--	--	--
13C5-PFNA	µg/L	--	109.9582	--	9728	3.06	589		--	--	--	--
13C2-PFDA	µg/L	--	104.4912	--	8143	3.45	461		--	--	--	--
13C2-PFUnA	µg/L	--	104.1544	--	8850	3.79	496		--	--	--	--
13C2-PFDoA	µg/L	--	99.0194	--	8987	4.09	797		--	--	--	--
13C2-PFTeDA	µg/L	--	96.5431	--	6926	4.58	371		--	--	--	--
13C3-PFBS	µg/L	--	103.8236	--	4426	1.39	394		--	--	--	--
18O2-PFHxS	µg/L	--	108.3576	--	2230	2.12	641		--	--	--	--
13C4-PFOS	µg/L	--	104.3148	--	2200	2.93	629		--	--	--	--
D3-MeFOSA	µg/L	--	69.7699	--	1941	5.24	92		--	--	--	--
D5-EtFOSA	µg/L	--	66.2459	--	2204	5.36	46		--	--	--	--

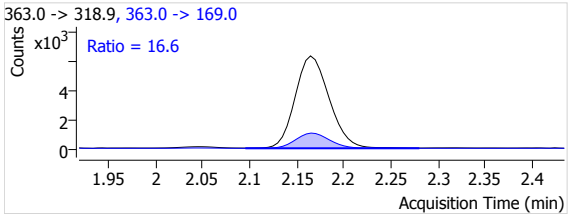
PFHxA 1



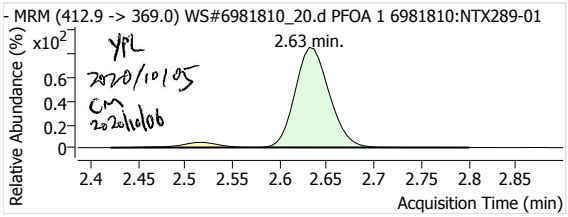


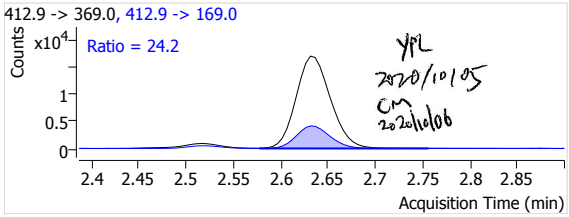
PFHpA 1





PFOA 1





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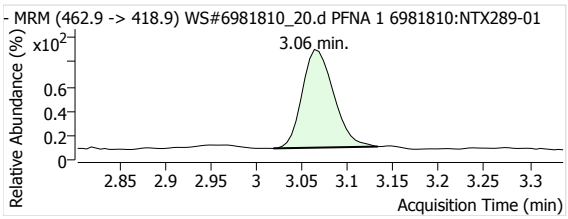

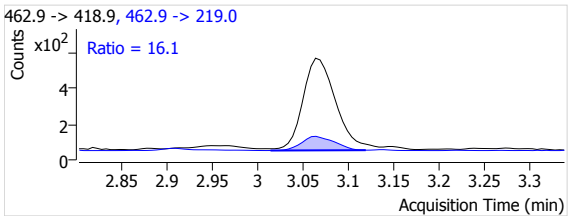

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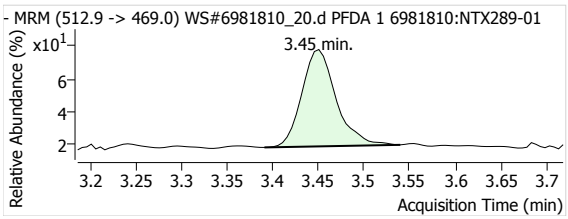
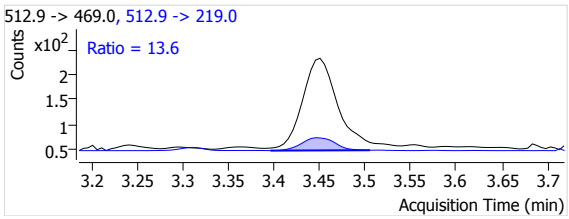
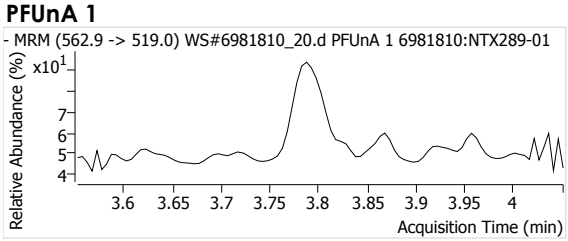
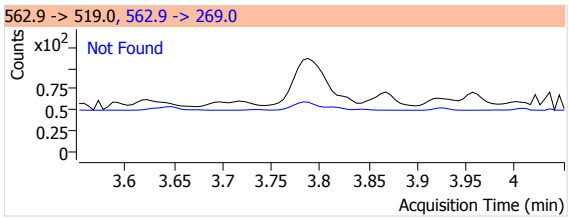


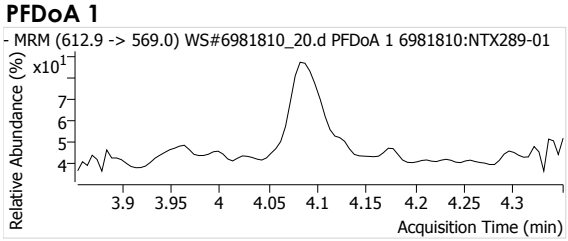


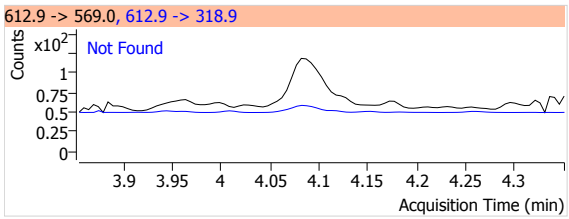
PFUnA 1





PFDoA 1





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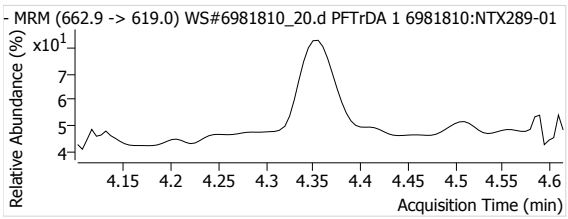

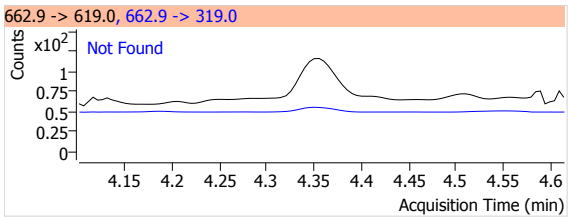

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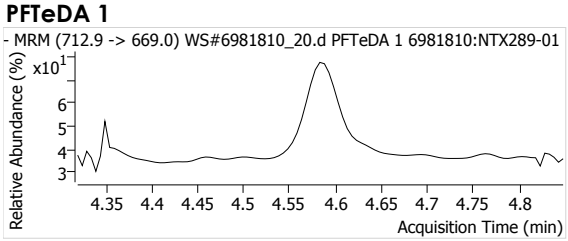
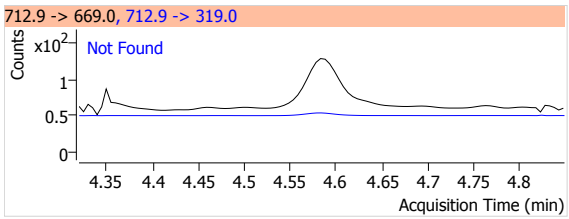
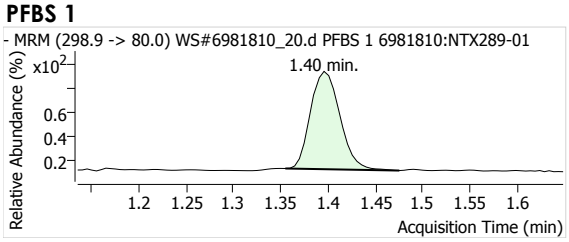
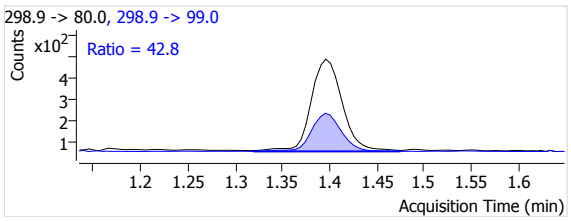


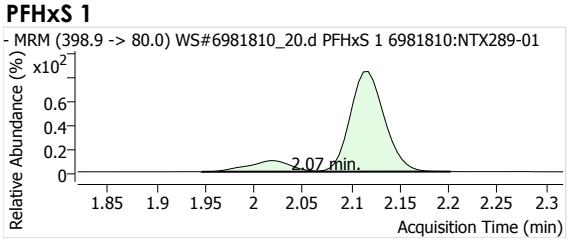


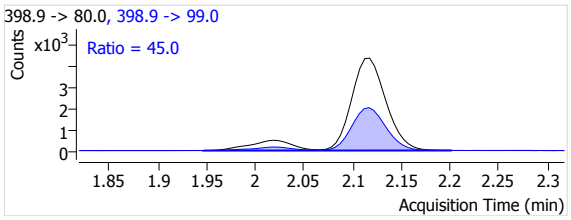
PFBS 1



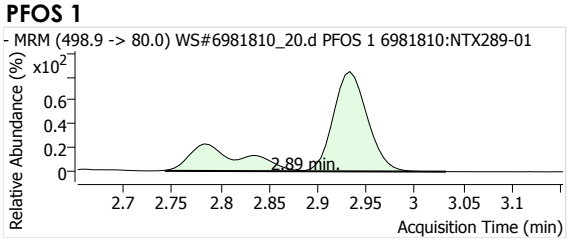


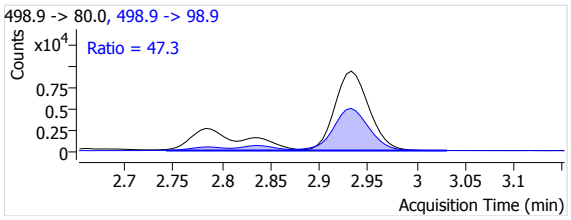
PFHxS 1





PFOS 1





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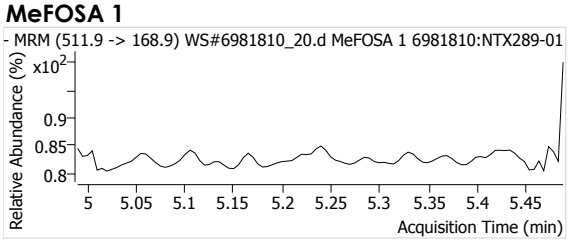

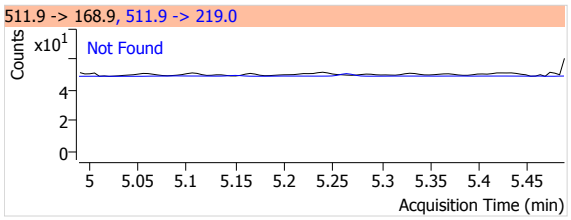

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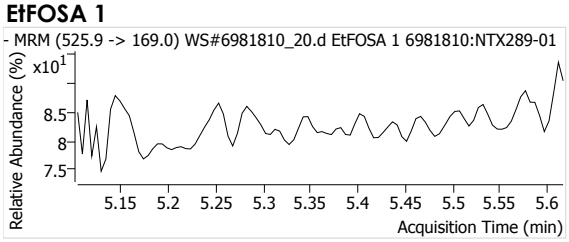
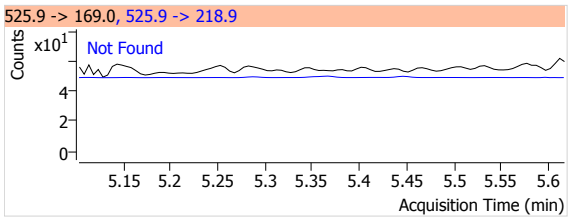
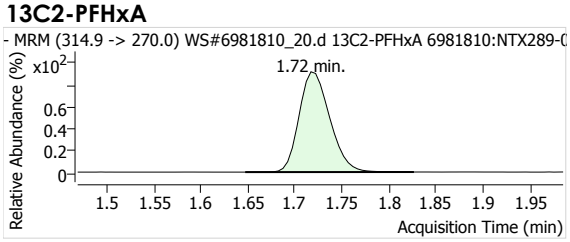
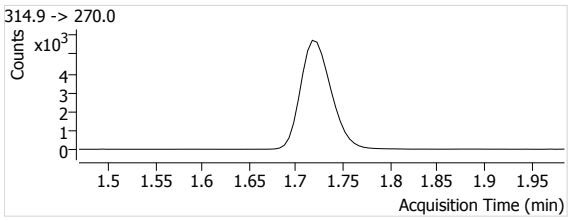




13C2-PFHxA





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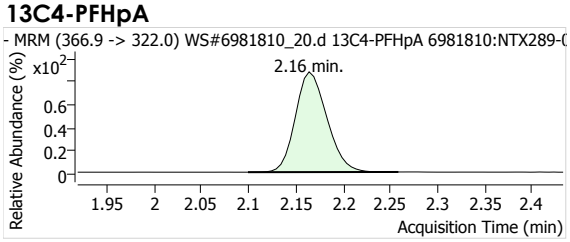

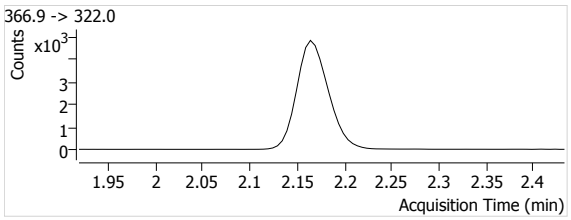

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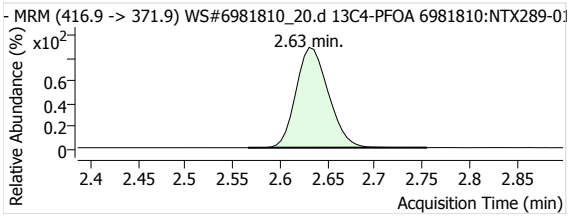

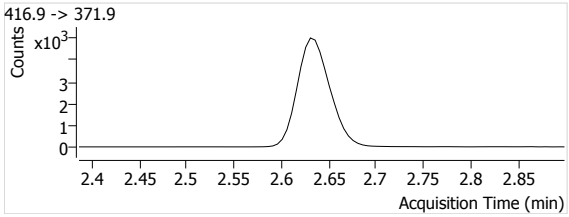

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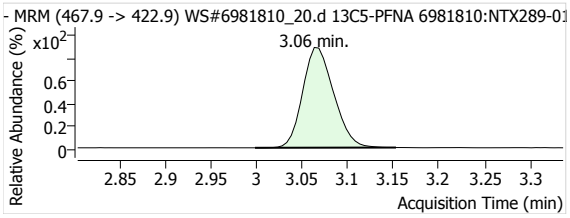

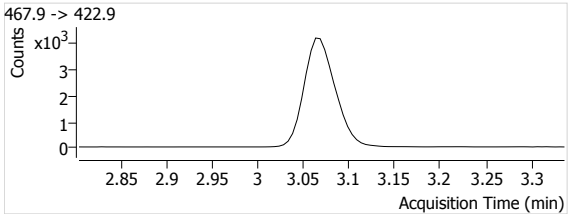

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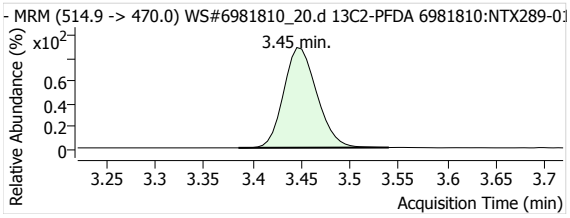

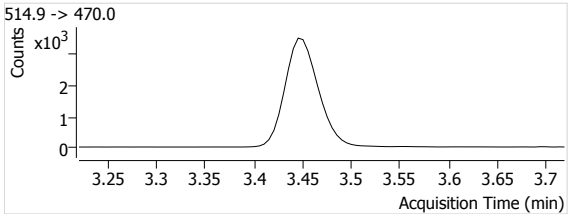

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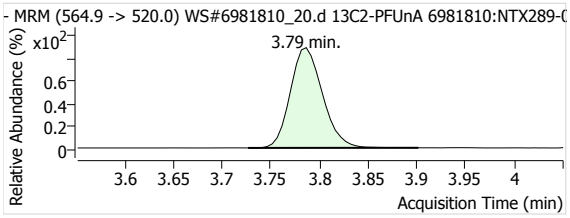

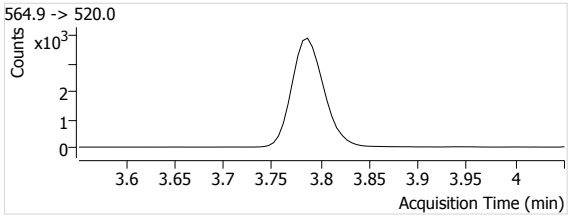

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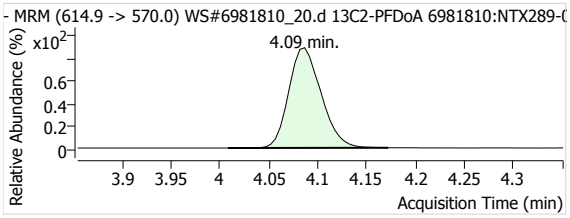

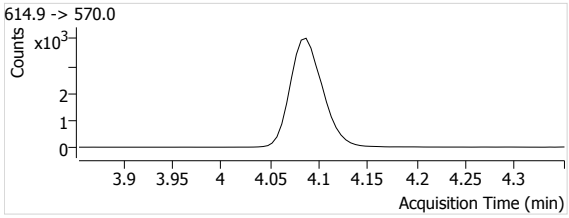

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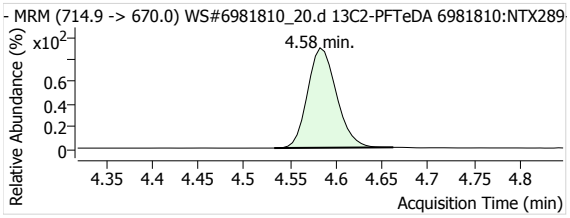

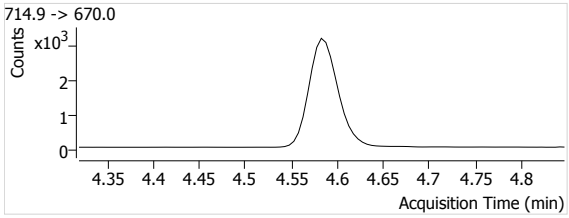

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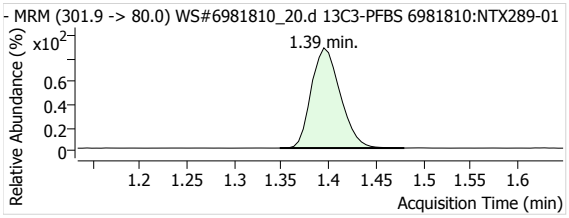

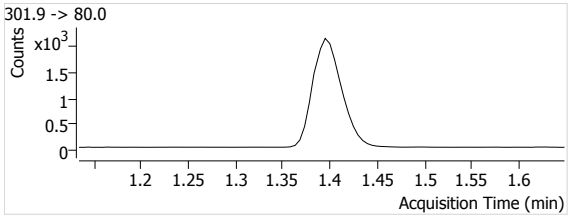

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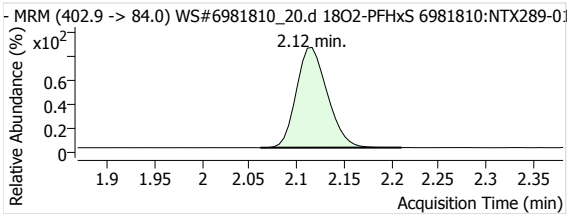

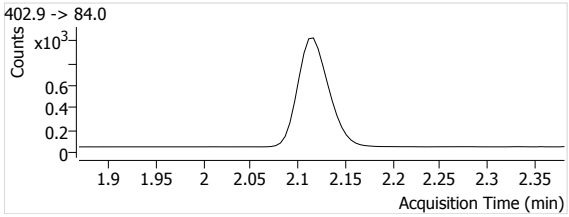

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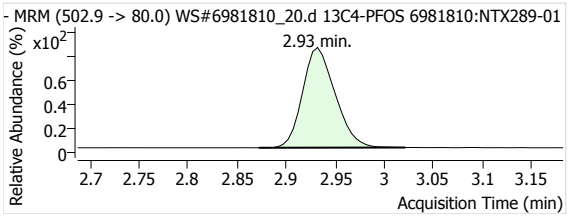

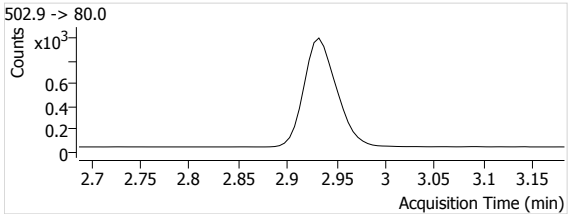

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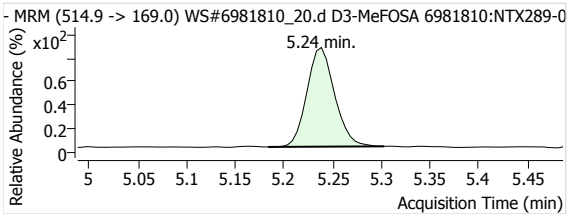

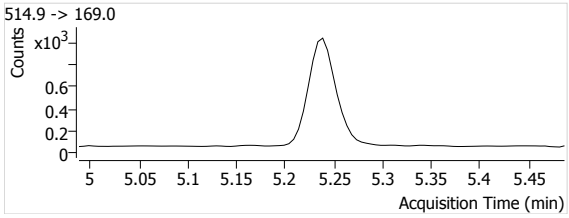

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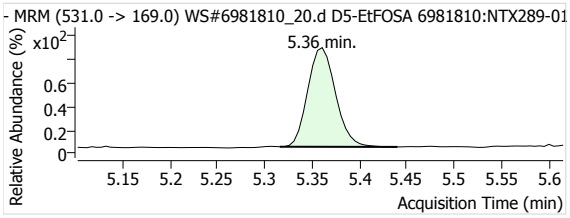
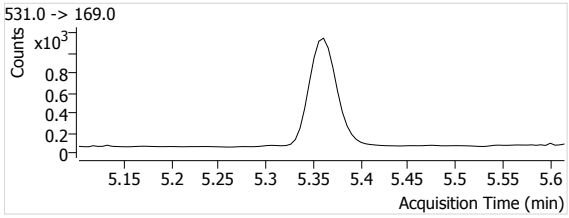




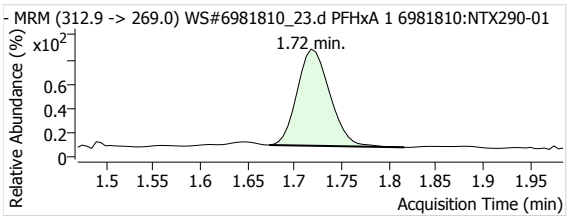
Quantitative Analysis Report

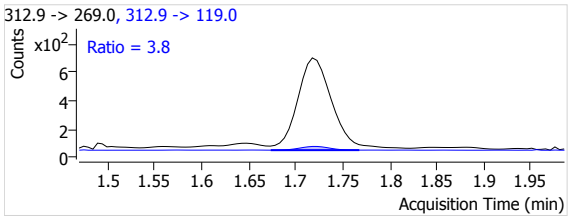
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX290-01	**Data File**	WS#6981810_23.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B9
Acq. Date-Time	2020/10/05 9:55:33 AM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

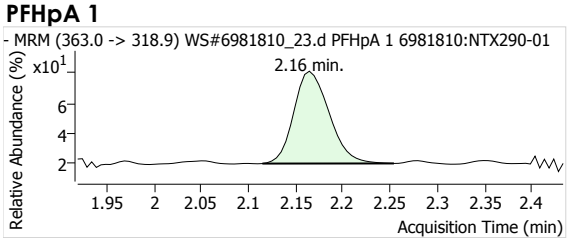
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0130	--	1514	1.72	19	0.1122	57	1.72	8	3.8
PFHpA 1	µg/L	--	0.0025	--	523	2.16	8	0.0455	78	2.17	10	14.9
PFOA 1	µg/L	--	0.0349	--	2992	2.63	35	0.2421	766	2.63	59	25.6
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	0.0000	--	155	3.45	3	0.0180	25	3.45	14	16.1
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0002	--	161	4.35	3	0.0243	16	4.36	2	9.9
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0063	--	258	1.40	9	0.0586	100	1.40	9	38.8
PFHxS 1	µg/L	--	0.0337	--	706	2.07	61	0.3233	326	2.07	35	46.2
PFOS 1	µg/L	--	0.0669	--	1253	2.89	80	0.5380	560	2.89	38	44.7
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	108.5491	--	13497	1.72	891		--	--	--	--
13C4-PFHpA	µg/L	--	110.7194	--	11496	2.16	1100		--	--	--	--
13C4-PFOA	µg/L	--	109.5665	--	12358	2.63	992		--	--	--	--
13C5-PFNA	µg/L	--	111.0207	--	9822	3.07	718		--	--	--	--
13C2-PFDA	µg/L	--	110.2015	--	8588	3.45	560		--	--	--	--
13C2-PFUnA	µg/L	--	104.4486	--	8875	3.79	415		--	--	--	--
13C2-PFDoA	µg/L	--	96.7387	--	8780	4.09	923		--	--	--	--
13C2-PFTeDA	µg/L	--	92.2916	--	6621	4.58	765		--	--	--	--
13C3-PFBS	µg/L	--	103.2841	--	4403	1.39	390		--	--	--	--
18O2-PFHxS	µg/L	--	106.1224	--	2184	2.12	734		--	--	--	--
13C4-PFOS	µg/L	--	110.4315	--	2329	2.93	374		--	--	--	--
D3-MeFOSA	µg/L	--	64.9173	--	1806	5.24	68		--	--	--	--
D5-EtFOSA	µg/L	--	63.4506	--	2111	5.36	39		--	--	--	--

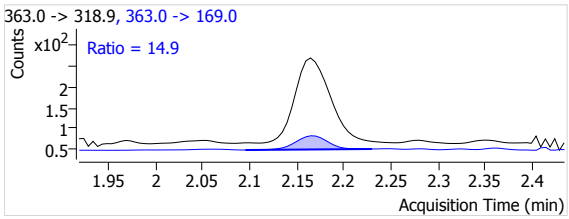
PFHxA 1



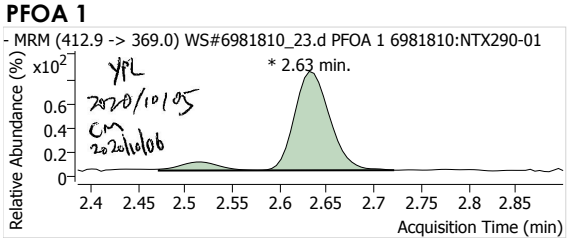


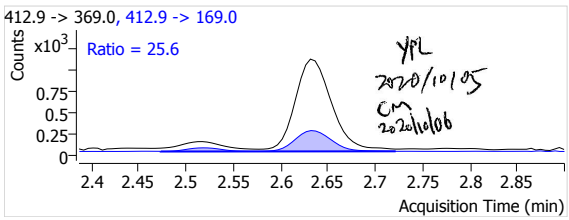
PFHpA 1





PFOA 1





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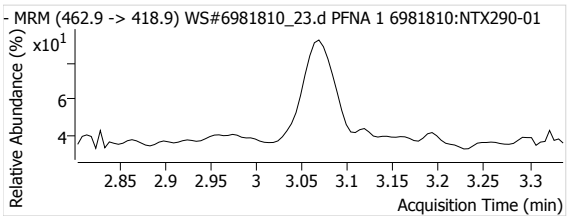

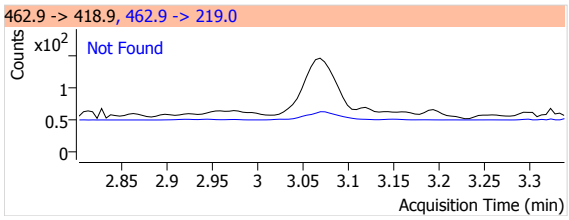

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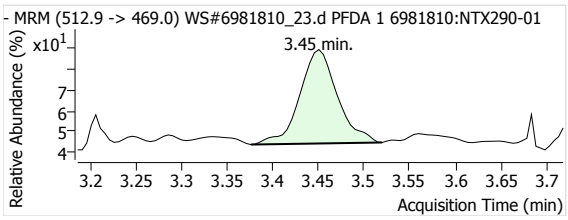

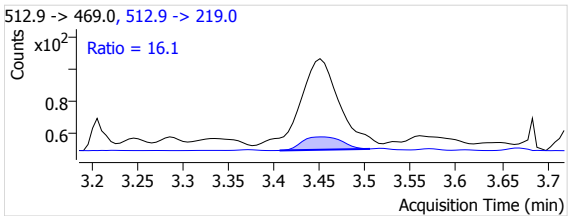

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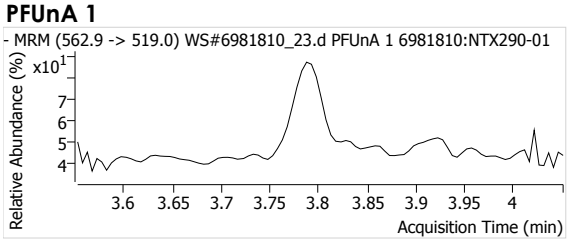

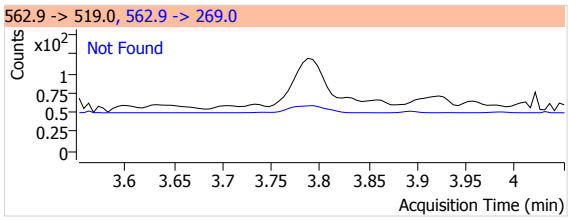

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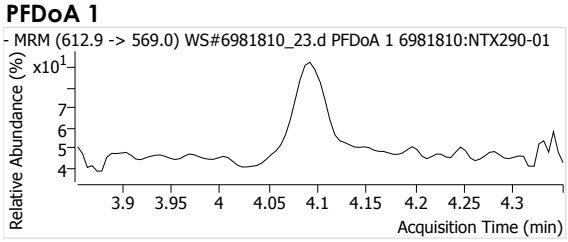

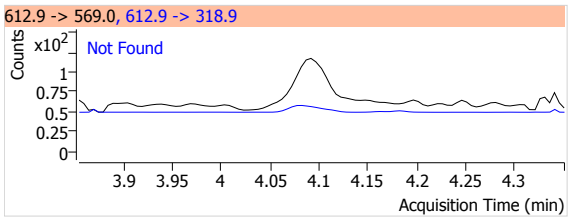

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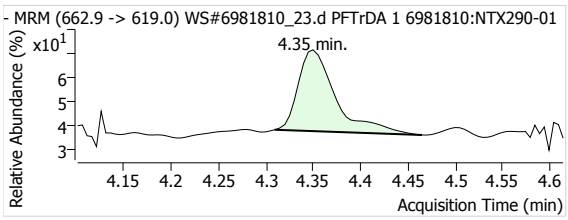

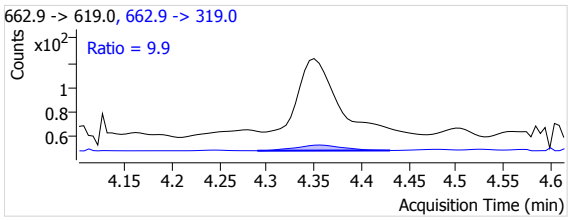

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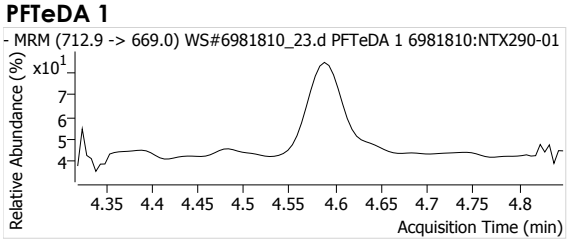

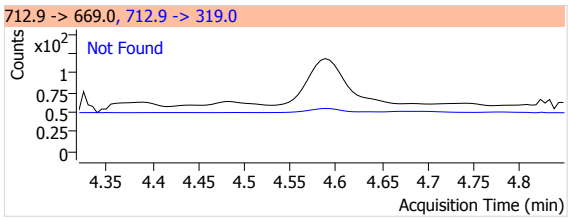

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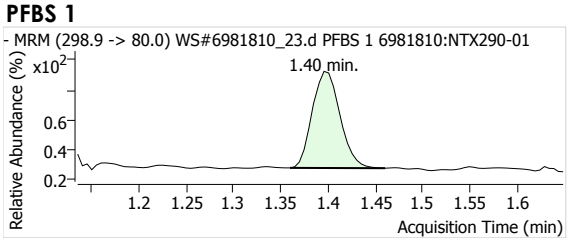

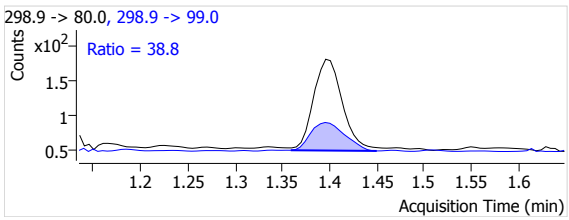

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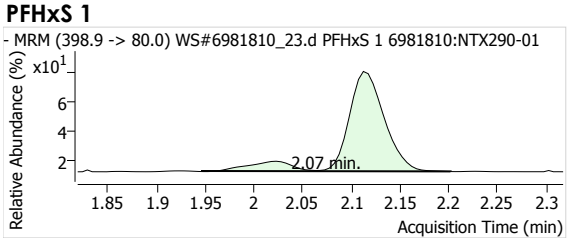

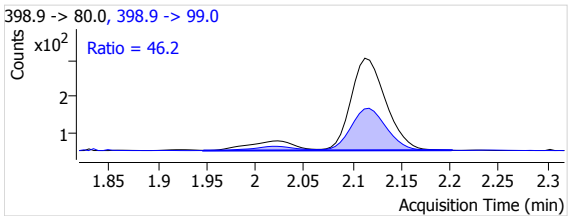

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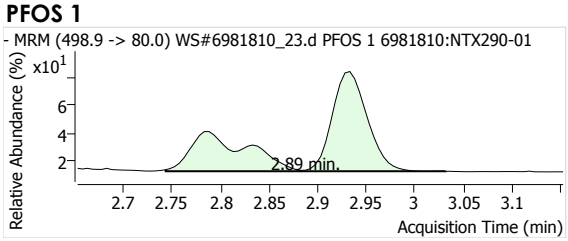

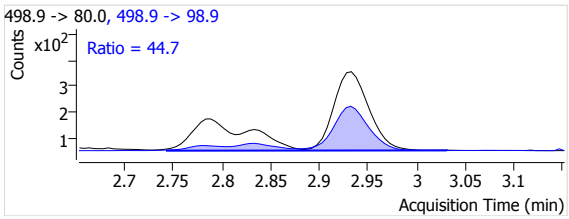

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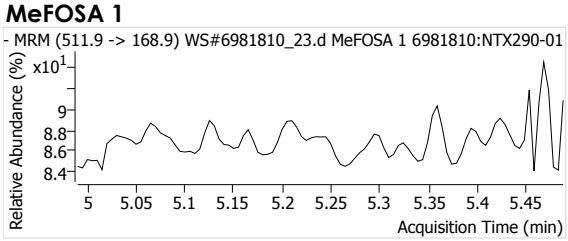

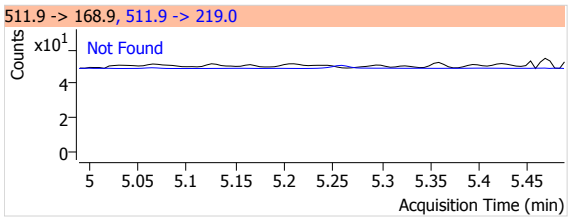

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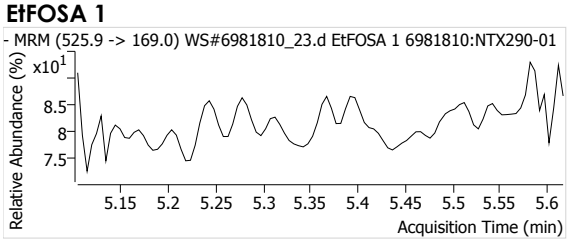

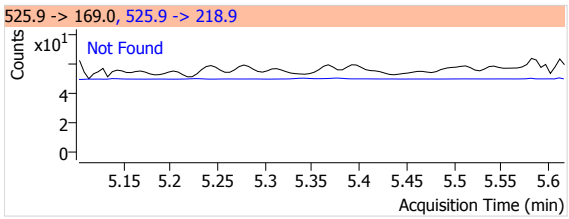

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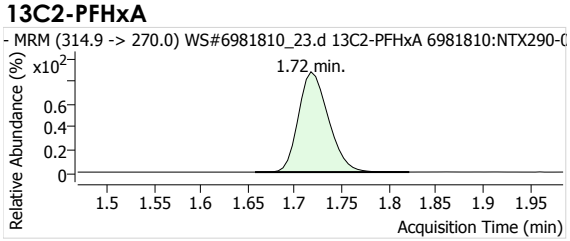

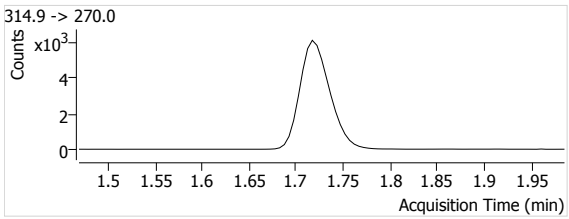

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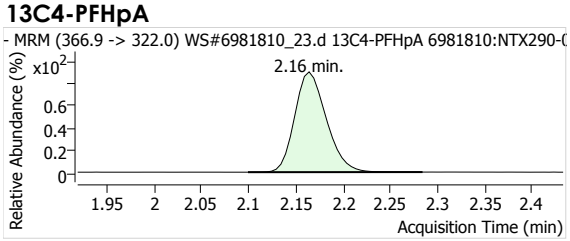

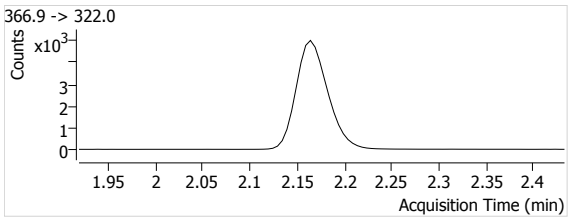

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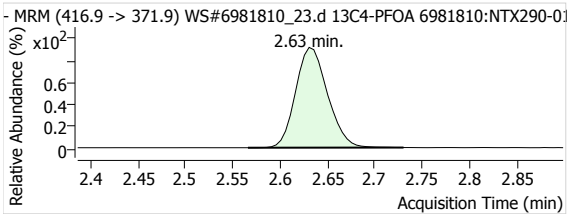

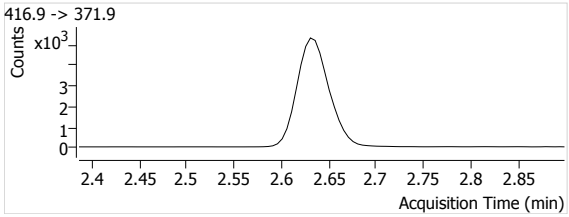

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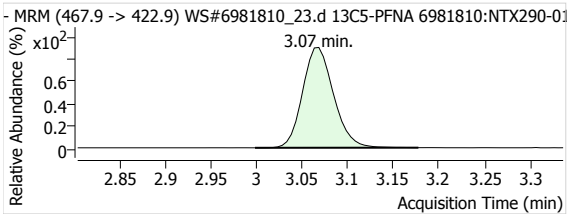

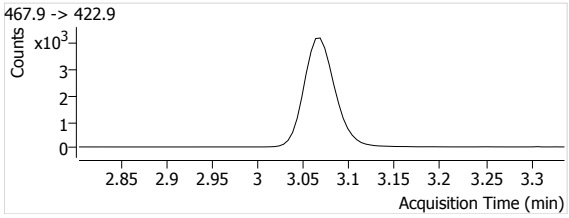

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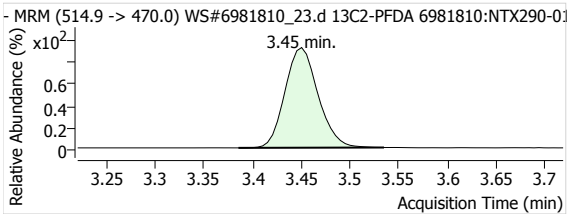

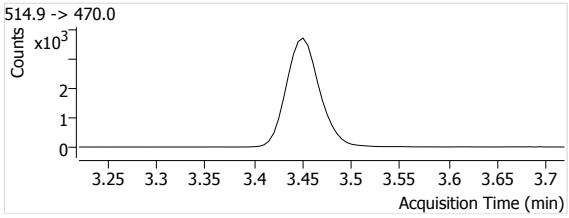

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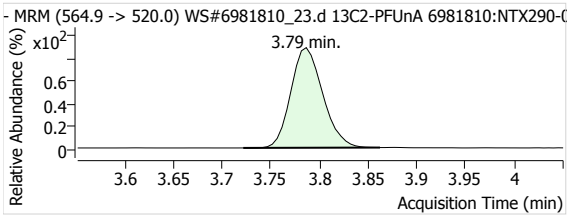

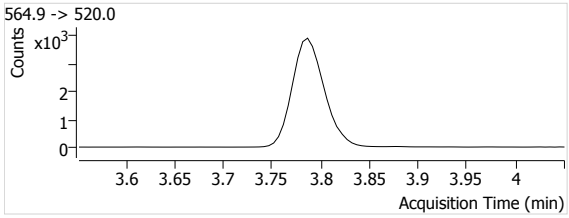

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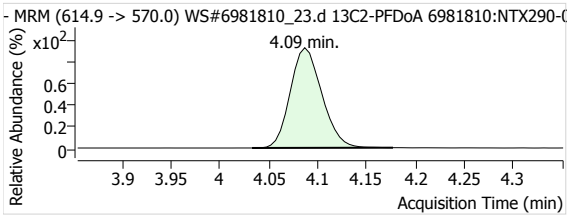

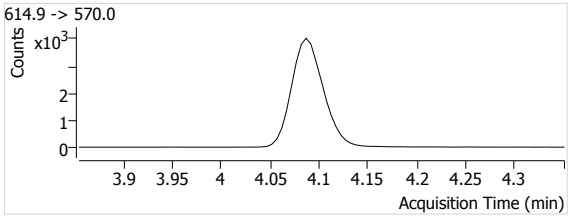

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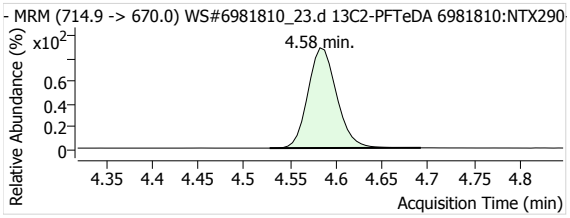

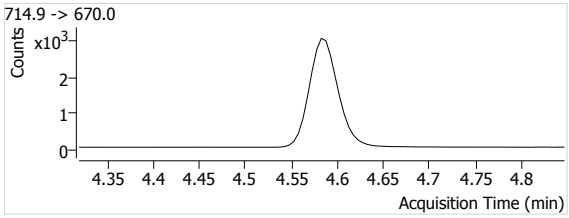

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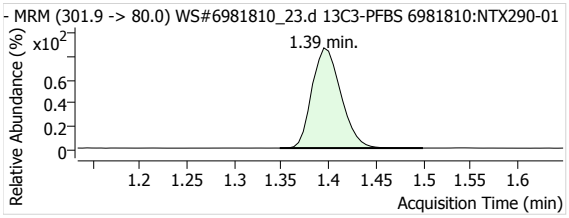

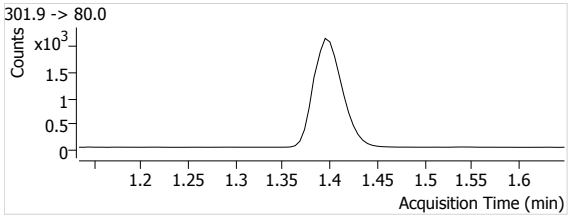

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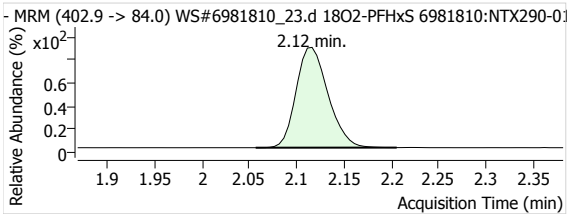

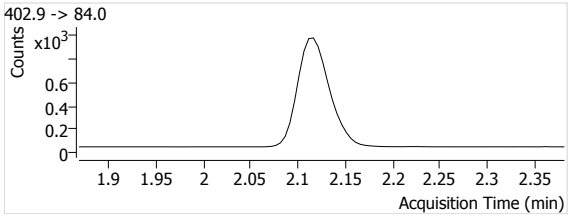

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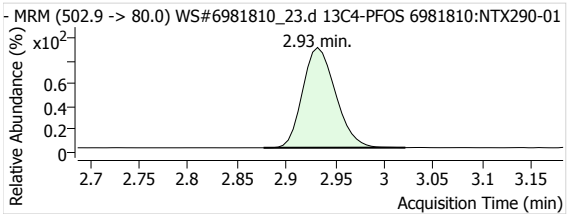

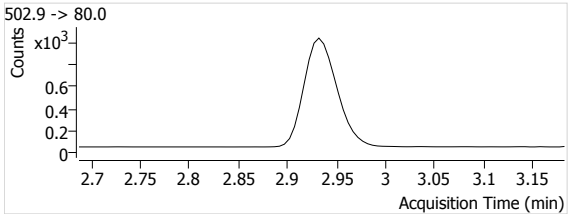

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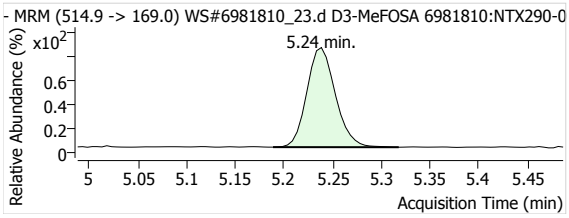

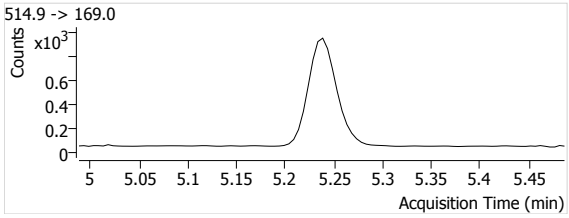

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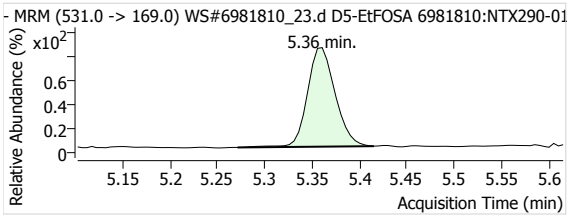
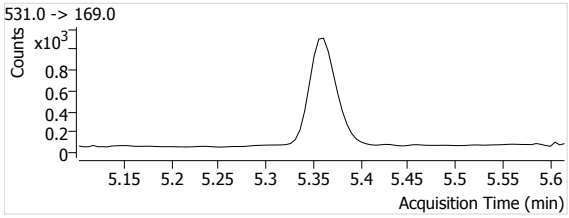




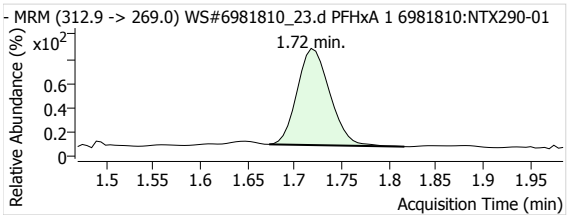
Quantitative Analysis Report

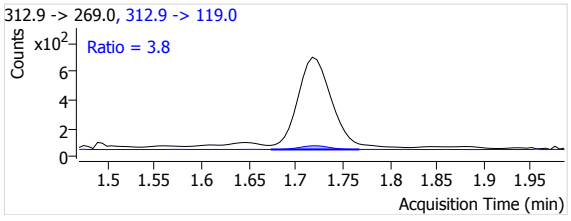
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX290-01	**Data File**	WS#6981810_23.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B9
Acq. Date-Time	2020/10/05 9:55:33 AM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0130	--	1514	1.72	19	0.1122	57	1.72	8	3.8
PFHpA 1	µg/L	--	0.0025	--	523	2.16	8	0.0455	78	2.17	10	14.9
PFOA 1	µg/L	--	0.0317	--	2724	2.63	35	0.2204	651	2.63	59	23.9
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	0.0000	--	155	3.45	3	0.0180	25	3.45	14	16.1
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0002	--	161	4.35	3	0.0243	16	4.36	2	9.9
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0063	--	258	1.40	9	0.0586	100	1.40	9	38.8
PFHxS 1	µg/L	--	0.0337	--	706	2.07	61	0.3233	326	2.07	35	46.2
PFOS 1	µg/L	--	0.0669	--	1253	2.89	80	0.5380	560	2.89	38	44.7
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	108.5491	--	13497	1.72	891		--	--	--	--
13C4-PFHpA	µg/L	--	110.7194	--	11496	2.16	1100		--	--	--	--
13C4-PFOA	µg/L	--	109.5665	--	12358	2.63	992		--	--	--	--
13C5-PFNA	µg/L	--	111.0207	--	9822	3.07	718		--	--	--	--
13C2-PFDA	µg/L	--	110.2015	--	8588	3.45	560		--	--	--	--
13C2-PFUnA	µg/L	--	104.4486	--	8875	3.79	415		--	--	--	--
13C2-PFDoA	µg/L	--	96.7387	--	8780	4.09	923		--	--	--	--
13C2-PFTeDA	µg/L	--	92.2916	--	6621	4.58	765		--	--	--	--
13C3-PFBS	µg/L	--	103.2841	--	4403	1.39	390		--	--	--	--
18O2-PFHxS	µg/L	--	106.1224	--	2184	2.12	734		--	--	--	--
13C4-PFOS	µg/L	--	110.4315	--	2329	2.93	374		--	--	--	--
D3-MeFOSA	µg/L	--	64.9173	--	1806	5.24	68		--	--	--	--
D5-EtFOSA	µg/L	--	63.4506	--	2111	5.36	39		--	--	--	--

PFHxA 1





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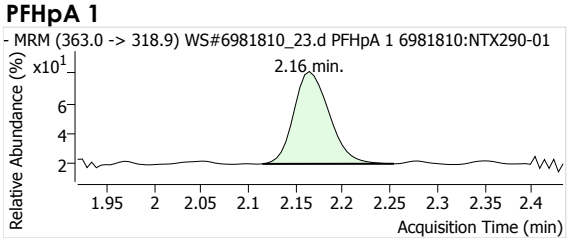
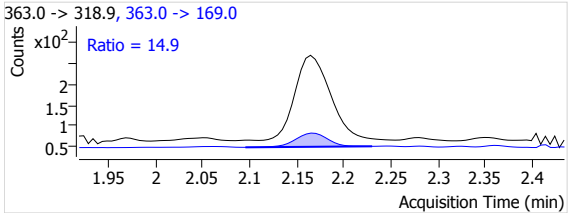
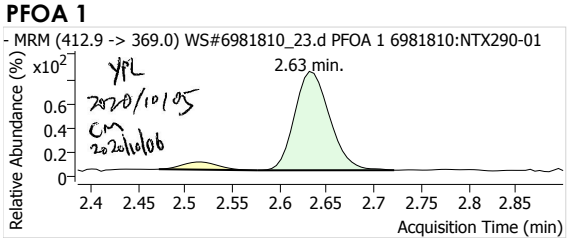
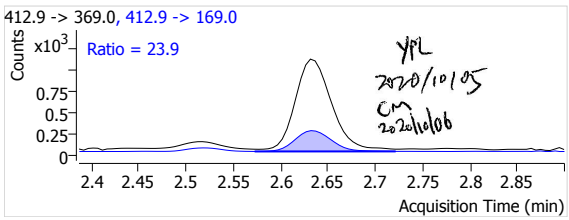




PFOA 1





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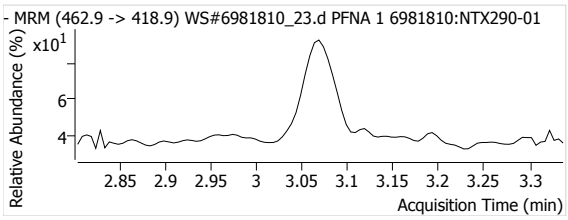

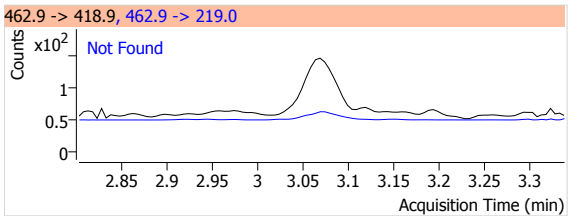

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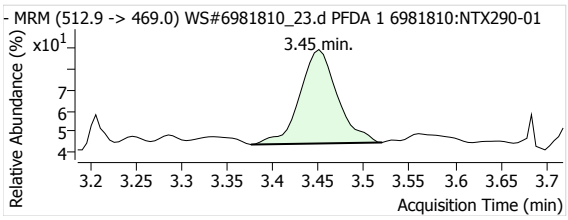

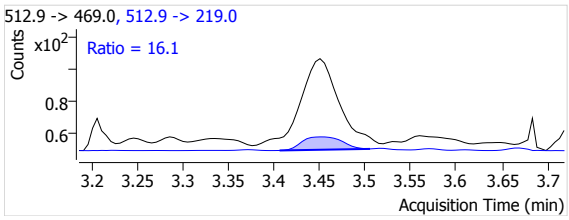

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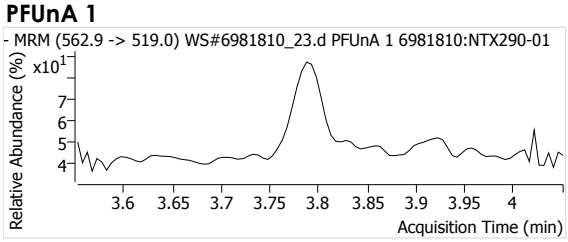

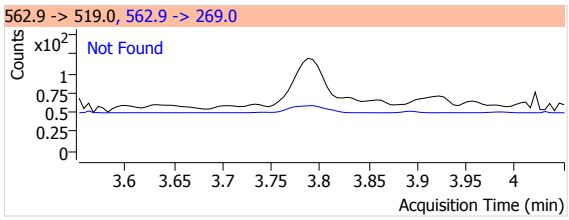

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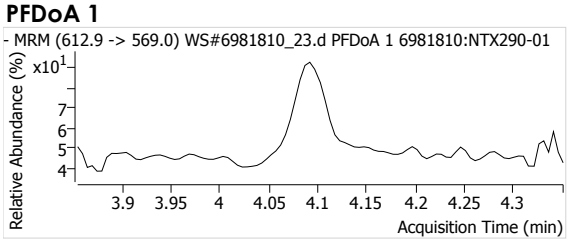

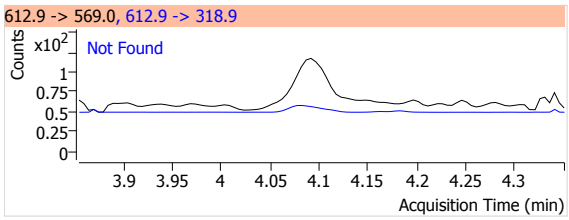

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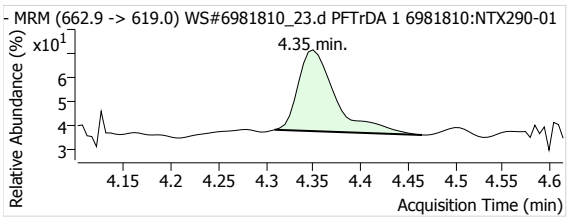

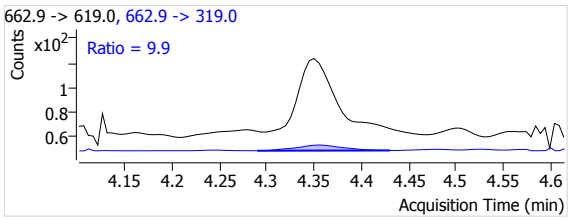

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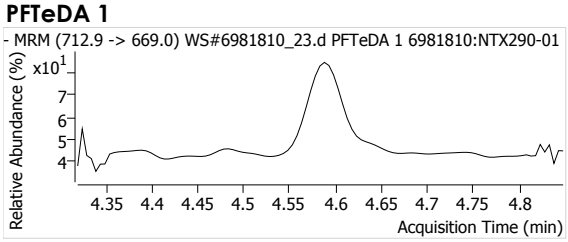

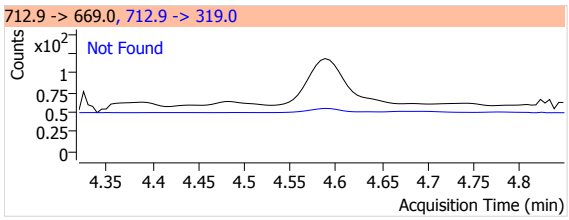

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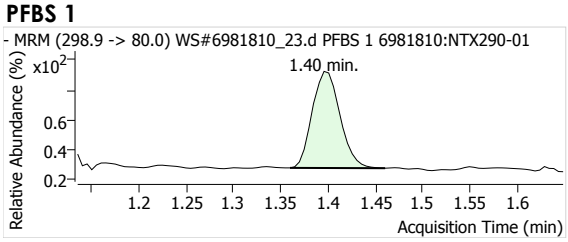

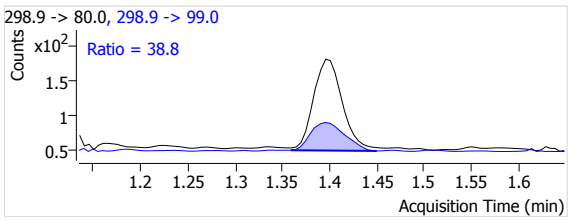

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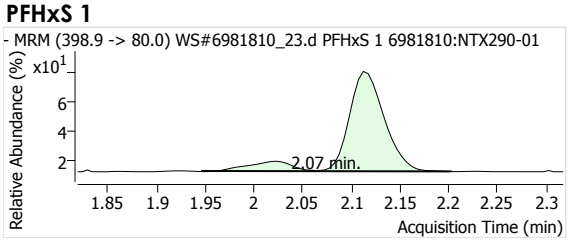
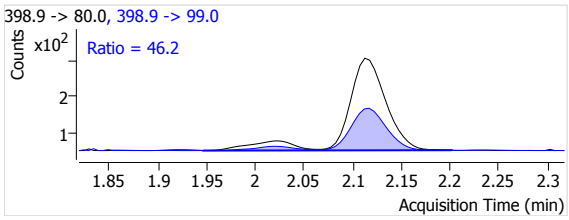
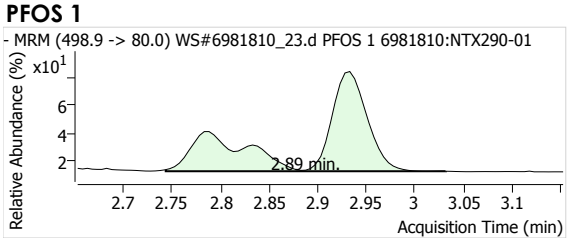
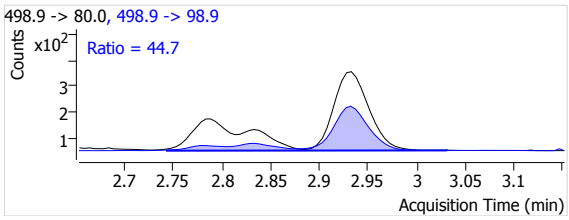




PFOS 1





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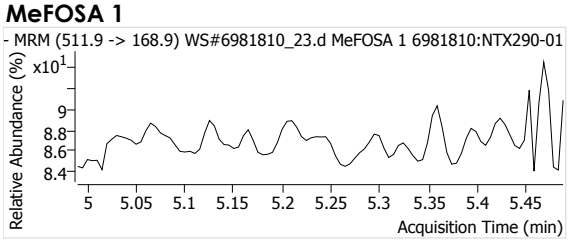

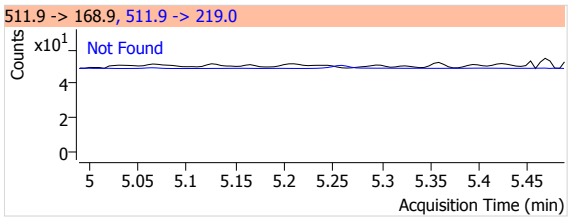

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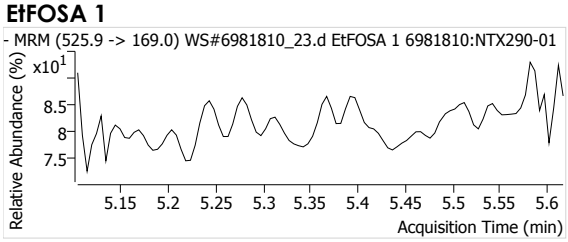

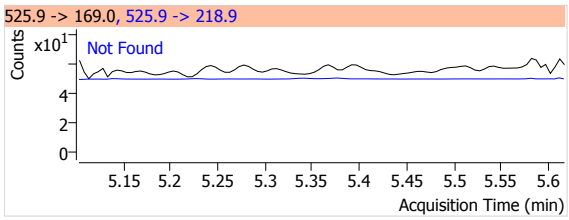

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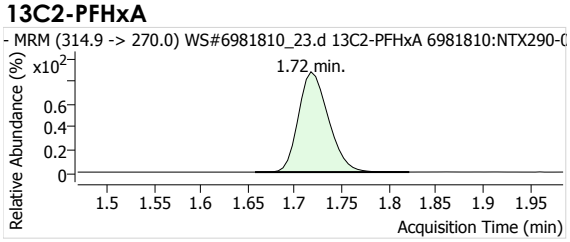

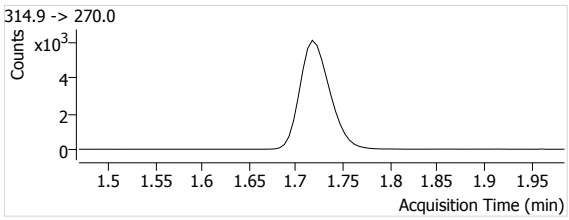

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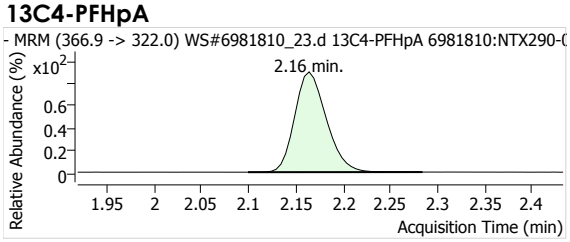

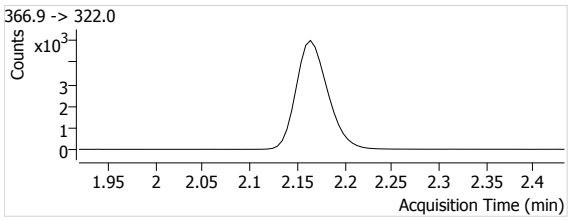

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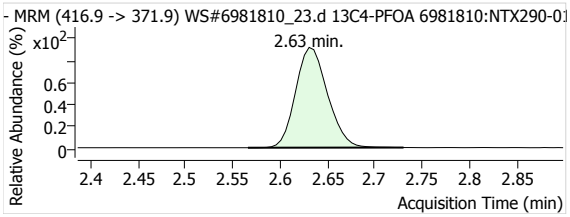

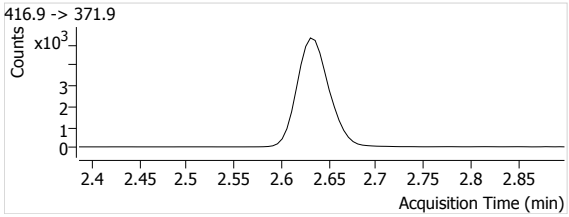

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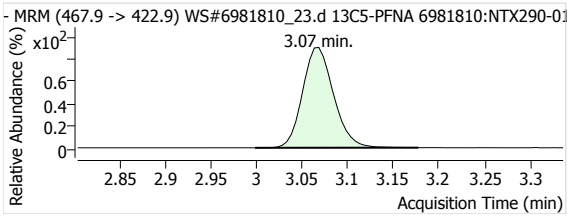

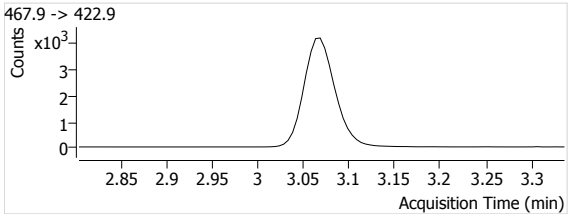

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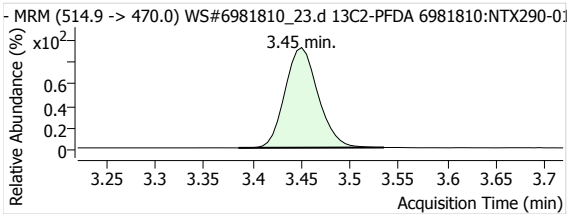

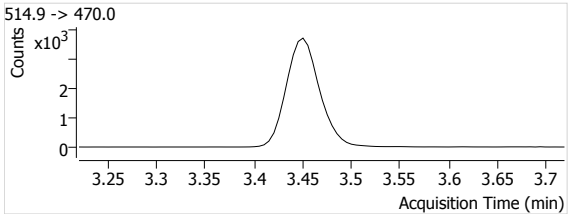

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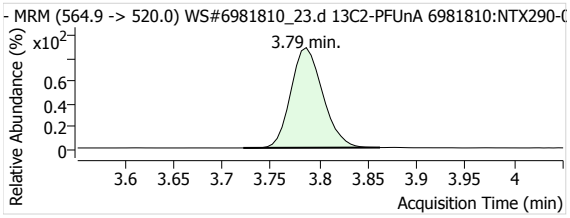

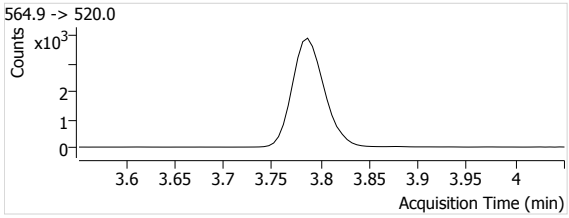

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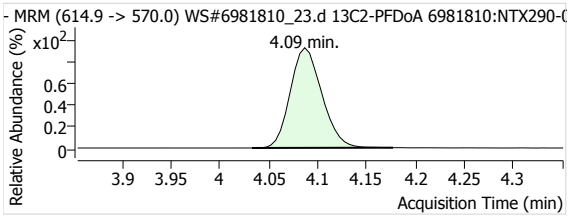

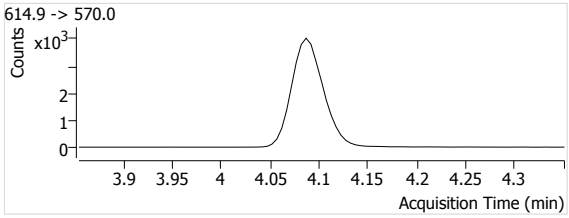

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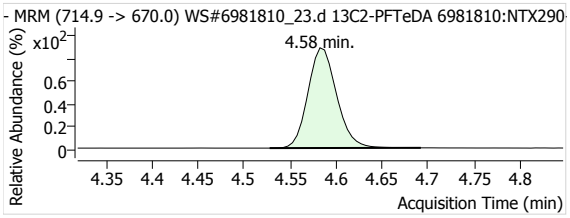

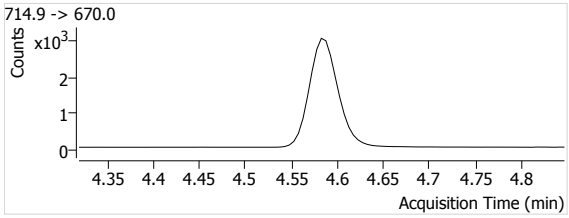

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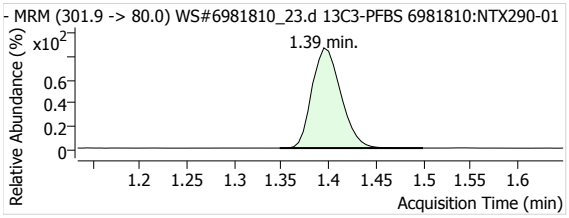

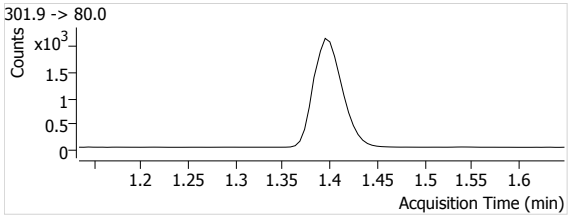

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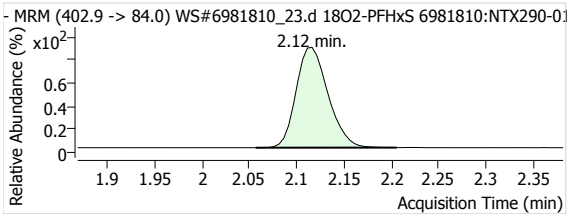

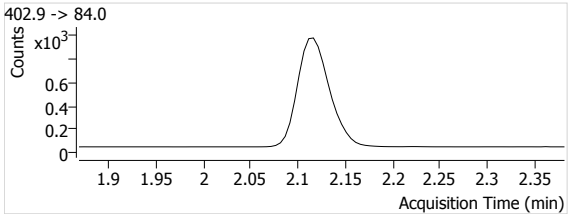

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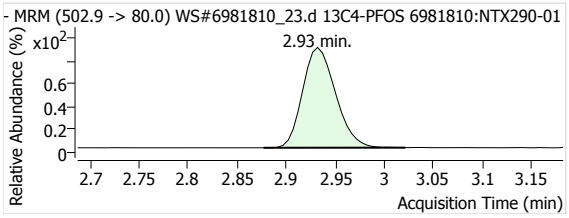
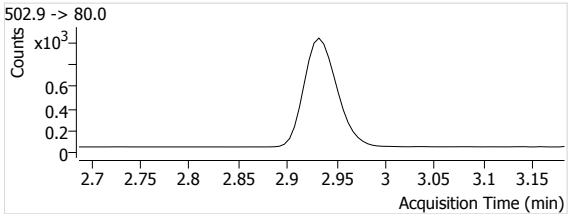
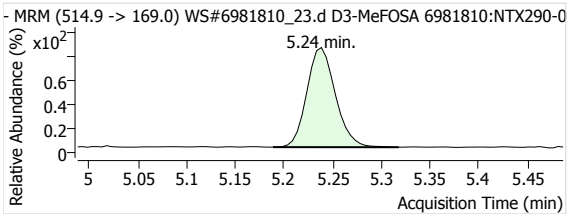
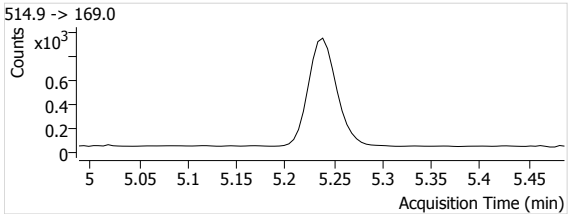




D3-MeFOSA





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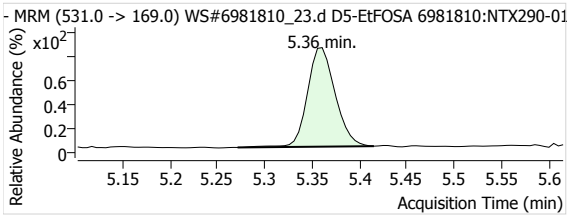
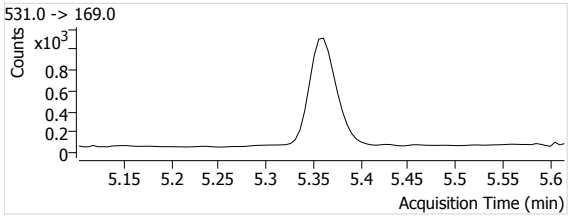




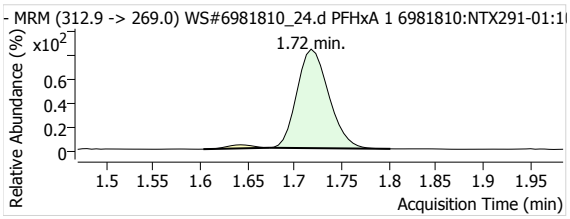
Quantitative Analysis Report

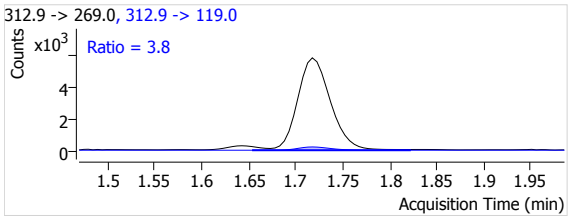
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX291-01:10x	**Data File**	WS#6981810_24.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C1
Acq. Date-Time	2020/10/05 10:02:33 AM	**Dil.**	0.2
Comment	Reported PFHxA, PFHxS, PFOS		
User Defined			

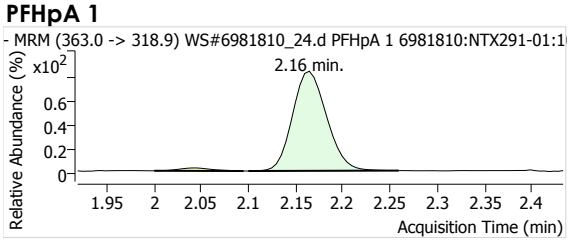
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.3438	--	13503	1.72	136	1.0081	507	1.72	161	3.8
PFHpA 1	µg/L	--	0.5491	--	6612	2.16	88	0.5714	1121	2.17	50	17.0
PFOA 1	µg/L	--	0.4193	--	3622	2.63	87	0.2888	895	2.63	231	24.7
PFNA 1	µg/L	--	0.0397	--	583	3.06	13	0.0588	78	3.06	38	13.4
PFDA 1	µg/L	--	0.0000	--	160	3.45	5	0.0181	20	3.44	15	12.5
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0011	--	167	4.35	4	0.0232	16	4.35	3	9.6
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1651	--	636	1.40	32	0.1424	266	1.40	23	41.8
PFHxS 1	µg/L	--	5.0411	--	10322	2.07	758	4.6223	4634	2.07	565	44.9
PFOS 1	µg/L	--	1.7452	--	3423	2.89	143	1.4010	1759	2.89	386	51.4
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	107.7208	--	13394	1.72	746		--	--	--	--
13C4-PFHpA	µg/L	--	111.4514	--	11572	2.16	561		--	--	--	--
13C4-PFOA	µg/L	--	111.2067	--	12543	2.63	795		--	--	--	--
13C5-PFNA	µg/L	--	112.0606	--	9914	3.06	747		--	--	--	--
13C2-PFDA	µg/L	--	113.6533	--	8857	3.45	478		--	--	--	--
13C2-PFUnA	µg/L	--	108.8737	--	9251	3.78	449		--	--	--	--
13C2-PFDoA	µg/L	--	101.8290	--	9242	4.08	762		--	--	--	--
13C2-PFTeDA	µg/L	--	100.4042	--	7203	4.58	944		--	--	--	--
13C3-PFBS	µg/L	--	104.7854	--	4467	1.39	268		--	--	--	--
18O2-PFHxS	µg/L	--	108.5034	--	2233	2.11	624		--	--	--	--
13C4-PFOS	µg/L	--	115.8369	--	2443	2.93	556		--	--	--	--
D3-MeFOSA	µg/L	--	36.1251	--	1005	5.24	29		--	--	--	--
D5-EtFOSA	µg/L	--	31.8004	--	1058	5.36	25		--	--	--	--

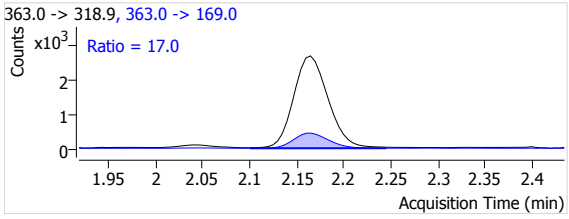
PFHxA 1



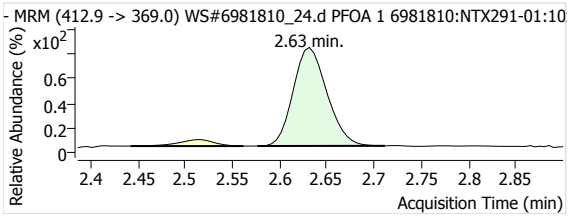


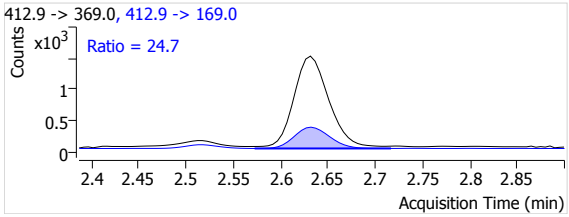
PFHpA 1





PFOA 1





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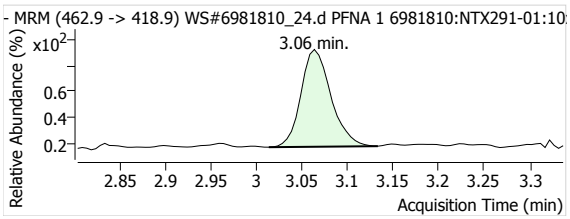
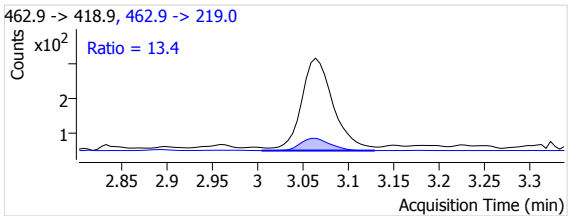
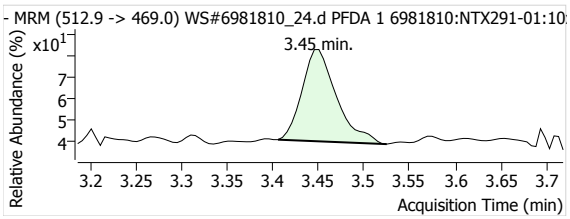
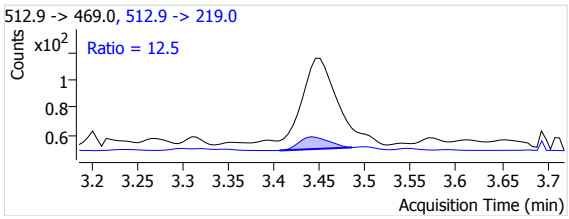




PFDA 1





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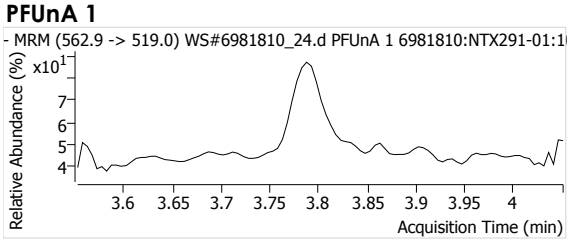

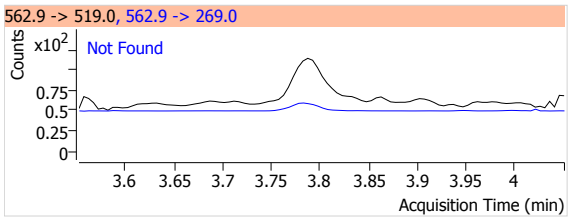

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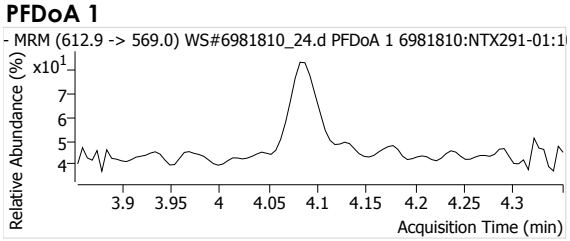

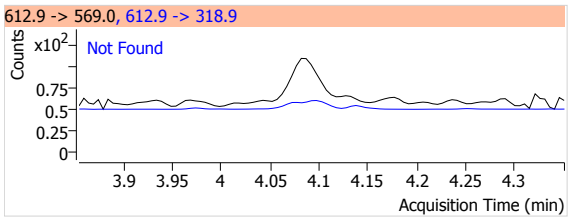

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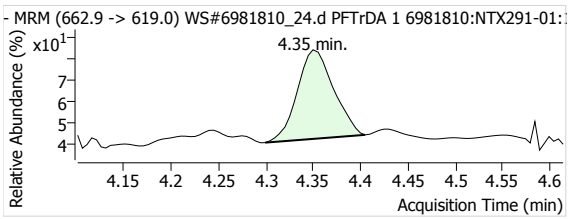

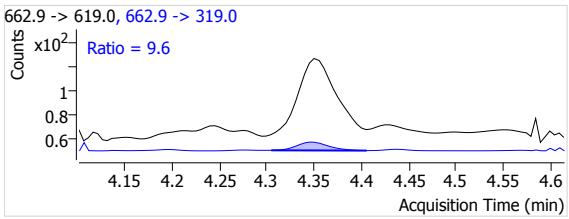

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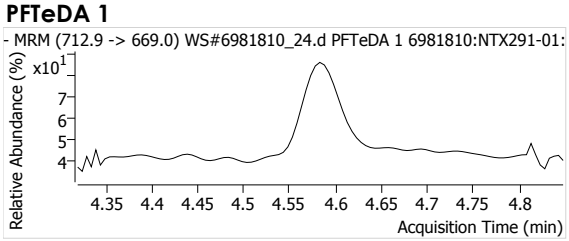

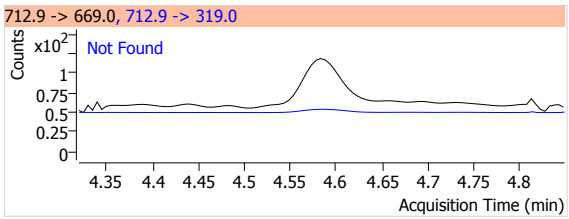

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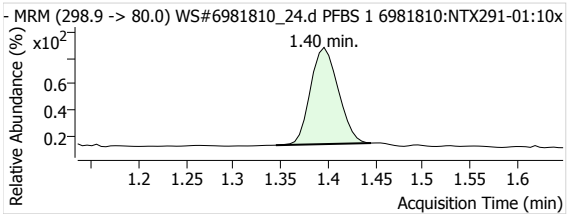

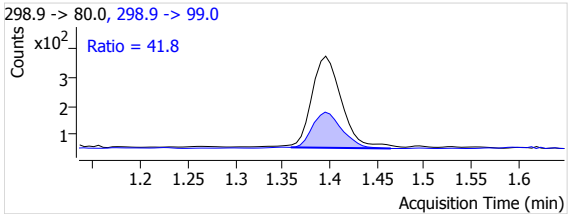

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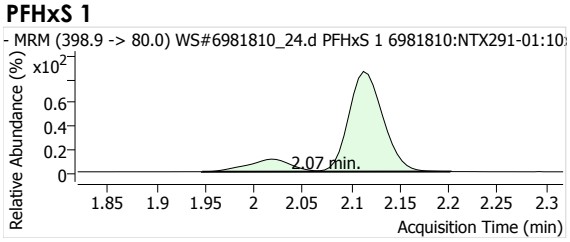

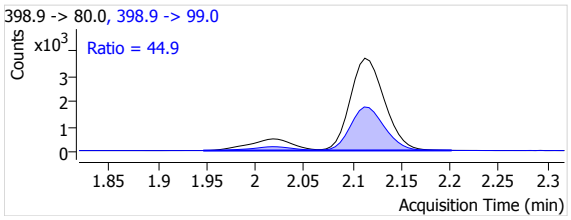

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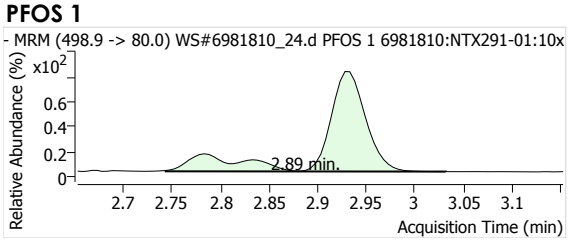

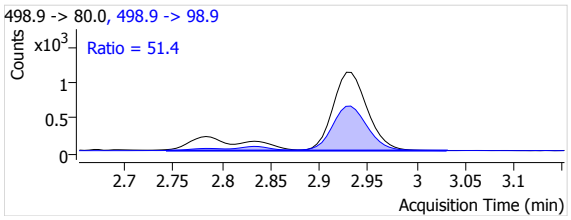

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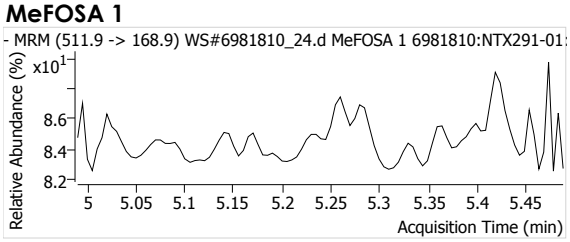

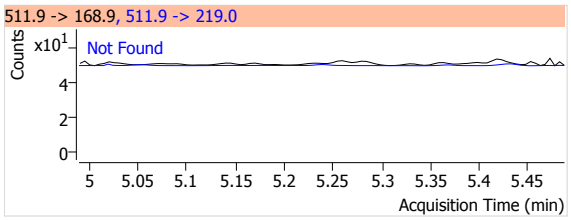

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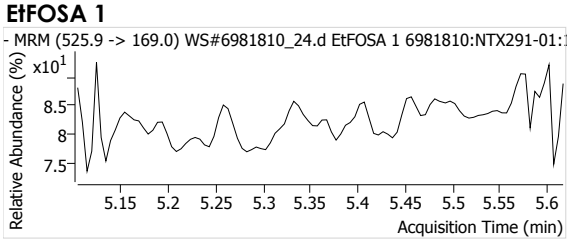

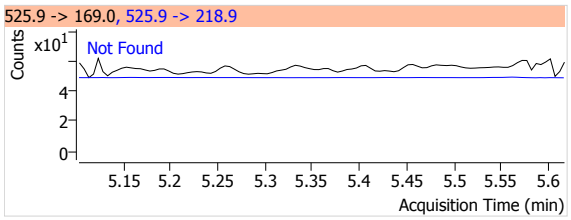

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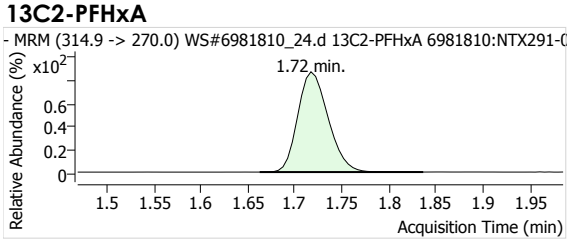

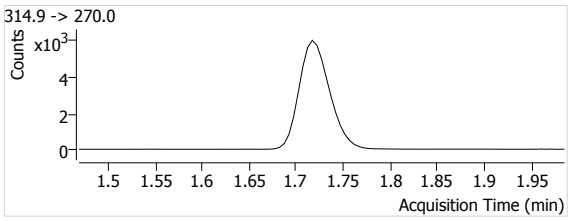

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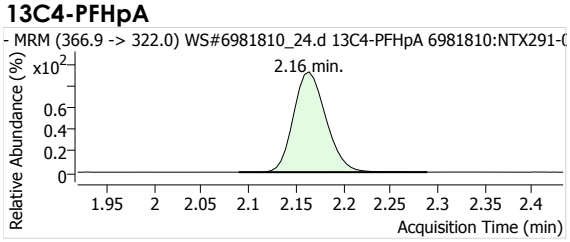

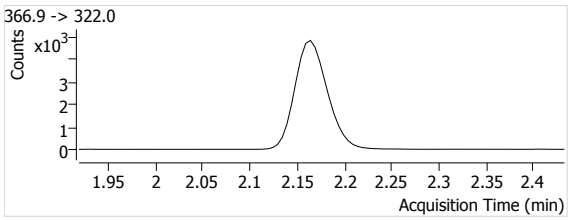

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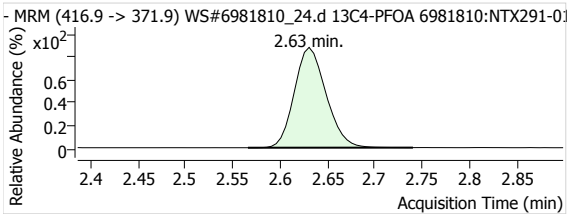

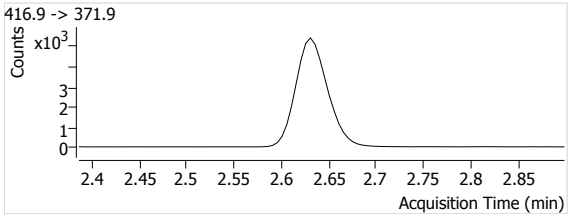

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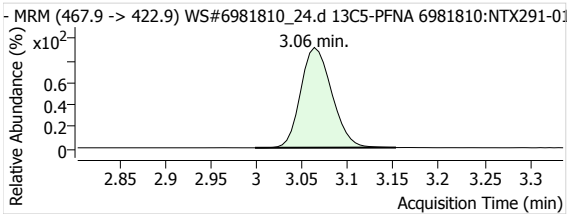

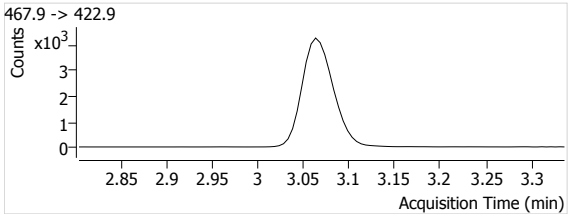

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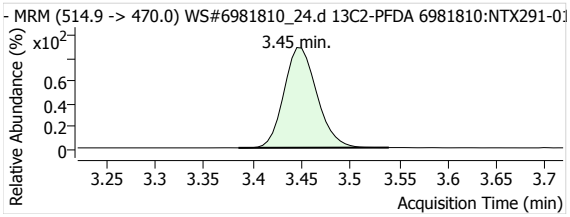

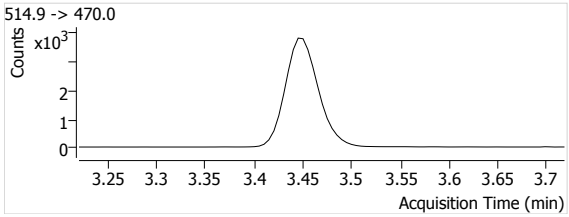

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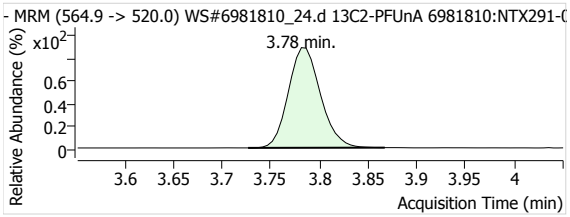

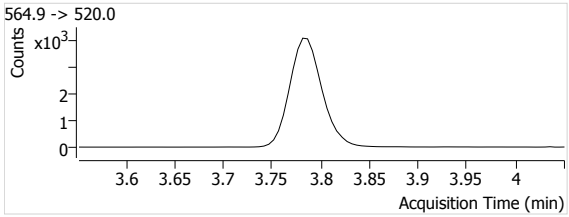

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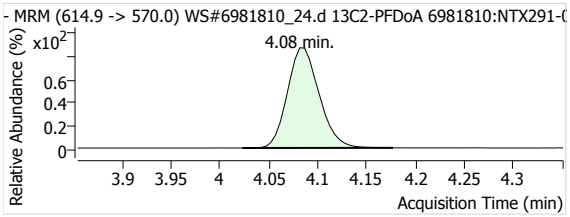

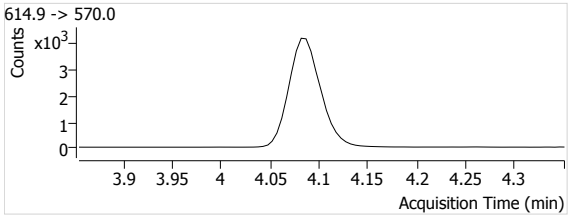

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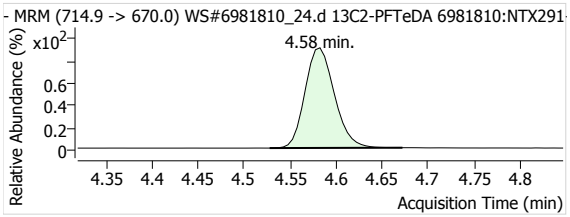

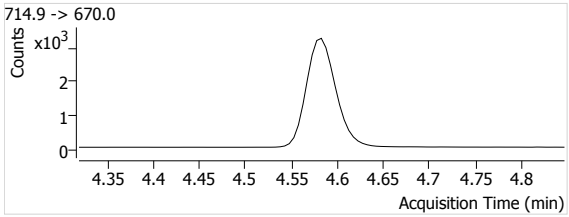

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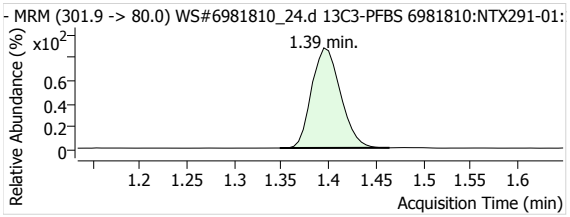

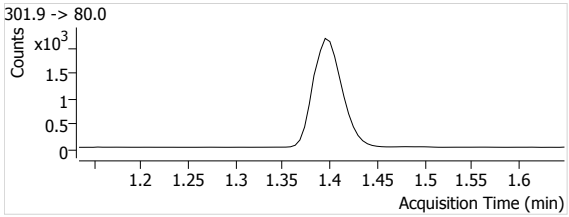

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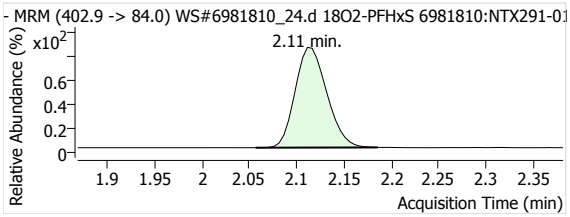

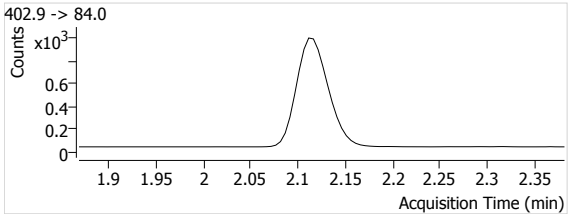

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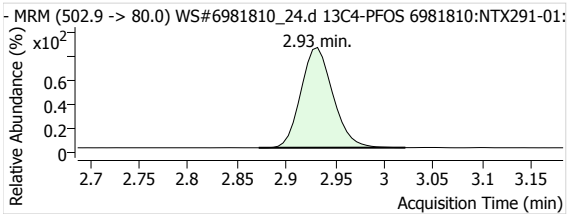

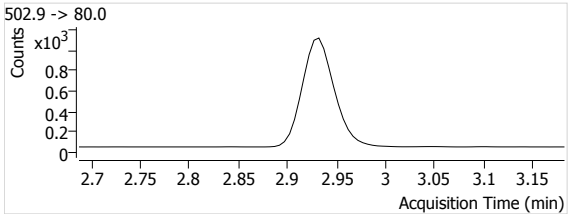

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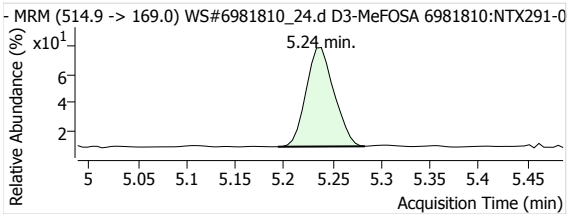

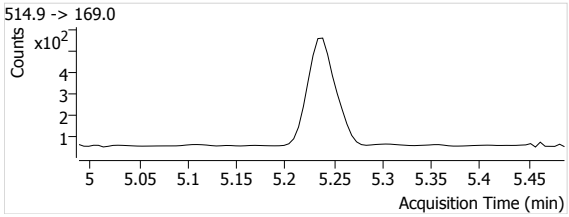

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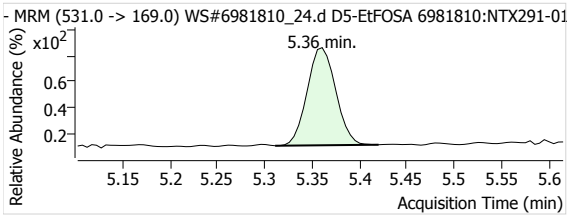
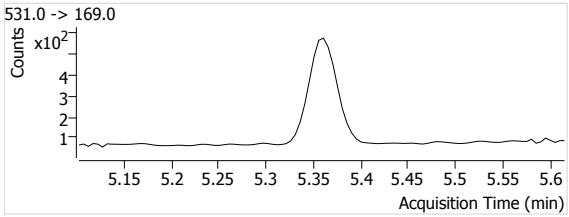




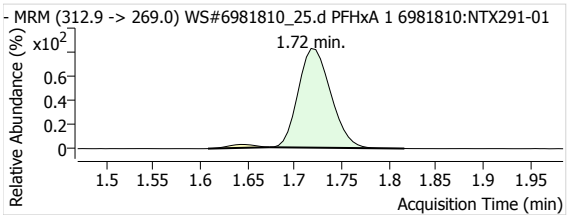
Quantitative Analysis Report

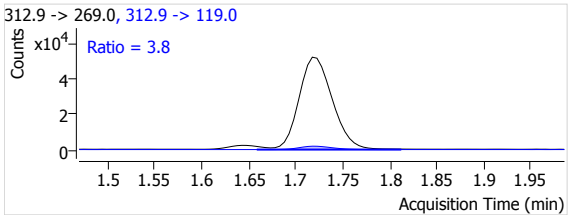
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX291-01	**Data File**	WS#6981810_25.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C2
Acq. Date-Time	2020/10/05 10:09:32 AM	**Dil.**	0.0
Comment	Reported all except PFHxA, PFHxS, PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.3260	--	124909	1.72	621	9.8060	4707	1.72	225	3.8
PFHpA 1	µg/L	--	0.5504	--	64301	2.16	1044	5.5408	10664	2.17	49	16.6
PFOA 1	µg/L	--	0.4466	--	36831	2.63	501	2.9931	9695	2.63	650	26.3
PFNA 1	µg/L	--	0.0517	--	4261	3.06	70	0.4276	687	3.06	29	16.1
PFDA 1	µg/L	--	0.0079	--	675	3.45	27	0.0786	133	3.45	30	19.7
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1640	--	5700	1.40	89	1.3571	2246	1.40	57	39.4
PFHxS 1	µg/L	--	5.0400	--	97173	2.07	1165	46.0753	43379	2.07	974	44.6
PFOS 1	µg/L	--	1.8447	--	32758	2.89	295	14.7958	15979	2.89	890	48.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	102.4449	--	12738	1.72	617		--	--	--	--
13C4-PFHpA	µg/L	--	111.7692	--	11605	2.16	1000		--	--	--	--
13C4-PFOA	µg/L	--	109.0966	--	12305	2.63	1097		--	--	--	--
13C5-PFNA	µg/L	--	112.6371	--	9965	3.06	1390		--	--	--	--
13C2-PFDA	µg/L	--	110.1758	--	8586	3.45	445		--	--	--	--
13C2-PFUnA	µg/L	--	106.8259	--	9077	3.79	729		--	--	--	--
13C2-PFDoA	µg/L	--	100.5399	--	9125	4.09	401		--	--	--	--
13C2-PFTeDA	µg/L	--	94.6613	--	6791	4.58	727		--	--	--	--
13C3-PFBS	µg/L	--	98.5222	--	4200	1.39	94		--	--	--	--
18O2-PFHxS	µg/L	--	102.4781	--	2109	2.12	270		--	--	--	--
13C4-PFOS	µg/L	--	104.9787	--	2214	2.93	501		--	--	--	--
D3-MeFOSA	µg/L	--	61.8979	--	1722	5.23	51		--	--	--	--
D5-EtFOSA	µg/L	--	54.6739	--	1819	5.36	35		--	--	--	--

PFHxA 1





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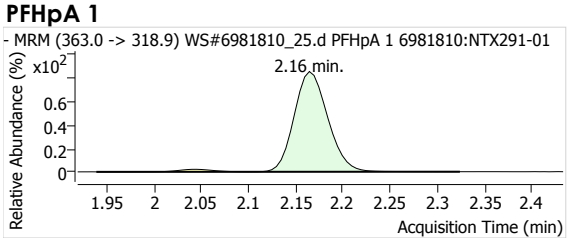

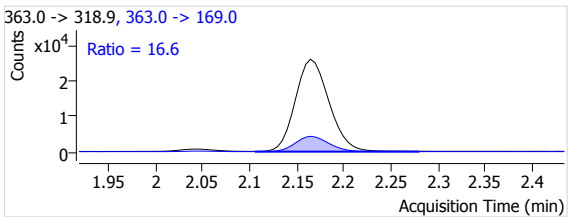

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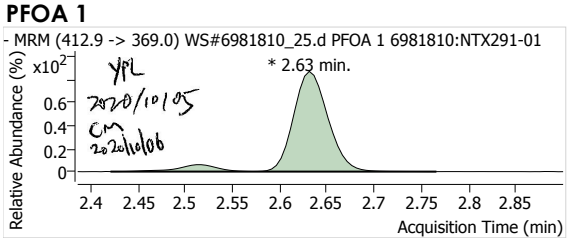

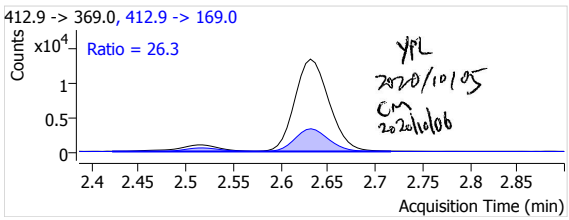

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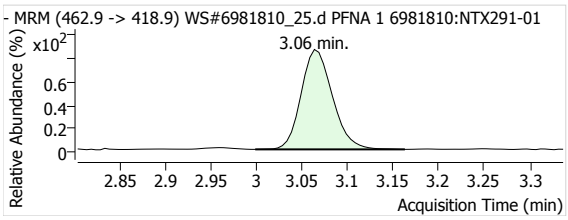

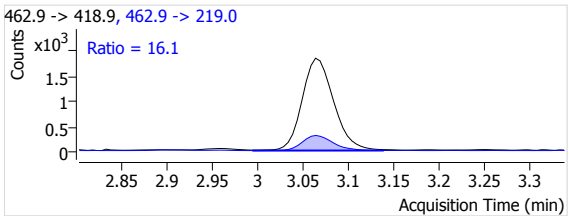

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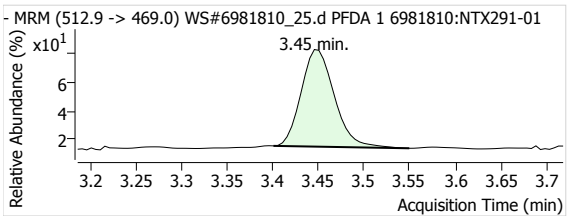

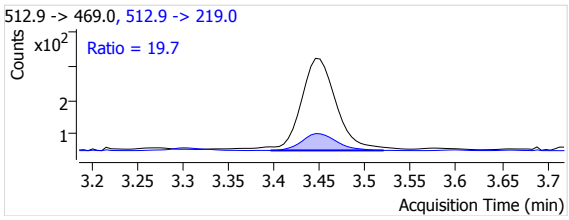

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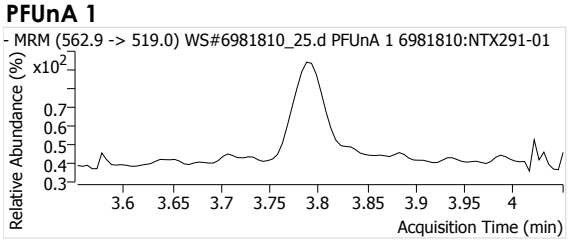

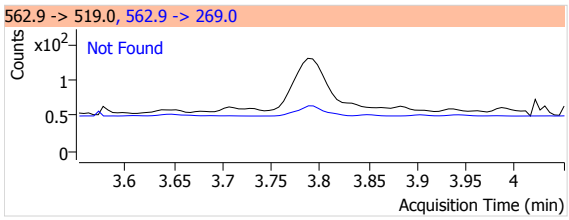

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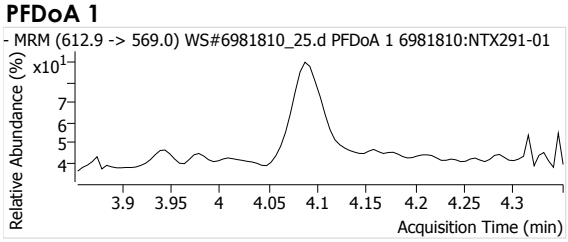

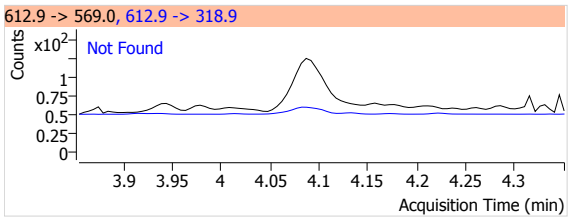

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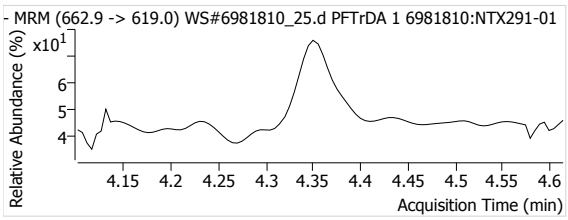

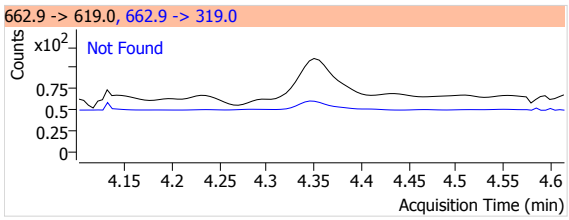

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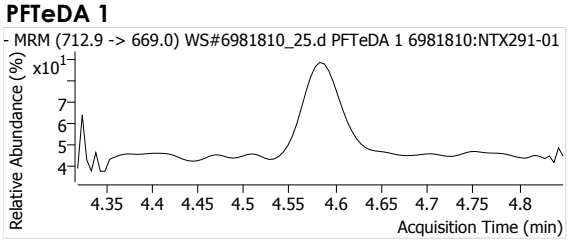

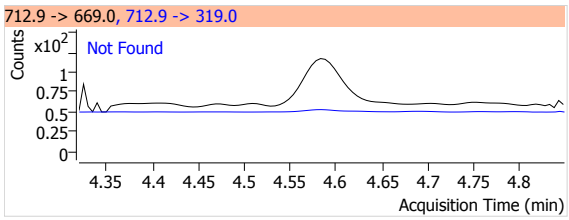

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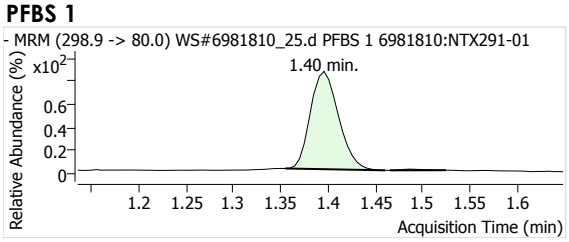

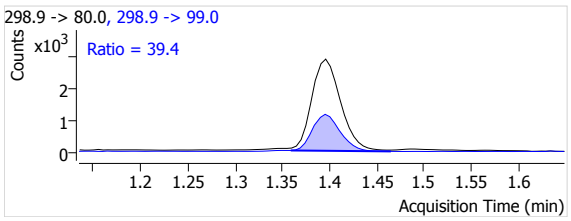

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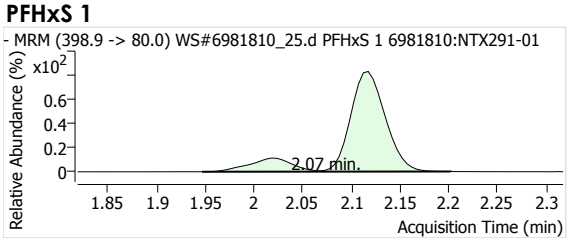

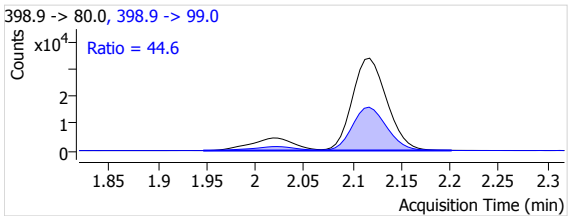

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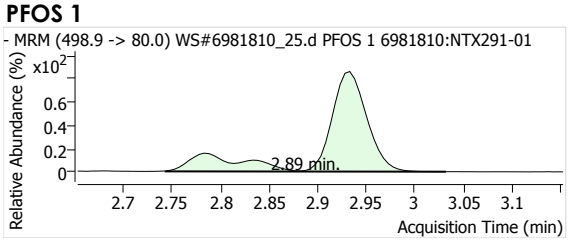

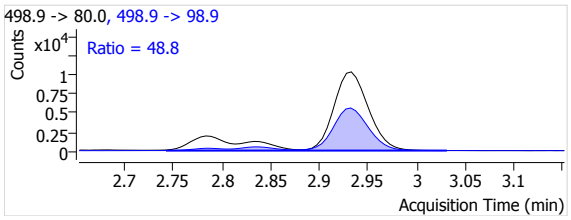

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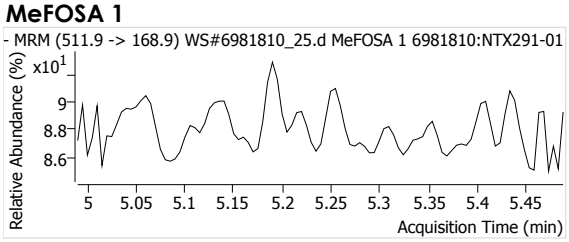

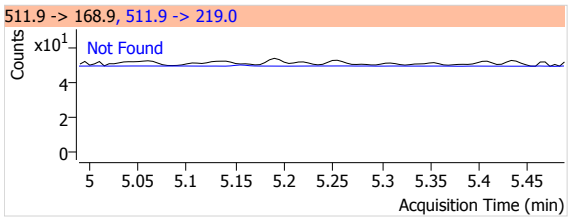

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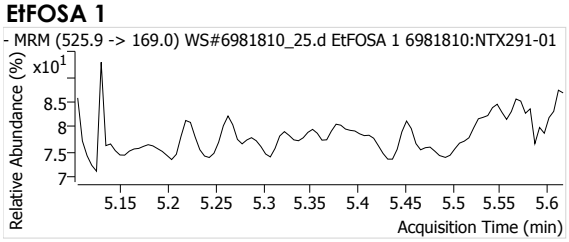

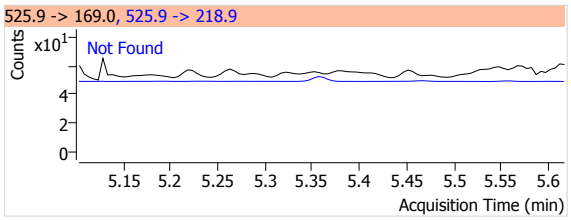

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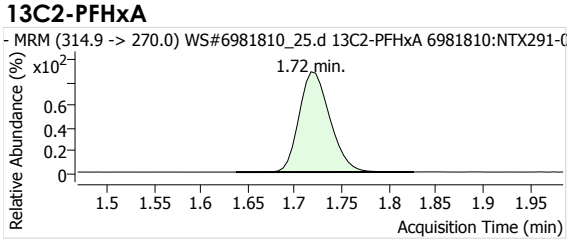

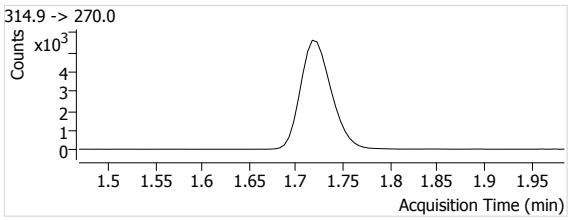

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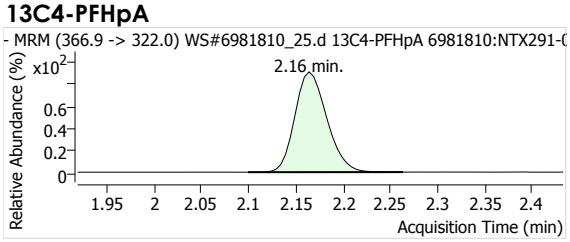

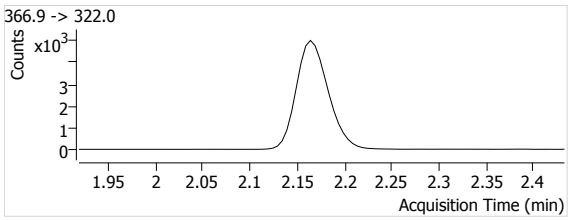

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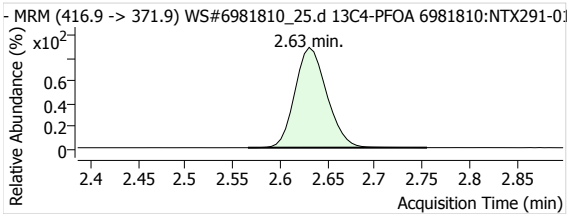

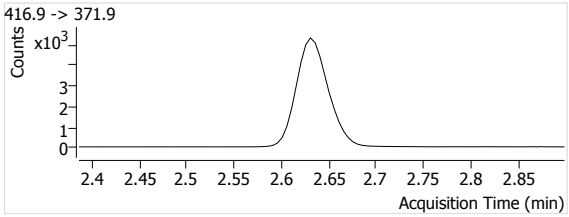

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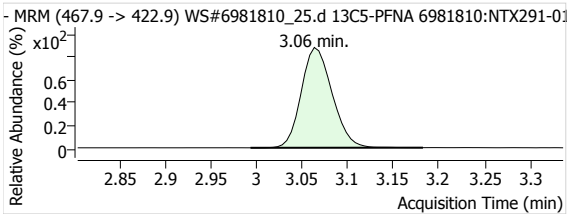

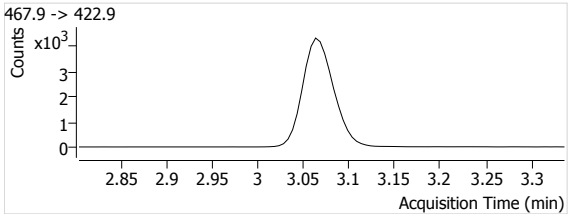

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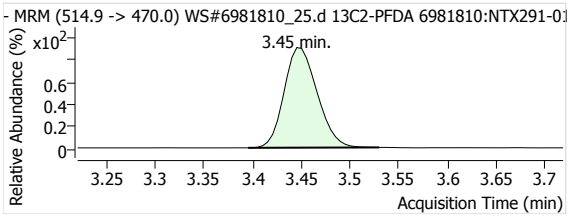

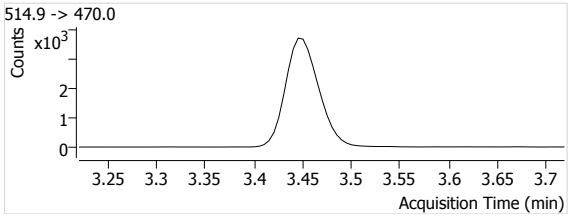

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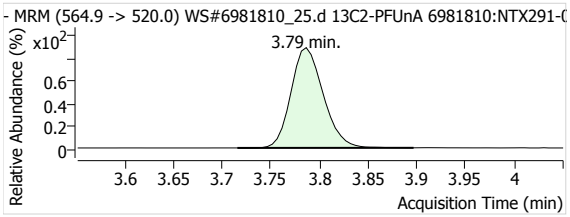

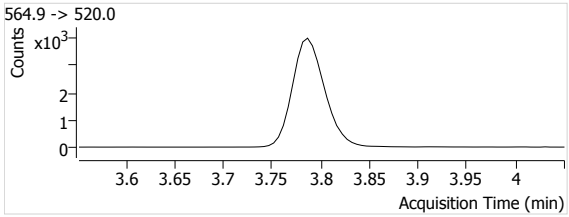

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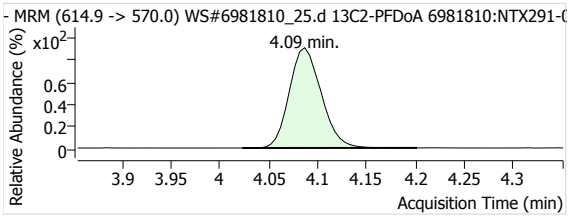

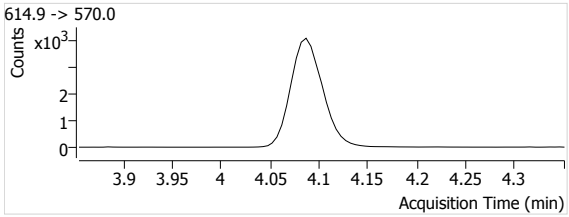

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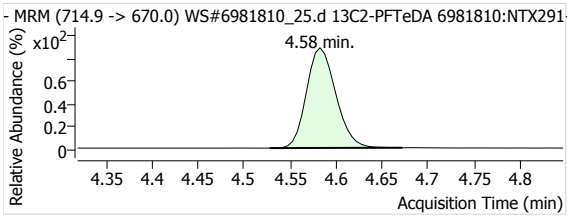

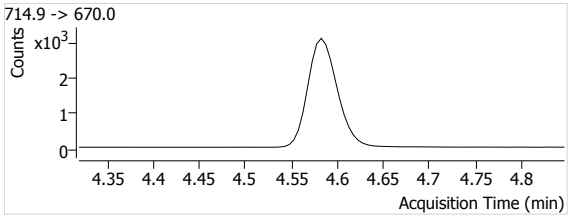

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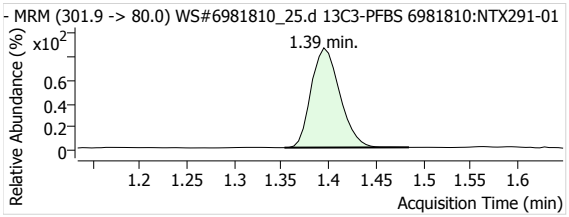

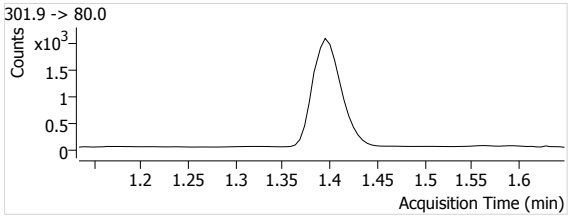

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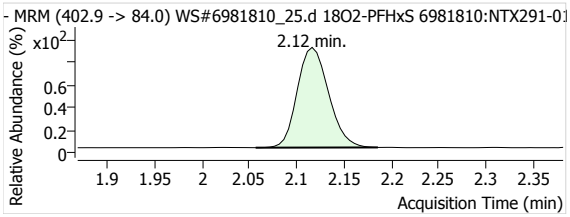

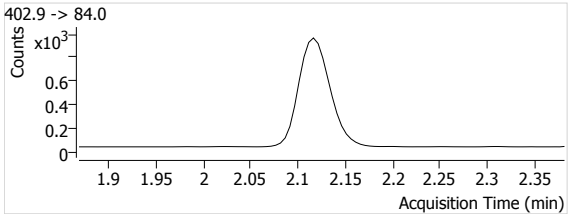

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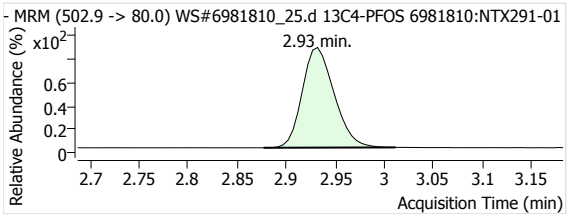

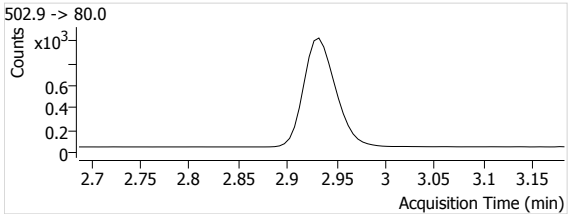

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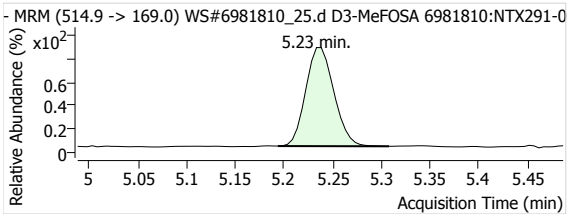

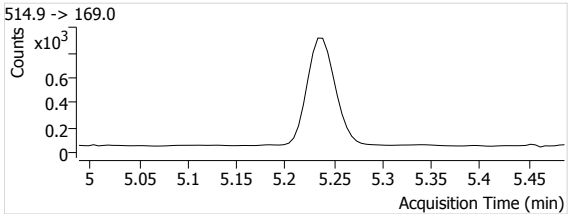

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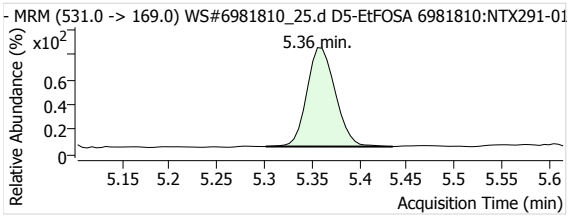
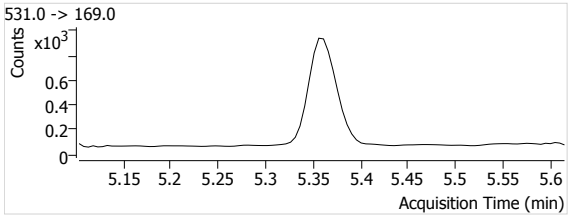




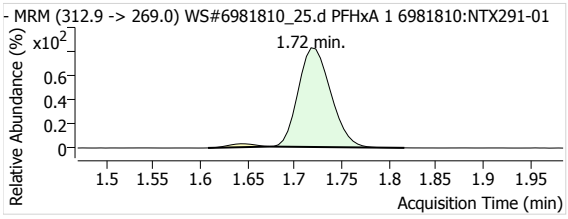
Quantitative Analysis Report

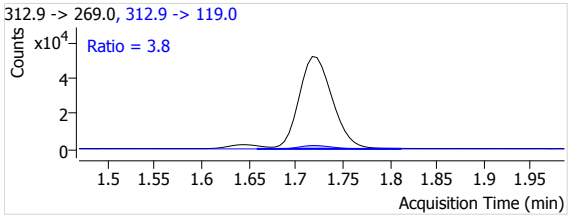
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX291-01	**Data File**	WS#6981810_25.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C2
Acq. Date-Time	2020/10/05 10:09:32 AM	**Dil.**	0.0
Comment	Reported all except PFHxA, PFHxS, PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.3260	--	124909	1.72	621	9.8060	4707	1.72	225	3.8
PFHpA 1	µg/L	--	0.5504	--	64301	2.16	1044	5.5408	10664	2.17	49	16.6
PFOA 1	µg/L	--	0.4102	--	33837	2.63	500	2.7499	8235	2.63	300	24.3
PFNA 1	µg/L	--	0.0517	--	4261	3.06	70	0.4276	687	3.06	29	16.1
PFDA 1	µg/L	--	0.0079	--	675	3.45	27	0.0786	133	3.45	30	19.7
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1640	--	5700	1.40	89	1.3571	2246	1.40	57	39.4
PFHxS 1	µg/L	--	5.0400	--	97173	2.07	1165	46.0753	43379	2.07	974	44.6
PFOS 1	µg/L	--	1.8447	--	32758	2.89	295	14.7958	15979	2.89	890	48.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	102.4449	--	12738	1.72	617		--	--	--	--
13C4-PFHpA	µg/L	--	111.7692	--	11605	2.16	1000		--	--	--	--
13C4-PFOA	µg/L	--	109.0966	--	12305	2.63	1097		--	--	--	--
13C5-PFNA	µg/L	--	112.6371	--	9965	3.06	1390		--	--	--	--
13C2-PFDA	µg/L	--	110.1758	--	8586	3.45	445		--	--	--	--
13C2-PFUnA	µg/L	--	106.8259	--	9077	3.79	729		--	--	--	--
13C2-PFDoA	µg/L	--	100.5399	--	9125	4.09	401		--	--	--	--
13C2-PFTeDA	µg/L	--	94.6613	--	6791	4.58	727		--	--	--	--
13C3-PFBS	µg/L	--	98.5222	--	4200	1.39	94		--	--	--	--
18O2-PFHxS	µg/L	--	102.4781	--	2109	2.12	270		--	--	--	--
13C4-PFOS	µg/L	--	104.9787	--	2214	2.93	501		--	--	--	--
D3-MeFOSA	µg/L	--	61.8979	--	1722	5.23	51		--	--	--	--
D5-EtFOSA	µg/L	--	54.6739	--	1819	5.36	35		--	--	--	--

PFHxA 1





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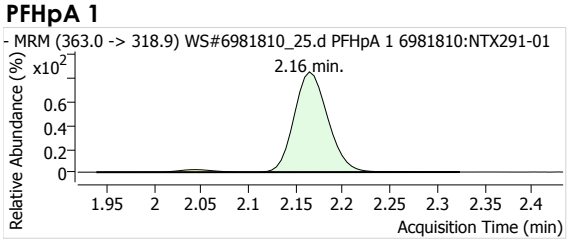

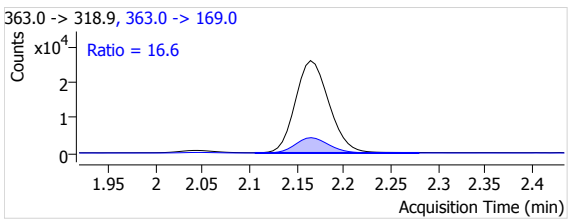

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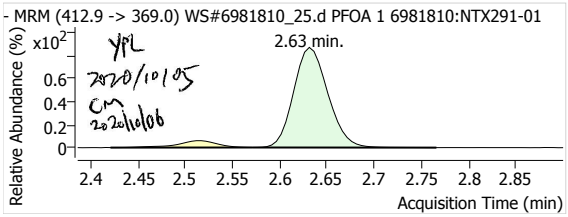

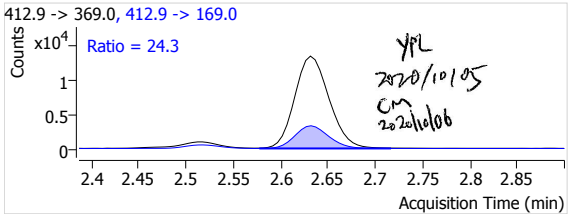

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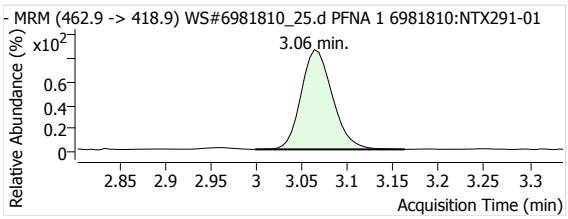

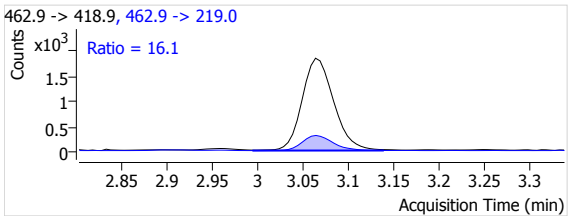

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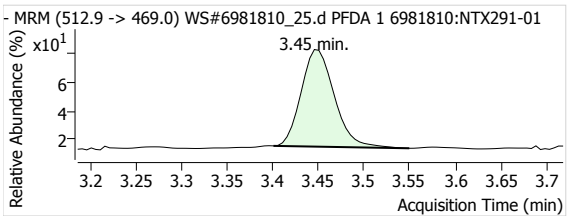

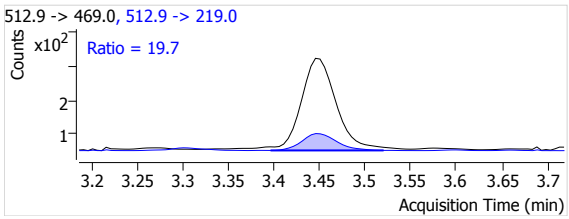

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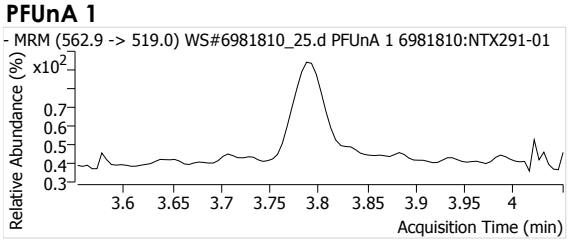

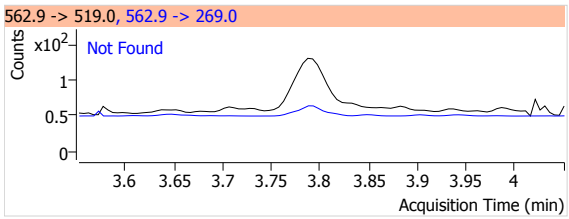

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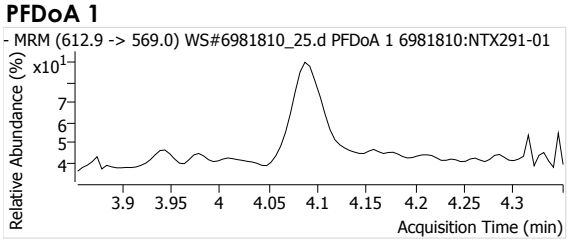

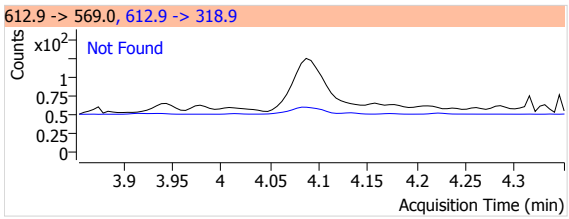

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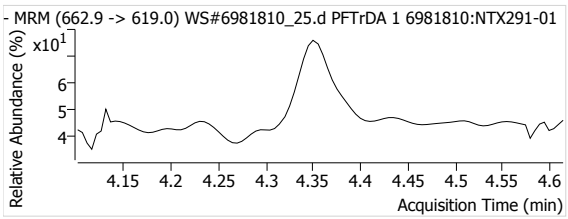

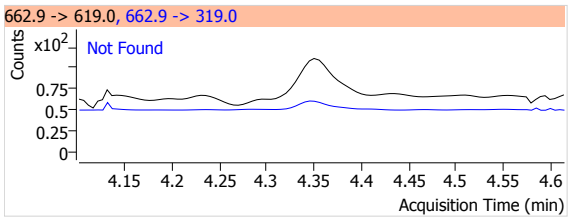

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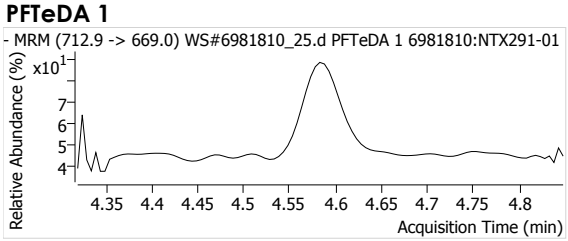

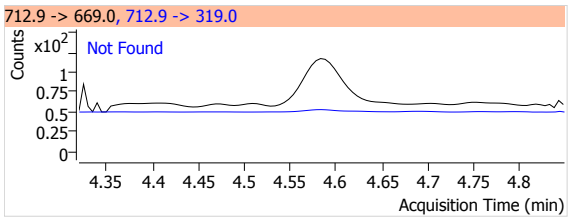

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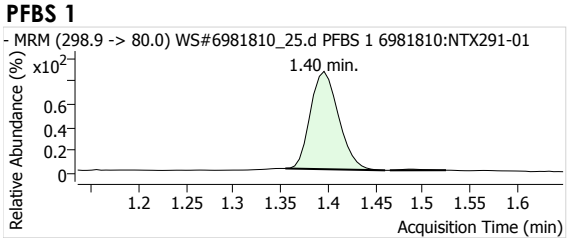

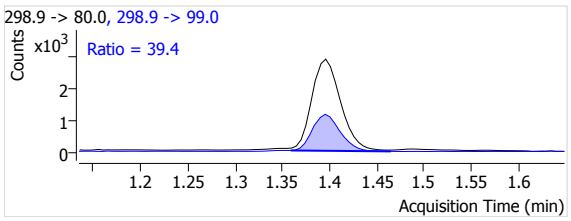

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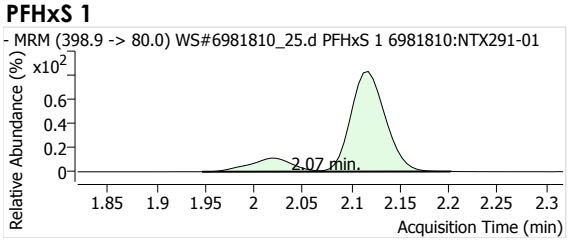

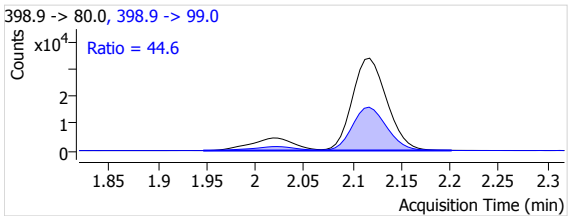

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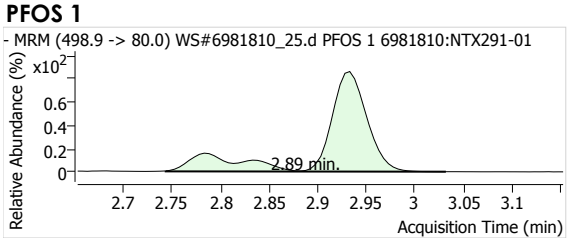

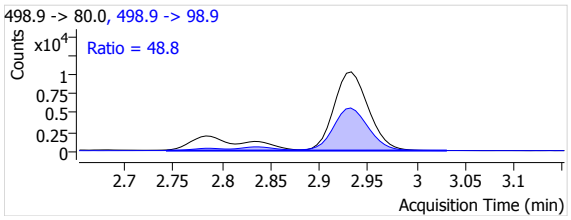

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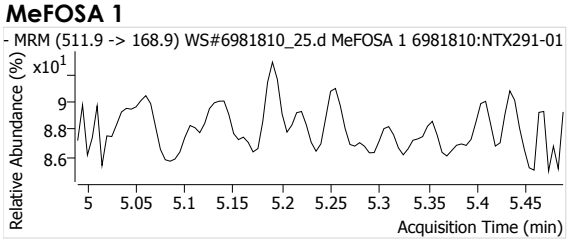

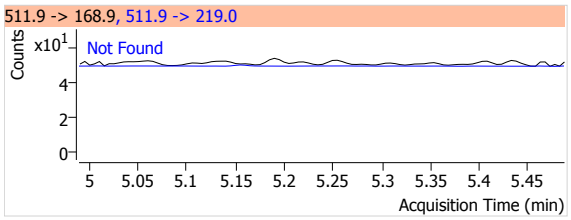

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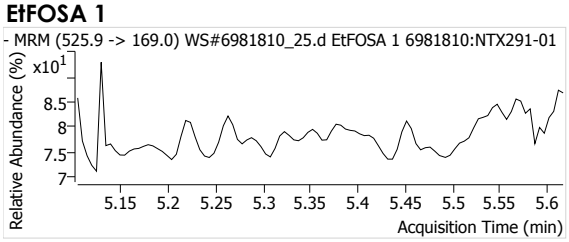

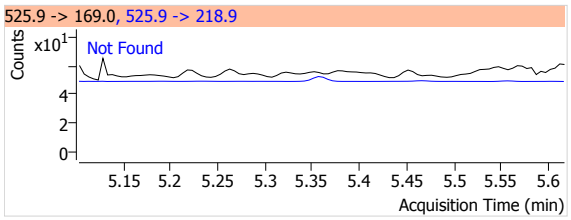

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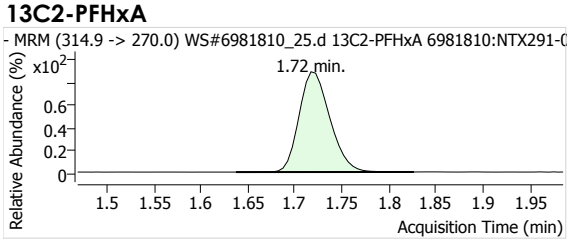

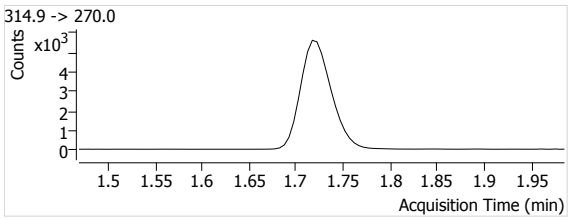

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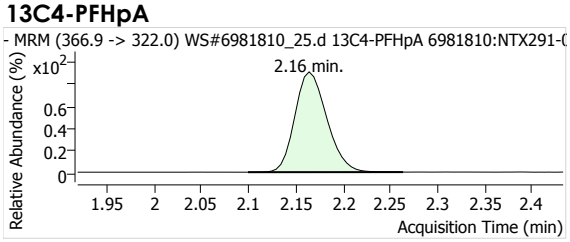

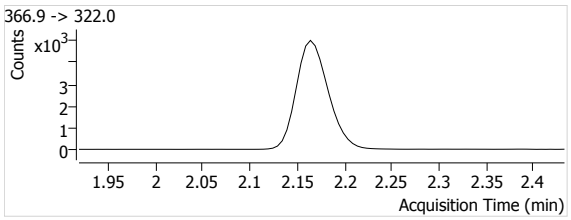

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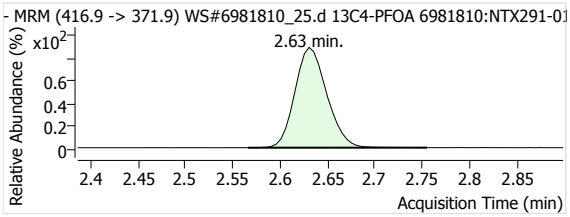

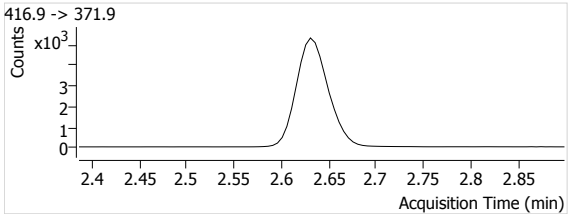

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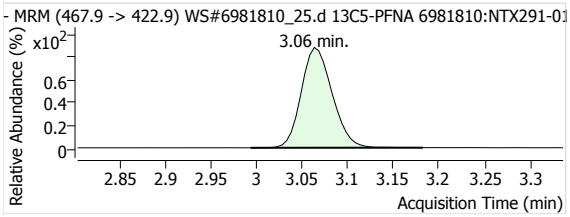

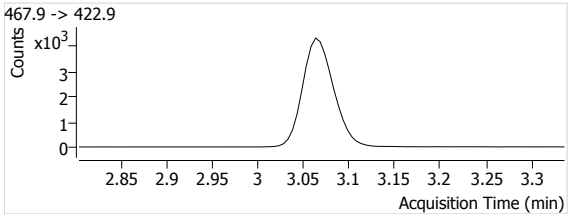

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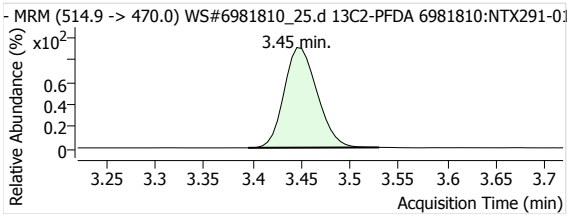

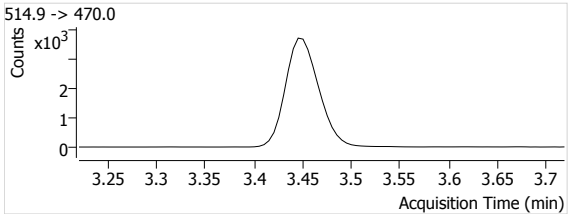

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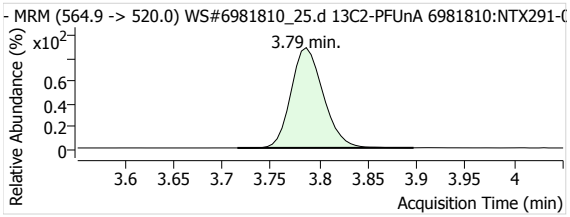

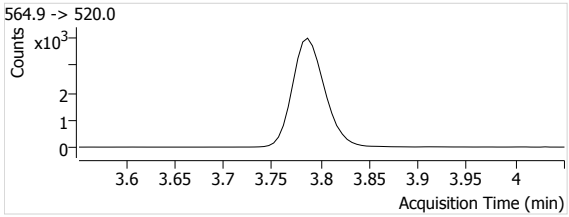

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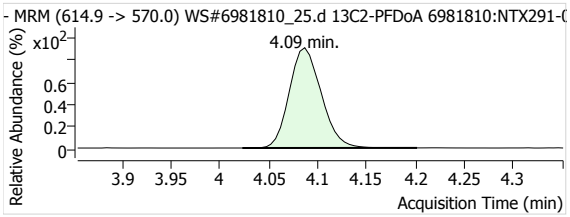

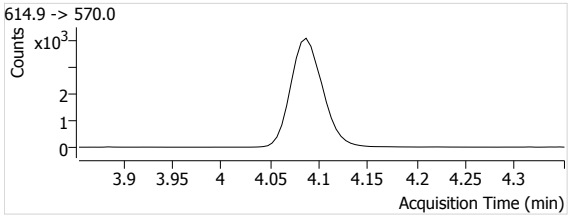

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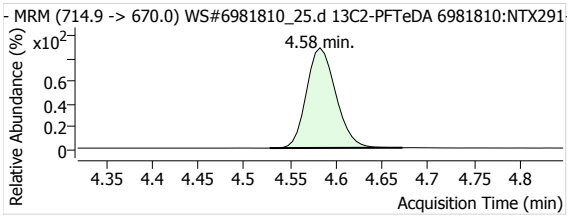

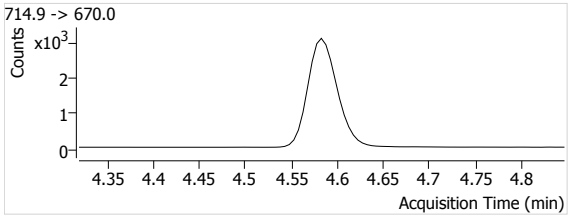

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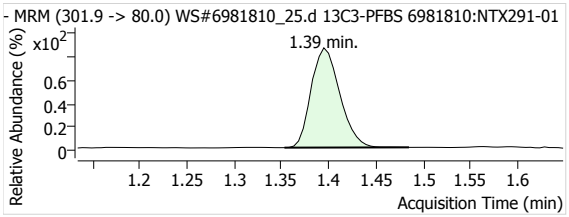

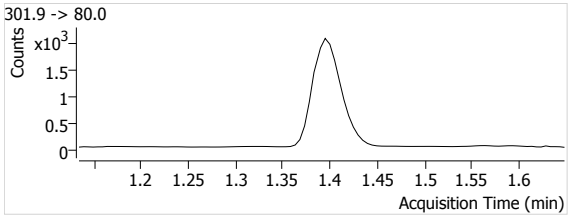

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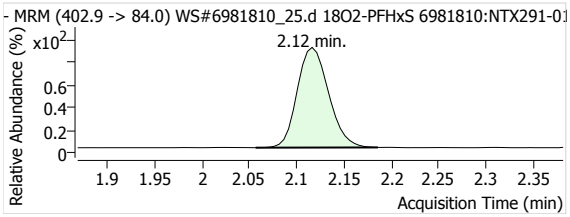

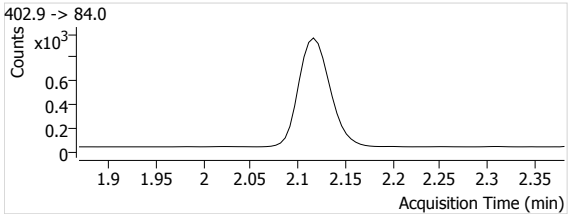

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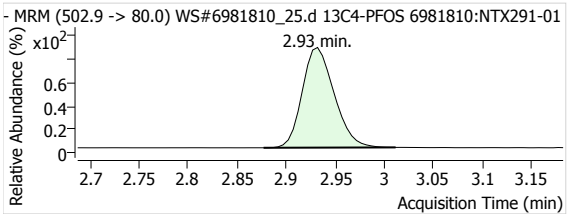
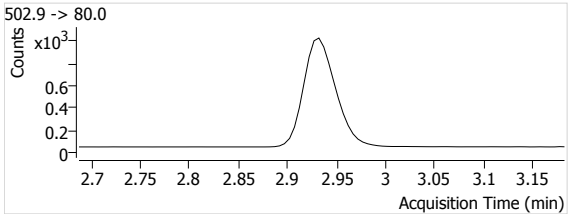
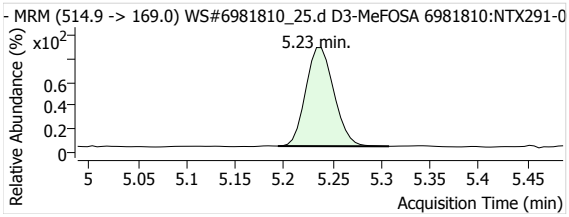
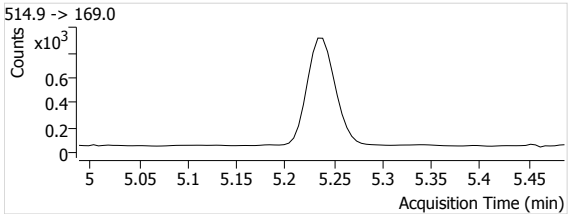


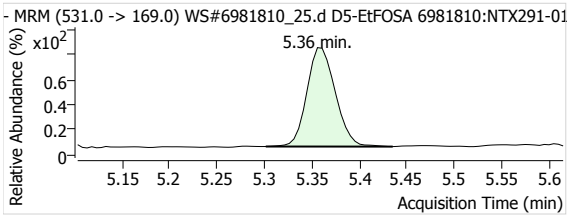


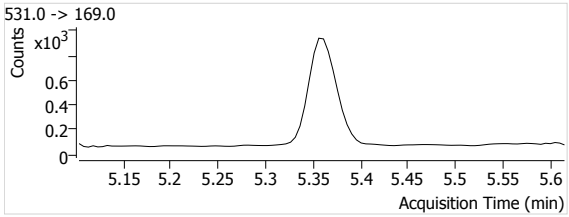
D3-MeFOSA





D5-EtFOSA





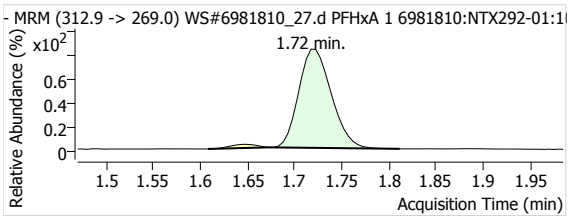
Quantitative Analysis Report

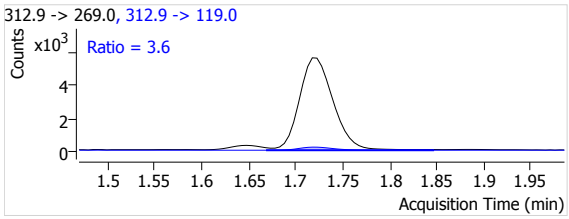
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX292-01:10x	**Data File**	WS#6981810_27.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C3
Acq. Date-Time	2020/10/05 10:23:30 AM	**Dil.**	0.2
Comment	Reported PFHxA, PFHxS, PFOS		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.3411	--	13466	1.72	218	1.0061	486	1.72	45	3.6
PFHpA 1	µg/L	--	0.5710	--	6679	2.16	51	0.5934	1118	2.17	43	16.7
PFOA 1	µg/L	--	0.4180	--	3604	2.64	45	0.2879	875	2.64	192	24.3
PFNA 1	µg/L	--	0.0398	--	586	3.07	22	0.0589	82	3.07	14	14.0
PFDA 1	µg/L	--	0.0000	--	168	3.45	5	0.0202	30	3.45	13	17.9
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0071	--	202	4.35	3	0.0280	24	4.35	4	11.9
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1697	--	663	1.40	26	0.1462	242	1.40	25	36.5
PFHxS 1	µg/L	--	4.9964	--	10363	2.07	511	4.5814	4623	2.07	332	44.6
PFOS 1	µg/L	--	1.8111	--	3475	2.89	224	1.4538	1746	2.89	279	50.2
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	107.6403	--	13384	1.72	1150		--	--	--	--
13C4-PFHpA	µg/L	--	108.4080	--	11256	2.16	1385		--	--	--	--
13C4-PFOA	µg/L	--	110.9939	--	12519	2.64	1329		--	--	--	--
13C5-PFNA	µg/L	--	112.4562	--	9949	3.07	552		--	--	--	--
13C2-PFDA	µg/L	--	106.7753	--	8321	3.45	651		--	--	--	--
13C2-PFUnA	µg/L	--	108.4030	--	9211	3.79	406		--	--	--	--
13C2-PFDoA	µg/L	--	102.0714	--	9264	4.09	673		--	--	--	--
13C2-PFTeDA	µg/L	--	100.7109	--	7225	4.58	1060		--	--	--	--
13C3-PFBS	µg/L	--	106.3805	--	4535	1.39	229		--	--	--	--
18O2-PFHxS	µg/L	--	109.9125	--	2262	2.12	654		--	--	--	--
13C4-PFOS	µg/L	--	113.3239	--	2390	2.93	286		--	--	--	--
D3-MeFOSA	µg/L	--	38.6053	--	1074	5.23	52		--	--	--	--
D5-EtFOSA	µg/L	--	33.7842	--	1124	5.36	28		--	--	--	--

PFHxA 1





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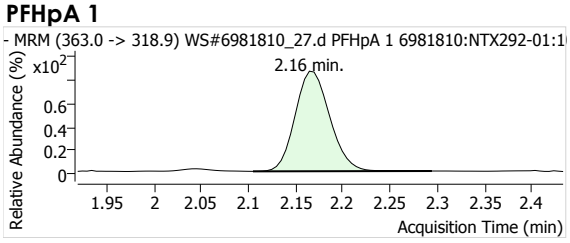

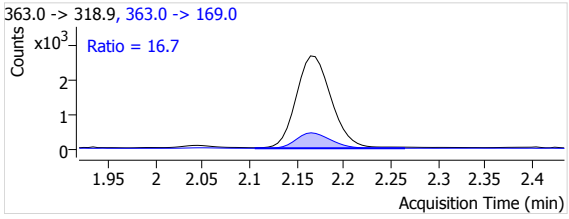

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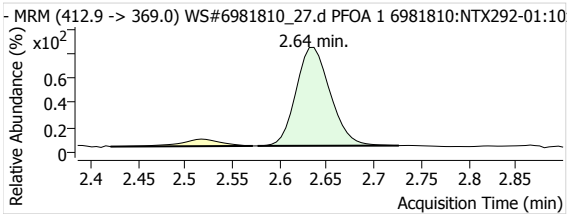

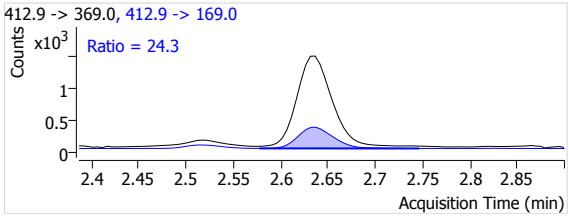

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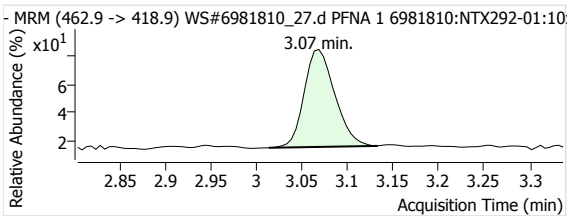

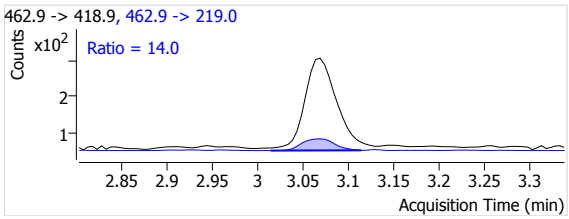

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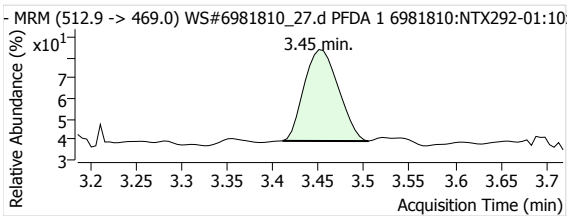

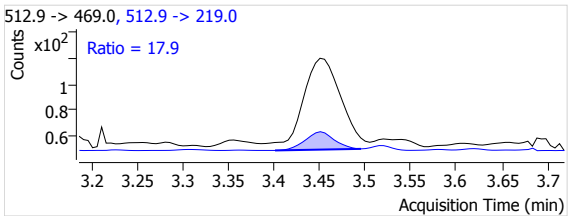

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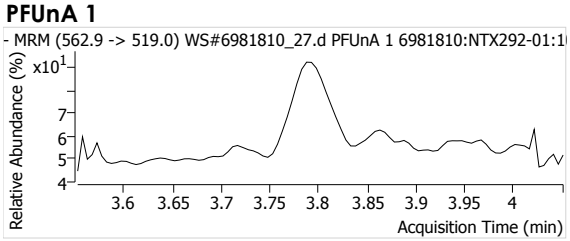

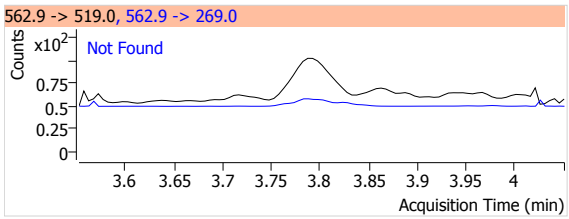

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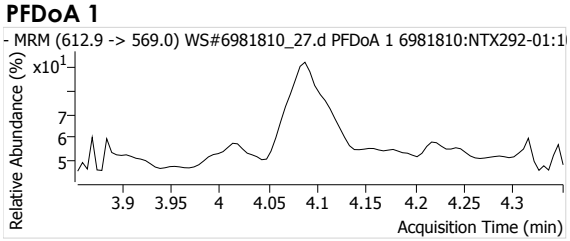

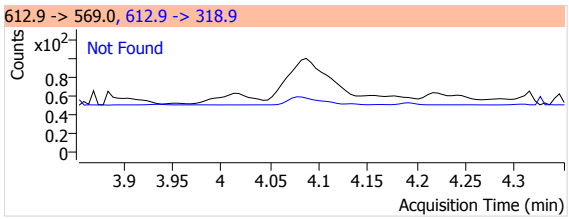

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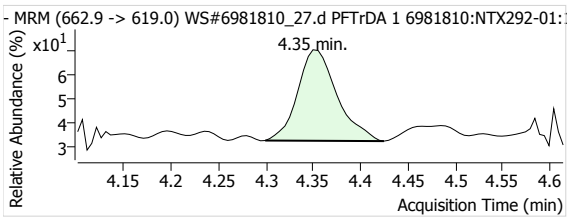

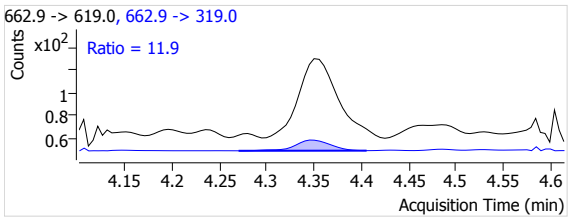

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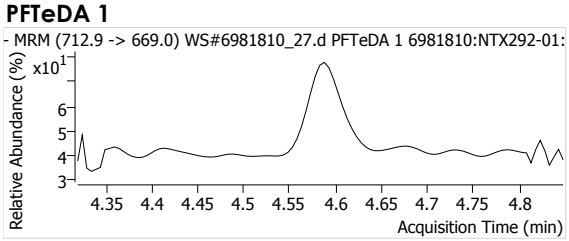

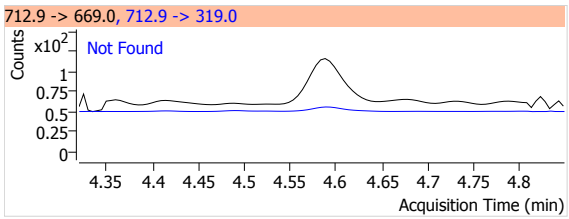

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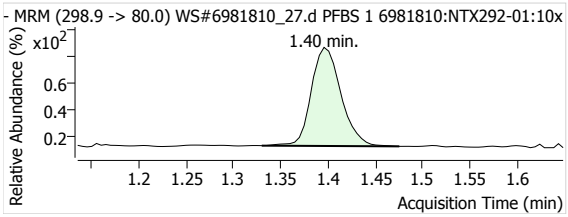

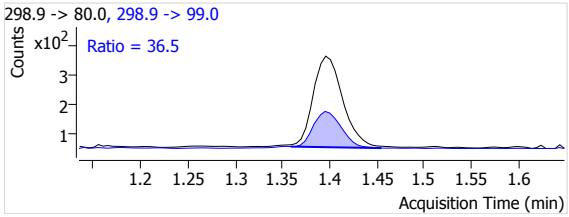

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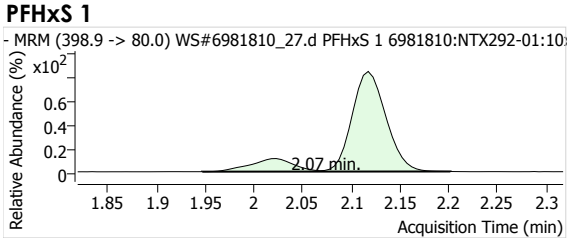

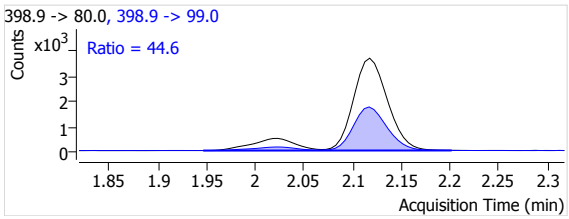

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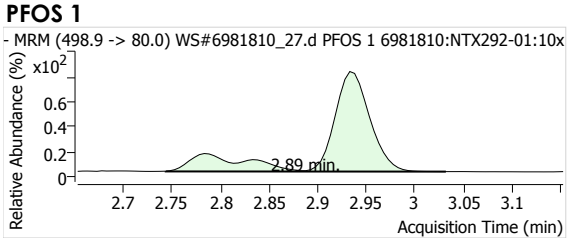

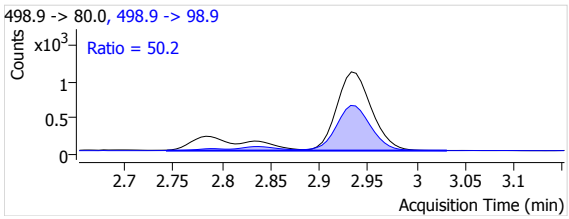

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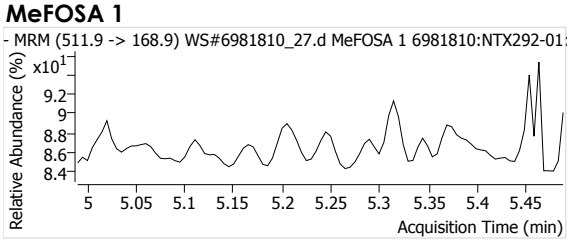

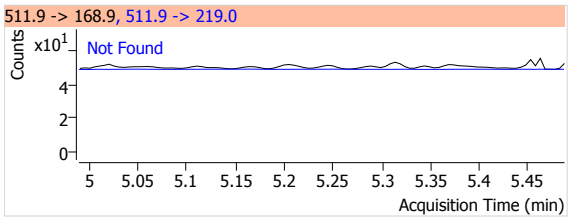

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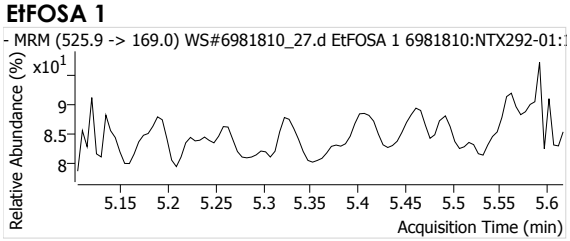

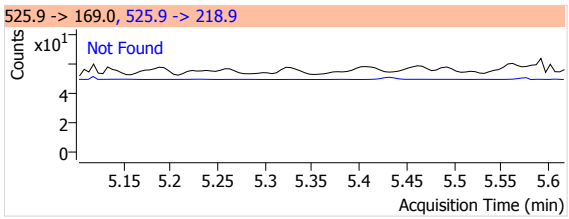

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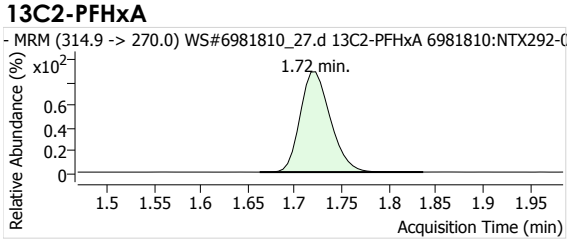

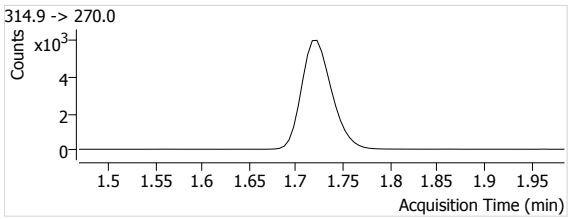

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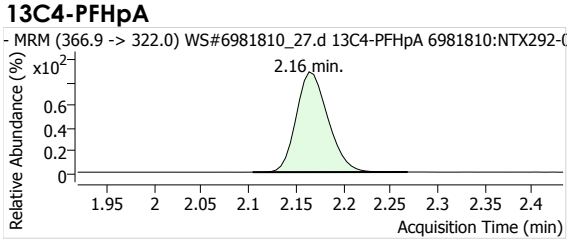

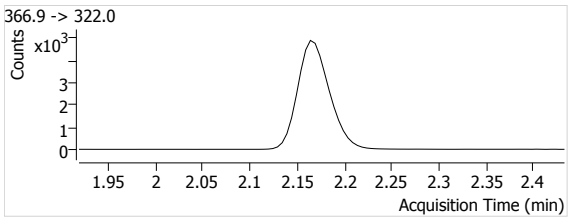

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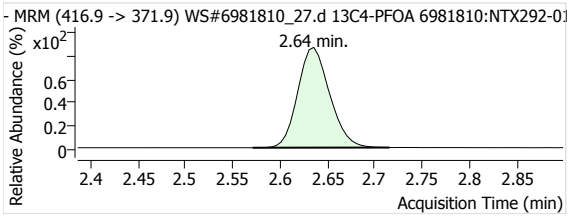

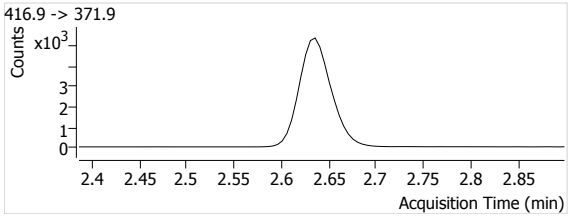

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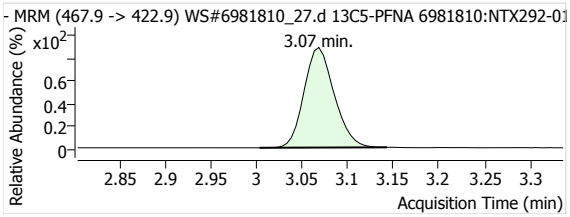

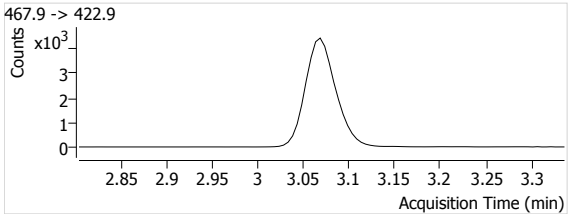

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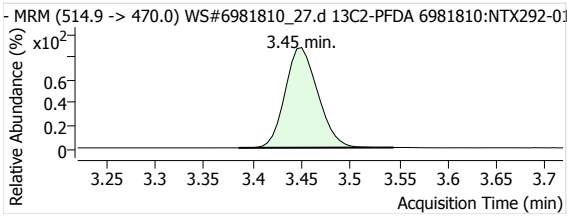

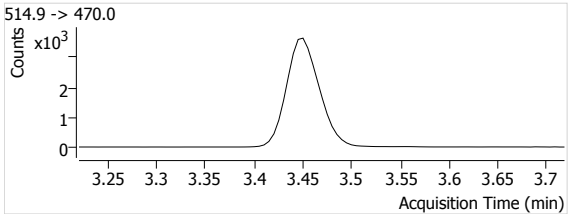

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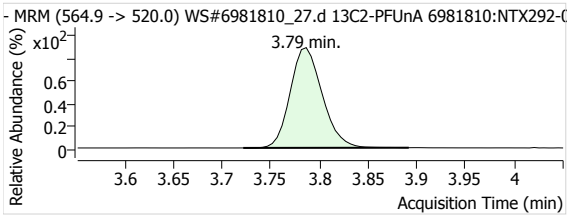

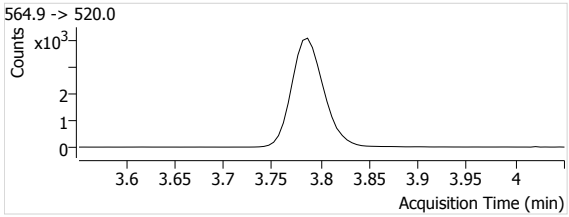

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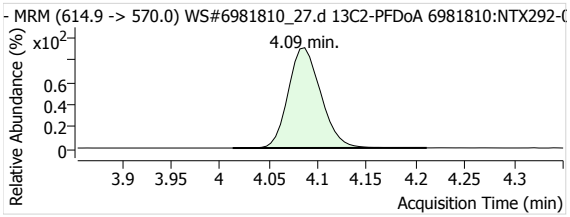

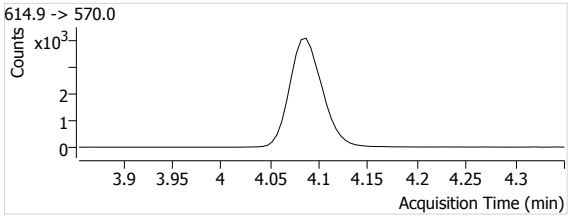

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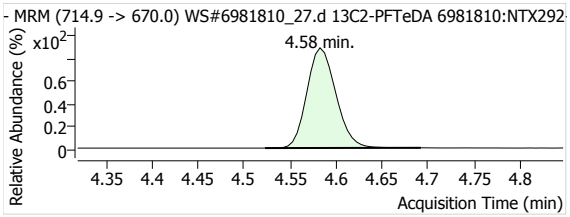

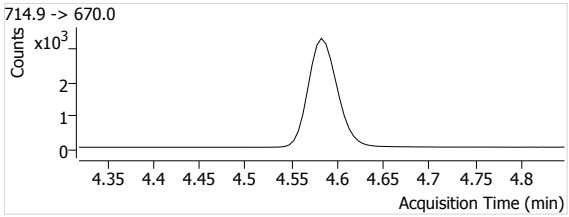

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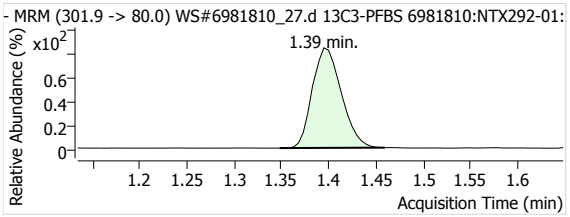
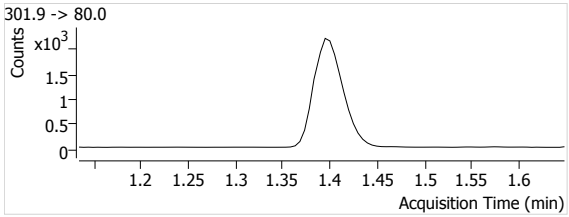
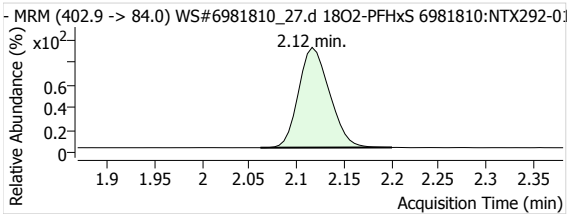
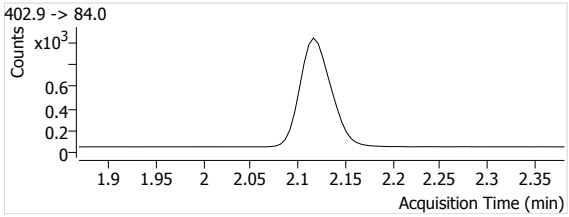


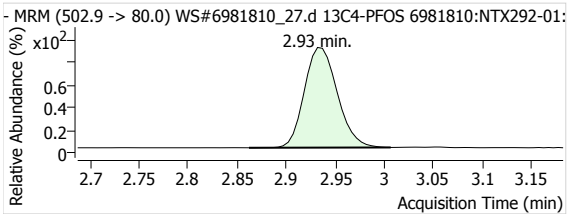


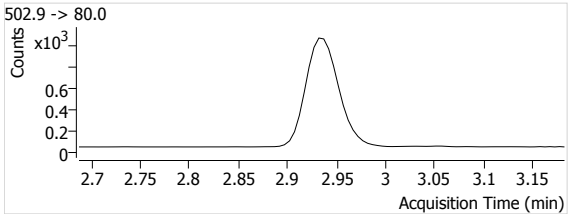
18O2-PFHxS





13C4-PFOS





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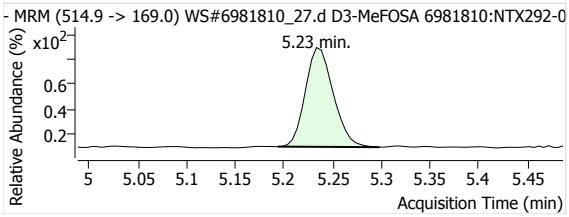

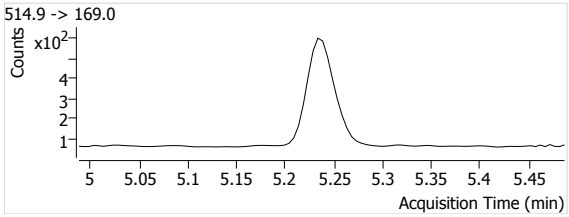

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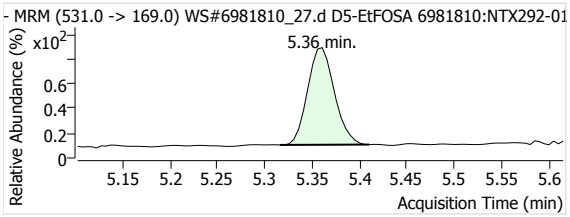
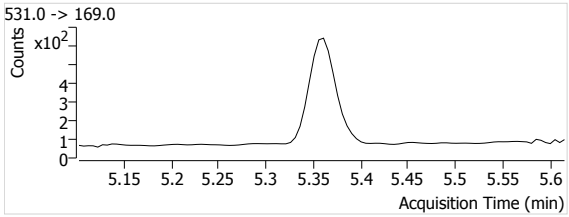




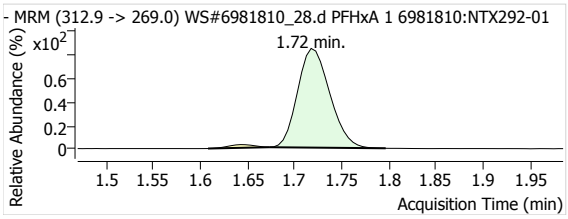
Quantitative Analysis Report

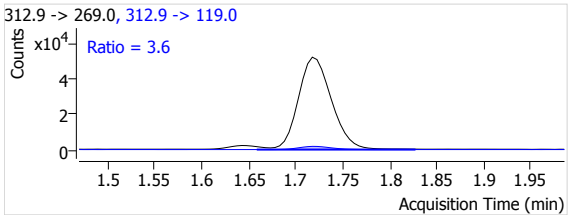
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX292-01	**Data File**	WS#6981810_28.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C4
Acq. Date-Time	2020/10/05 10:30:29 AM	**Dil.**	0.0
Comment	Reported all except PFHxA, PFHxS, PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.3548	--	122528	1.72	531	9.6183	4371	1.72	348	3.6
PFHpA 1	µg/L	--	0.5580	--	63576	2.16	523	5.3928	10388	2.17	48	16.3
PFOA 1	µg/L	--	0.4446	--	35662	2.63	549	2.8607	9461	2.63	1079	26.5
PFNA 1	µg/L	--	0.0539	--	4172	3.06	65	0.4280	683	3.06	36	16.4
PFDA 1	µg/L	--	0.0083	--	687	3.45	26	0.0792	123	3.45	26	17.9
PFUnA 1	µg/L	--	0.0008	--	190	3.78	3	0.0204	11	3.78	16	5.8
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1598	--	5532	1.40	68	1.2706	2313	1.40	100	41.8
PFHxS 1	µg/L	--	5.0336	--	97454	2.07	2046	44.1769	43286	2.07	1544	44.4
PFOS 1	µg/L	--	1.8188	--	31832	2.89	295	14.0042	15463	2.89	649	48.6
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	102.4530	--	12739	1.72	745		--	--	--	--
13C4-PFHpA	µg/L	--	113.5414	--	11789	2.16	486		--	--	--	--
13C4-PFOA	µg/L	--	110.5240	--	12466	2.63	1088		--	--	--	--
13C5-PFNA	µg/L	--	110.1842	--	9748	3.06	592		--	--	--	--
13C2-PFDA	µg/L	--	111.2537	--	8670	3.45	766		--	--	--	--
13C2-PFUnA	µg/L	--	109.4386	--	9299	3.79	420		--	--	--	--
13C2-PFDoA	µg/L	--	101.0357	--	9170	4.09	759		--	--	--	--
13C2-PFTeDA	µg/L	--	95.8879	--	6879	4.58	597		--	--	--	--
13C3-PFBS	µg/L	--	102.1346	--	4354	1.39	82		--	--	--	--
18O2-PFHxS	µg/L	--	107.1914	--	2206	2.11	383		--	--	--	--
13C4-PFOS	µg/L	--	107.7762	--	2273	2.93	643		--	--	--	--
D3-MeFOSA	µg/L	--	57.2250	--	1592	5.24	61		--	--	--	--
D5-EtFOSA	µg/L	--	53.8924	--	1793	5.36	46		--	--	--	--

PFHxA 1





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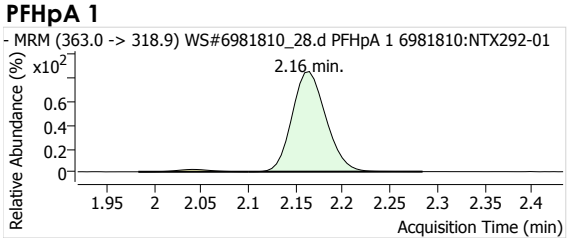

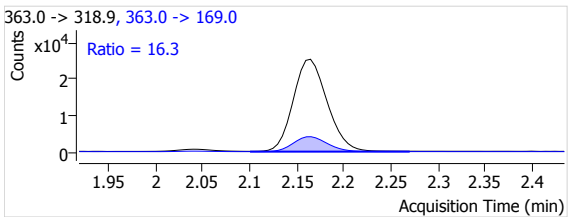

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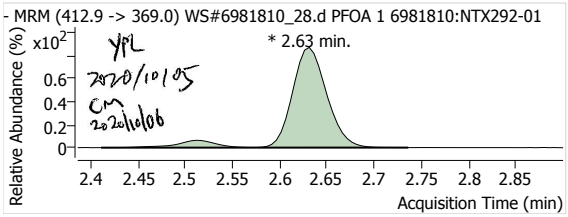

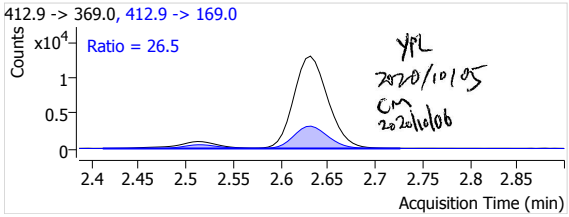

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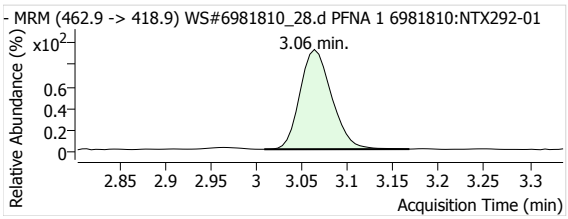

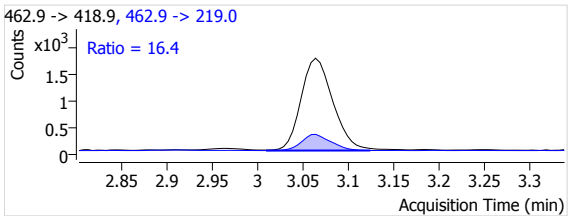

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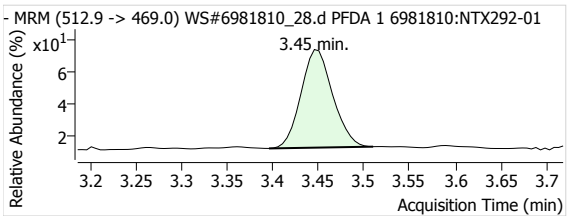

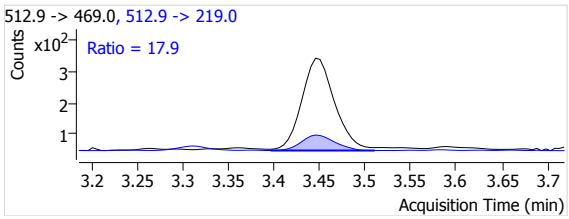

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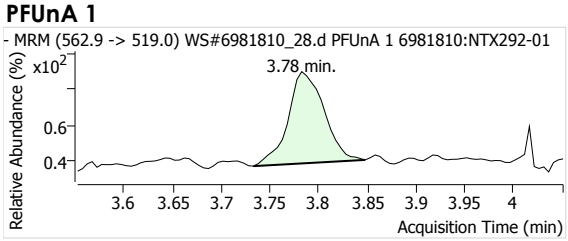

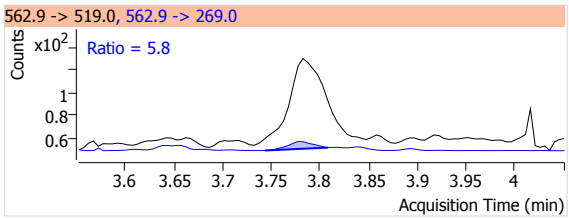

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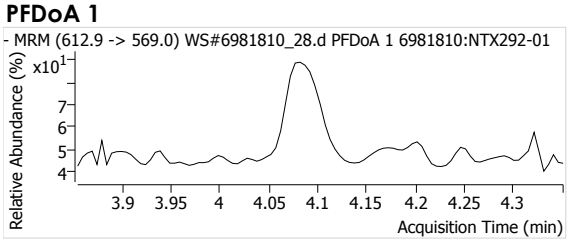

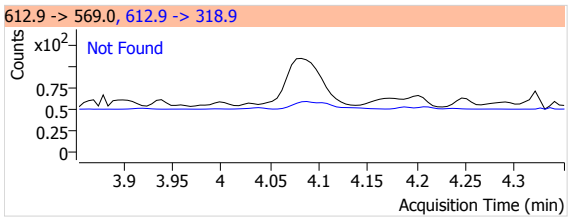

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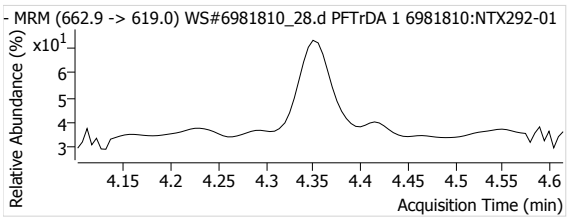

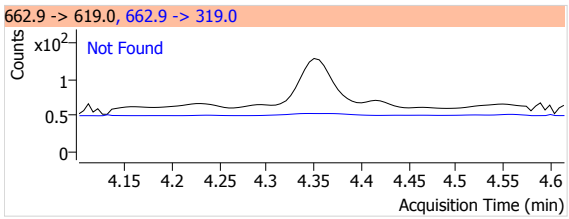

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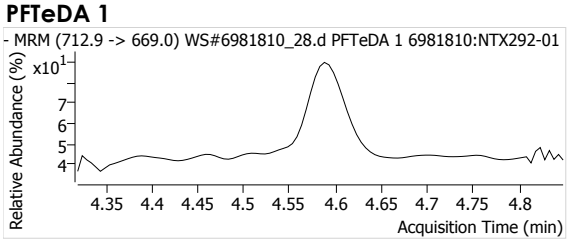

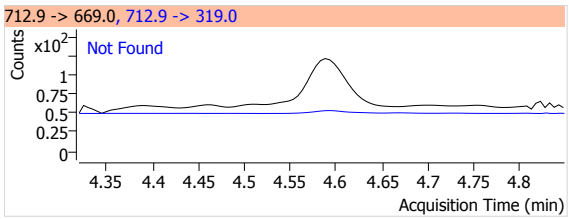

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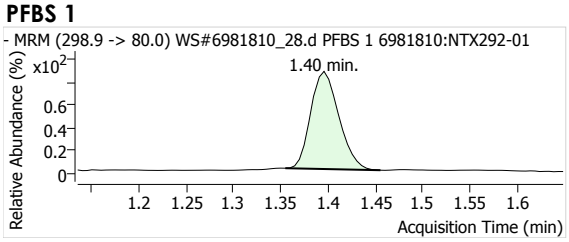

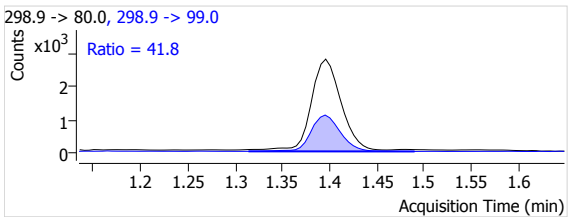

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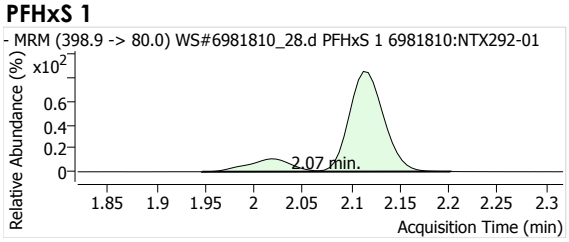
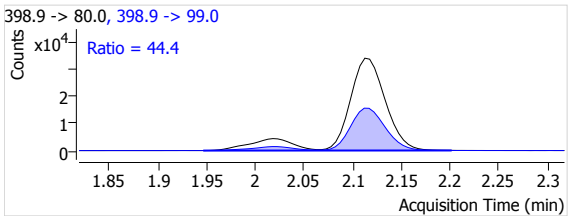
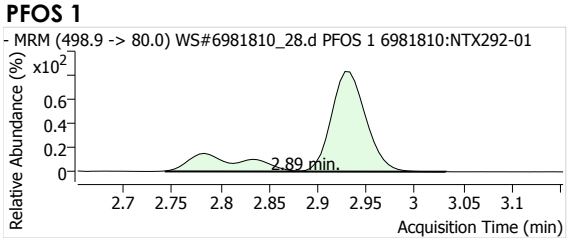
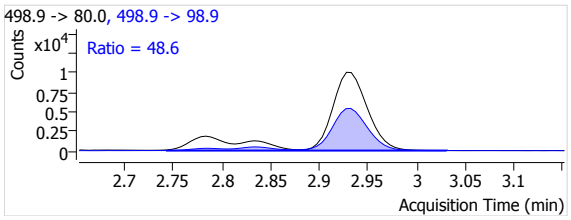


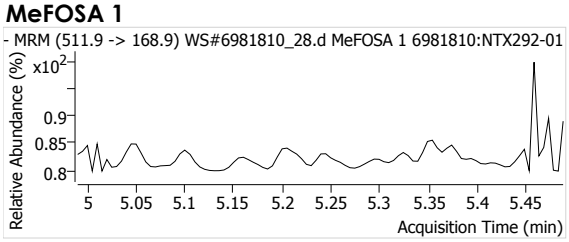


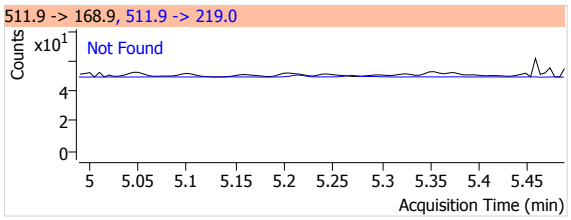
PFOS 1





MeFOSA 1





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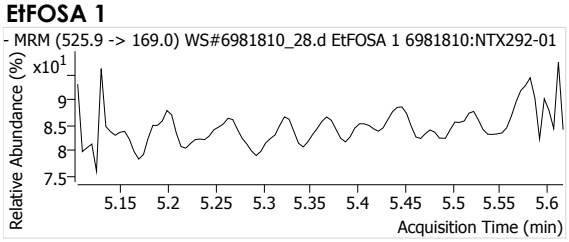
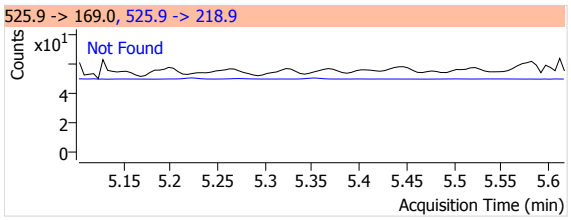
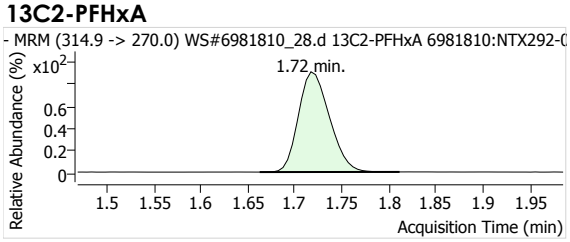
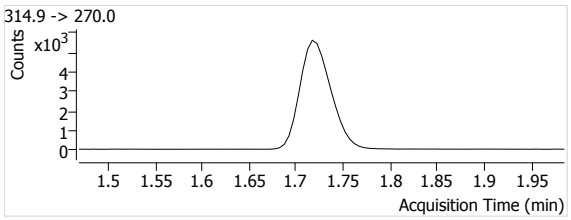




13C2-PFHxA





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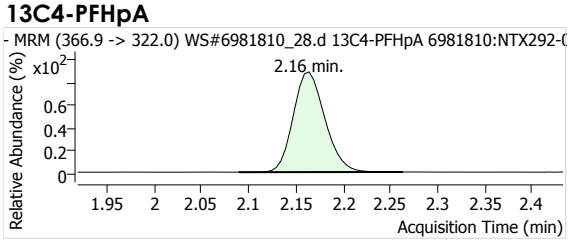

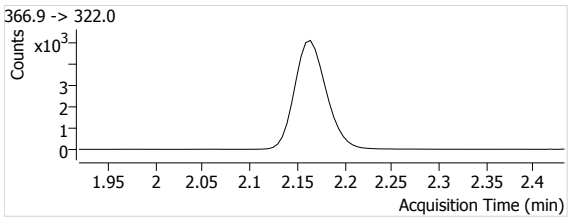

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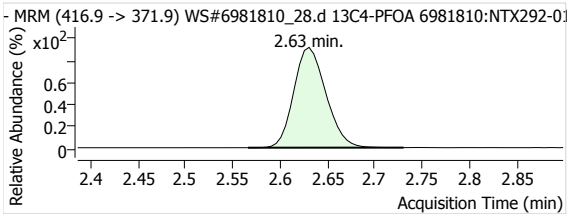

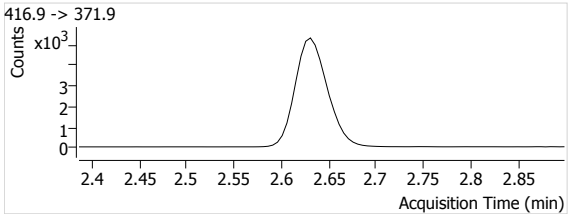

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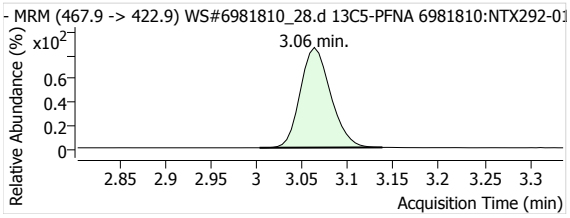

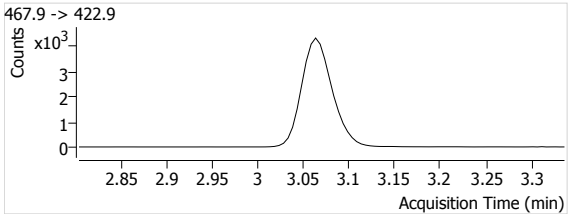

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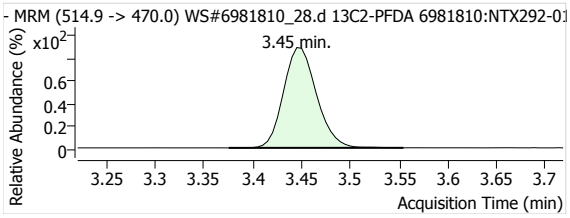

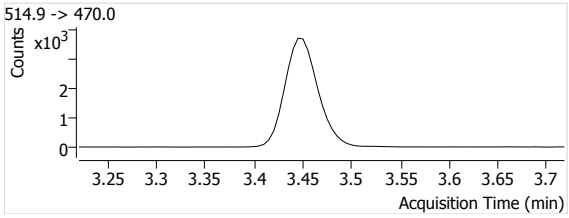

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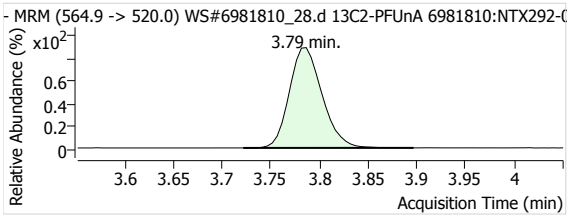

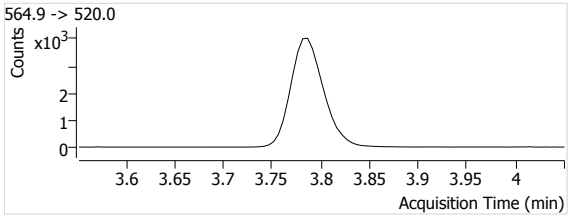

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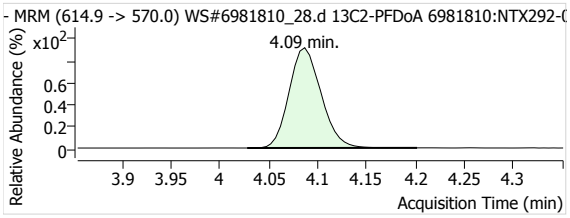

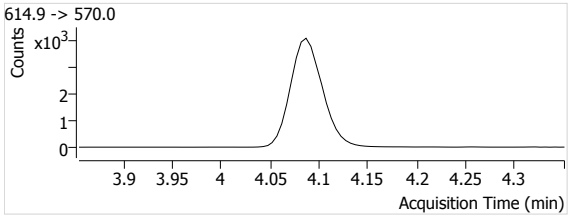

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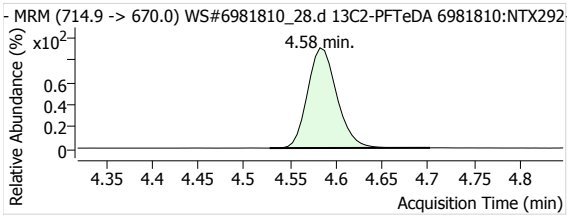

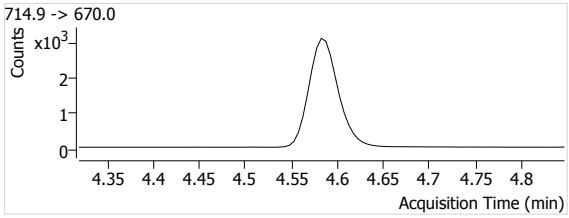

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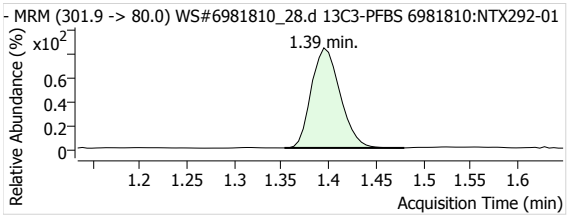
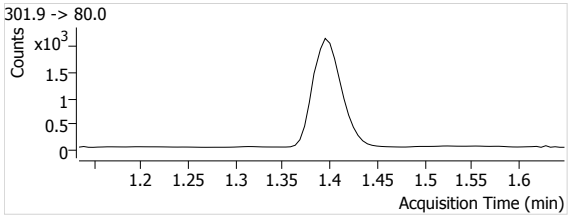
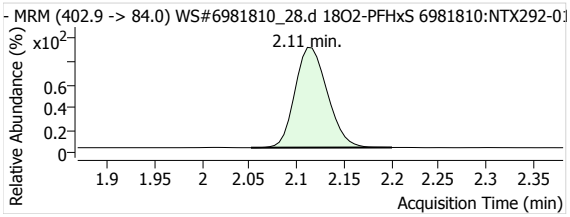
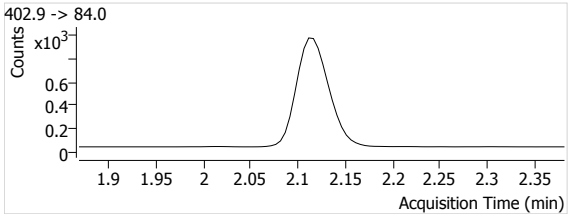




18O2-PFHxS





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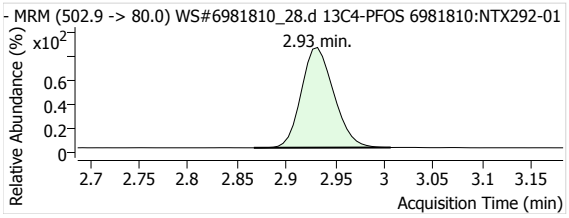
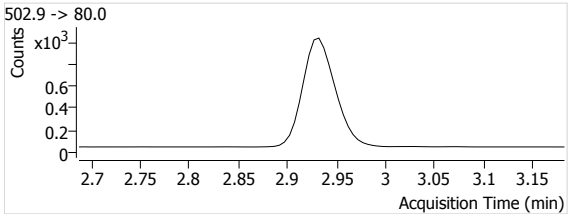
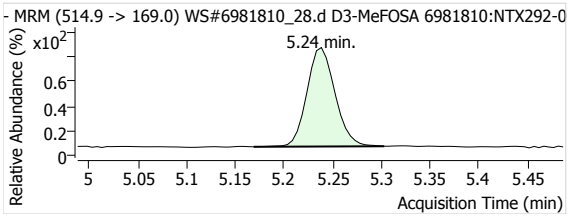
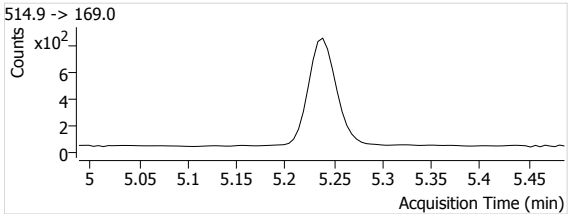




D3-MeFOSA





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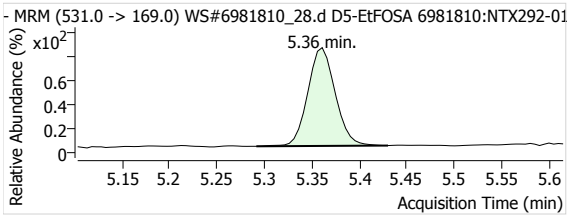
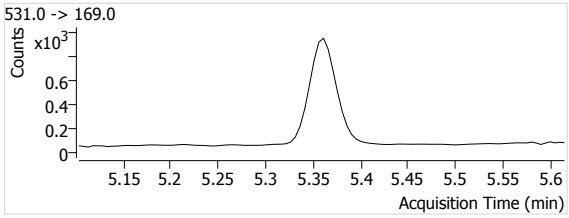




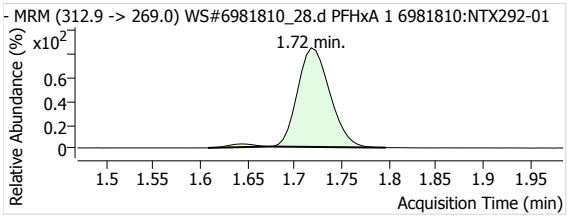
Quantitative Analysis Report

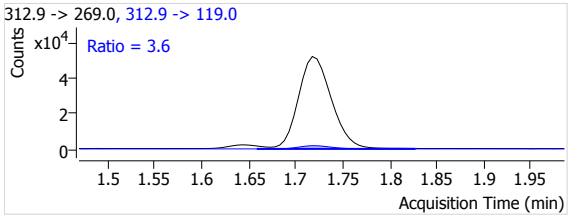
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX292-01	**Data File**	WS#6981810_28.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C4
Acq. Date-Time	2020/10/05 10:30:29 AM	**Dil.**	0.0
Comment	Reported all except PFHxA, PFHxS, PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.3548	--	122528	1.72	531	9.6183	4371	1.72	348	3.6
PFHpA 1	µg/L	--	0.5580	--	63576	2.16	523	5.3928	10388	2.17	48	16.3
PFOA 1	µg/L	--	0.4062	--	32587	2.63	542	2.6141	7985	2.63	1072	24.5
PFNA 1	µg/L	--	0.0539	--	4172	3.06	65	0.4280	683	3.06	36	16.4
PFDA 1	µg/L	--	0.0083	--	687	3.45	26	0.0792	123	3.45	26	17.9
PFUnA 1	µg/L	--	0.0008	--	190	3.78	3	0.0204	11	3.78	16	5.8
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1598	--	5532	1.40	68	1.2706	2313	1.40	100	41.8
PFHxS 1	µg/L	--	5.0336	--	97454	2.07	2046	44.1769	43286	2.07	1544	44.4
PFOS 1	µg/L	--	1.8188	--	31832	2.89	295	14.0042	15463	2.89	649	48.6
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	102.4530	--	12739	1.72	745		--	--	--	--
13C4-PFHpA	µg/L	--	113.5414	--	11789	2.16	486		--	--	--	--
13C4-PFOA	µg/L	--	110.5240	--	12466	2.63	1088		--	--	--	--
13C5-PFNA	µg/L	--	110.1842	--	9748	3.06	592		--	--	--	--
13C2-PFDA	µg/L	--	111.2537	--	8670	3.45	766		--	--	--	--
13C2-PFUnA	µg/L	--	109.4386	--	9299	3.79	420		--	--	--	--
13C2-PFDoA	µg/L	--	101.0357	--	9170	4.09	759		--	--	--	--
13C2-PFTeDA	µg/L	--	95.8879	--	6879	4.58	597		--	--	--	--
13C3-PFBS	µg/L	--	102.1346	--	4354	1.39	82		--	--	--	--
18O2-PFHxS	µg/L	--	107.1914	--	2206	2.11	383		--	--	--	--
13C4-PFOS	µg/L	--	107.7762	--	2273	2.93	643		--	--	--	--
D3-MeFOSA	µg/L	--	57.2250	--	1592	5.24	61		--	--	--	--
D5-EtFOSA	µg/L	--	53.8924	--	1793	5.36	46		--	--	--	--

PFHxA 1





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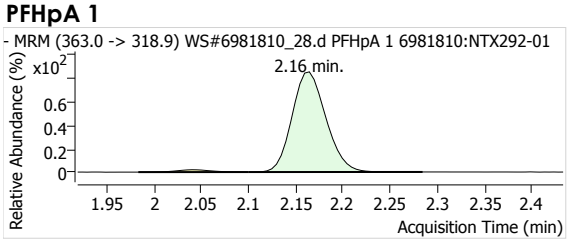

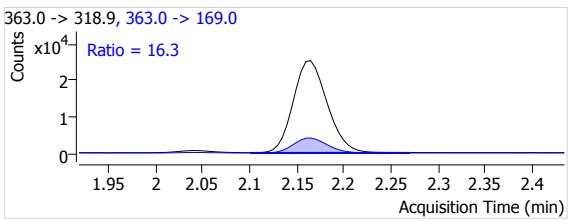

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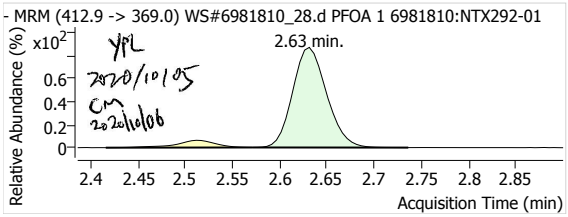

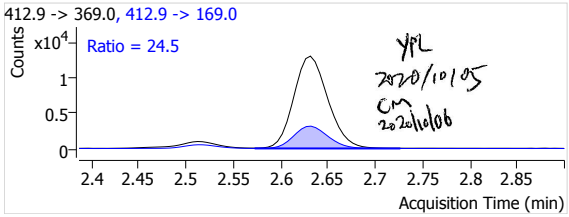

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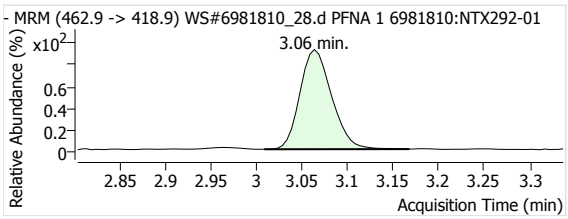

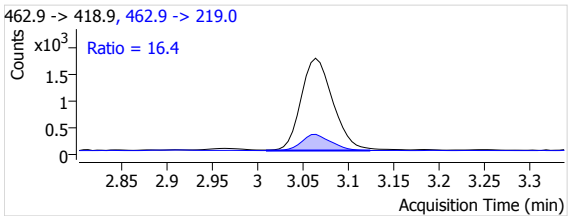

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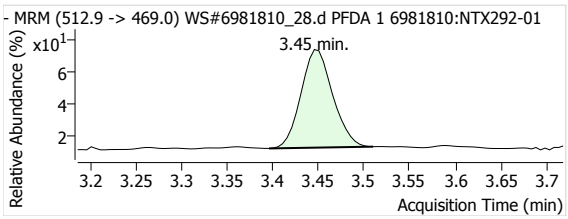

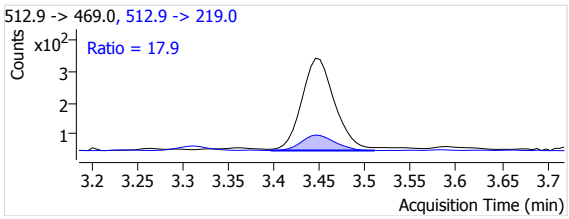

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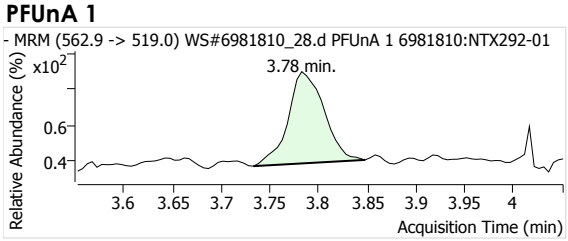

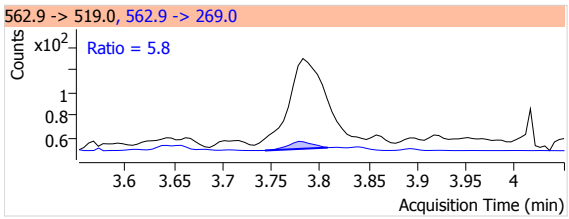

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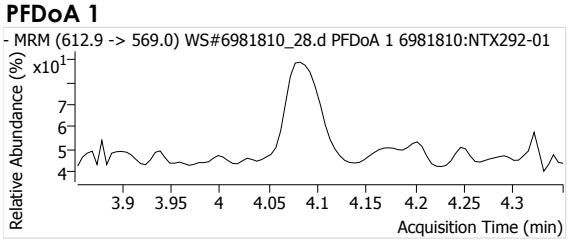

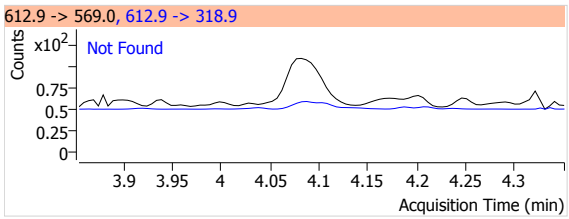

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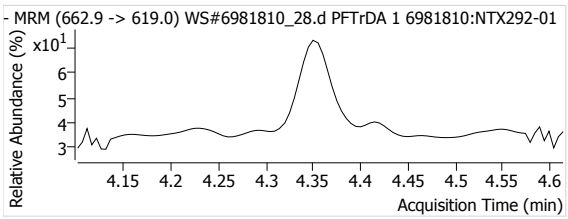

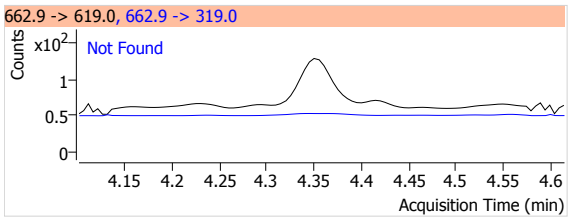

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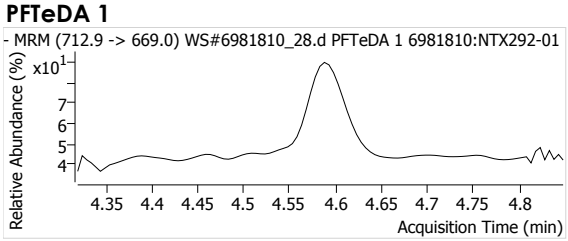

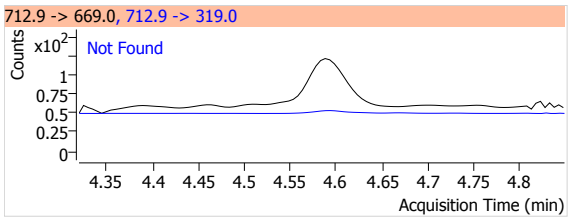

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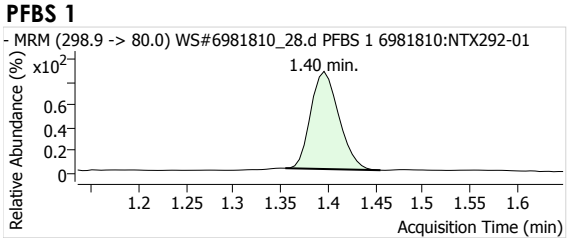

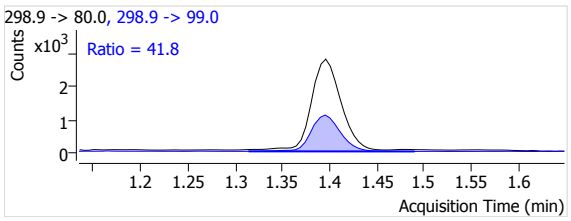

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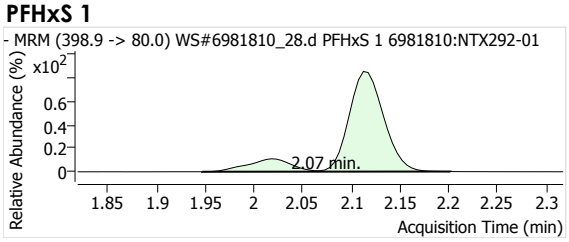
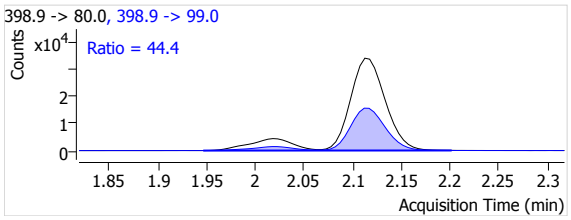
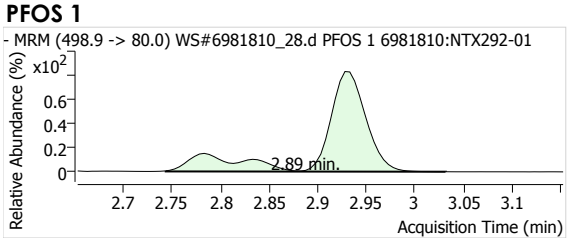
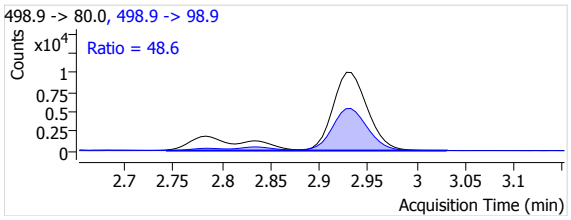


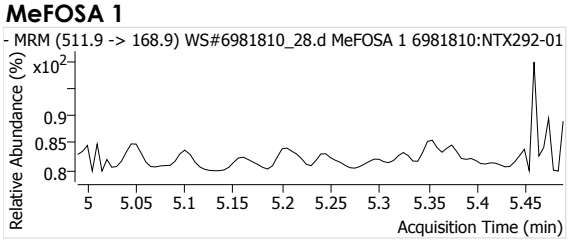


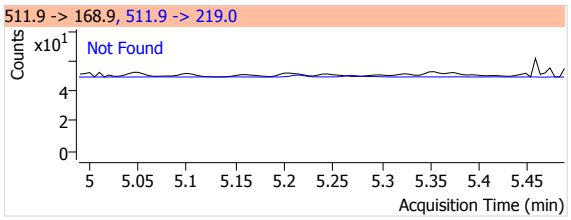
PFOS 1





MeFOSA 1





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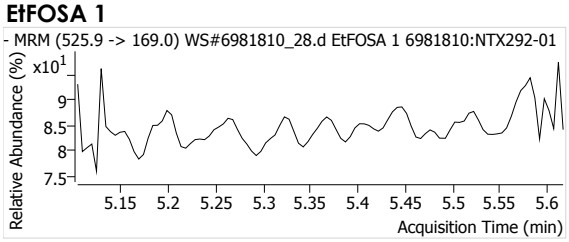
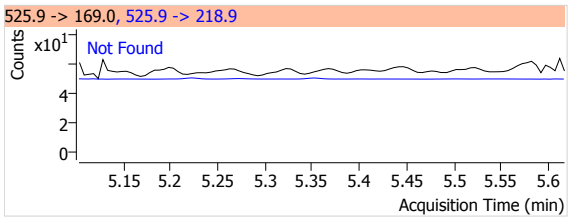
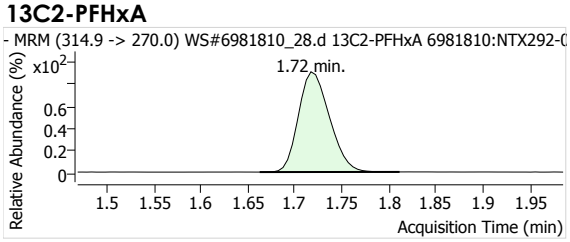
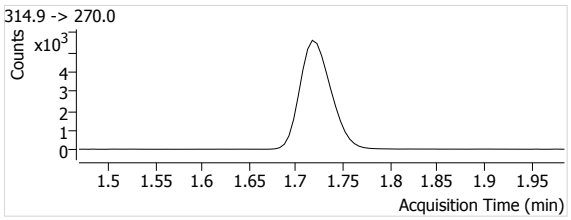




13C2-PFHxA





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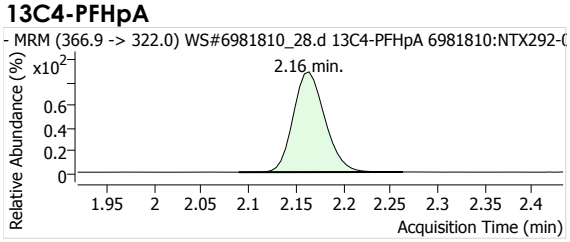
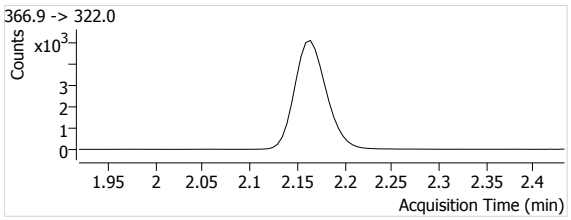
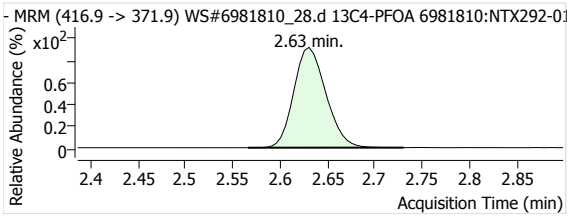
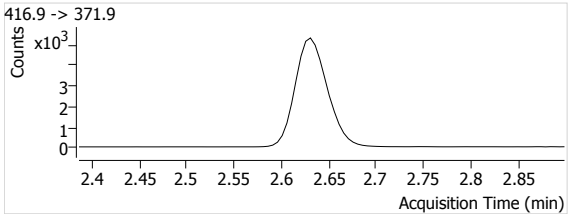




13C4-PFOA





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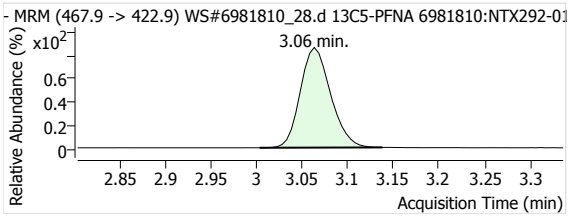

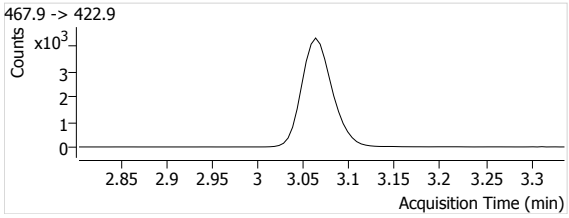

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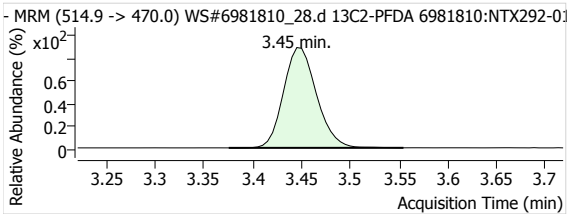

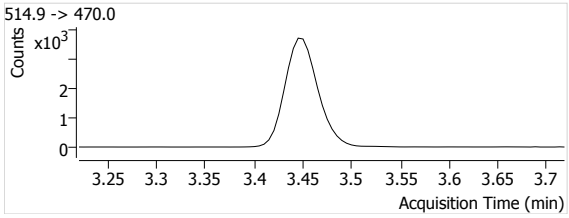

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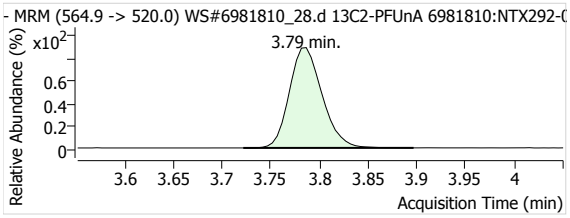

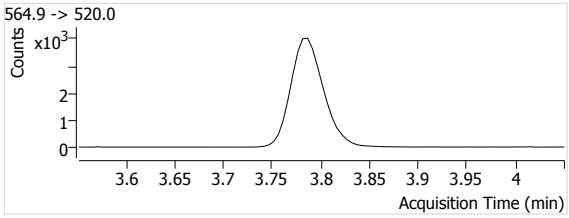

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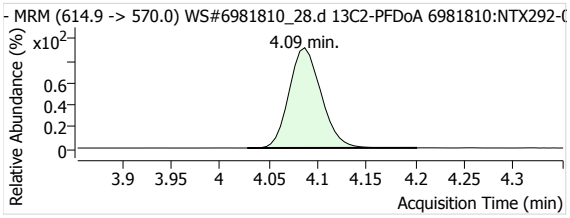

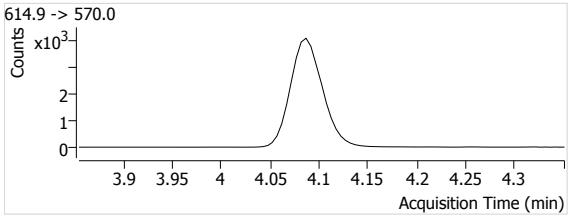

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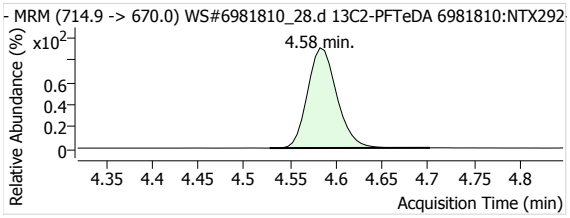

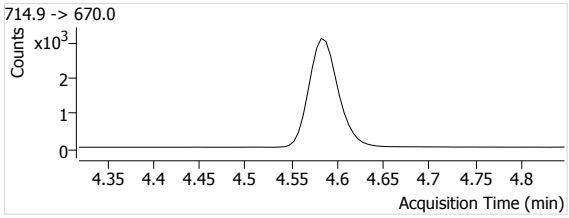

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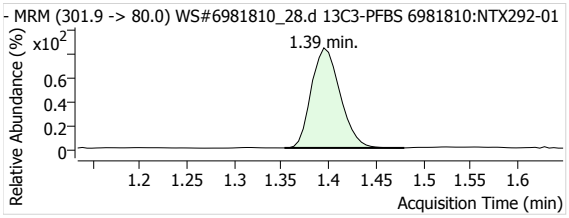
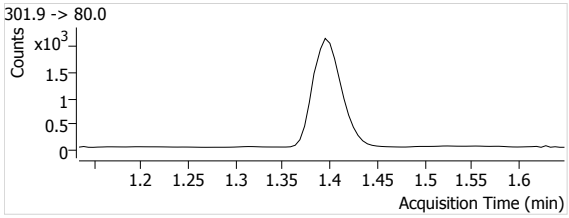
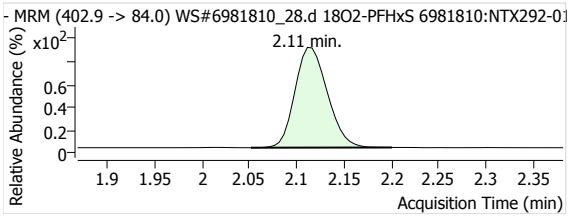
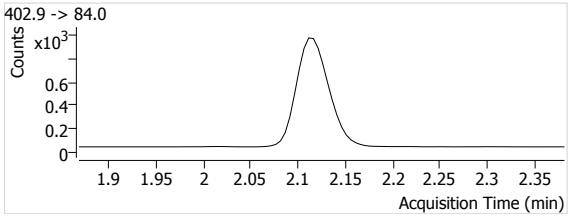




18O2-PFHxS





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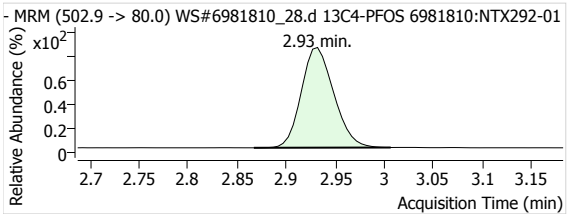
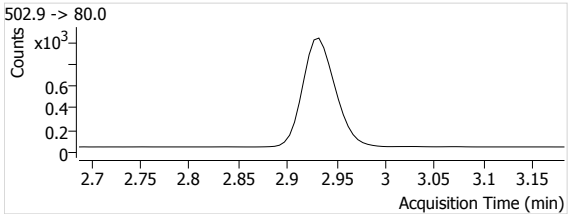
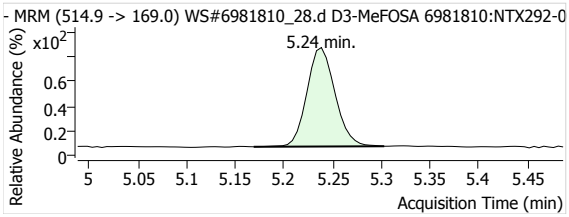
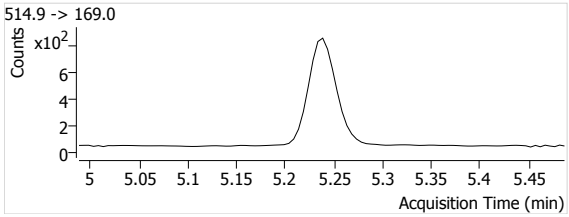




D3-MeFOSA





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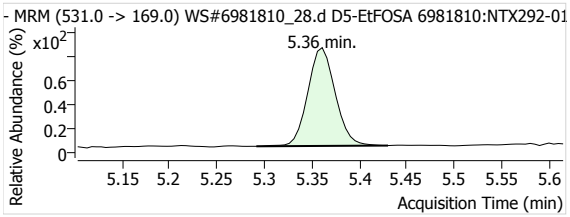
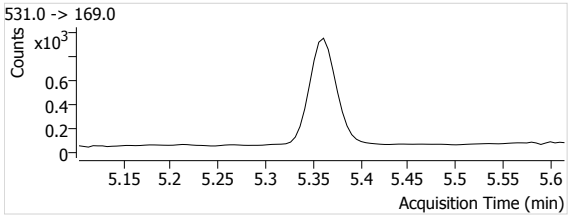




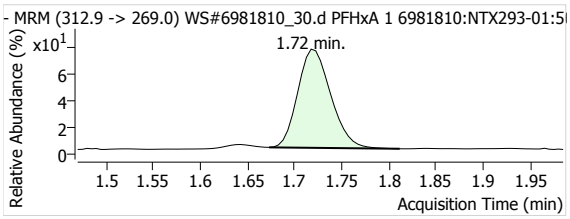
Quantitative Analysis Report

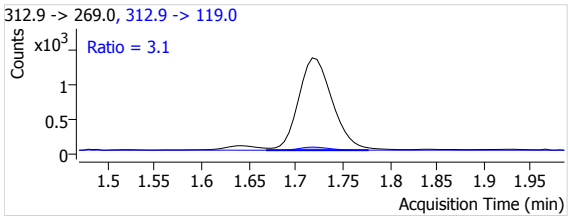
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX293-01:50x	**Data File**	WS#6981810_30.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C5
Acq. Date-Time	2020/10/05 10:44:30 AM	**Dil.**	1.2
Comment	Reported PFHxS, PFOS		
User Defined			

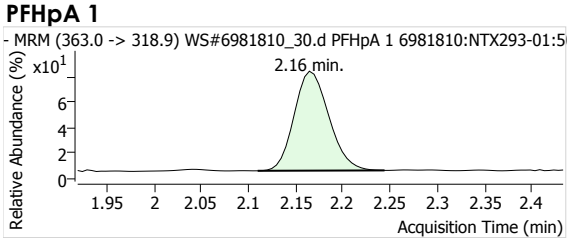
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.7197	--	3193	1.72	41	0.2700	98	1.72	20	3.1
PFHpA 1	µg/L	--	0.9210	--	2060	2.16	66	0.2054	366	2.17	28	17.8
PFOA 1	µg/L	--	1.1081	--	1678	2.64	20	0.1567	383	2.63	16	22.8
PFNA 1	µg/L	--	0.0121	--	263	3.07	6	0.0300	38	3.07	7	14.4
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0202	--	158	4.35	3	0.0255	14	4.36	3	8.9
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1027	--	98	1.40	12	0.0233	46	1.39	6	46.9
PFHxS 1	µg/L	--	5.8694	--	2205	2.07	185	1.0881	1039	2.07	213	47.1
PFOS 1	µg/L	--	23.4579	--	7897	2.89	110	3.7639	3784	2.89	335	47.9
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	95.1263	--	11828	1.72	1128		--	--	--	--
13C4-PFHpA	µg/L	--	96.5809	--	10028	2.16	1505		--	--	--	--
13C4-PFOA	µg/L	--	94.9552	--	10710	2.63	507		--	--	--	--
13C5-PFNA	µg/L	--	99.0731	--	8765	3.07	667		--	--	--	--
13C2-PFDA	µg/L	--	95.6628	--	7455	3.45	895		--	--	--	--
13C2-PFUnA	µg/L	--	92.7151	--	7878	3.79	309		--	--	--	--
13C2-PFDoA	µg/L	--	88.6734	--	8048	4.09	500		--	--	--	--
13C2-PFTeDA	µg/L	--	86.2838	--	6190	4.58	353		--	--	--	--
13C3-PFBS	µg/L	--	98.7333	--	4209	1.39	844		--	--	--	--
18O2-PFHxS	µg/L	--	98.4451	--	2026	2.12	426		--	--	--	--
13C4-PFOS	µg/L	--	99.4784	--	2098	2.93	251		--	--	--	--
D3-MeFOSA	µg/L	--	55.4637	--	1543	5.24	74		--	--	--	--
D5-EtFOSA	µg/L	--	53.0809	--	1766	5.36	46		--	--	--	--

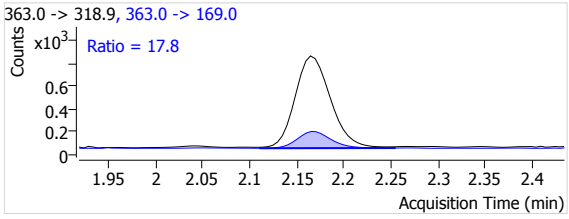
PFHxA 1



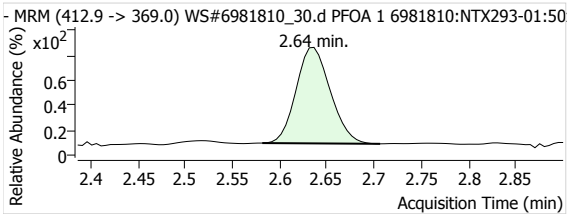


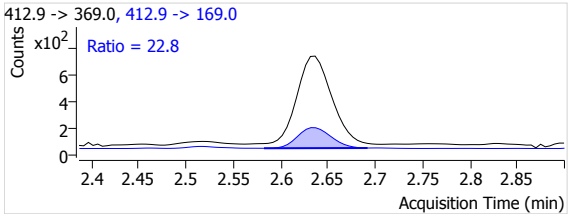
PFHpA 1





PFOA 1





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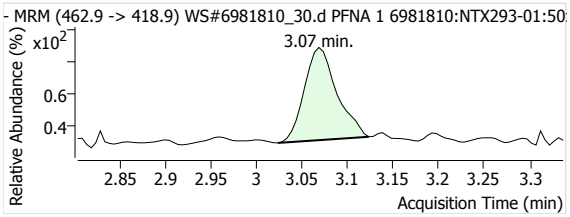

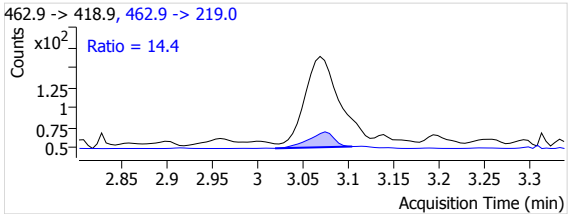

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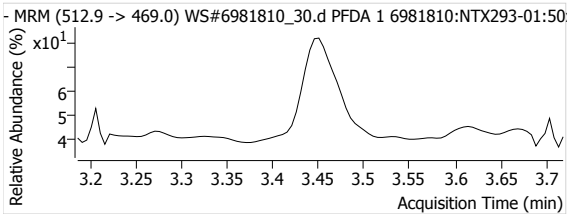

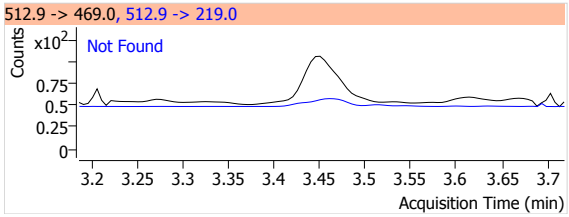

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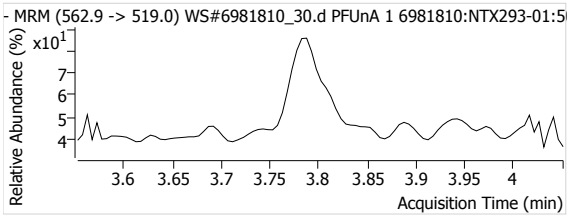

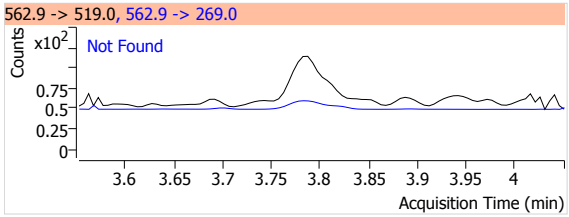

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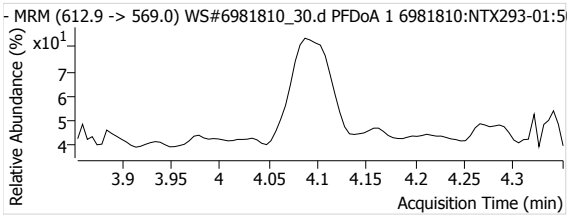

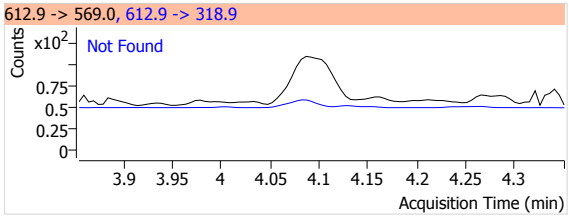

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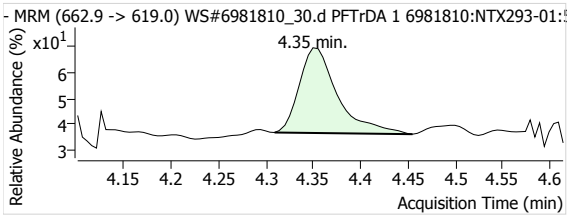

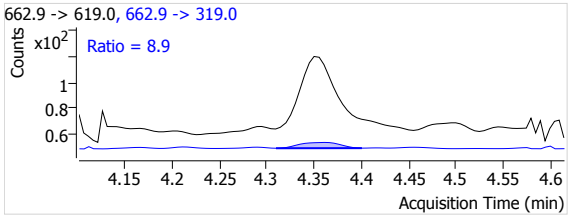

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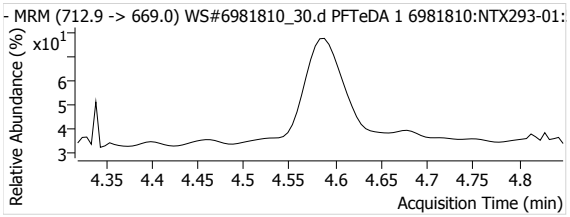

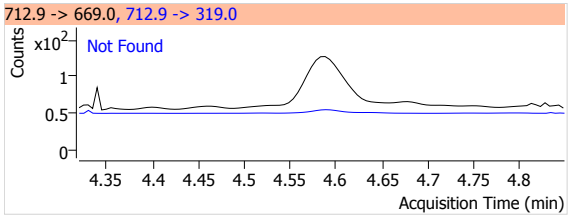

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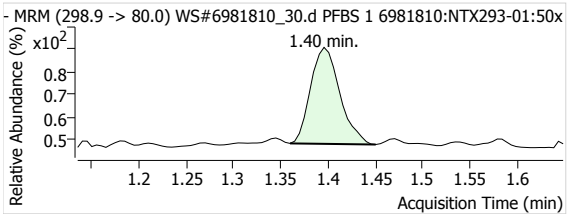

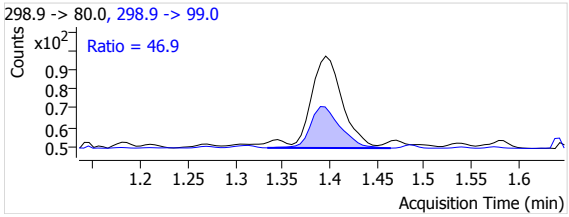

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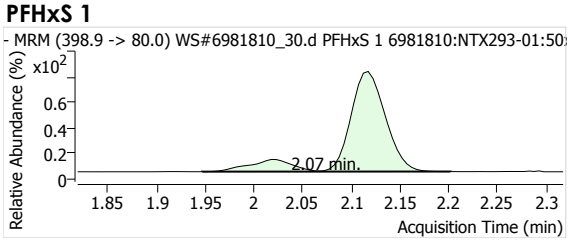
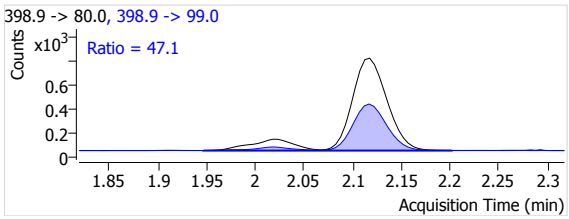
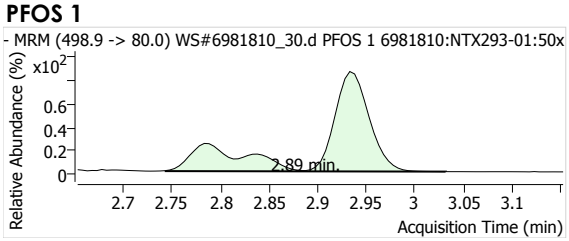
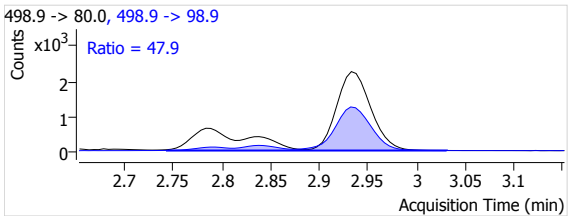


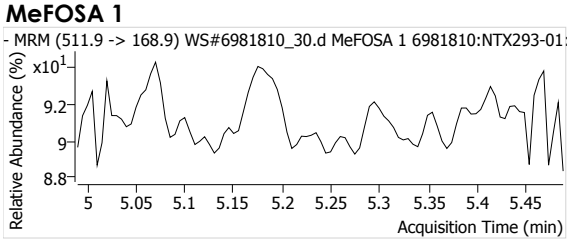


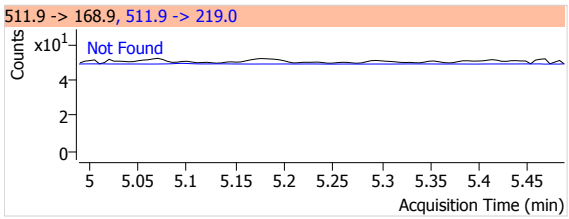
PFOS 1





MeFOSA 1





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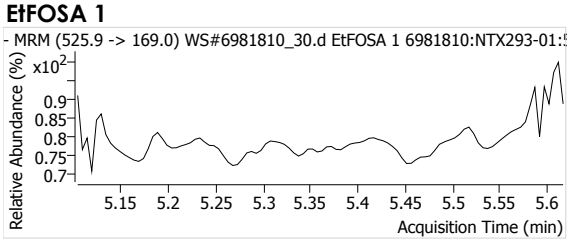

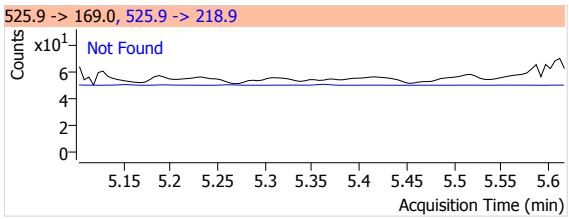

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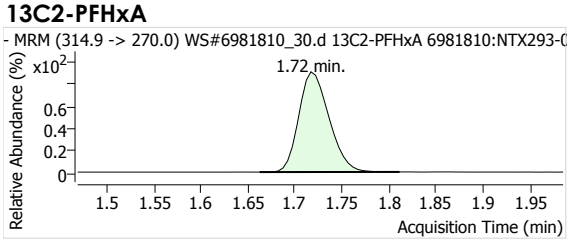

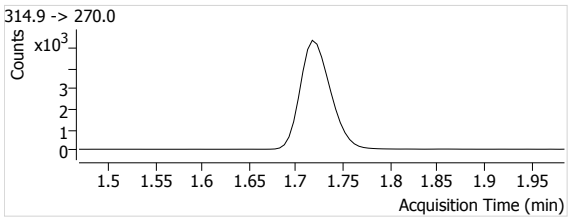

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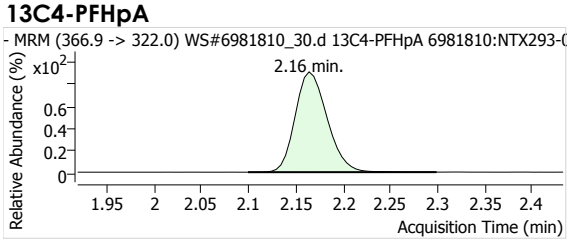

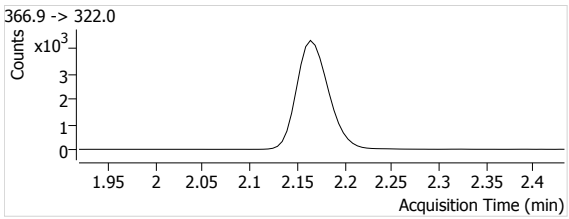

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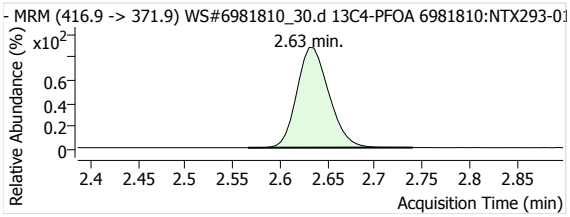

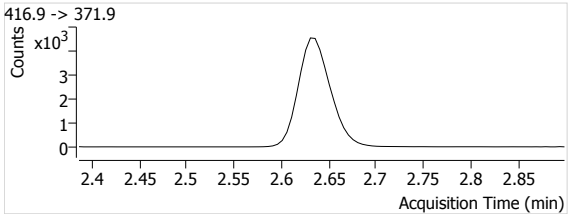

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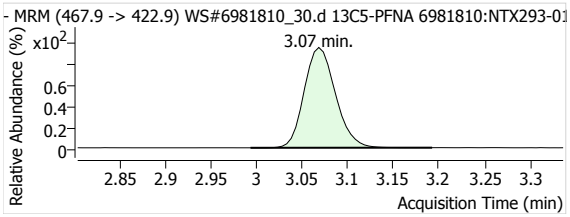

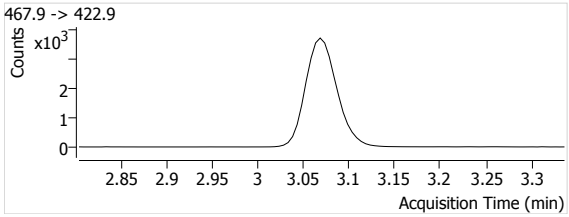

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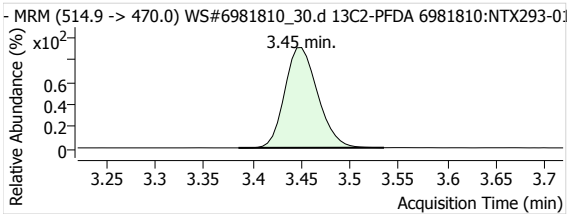

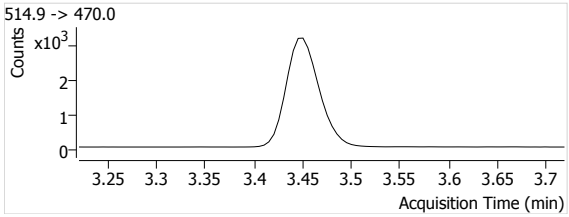

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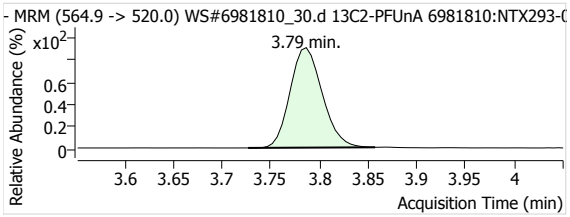

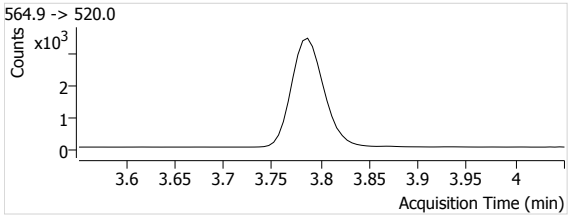

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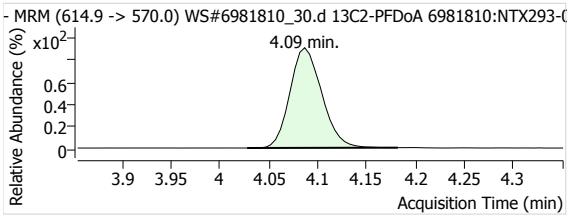

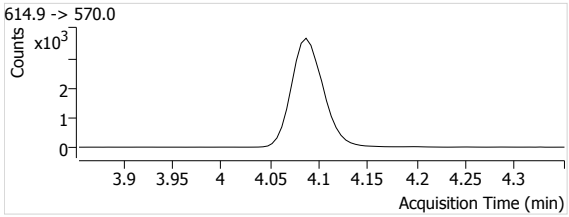

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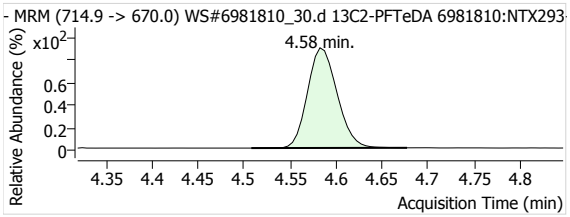

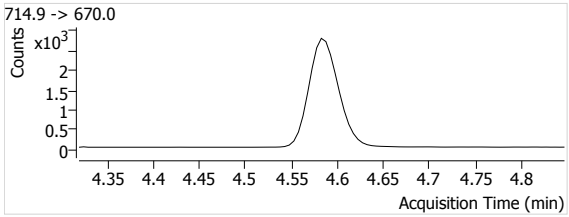

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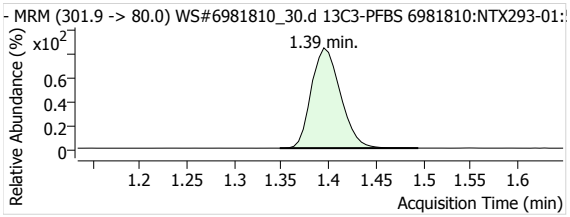

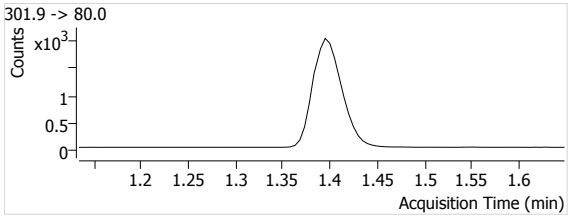

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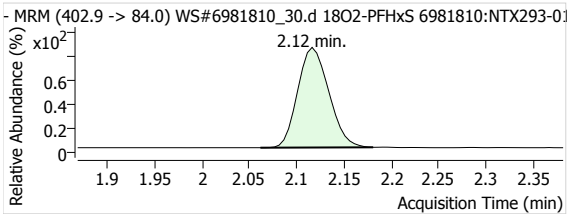

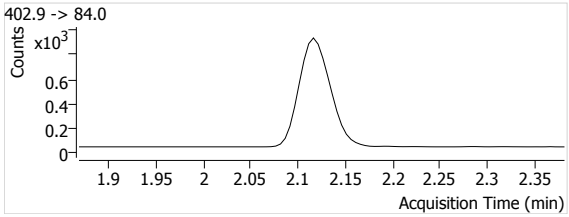

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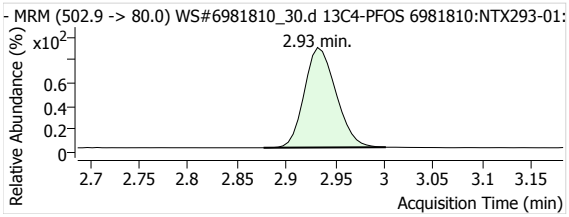

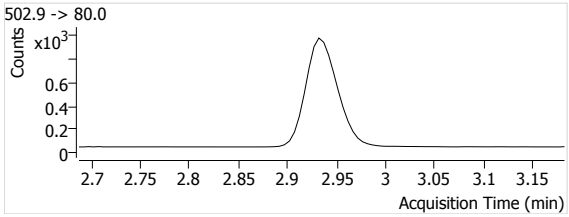

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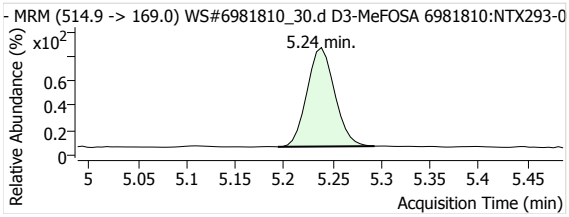

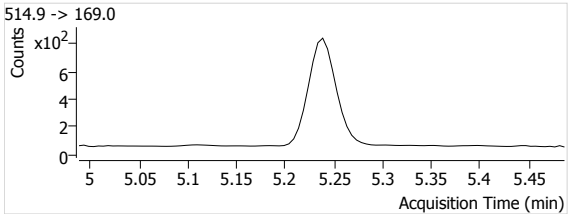

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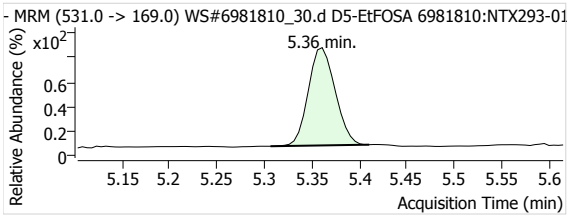
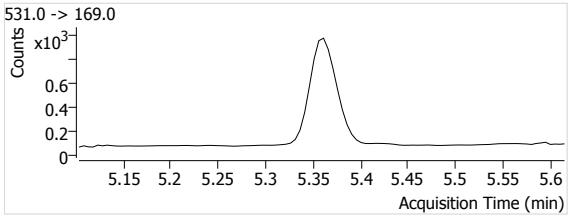




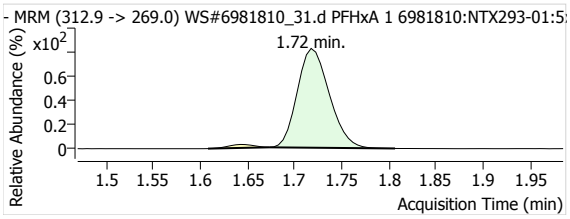
Quantitative Analysis Report

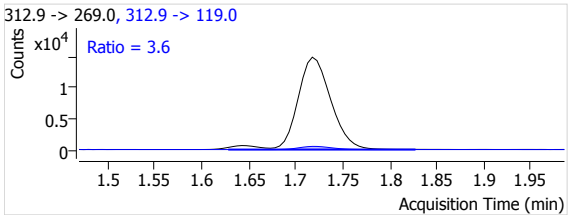
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX293-01:5x	**Data File**	WS#6981810_31.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C6
Acq. Date-Time	2020/10/05 10:51:30 AM	**Dil.**	0.1
Comment	Reported all except PFHxS, PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.7745	--	34922	1.72	603	2.6362	1257	1.72	134	3.6
PFHpA 1	µg/L	--	0.9844	--	22921	2.16	620	1.9952	3764	2.17	75	16.4
PFOA 1	µg/L	--	1.1525	--	19438	2.63	527	1.5488	4945	2.63	374	25.4
PFNA 1	µg/L	--	0.0699	--	1384	3.06	46	0.1362	179	3.06	17	12.9
PFDA 1	µg/L	--	0.0079	--	279	3.45	7	0.0325	48	3.46	25	17.2
PFUnA 1	µg/L	--	0.0028	--	172	3.79	4	0.0186	28	3.79	9	16.3
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	156	4.35	3	0.0205	1	4.34	4	0.6
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1310	--	1023	1.40	49	0.2223	391	1.40	26	38.2
PFHxS 1	µg/L	--	5.8403	--	23924	2.07	961	10.6901	10860	2.07	731	45.4
PFOS 1	µg/L	--	23.4980	--	78963	2.89	167	37.6911	37353	2.89	505	47.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	106.5385	--	13247	1.72	646		--	--	--	--
13C4-PFHpA	µg/L	--	110.6424	--	11488	2.16	1673		--	--	--	--
13C4-PFOA	µg/L	--	111.2687	--	12550	2.63	704		--	--	--	--
13C5-PFNA	µg/L	--	114.8864	--	10164	3.07	1203		--	--	--	--
13C2-PFDA	µg/L	--	110.0988	--	8580	3.45	471		--	--	--	--
13C2-PFUnA	µg/L	--	108.8149	--	9246	3.79	935		--	--	--	--
13C2-PFDoA	µg/L	--	101.4654	--	9209	4.09	498		--	--	--	--
13C2-PFTeDA	µg/L	--	106.2587	--	7623	4.58	431		--	--	--	--
13C3-PFBS	µg/L	--	107.9521	--	4602	1.39	440		--	--	--	--
18O2-PFHxS	µg/L	--	108.7464	--	2238	2.12	569		--	--	--	--
13C4-PFOS	µg/L	--	99.3362	--	2095	2.93	260		--	--	--	--
D3-MeFOSA	µg/L	--	36.0173	--	1002	5.24	40		--	--	--	--
D5-EtFOSA	µg/L	--	32.3715	--	1077	5.36	21		--	--	--	--

PFHxA 1





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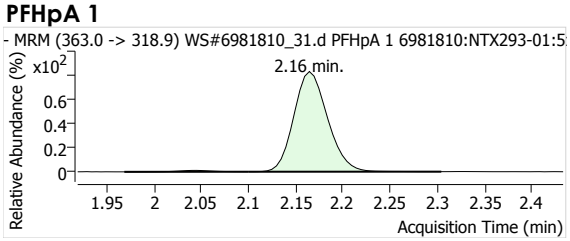

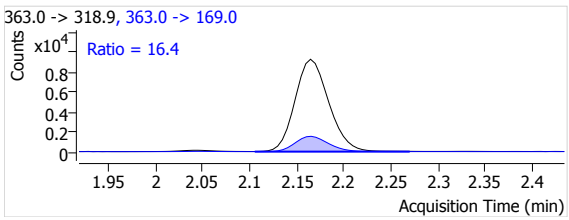

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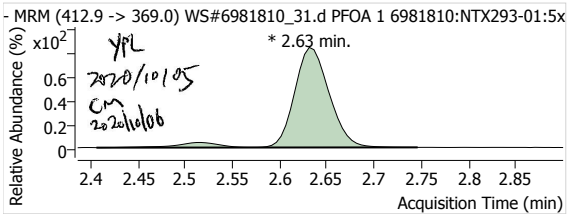

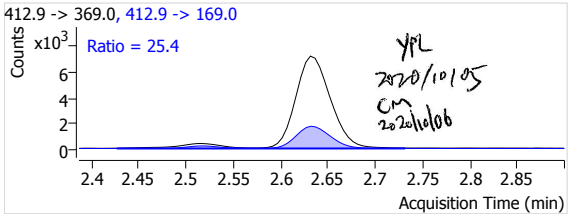

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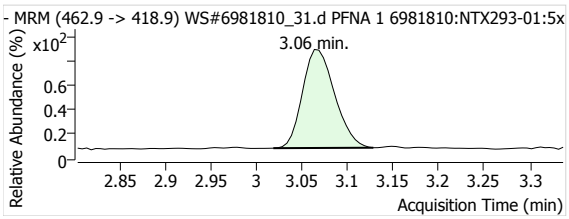

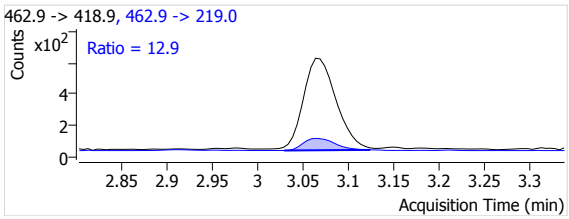

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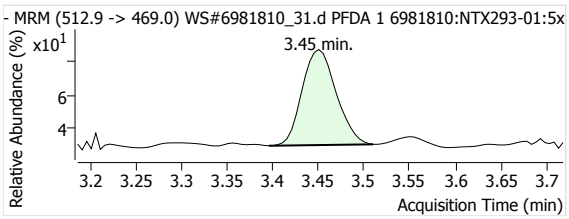

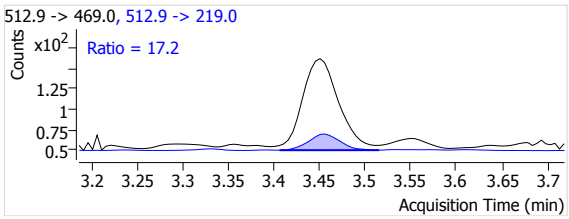

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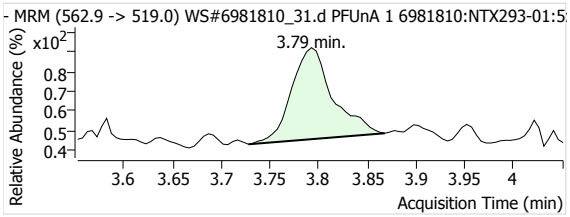

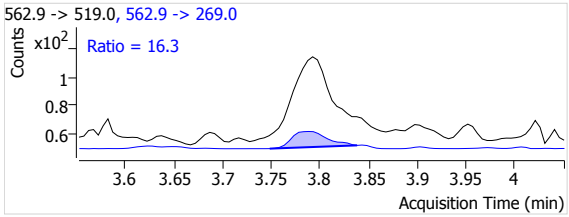

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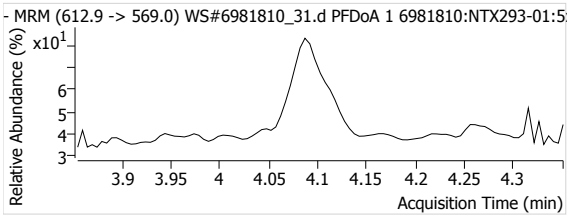

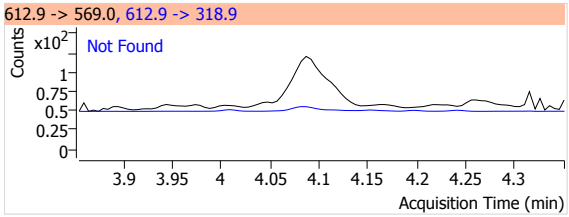

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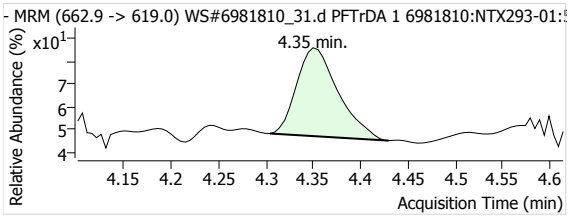

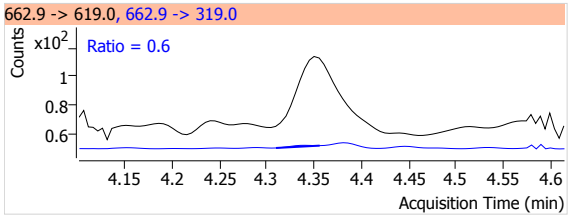

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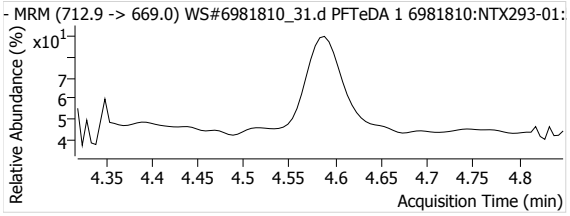

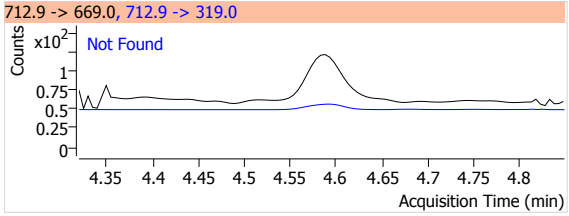

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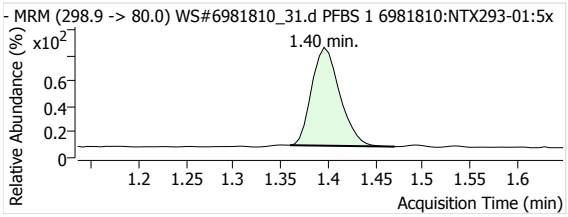
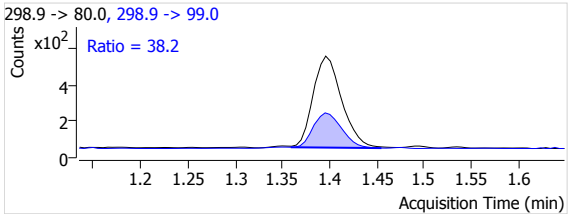
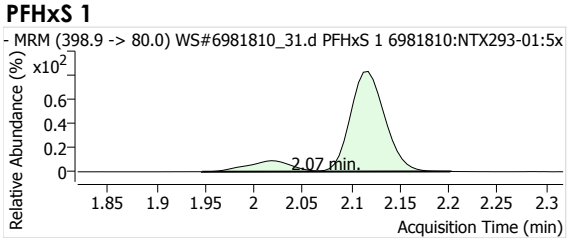
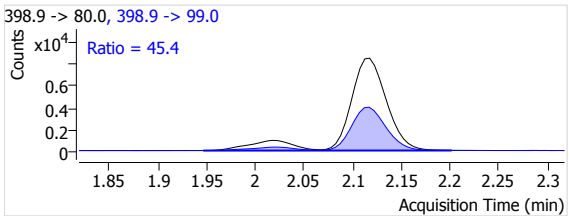


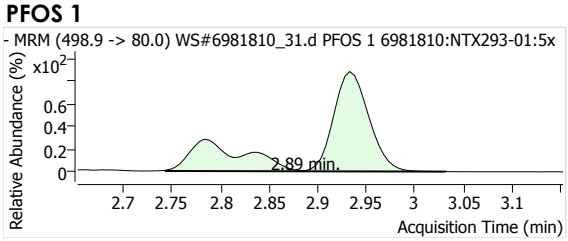


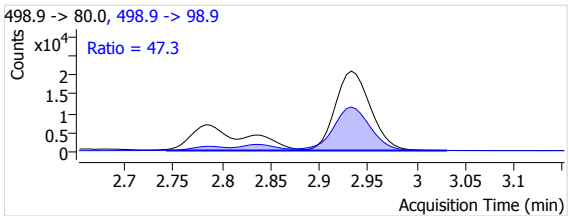
PFHxS 1





PFOS 1





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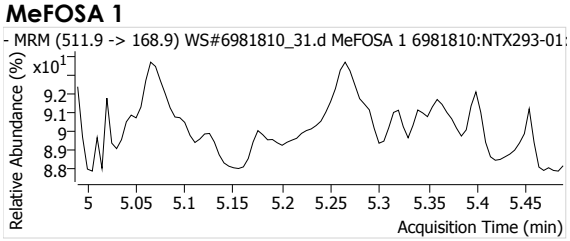

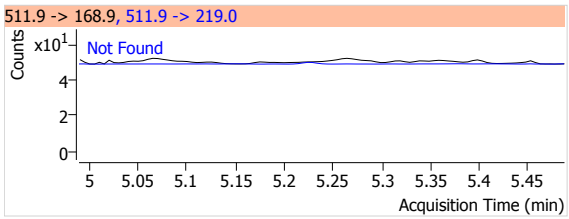

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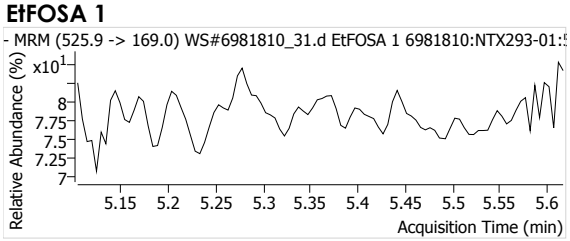
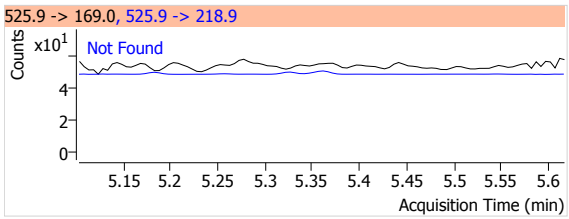
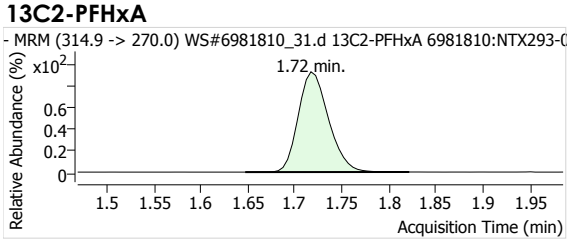
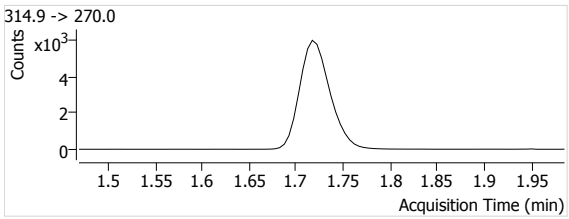




13C2-PFHxA





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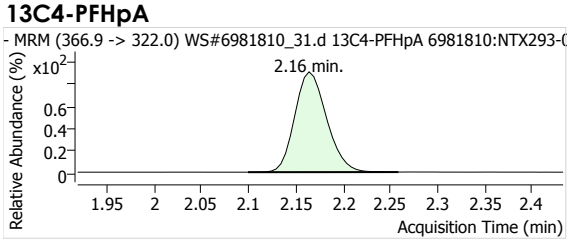

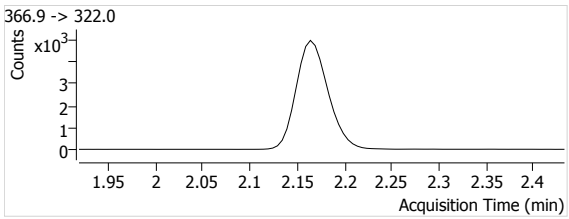

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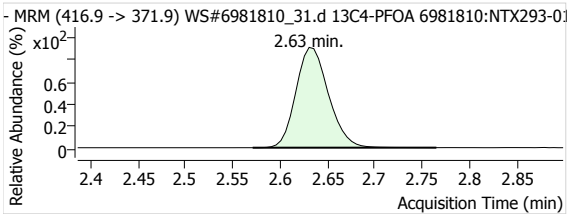

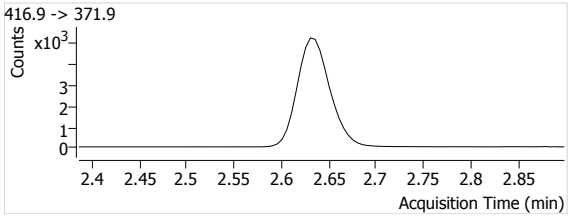

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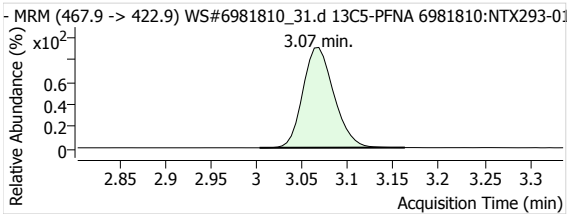

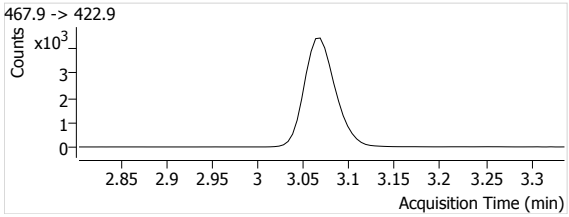

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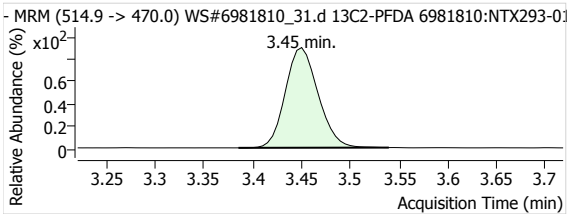

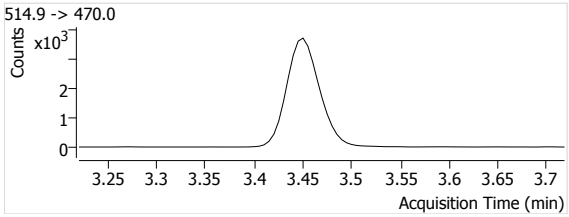

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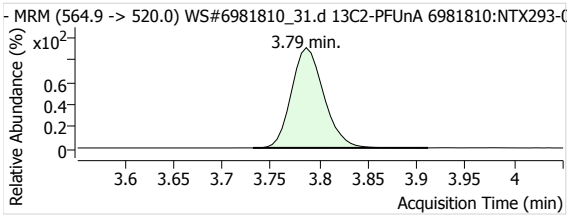

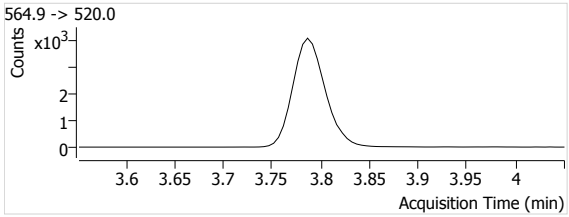

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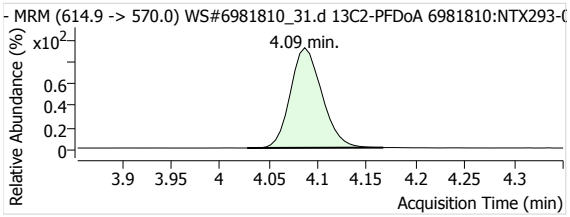

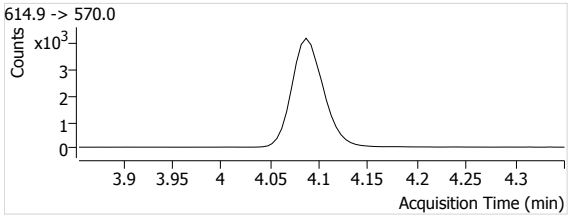

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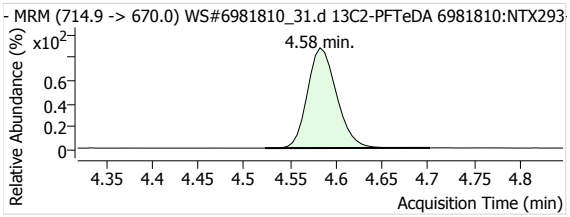

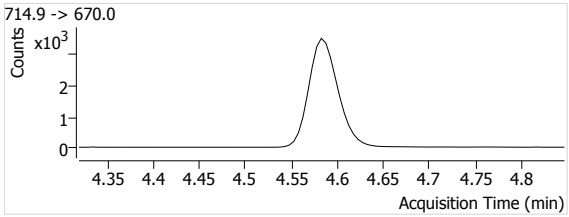

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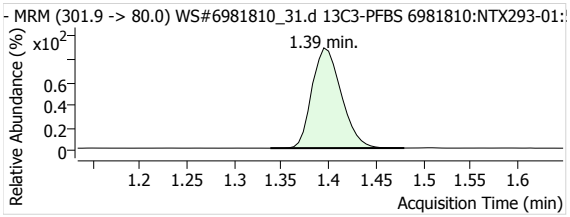

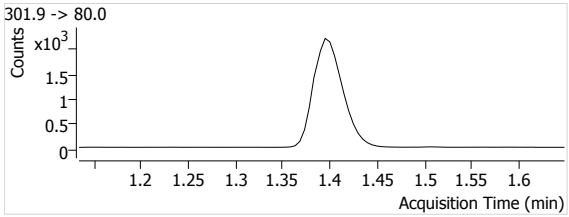

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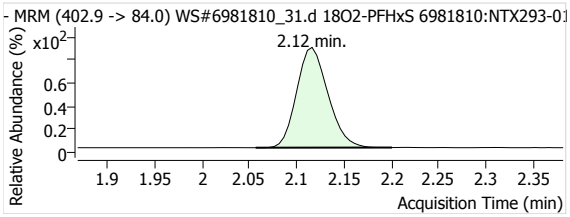

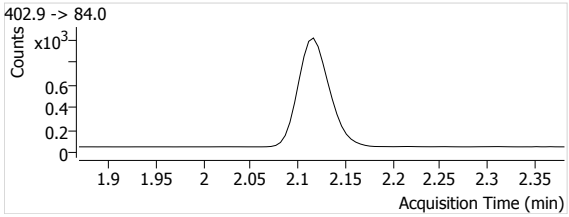

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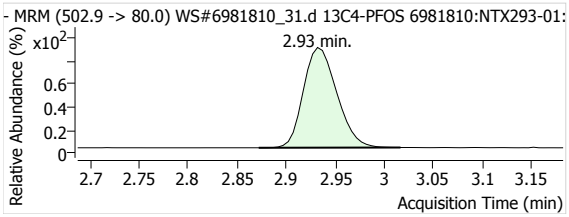
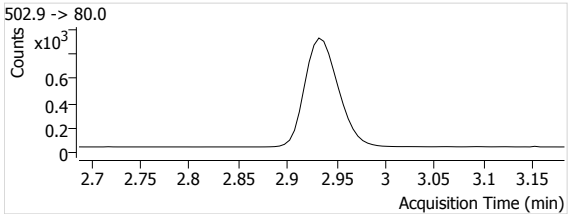
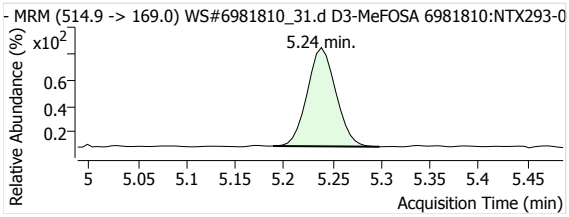
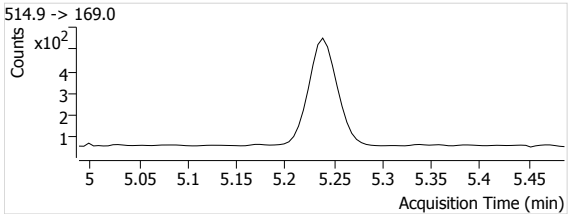




D3-MeFOSA





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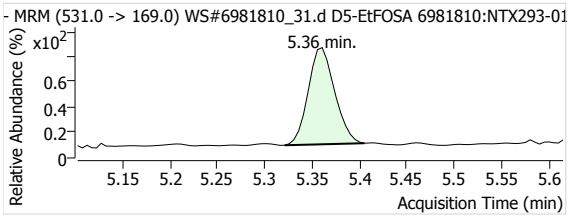
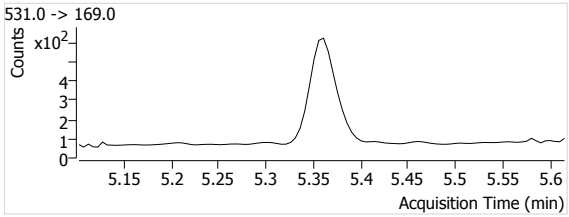




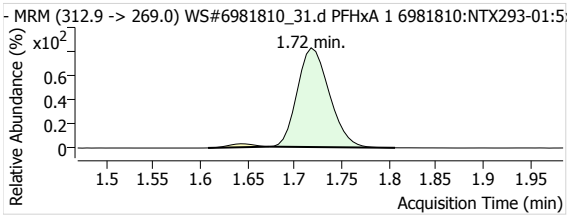
Quantitative Analysis Report

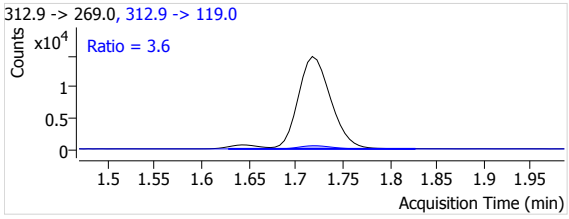
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX293-01:5x	**Data File**	WS#6981810_31.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C6
Acq. Date-Time	2020/10/05 10:51:30 AM	**Dil.**	0.1
Comment	Reported all except PFHxS, PFOS		
User Defined	MI PFOA		

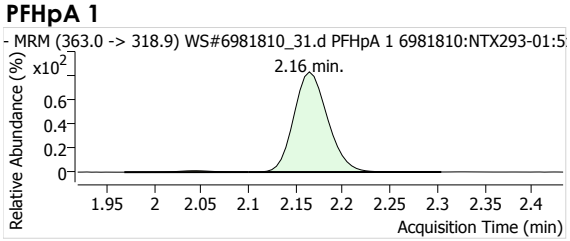
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	1.7745	--	34922	1.72	603	2.6362	1257	1.72	134	3.6
PFHpA 1	µg/L	--	0.9844	--	22921	2.16	620	1.9952	3764	2.17	75	16.4
PFOA 1	µg/L	--	1.0727	--	18100	2.63	477	1.4422	4393	2.63	373	24.3
PFNA 1	µg/L	--	0.0699	--	1384	3.06	46	0.1362	179	3.06	17	12.9
PFDA 1	µg/L	--	0.0079	--	279	3.45	7	0.0325	48	3.46	25	17.2
PFUnA 1	µg/L	--	0.0028	--	172	3.79	4	0.0186	28	3.79	9	16.3
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	156	4.35	3	0.0205	1	4.34	4	0.6
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.1310	--	1023	1.40	49	0.2223	391	1.40	26	38.2
PFHxS 1	µg/L	--	5.8403	--	23924	2.07	961	10.6901	10860	2.07	731	45.4
PFOS 1	µg/L	--	23.4980	--	78963	2.89	167	37.6911	37353	2.89	505	47.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	106.5385	--	13247	1.72	646		--	--	--	--
13C4-PFHpA	µg/L	--	110.6424	--	11488	2.16	1673		--	--	--	--
13C4-PFOA	µg/L	--	111.2687	--	12550	2.63	704		--	--	--	--
13C5-PFNA	µg/L	--	114.8864	--	10164	3.07	1203		--	--	--	--
13C2-PFDA	µg/L	--	110.0988	--	8580	3.45	471		--	--	--	--
13C2-PFUnA	µg/L	--	108.8149	--	9246	3.79	935		--	--	--	--
13C2-PFDoA	µg/L	--	101.4654	--	9209	4.09	498		--	--	--	--
13C2-PFTeDA	µg/L	--	106.2587	--	7623	4.58	431		--	--	--	--
13C3-PFBS	µg/L	--	107.9521	--	4602	1.39	440		--	--	--	--
18O2-PFHxS	µg/L	--	108.7464	--	2238	2.12	569		--	--	--	--
13C4-PFOS	µg/L	--	99.3362	--	2095	2.93	260		--	--	--	--
D3-MeFOSA	µg/L	--	36.0173	--	1002	5.24	40		--	--	--	--
D5-EtFOSA	µg/L	--	32.3715	--	1077	5.36	21		--	--	--	--

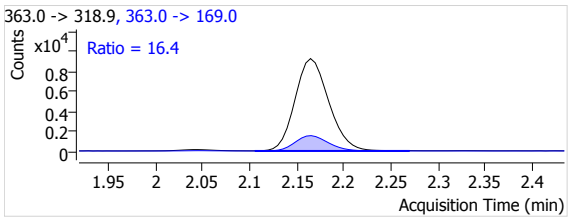
PFHxA 1





PFHpA 1





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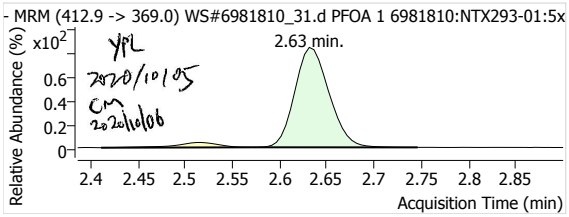
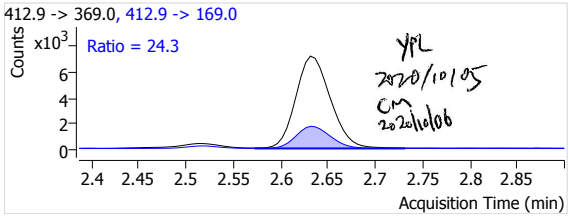
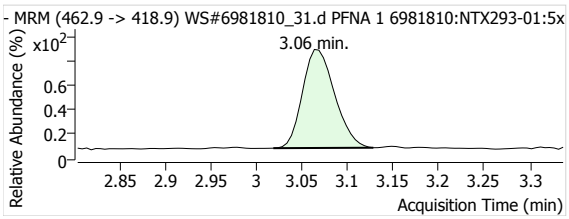
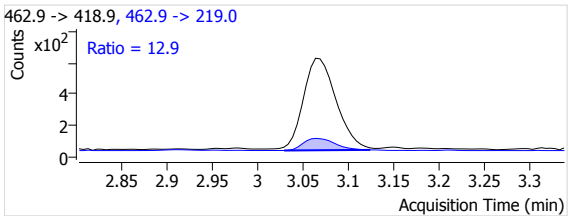




PFNA 1





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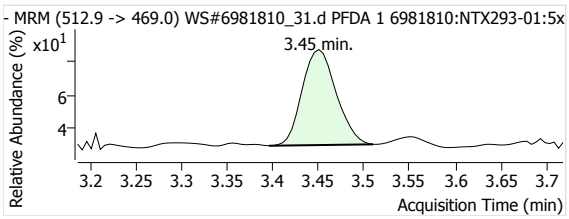
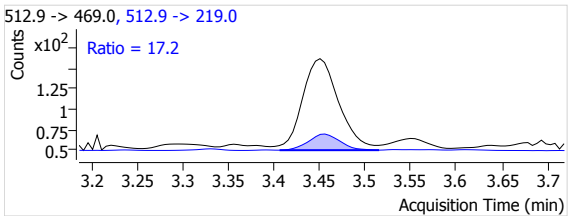
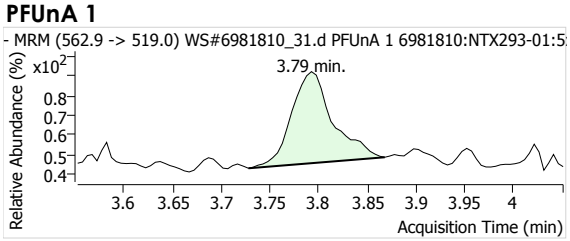
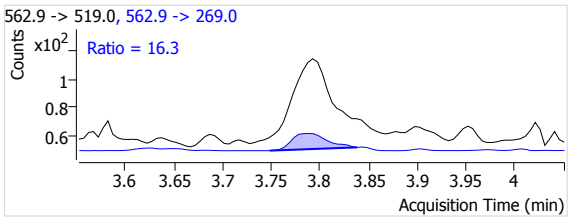




PFUnA 1





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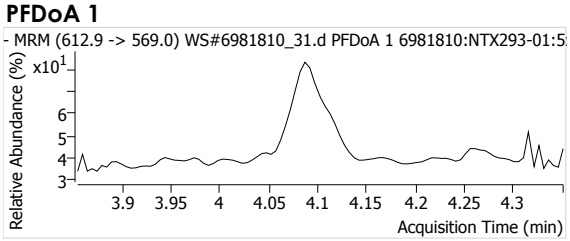

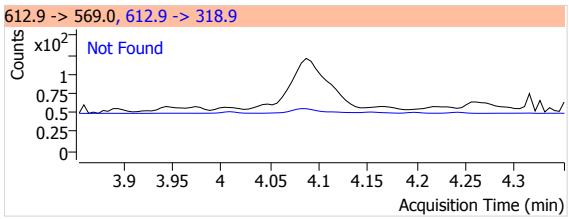

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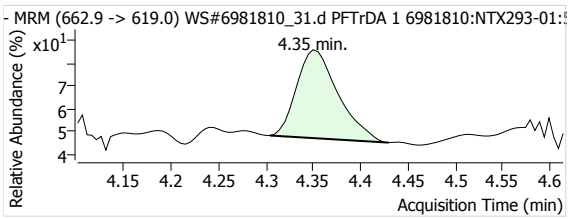

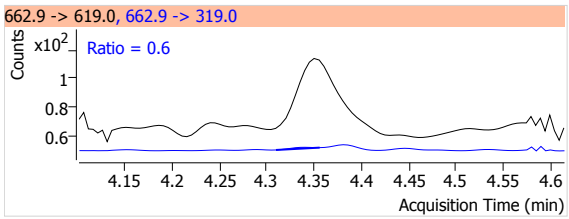

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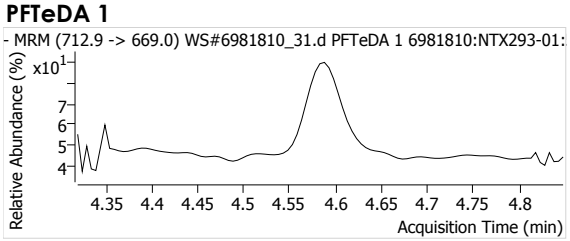

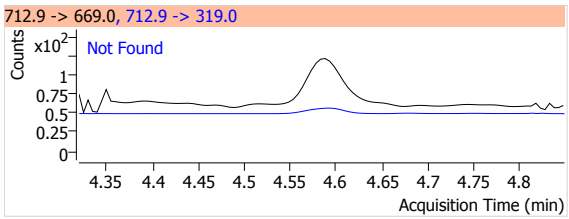

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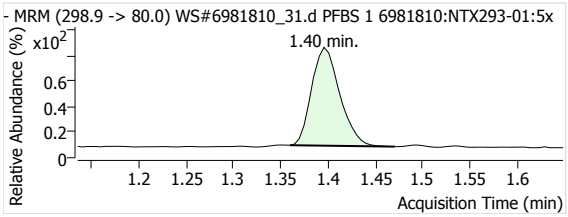

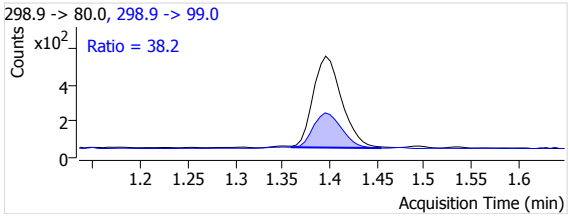

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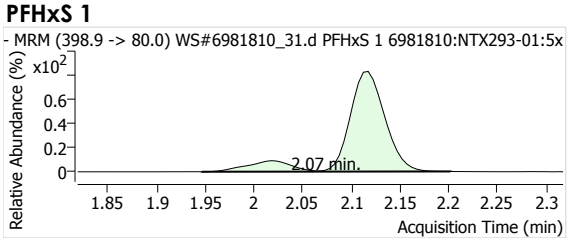

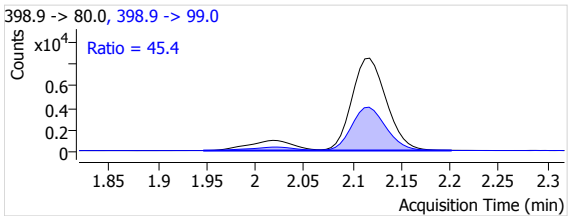

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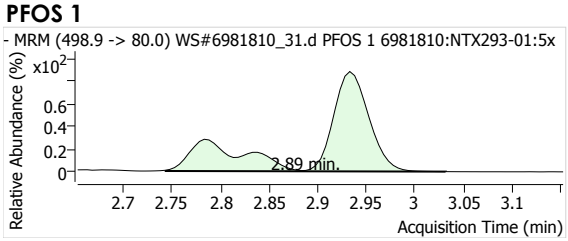

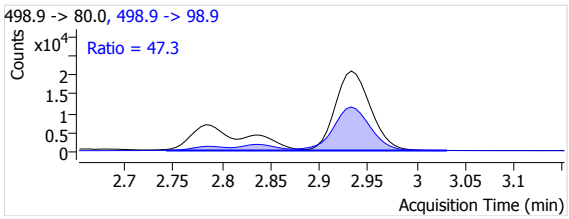

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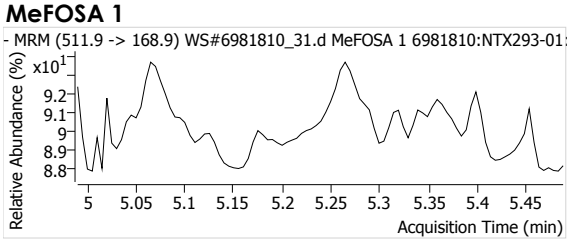

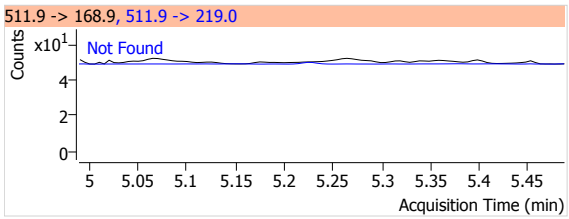

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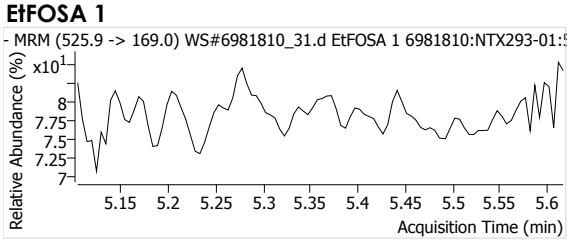

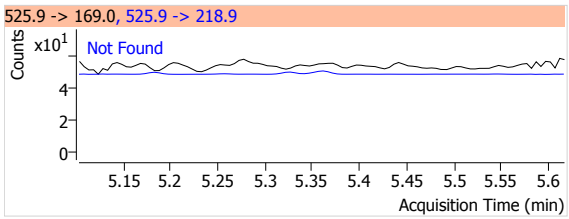

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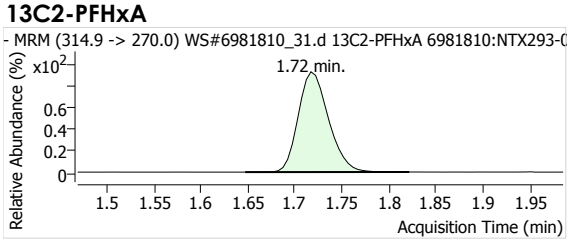

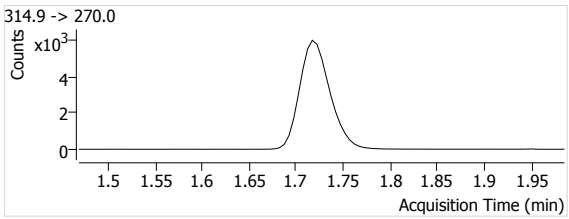

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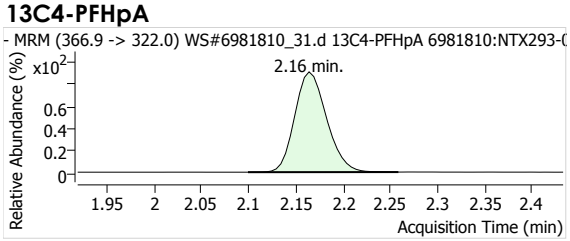

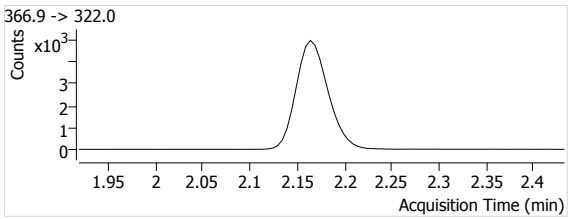

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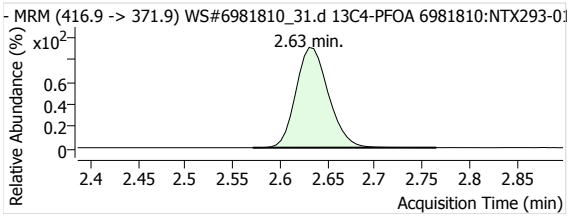

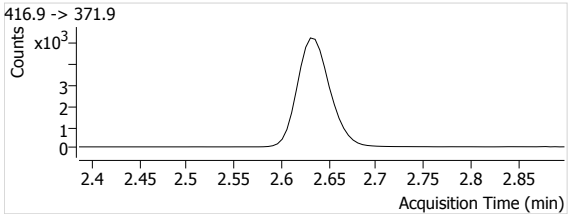

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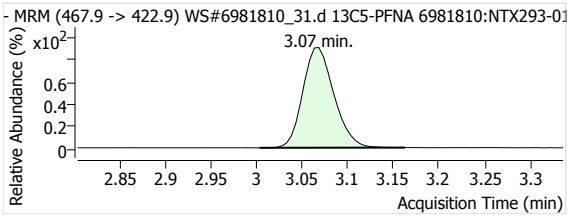

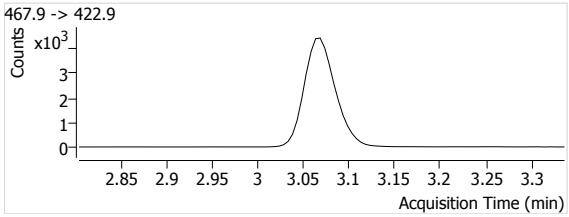

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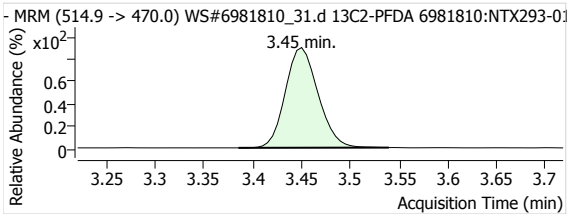

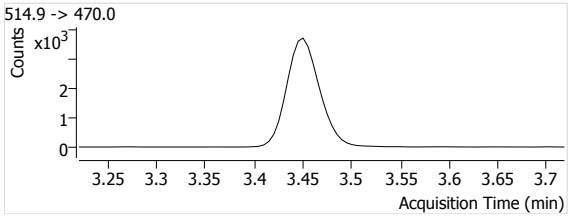

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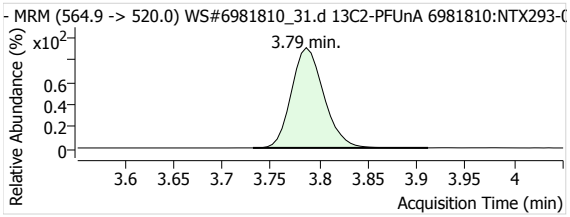

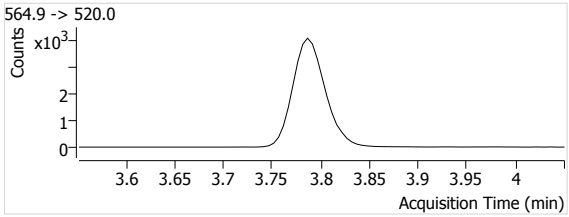

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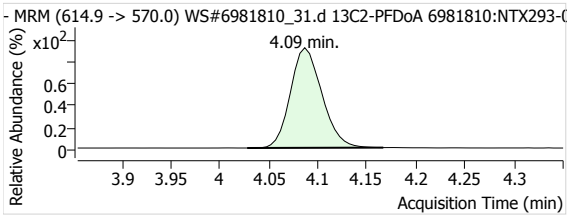

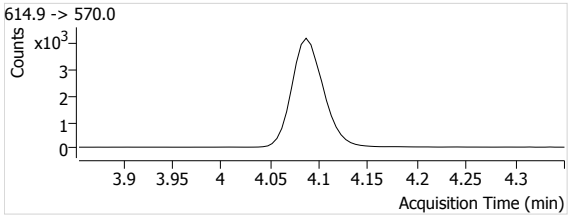

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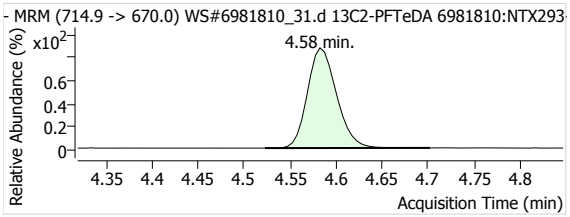

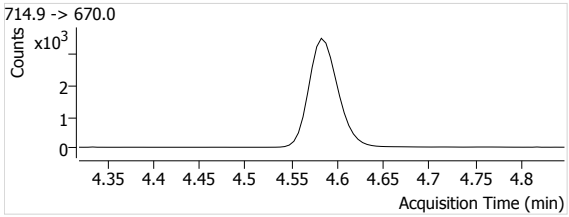

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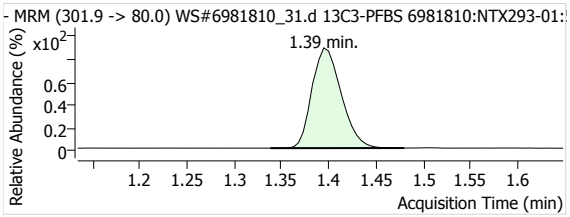

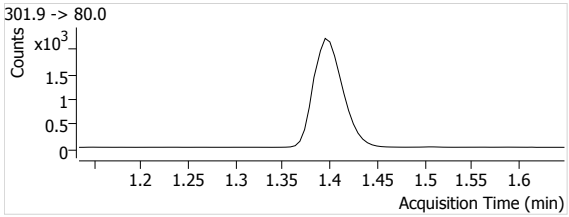

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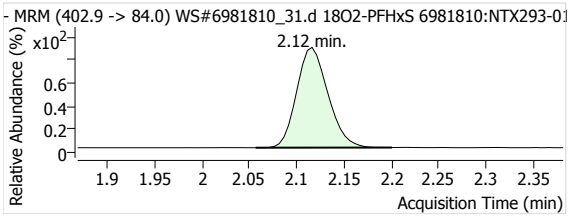

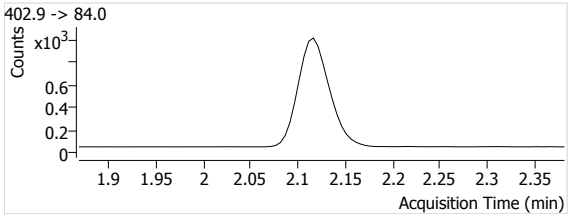

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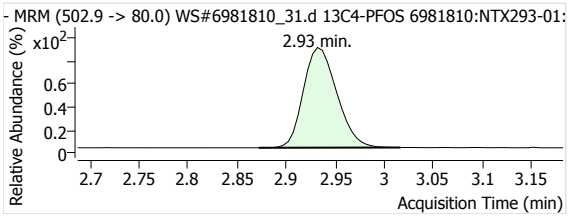

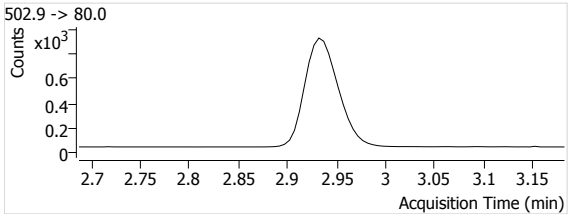

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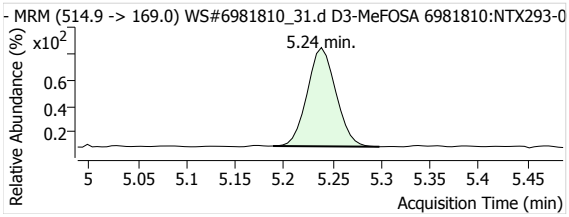

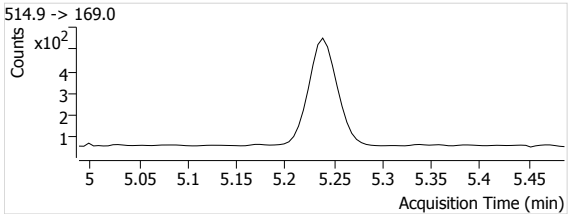

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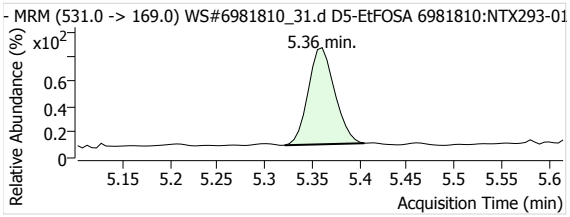
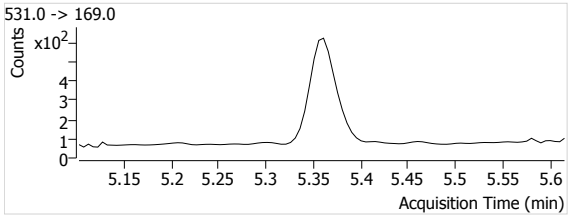




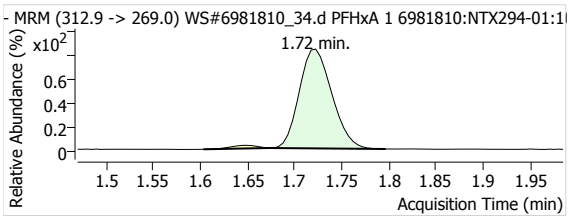
Quantitative Analysis Report

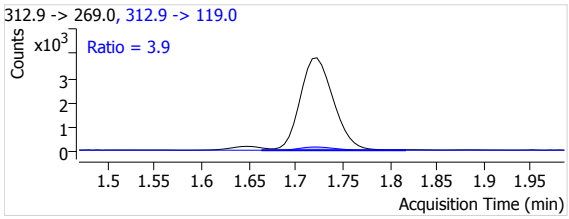
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX294-01:10x	**Data File**	WS#6981810_34.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C7
Acq. Date-Time	2020/10/05 11:12:28 AM	**Dil.**	0.2
Comment	Reported PFOA, PFHxS, PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.8829	--	9026	1.72	258	0.6679	348	1.72	90	3.9
PFHpA 1	µg/L	--	0.4453	--	5399	2.16	67	0.4672	930	2.17	52	17.2
PFOA 1	µg/L	--	1.1668	--	9650	2.64	103	0.7882	2529	2.63	277	26.2
PFNA 1	µg/L	--	0.0179	--	428	3.07	10	0.0420	83	3.07	5	19.4
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	158	4.09	5	0.0171	13	4.09	8	8.2
PFTrDA 1	µg/L	--	0.0000	--	154	4.36	3	0.0201	16	4.36	6	10.4
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0670	--	289	1.40	18	0.0615	107	1.40	16	37.0
PFHxS 1	µg/L	--	1.8978	--	3919	2.07	352	1.7497	1776	2.07	285	45.3
PFOS 1	µg/L	--	7.0231	--	12986	2.89	327	5.6338	6464	2.89	547	49.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	108.6939	--	13515	1.72	968		--	--	--	--
13C4-PFHpA	µg/L	--	111.2877	--	11555	2.16	1308		--	--	--	--
13C4-PFOA	µg/L	--	108.5469	--	12243	2.64	1340		--	--	--	--
13C5-PFNA	µg/L	--	115.2029	--	10192	3.07	829		--	--	--	--
13C2-PFDA	µg/L	--	107.8147	--	8402	3.45	673		--	--	--	--
13C2-PFUnA	µg/L	--	107.2849	--	9116	3.79	507		--	--	--	--
13C2-PFDoA	µg/L	--	102.0383	--	9261	4.09	1103		--	--	--	--
13C2-PFTeDA	µg/L	--	106.7745	--	7660	4.58	622		--	--	--	--
13C3-PFBS	µg/L	--	110.1572	--	4696	1.40	1002		--	--	--	--
18O2-PFHxS	µg/L	--	108.8435	--	2240	2.12	709		--	--	--	--
13C4-PFOS	µg/L	--	109.2935	--	2305	2.93	486		--	--	--	--
D3-MeFOSA	µg/L	--	40.0072	--	1113	5.24	47		--	--	--	--
D5-EtFOSA	µg/L	--	37.9321	--	1262	5.36	35		--	--	--	--

PFHxA 1





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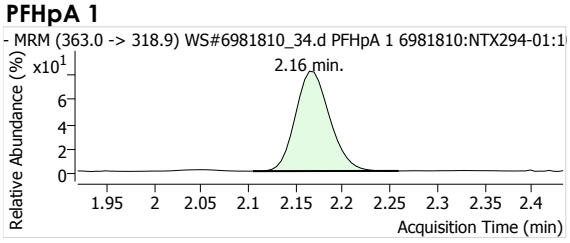

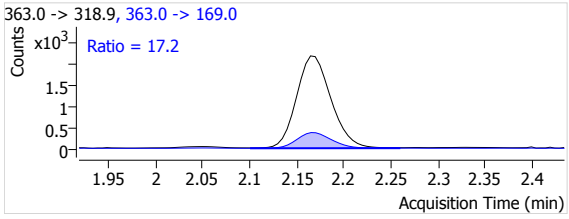

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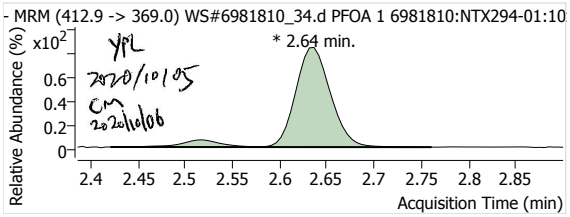

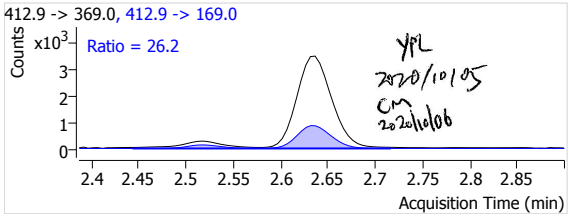

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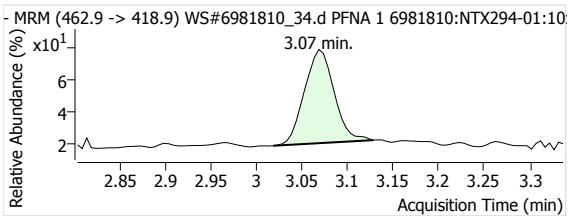

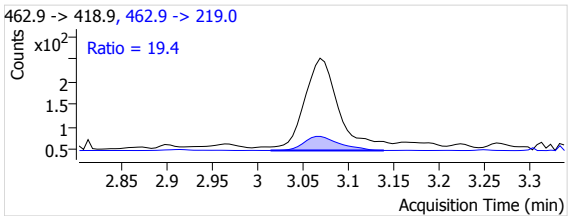

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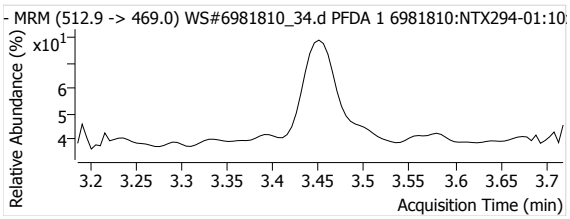
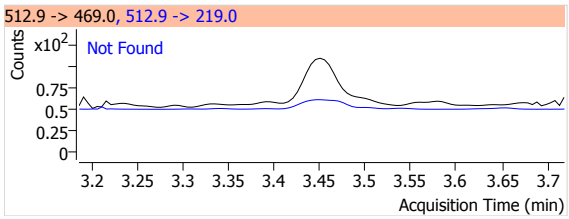
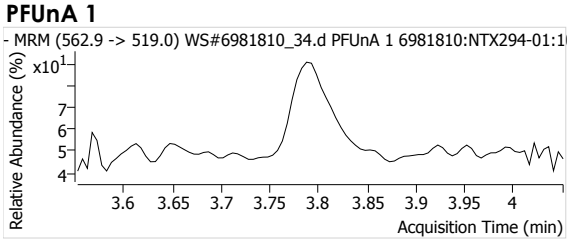
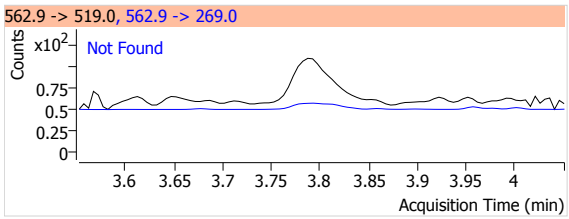




PFUnA 1





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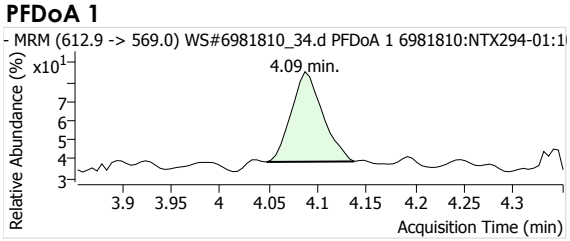

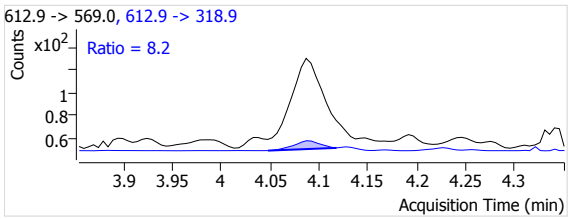

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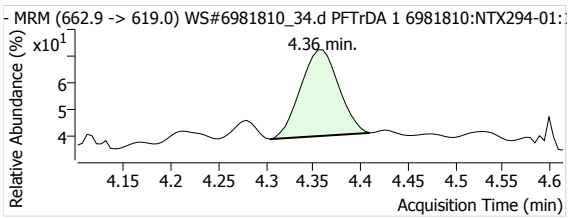

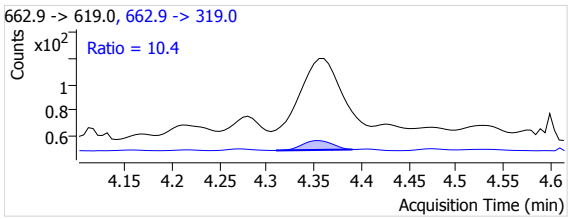

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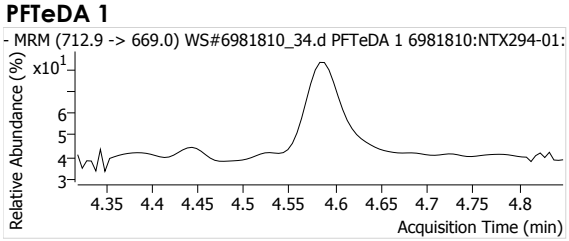

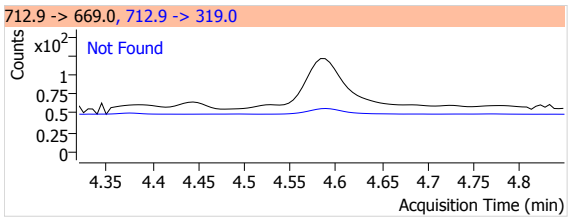

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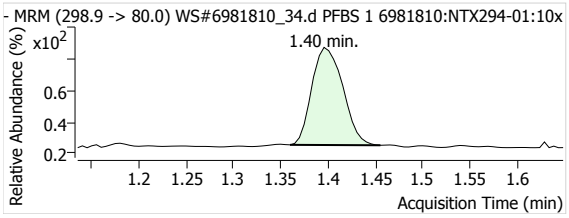

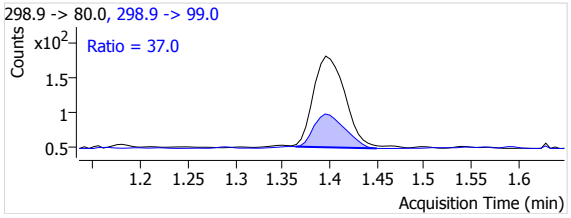

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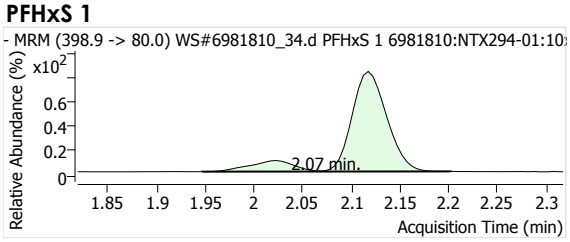

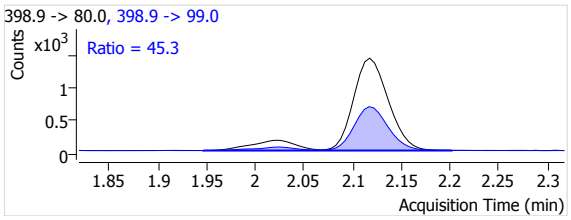

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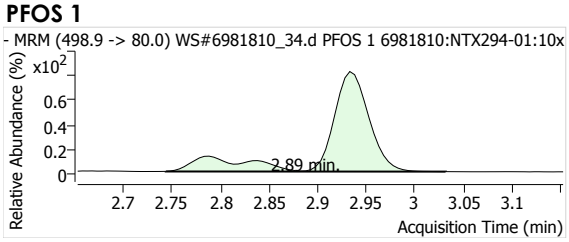

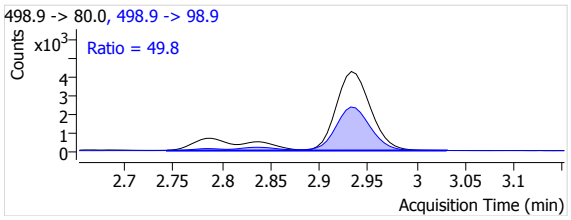

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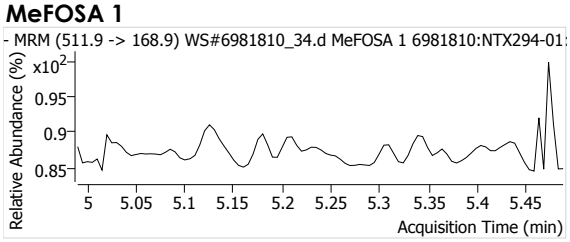

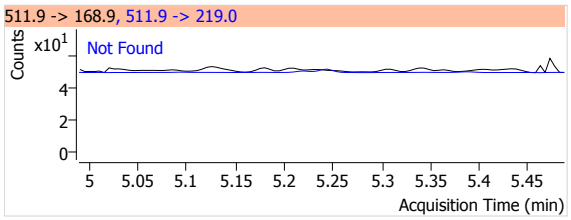

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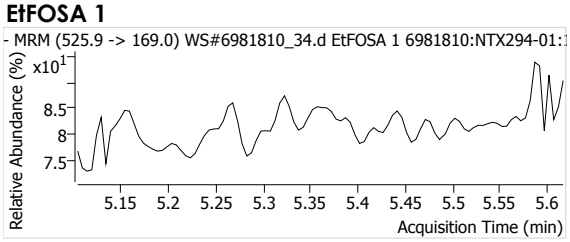
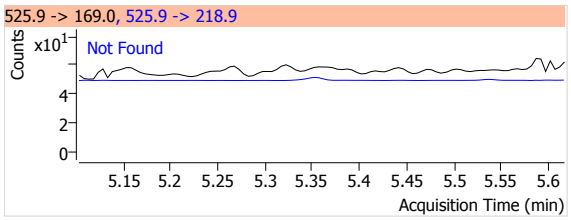
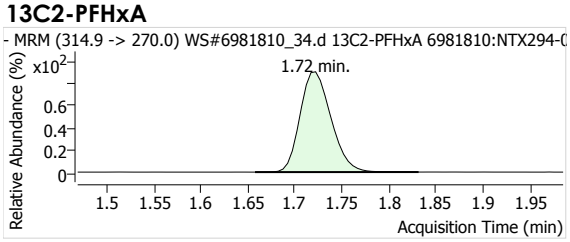
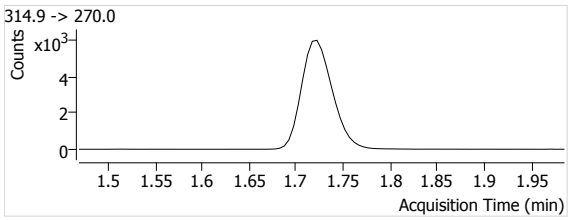




13C2-PFHxA





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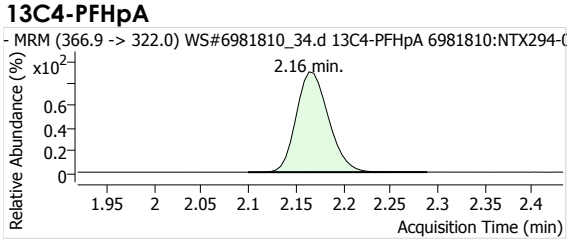

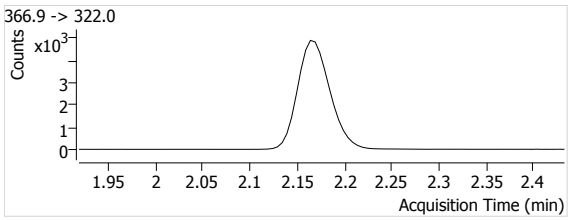

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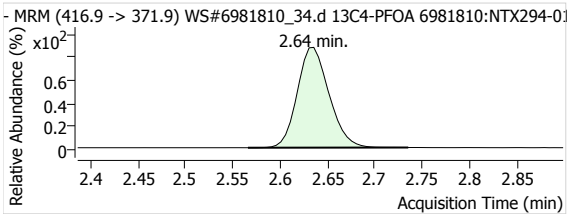

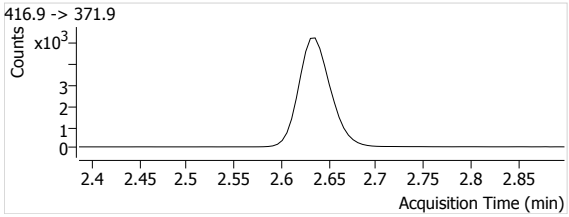

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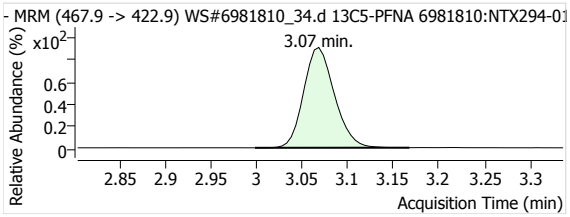

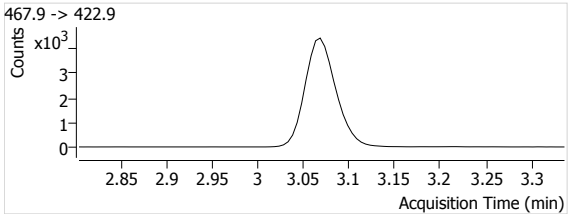

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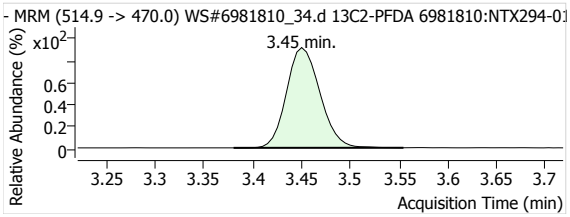

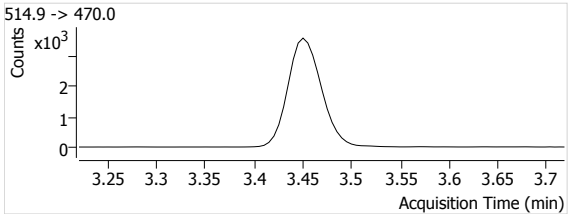

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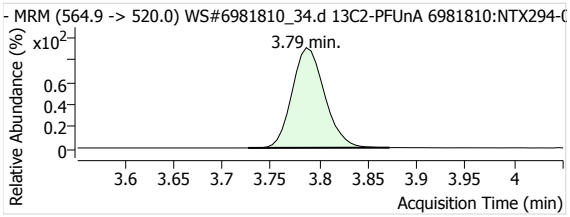

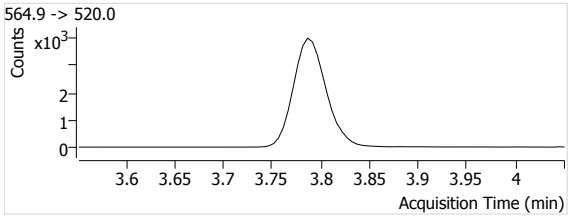

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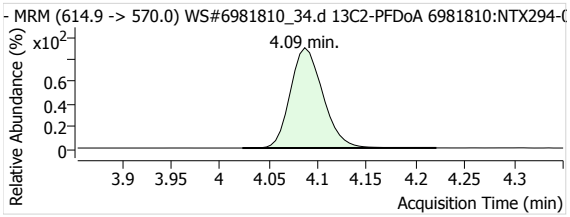

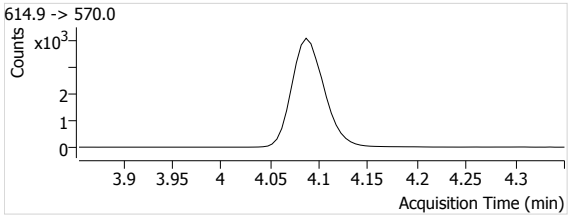

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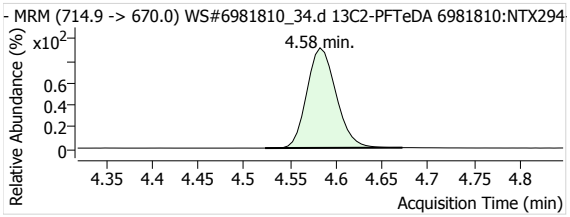

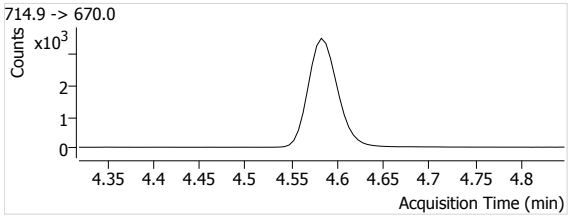

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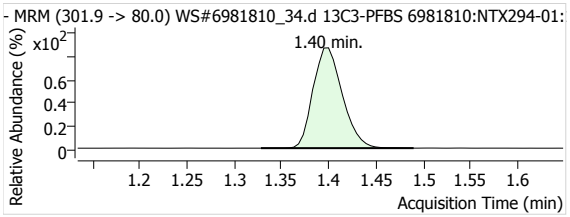

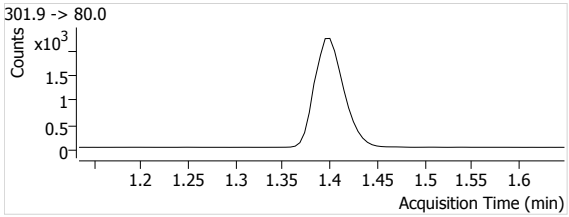

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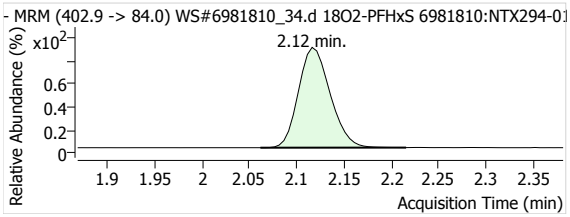

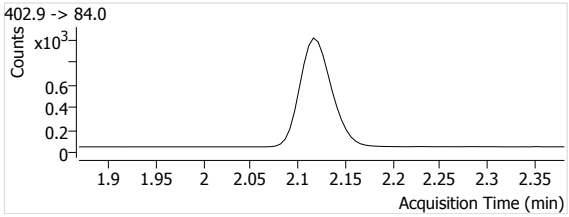

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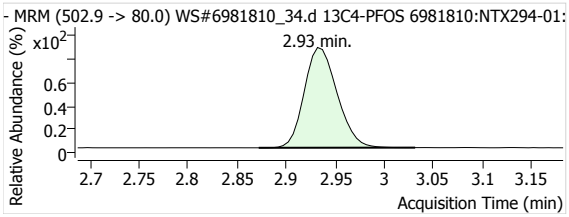
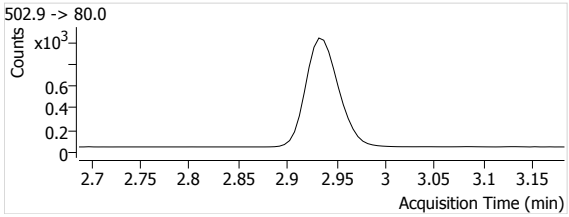
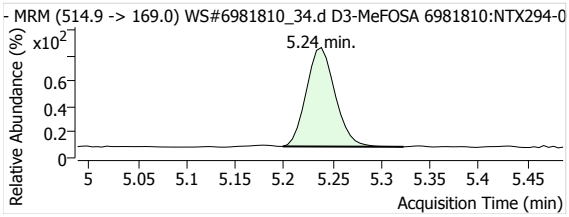
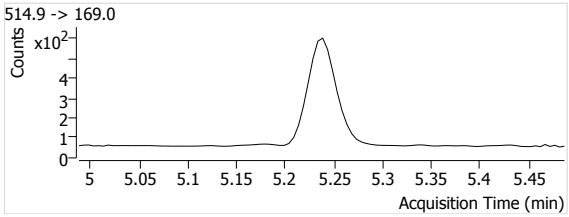




D3-MeFOSA





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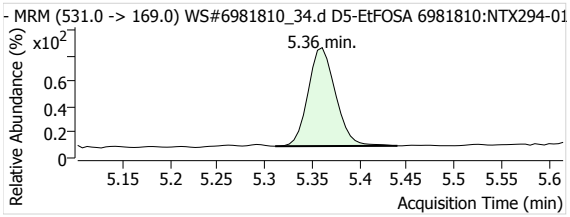

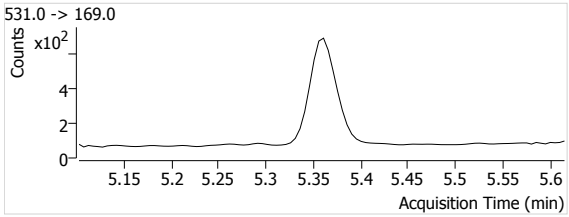

Quantitative Analysis Report

Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX294-01:10x	**Data File**	WS#6981810_34.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C7
Acq. Date-Time	2020/10/05 11:12:28 AM	**Dil.**	0.2
Comment	Reported PFOA, PFHxS, PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.8829	--	9026	1.72	258	0.6679	348	1.72	90	3.9
PFHpA 1	µg/L	--	0.4453	--	5399	2.16	67	0.4672	930	2.17	52	17.2
PFOA 1	µg/L	--	1.0628	--	8800	2.64	102	0.7188	2172	2.63	277	24.7
PFNA 1	µg/L	--	0.0179	--	428	3.07	10	0.0420	83	3.07	5	19.4
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	158	4.09	5	0.0171	13	4.09	8	8.2
PFTrDA 1	µg/L	--	0.0000	--	154	4.36	3	0.0201	16	4.36	6	10.4
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0670	--	289	1.40	18	0.0615	107	1.40	16	37.0
PFHxS 1	µg/L	--	1.8978	--	3919	2.07	352	1.7497	1776	2.07	285	45.3
PFOS 1	µg/L	--	7.0231	--	12986	2.89	327	5.6338	6464	2.89	547	49.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	108.6939	--	13515	1.72	968		--	--	--	--
13C4-PFHpA	µg/L	--	111.2877	--	11555	2.16	1308		--	--	--	--
13C4-PFOA	µg/L	--	108.5469	--	12243	2.64	1340		--	--	--	--
13C5-PFNA	µg/L	--	115.2029	--	10192	3.07	829		--	--	--	--
13C2-PFDA	µg/L	--	107.8147	--	8402	3.45	673		--	--	--	--
13C2-PFUnA	µg/L	--	107.2849	--	9116	3.79	507		--	--	--	--
13C2-PFDoA	µg/L	--	102.0383	--	9261	4.09	1103		--	--	--	--
13C2-PFTeDA	µg/L	--	106.7745	--	7660	4.58	622		--	--	--	--
13C3-PFBS	µg/L	--	110.1572	--	4696	1.40	1002		--	--	--	--
18O2-PFHxS	µg/L	--	108.8435	--	2240	2.12	709		--	--	--	--
13C4-PFOS	µg/L	--	109.2935	--	2305	2.93	486		--	--	--	--
D3-MeFOSA	µg/L	--	40.0072	--	1113	5.24	47		--	--	--	--
D5-EtFOSA	µg/L	--	37.9321	--	1262	5.36	35		--	--	--	--

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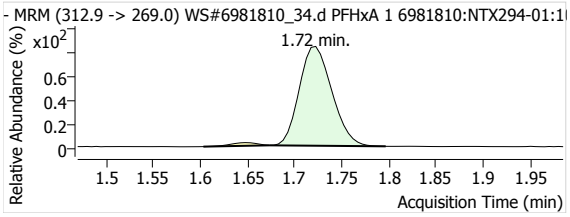

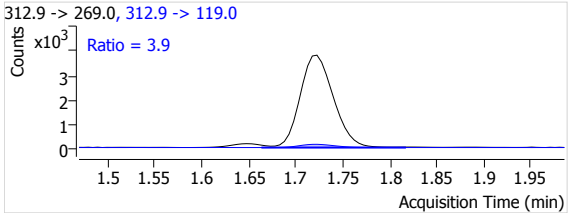

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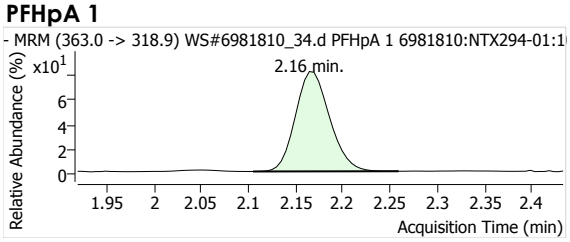

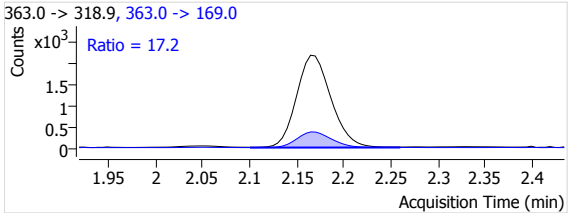

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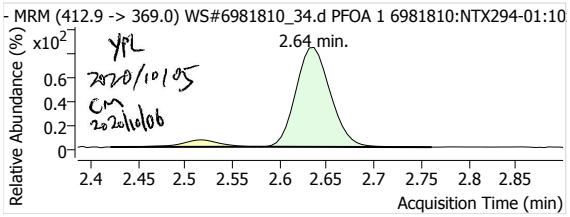

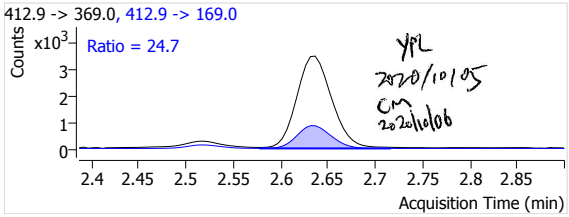

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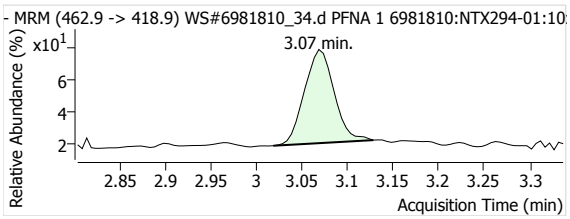

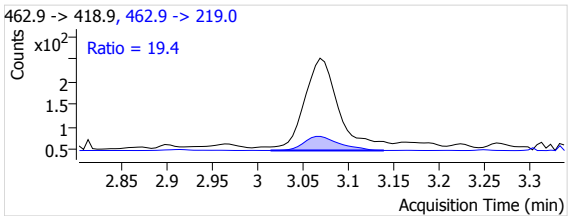

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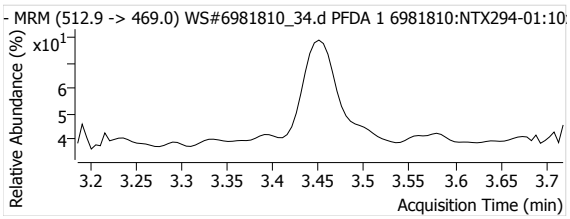

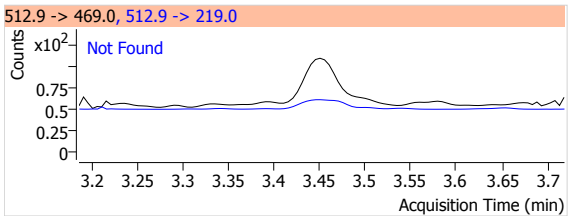

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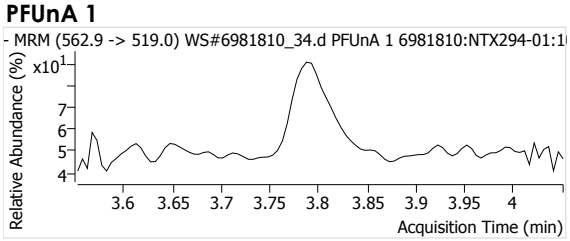

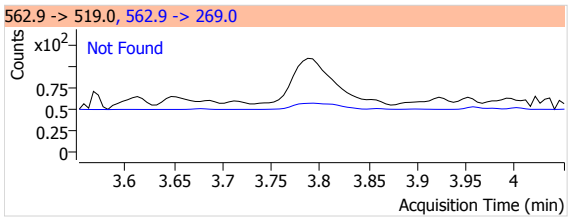

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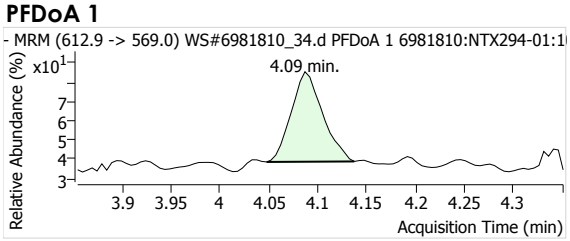

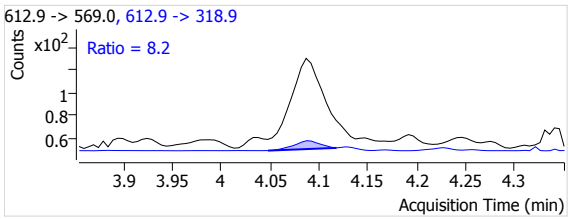

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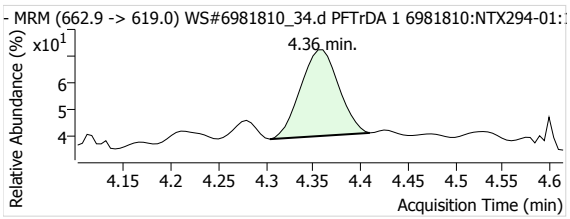

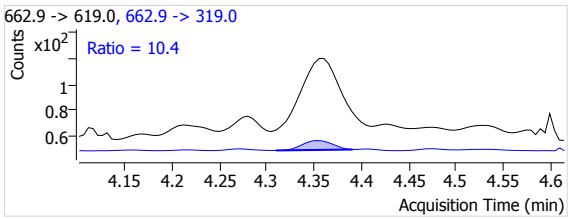

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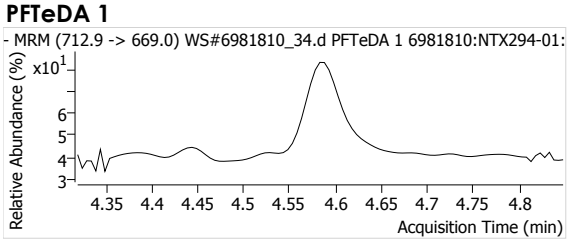

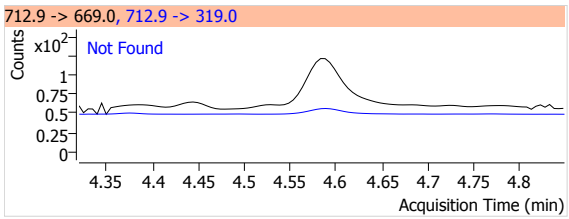

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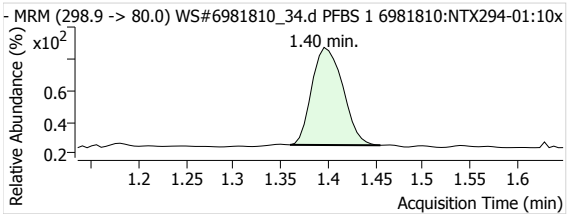

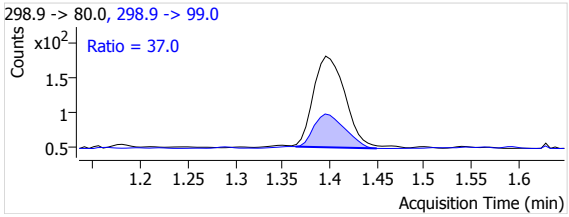

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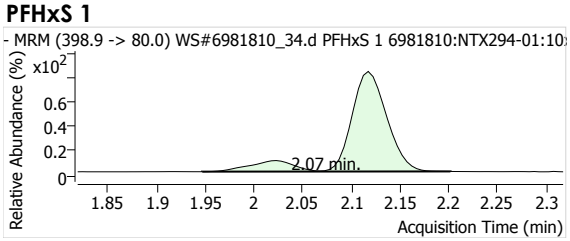

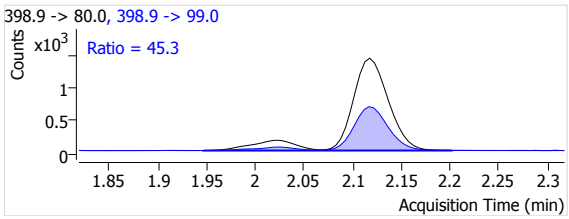

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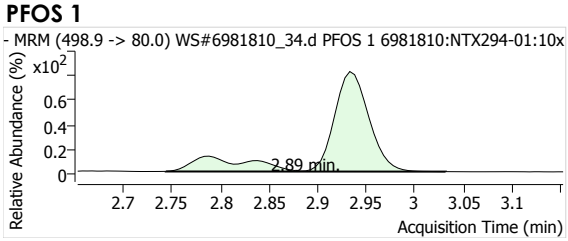

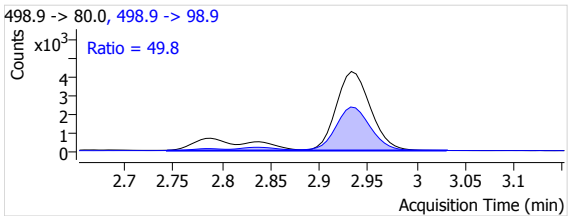

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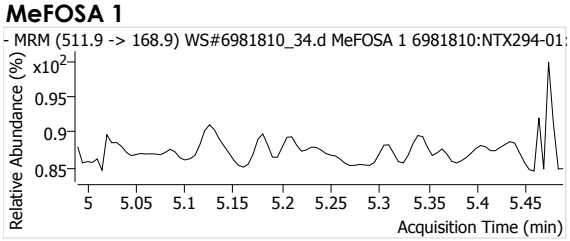

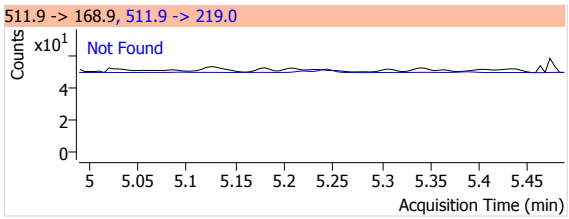

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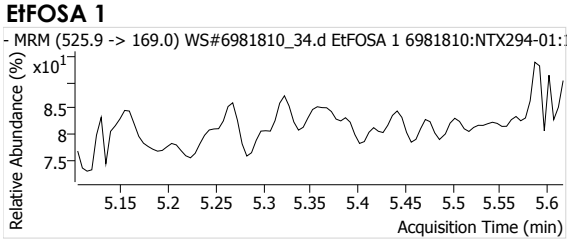

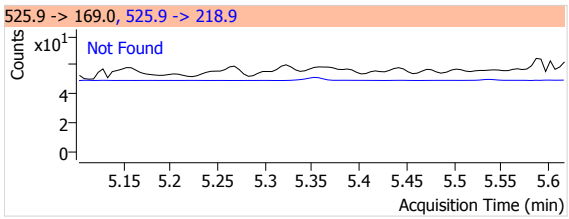

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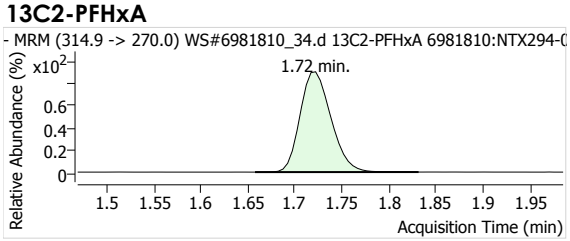

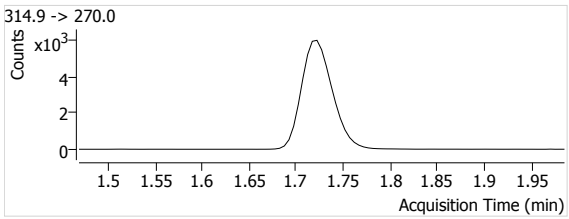

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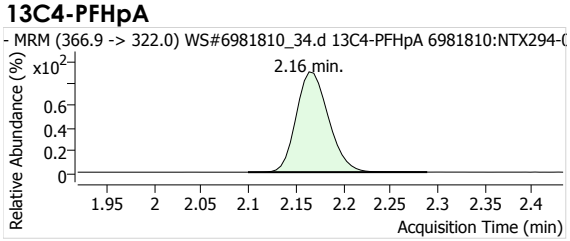

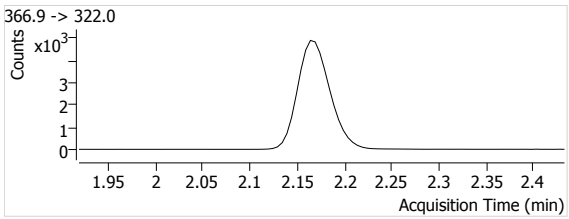

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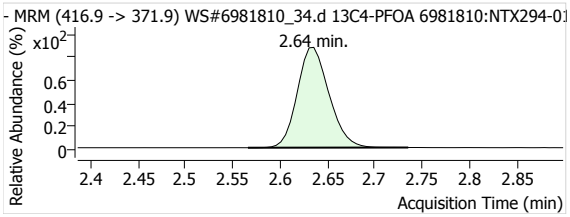

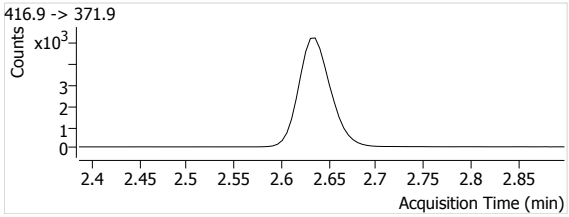

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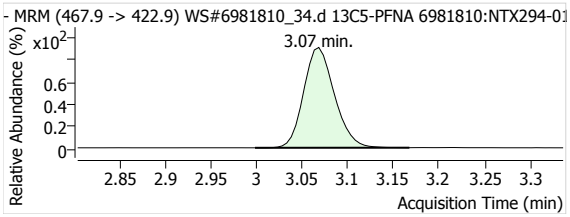

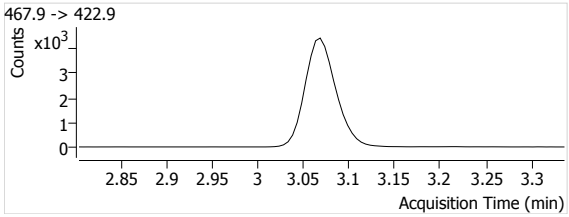

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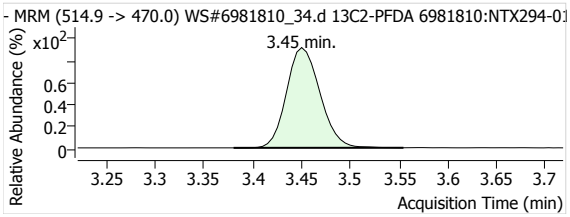

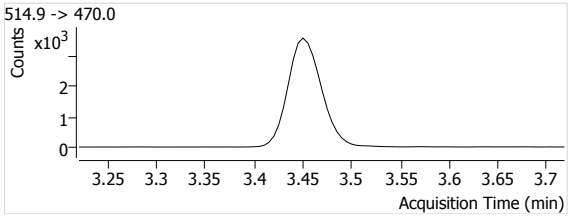

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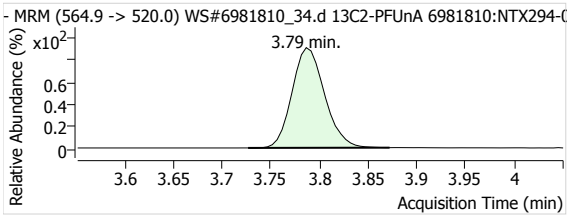

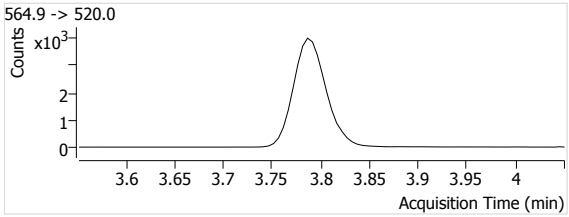

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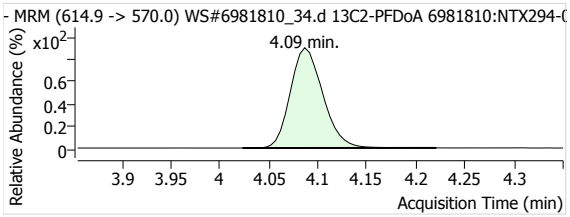

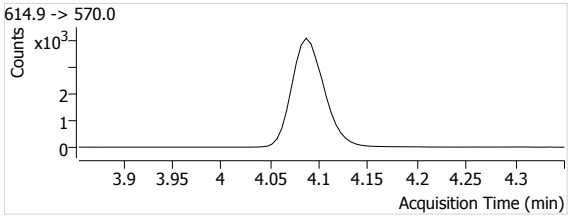

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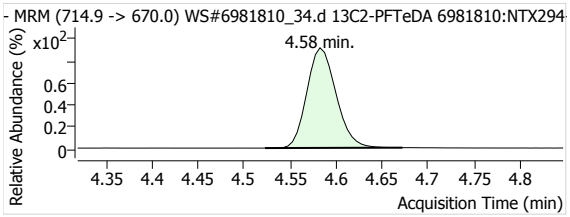

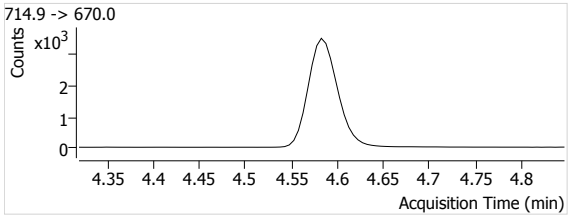

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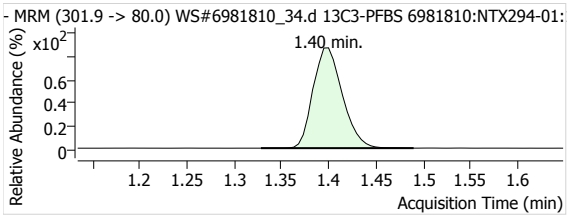

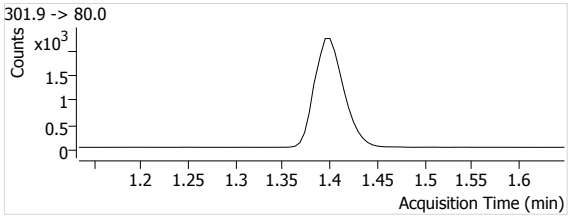

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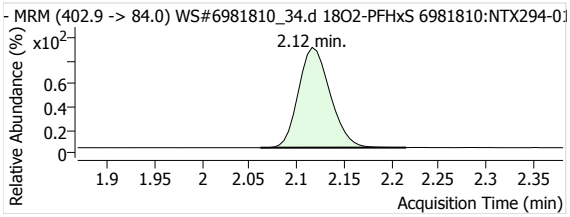

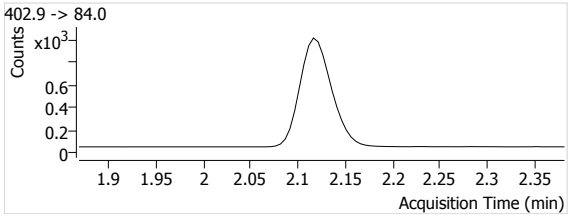

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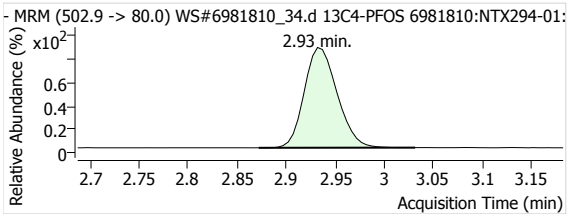

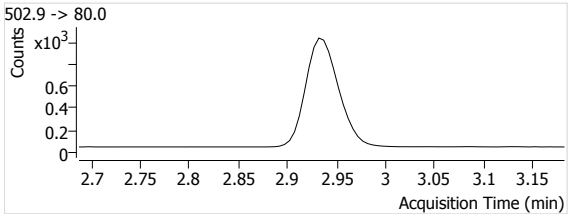

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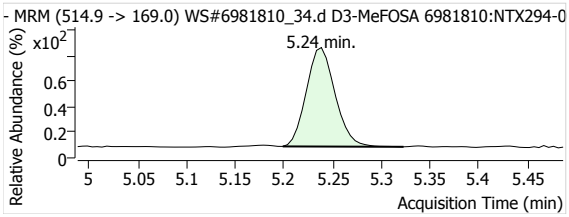

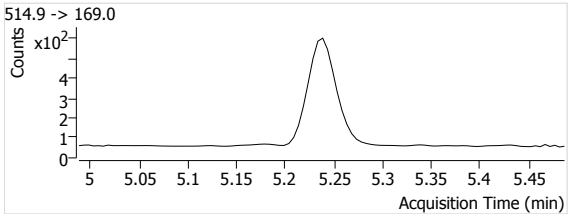

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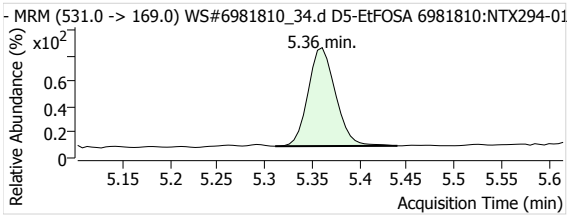
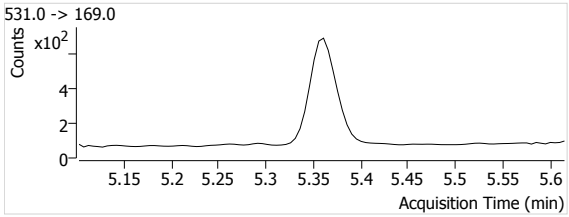




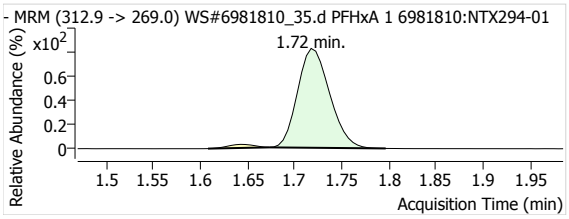
Quantitative Analysis Report

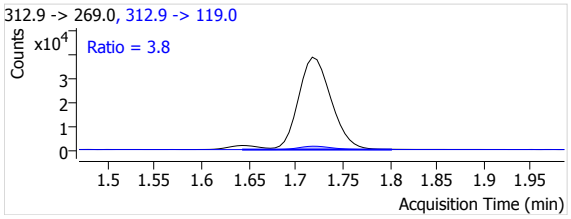
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX294-01	**Data File**	WS#6981810_35.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C8
Acq. Date-Time	2020/10/05 11:19:27 AM	**Dil.**	0.0
Comment	Reported all except PFOA, PFHxS, PFOS		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.9507	--	91763	1.72	648	7.0349	3451	1.72	408	3.8
PFHpA 1	µg/L	--	0.4720	--	54191	2.16	968	4.7544	8966	2.17	65	16.5
PFOA 1	µg/L	--	1.1054	--	88101	2.63	1392	7.3947	21264	2.63	1982	24.1
PFNA 1	µg/L	--	0.0408	--	3461	3.06	49	0.3439	604	3.06	24	17.5
PFDA 1	µg/L	--	0.0100	--	795	3.45	28	0.0940	125	3.45	16	15.7
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	171	4.09	3	0.0184	13	4.08	8	7.6
PFTrDA 1	µg/L	--	0.0006	--	189	4.35	3	0.0267	19	4.35	2	10.1
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0693	--	2619	1.40	48	0.5770	1028	1.40	41	39.3
PFHxS 1	µg/L	--	1.9122	--	38568	2.07	1032	17.4911	17554	2.07	857	45.5
PFOS 1	µg/L	--	8.0217	--	121397	2.89	314	64.3332	60017	2.89	928	49.4
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	104.9059	--	13044	1.72	1097		--	--	--	--
13C4-PFHpA	µg/L	--	109.7756	--	11398	2.16	1099		--	--	--	--
13C4-PFOA	µg/L	--	105.6299	--	11914	2.63	1177		--	--	--	--
13C5-PFNA	µg/L	--	113.7448	--	10063	3.06	1443		--	--	--	--
13C2-PFDA	µg/L	--	108.5205	--	8457	3.45	645		--	--	--	--
13C2-PFUnA	µg/L	--	108.4971	--	9219	3.78	704		--	--	--	--
13C2-PFDoA	µg/L	--	102.5782	--	9310	4.09	1473		--	--	--	--
13C2-PFTeDA	µg/L	--	98.7176	--	7082	4.58	672		--	--	--	--
13C3-PFBS	µg/L	--	106.4743	--	4539	1.39	249		--	--	--	--
18O2-PFHxS	µg/L	--	107.1429	--	2205	2.12	522		--	--	--	--
13C4-PFOS	µg/L	--	89.4737	--	1887	2.93	168		--	--	--	--
D3-MeFOSA	µg/L	--	70.7045	--	1967	5.24	83		--	--	--	--
D5-EtFOSA	µg/L	--	70.4539	--	2344	5.36	42		--	--	--	--

PFHxA 1





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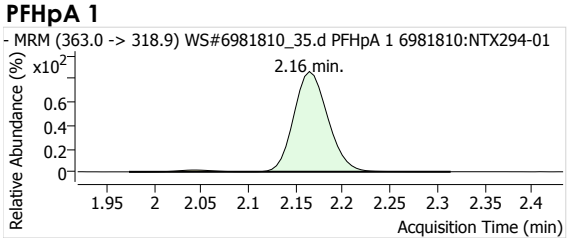

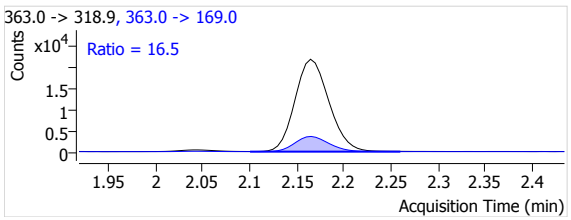

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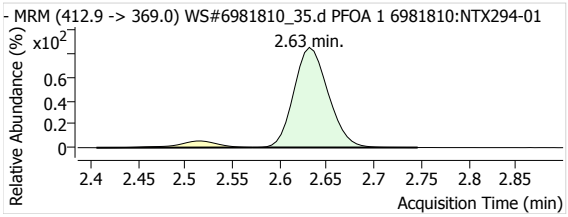

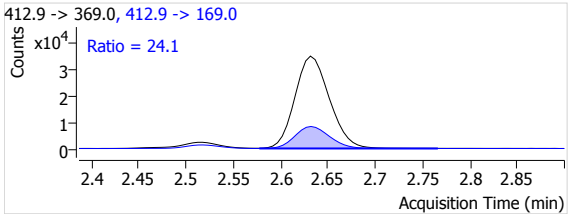

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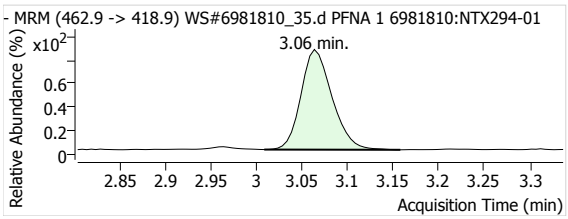

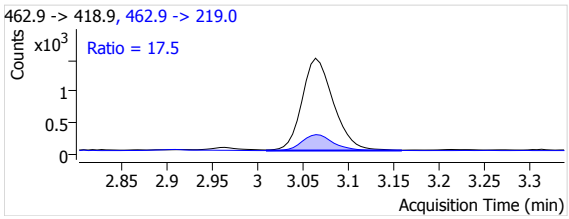

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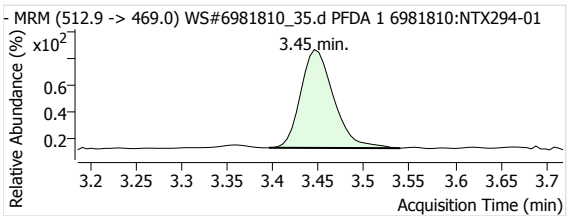

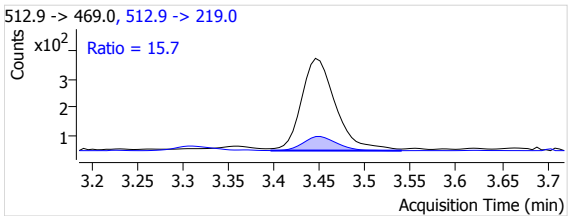

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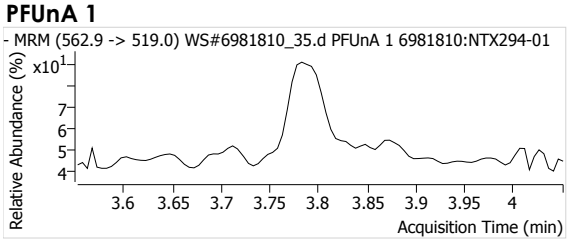

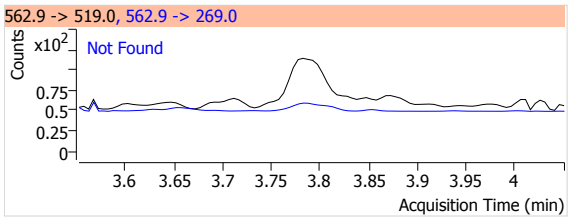

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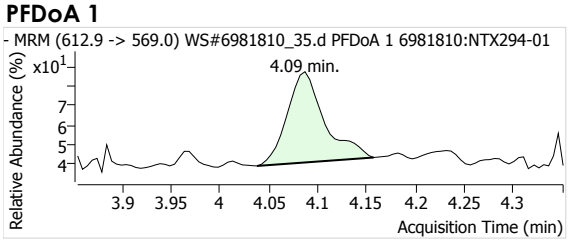

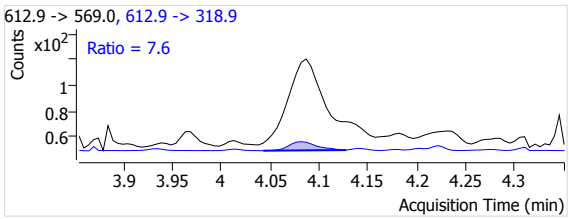

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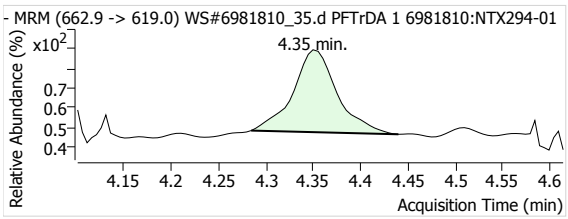

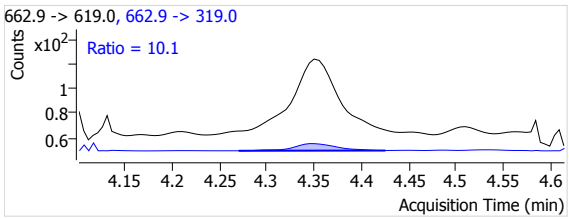

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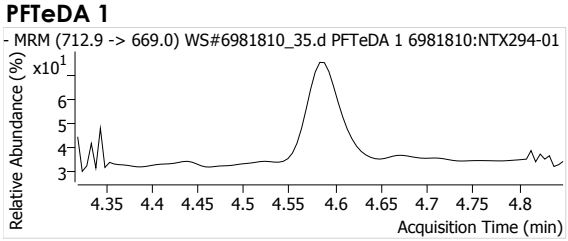

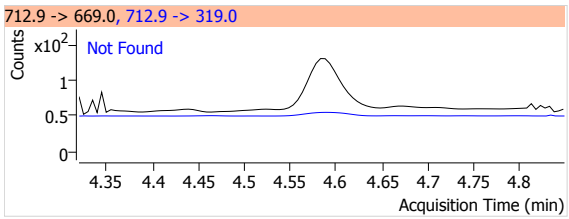

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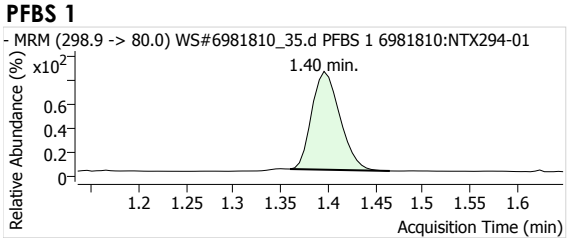

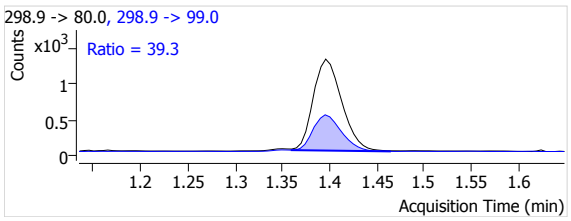

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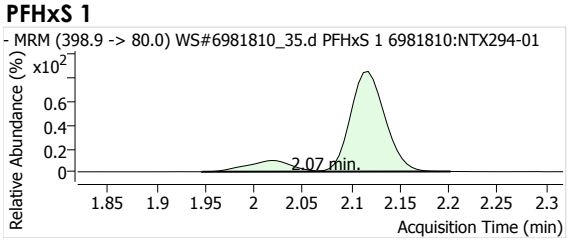
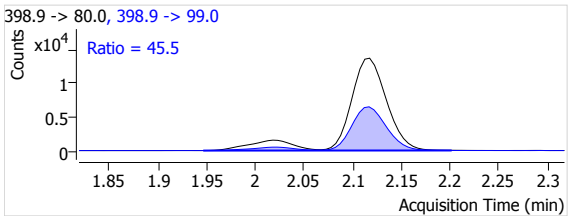
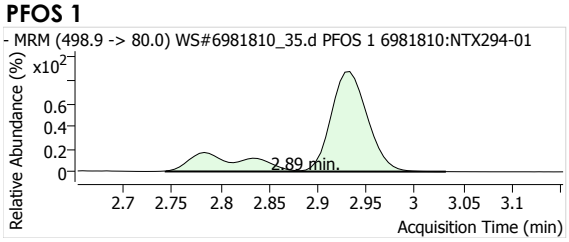
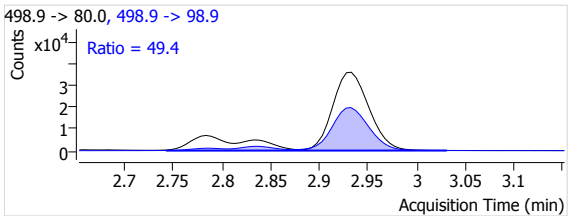




PFOS 1





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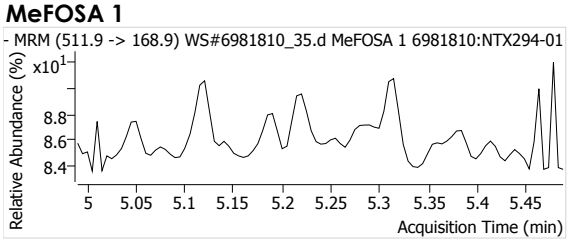

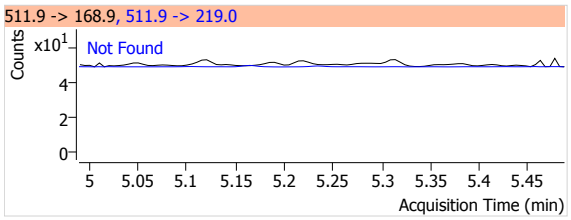

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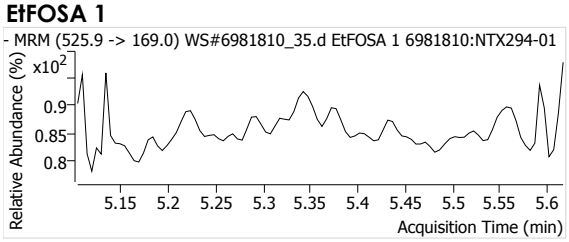
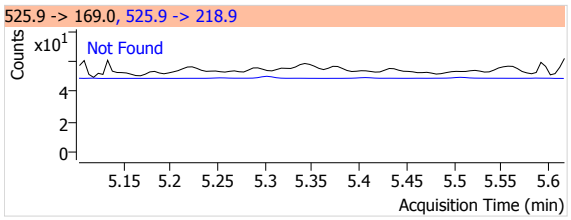
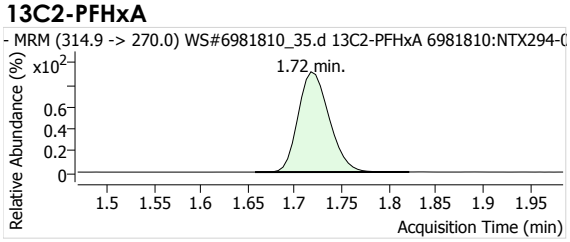
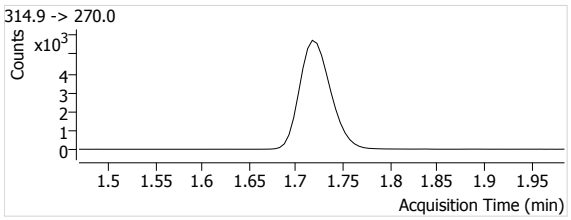




13C2-PFHxA





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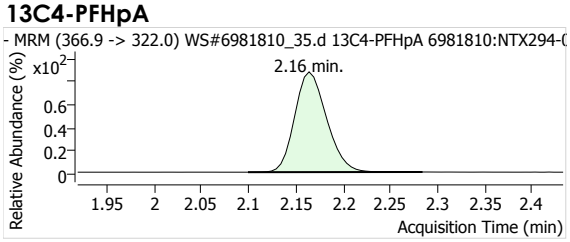

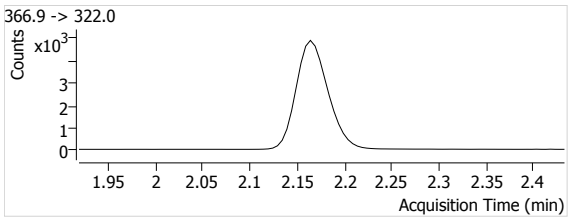

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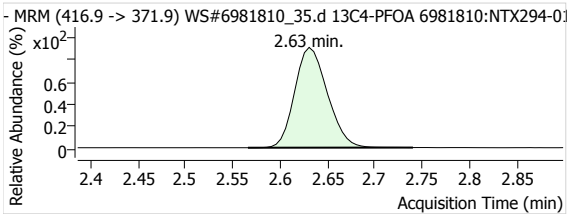
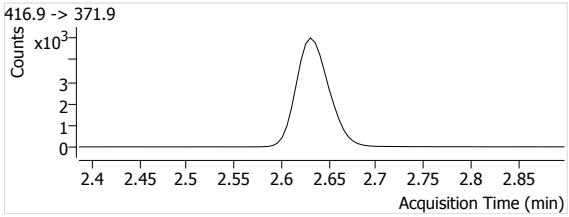
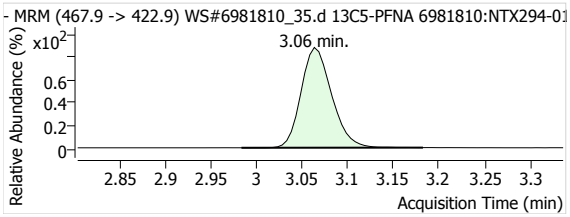
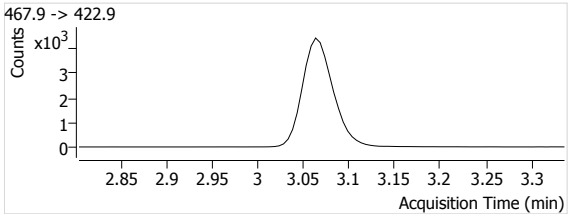




13C5-PFNA





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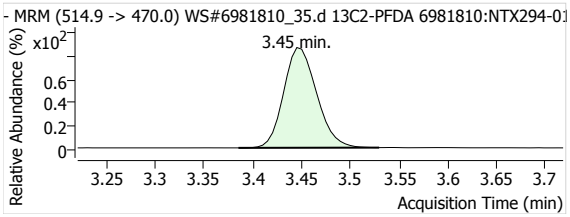

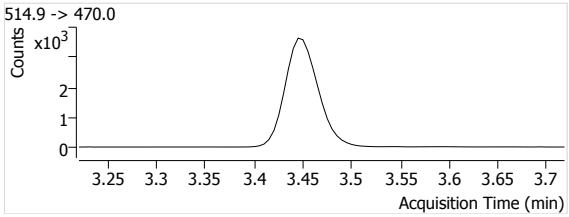

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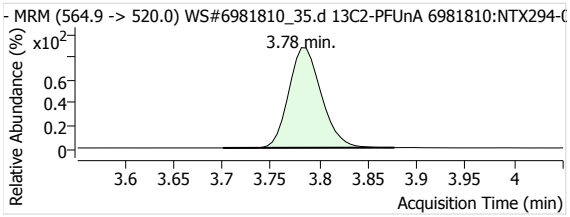

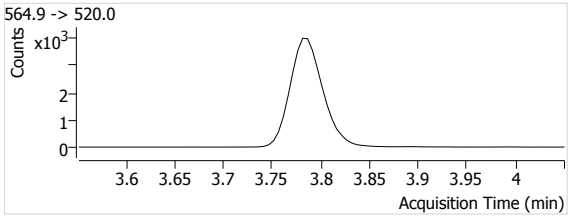

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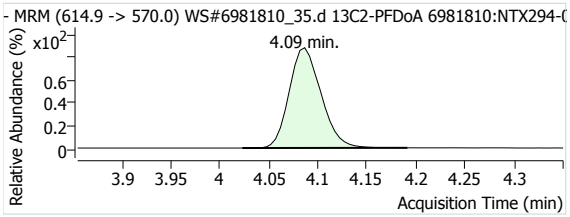

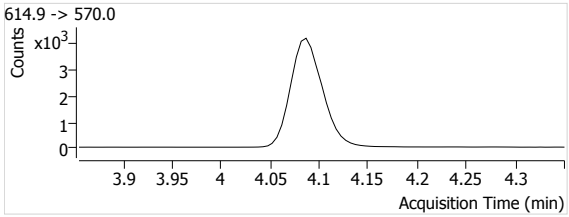

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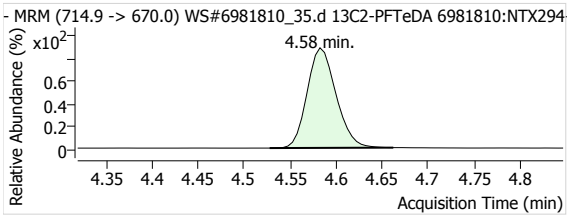
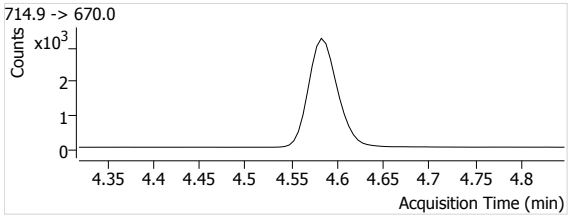
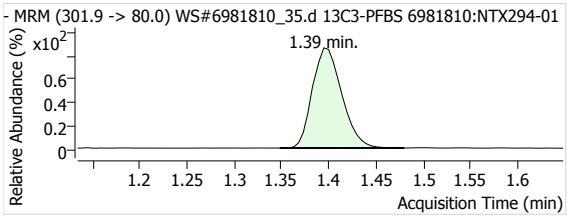
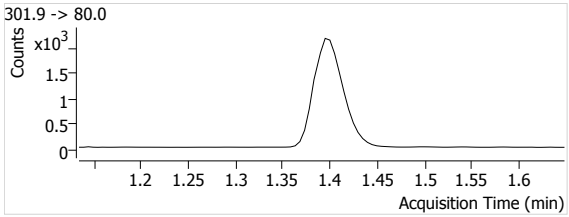




13C3-PFBS





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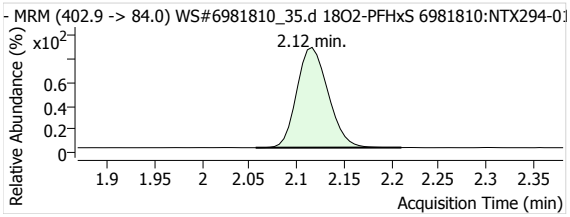
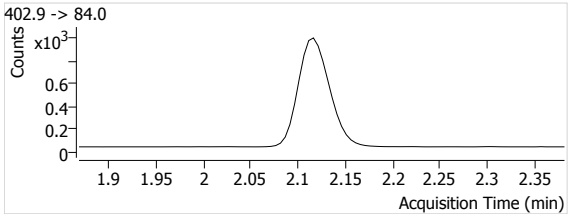
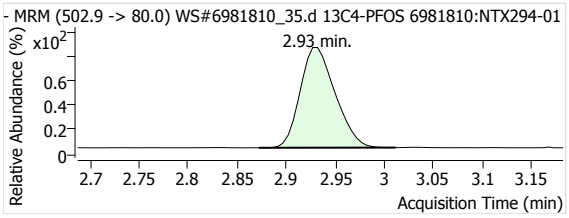
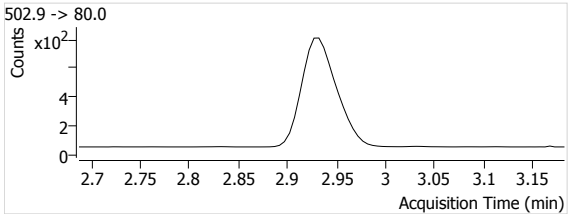




13C4-PFOS





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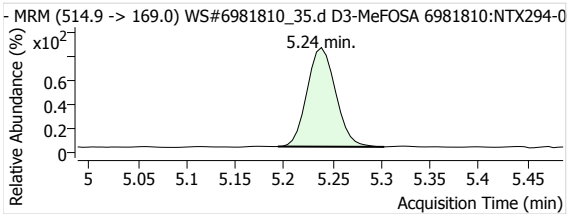

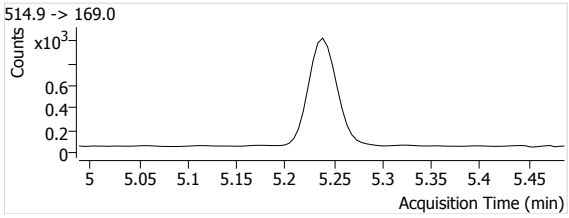

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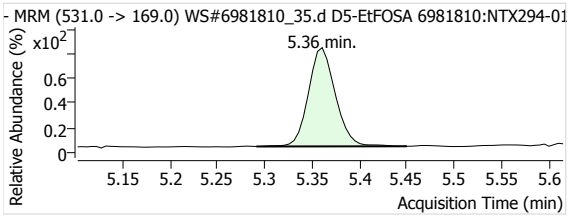
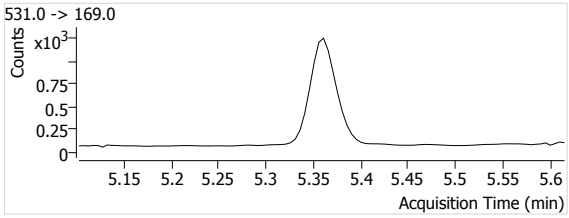




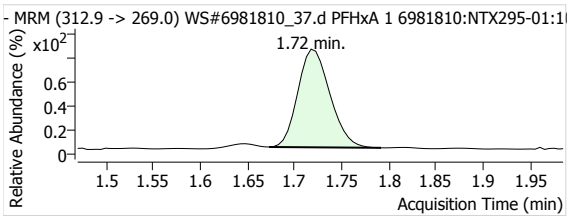
Quantitative Analysis Report

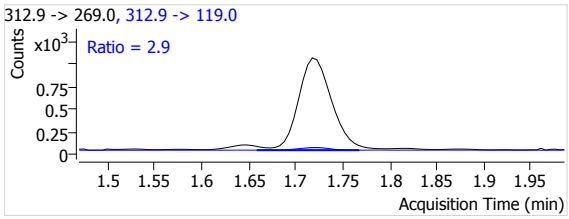
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX295-01:10x	**Data File**	WS#6981810_37.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-C9
Acq. Date-Time	2020/10/05 11:33:25 AM	**Dil.**	0.2
Comment	Reported PFOS		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2172	--	2382	1.72	31	0.1764	69	1.72	17	2.9
PFHpA 1	µg/L	--	0.0814	--	1165	2.16	20	0.1024	198	2.17	12	17.0
PFOA 1	µg/L	--	0.1677	--	1446	2.63	16	0.1206	363	2.64	11	25.1
PFNA 1	µg/L	--	0.0000	--	254	3.07	5	0.0255	40	3.07	12	15.7
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	0.0031	--	152	3.79	3	0.0167	9	3.78	12	5.9
PFDoA 1	µg/L	--	0.0000	--	155	4.08	4	0.0166	22	4.09	8	14.2
PFTrDA 1	µg/L	--	0.0004	--	174	4.35	3	0.0227	21	4.35	8	12.1
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0321	--	147	1.40	15	0.0328	61	1.40	13	41.5
PFHxS 1	µg/L	--	0.8597	--	1729	2.07	398	0.8010	853	2.07	515	49.4
PFOS 1	µg/L	--	2.3765	--	4337	2.89	152	1.9073	2193	2.89	258	50.6
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	108.6215	--	13506	1.72	1489		--	--	--	--
13C4-PFHpA	µg/L	--	109.6022	--	11380	2.16	1297		--	--	--	--
13C4-PFOA	µg/L	--	106.2949	--	11989	2.63	1056		--	--	--	--
13C5-PFNA	µg/L	--	112.7275	--	9973	3.07	1270		--	--	--	--
13C2-PFDA	µg/L	--	107.6094	--	8386	3.45	306		--	--	--	--
13C2-PFUnA	µg/L	--	106.8495	--	9079	3.79	580		--	--	--	--
13C2-PFDoA	µg/L	--	102.9859	--	9347	4.09	325		--	--	--	--
13C2-PFTeDA	µg/L	--	106.8581	--	7666	4.58	644		--	--	--	--
13C3-PFBS	µg/L	--	105.1372	--	4482	1.39	455		--	--	--	--
18O2-PFHxS	µg/L	--	104.8591	--	2158	2.12	348		--	--	--	--
13C4-PFOS	µg/L	--	107.8236	--	2274	2.93	370		--	--	--	--
D3-MeFOSA	µg/L	--	41.7326	--	1161	5.24	37		--	--	--	--
D5-EtFOSA	µg/L	--	39.9459	--	1329	5.36	40		--	--	--	--

PFHxA 1





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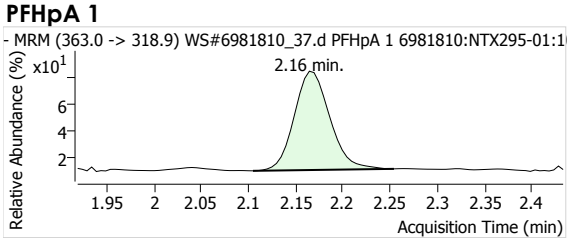

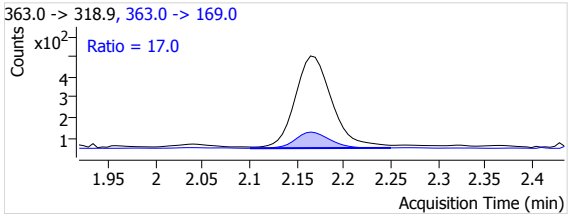

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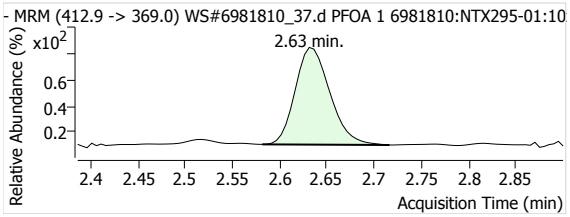

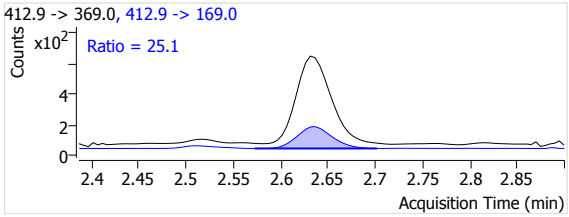

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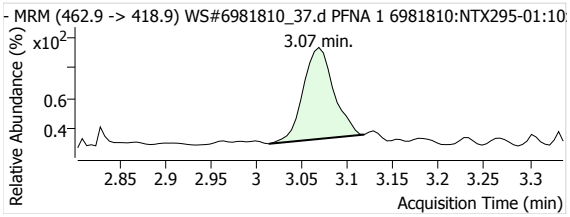

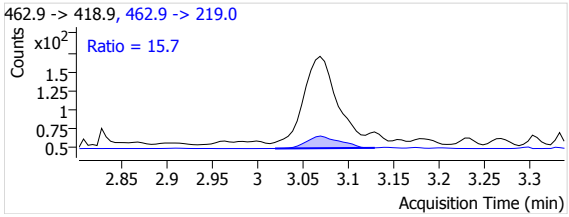

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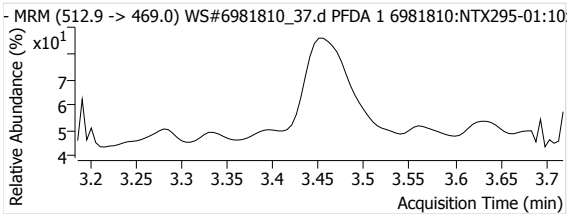

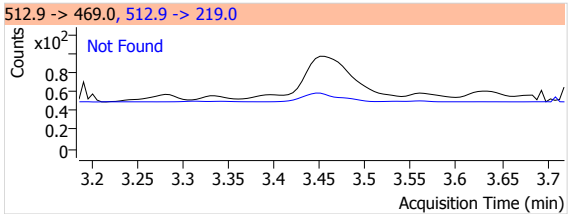

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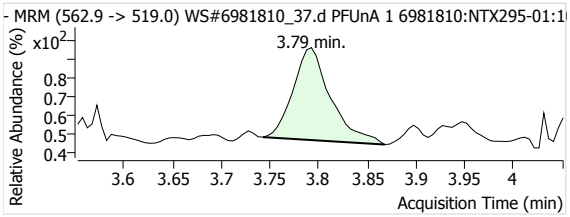

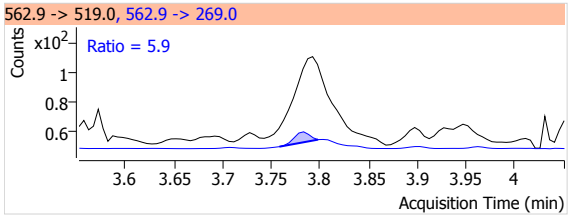

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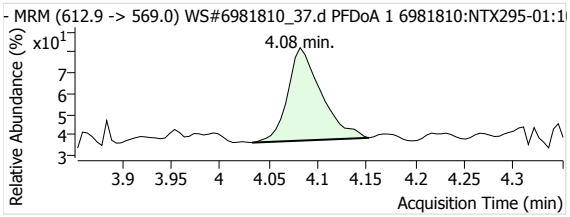

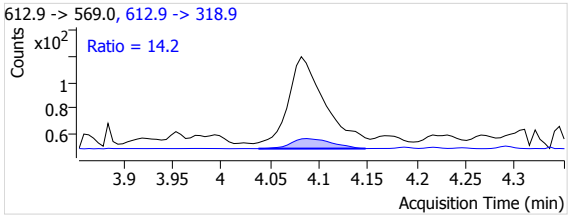

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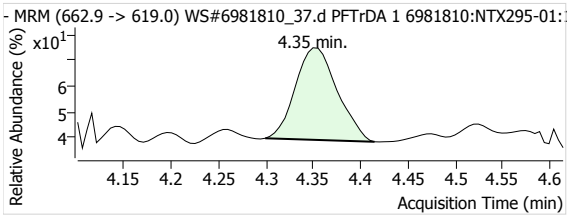

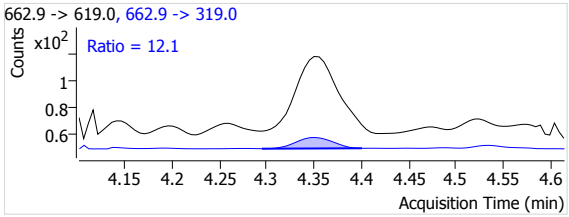

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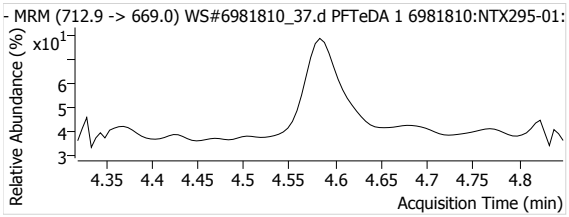

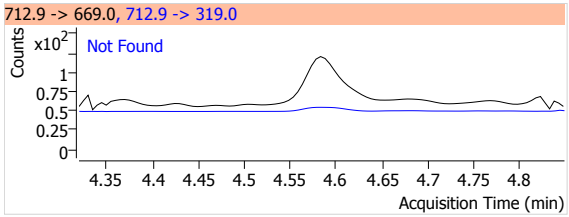

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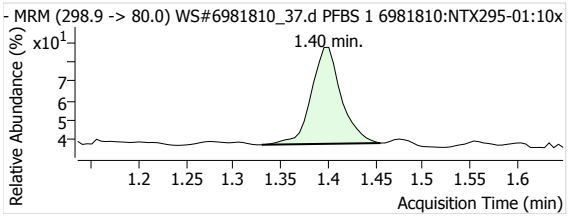

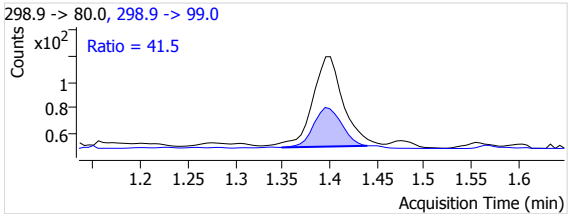

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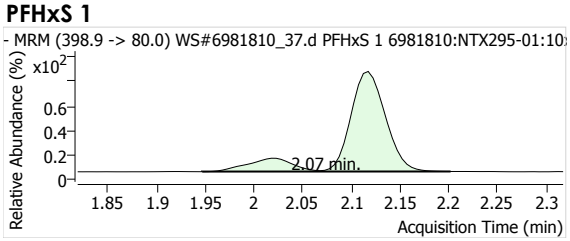

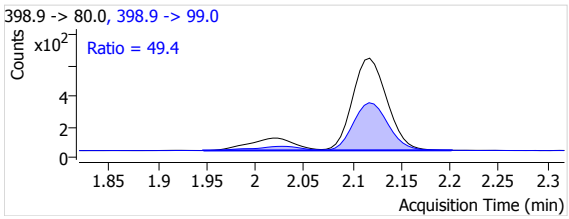

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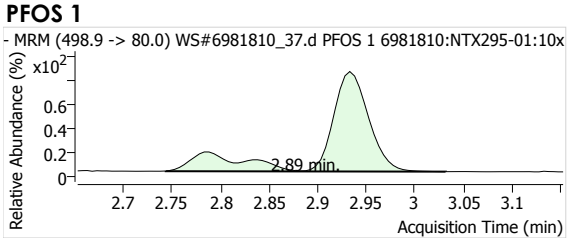

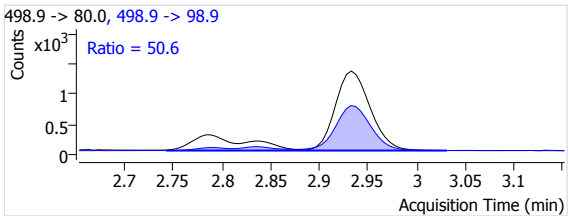

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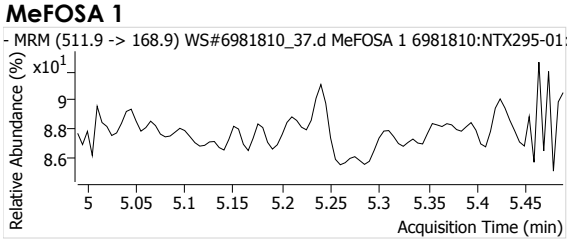

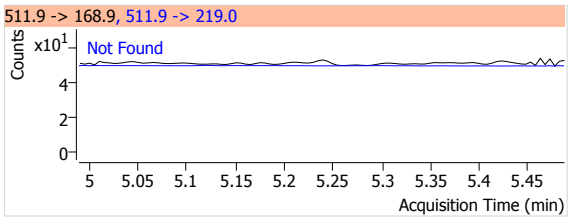

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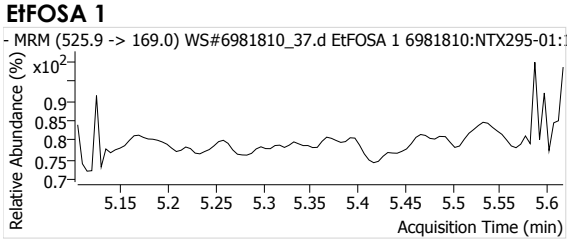

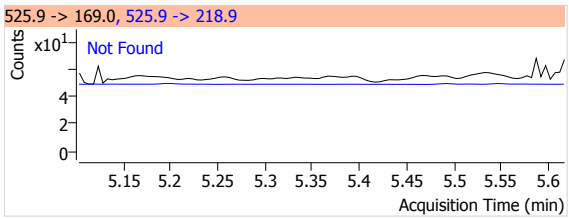

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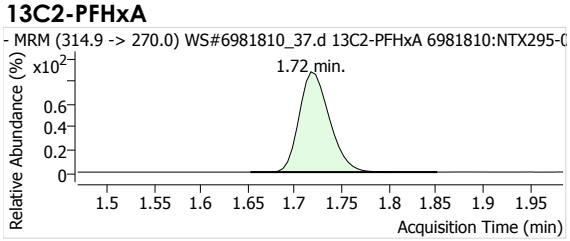

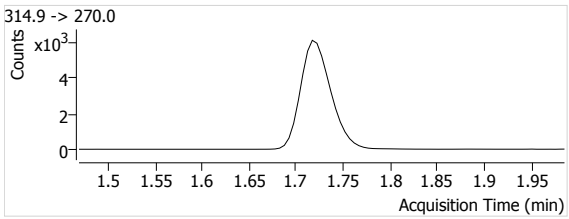

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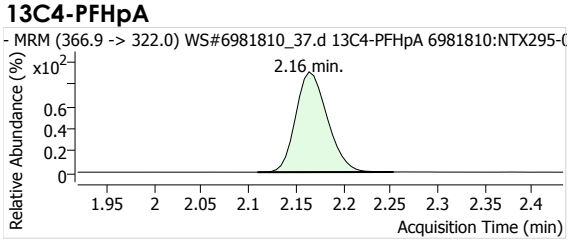

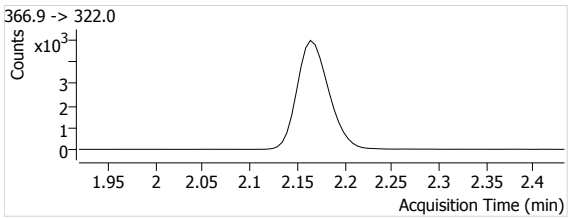

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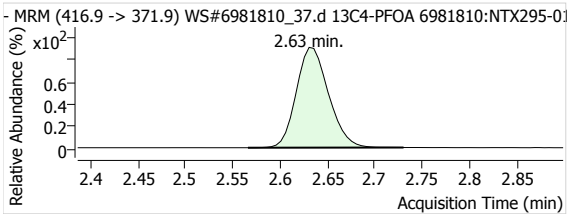

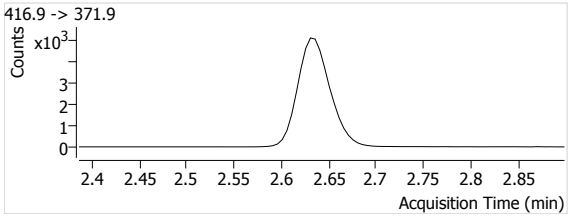

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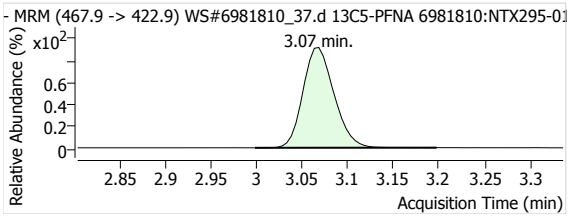

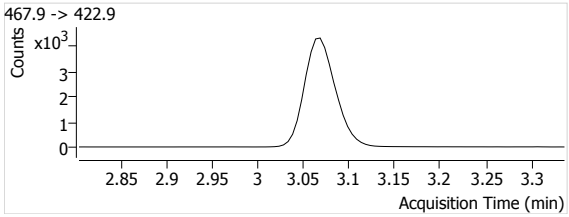

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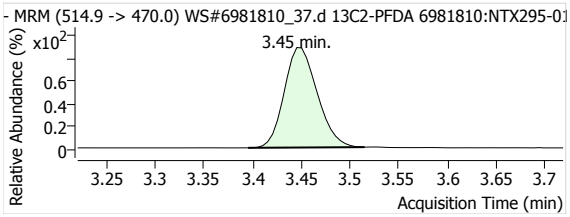

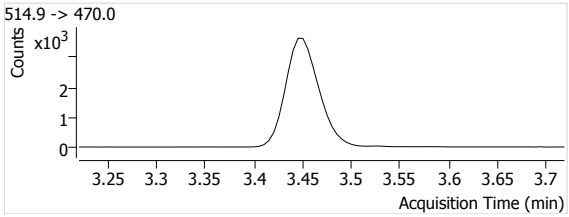

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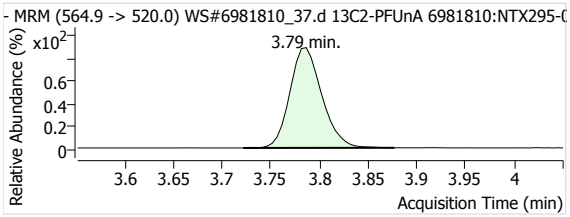

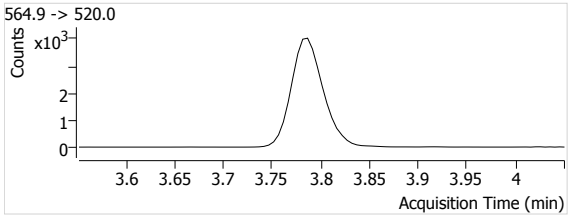

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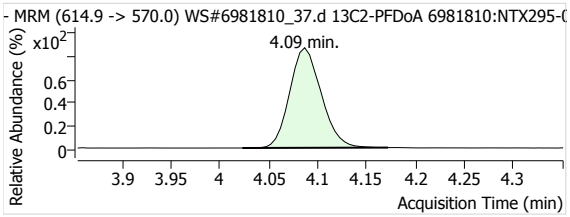

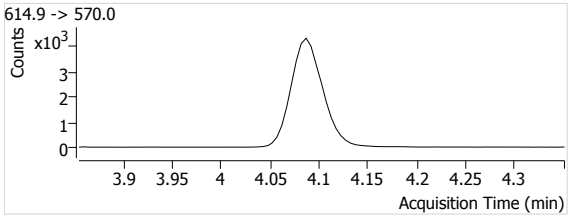

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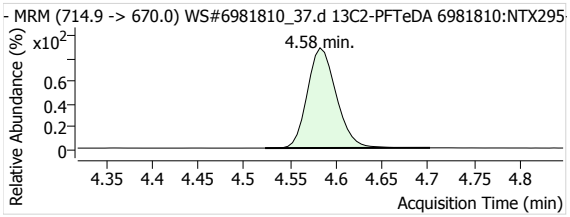

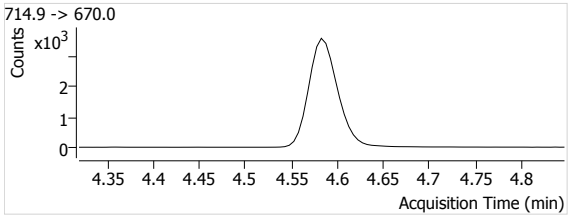

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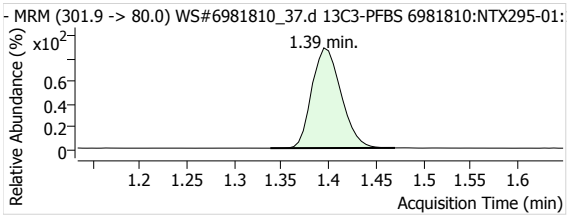
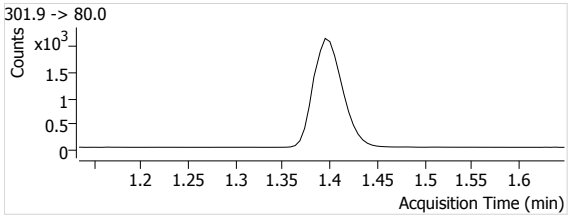
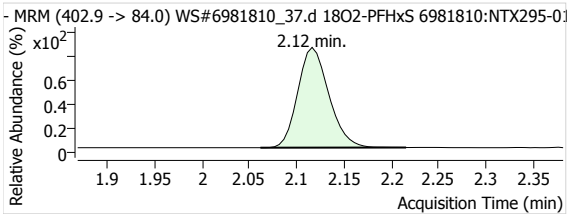
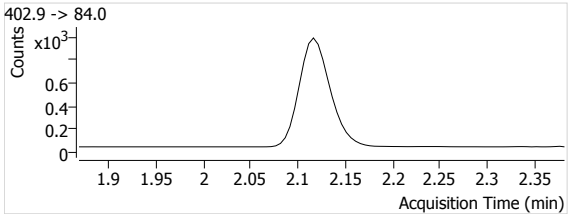




18O2-PFHxS





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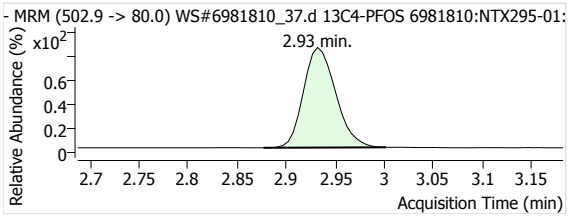

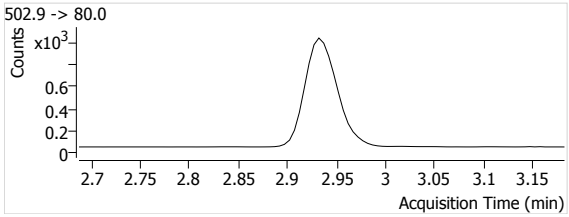

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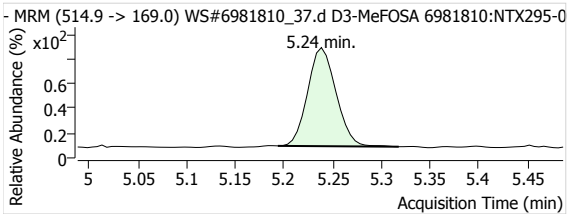

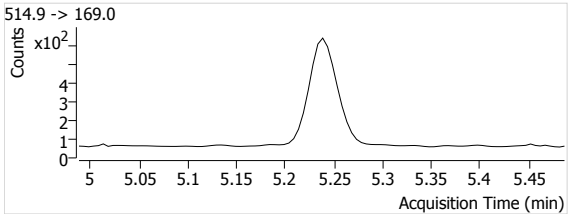

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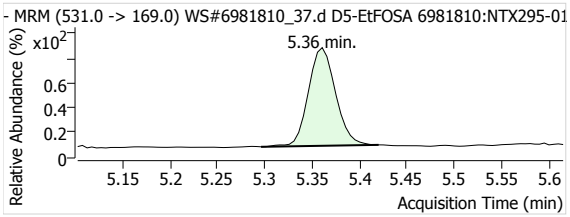
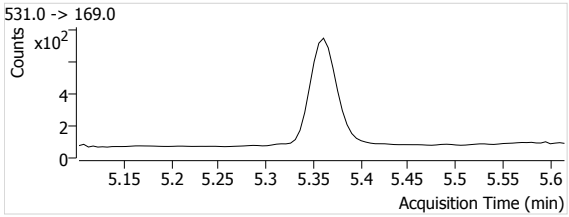




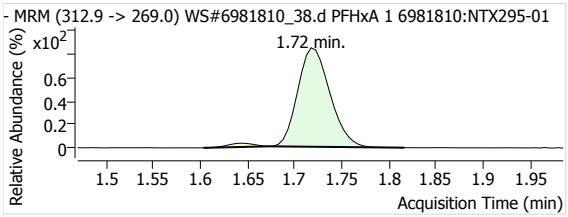
Quantitative Analysis Report

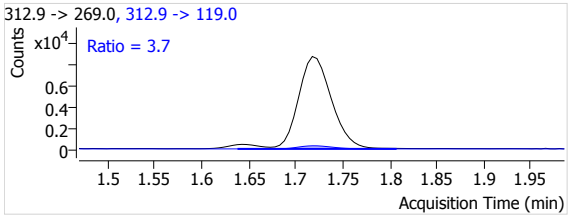
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX295-01	**Data File**	WS#6981810_38.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-D1
Acq. Date-Time	2020/10/05 11:40:24 AM	**Dil.**	0.0
Comment	Reported all except PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2437	--	20322	1.72	229	1.5975	750	1.72	55	3.7
PFHpA 1	µg/L	--	0.0876	--	8881	2.16	86	0.7927	1500	2.17	41	16.9
PFOA 1	µg/L	--	0.1953	--	13649	2.64	113	1.1556	3548	2.63	419	26.0
PFNA 1	µg/L	--	0.0100	--	918	3.06	29	0.0962	155	3.06	23	16.9
PFDA 1	µg/L	--	0.0018	--	263	3.45	9	0.0322	60	3.45	33	22.8
PFUnA 1	µg/L	--	0.0007	--	164	3.79	4	0.0189	22	3.80	3	13.4
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0387	--	1266	1.40	48	0.2866	522	1.40	42	41.2
PFHxS 1	µg/L	--	0.9183	--	16140	2.07	756	7.3934	7214	2.07	339	44.7
PFOS 1	µg/L	--	2.6582	--	38816	2.89	291	18.7425	19133	2.89	550	49.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	102.3082	--	12721	1.72	772		--	--	--	--
13C4-PFHpA	µg/L	--	107.8975	--	11203	2.16	1074		--	--	--	--
13C4-PFOA	µg/L	--	104.7167	--	11811	2.64	1296		--	--	--	--
13C5-PFNA	µg/L	--	107.8671	--	9543	3.06	655		--	--	--	--
13C2-PFDA	µg/L	--	104.6709	--	8157	3.45	723		--	--	--	--
13C2-PFUnA	µg/L	--	102.1184	--	8677	3.78	545		--	--	--	--
13C2-PFDoA	µg/L	--	95.2292	--	8643	4.08	379		--	--	--	--
13C2-PFTeDA	µg/L	--	94.6055	--	6787	4.58	942		--	--	--	--
13C3-PFBS	µg/L	--	103.6125	--	4417	1.39	227		--	--	--	--
18O2-PFHxS	µg/L	--	106.0739	--	2183	2.12	575		--	--	--	--
13C4-PFOS	µg/L	--	98.1982	--	2071	2.93	255		--	--	--	--
D3-MeFOSA	µg/L	--	53.9899	--	1502	5.24	52		--	--	--	--
D5-EtFOSA	µg/L	--	52.3595	--	1742	5.36	51		--	--	--	--

PFHxA 1





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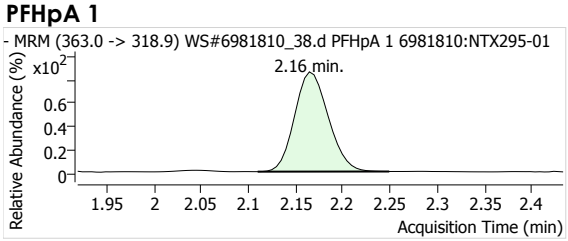

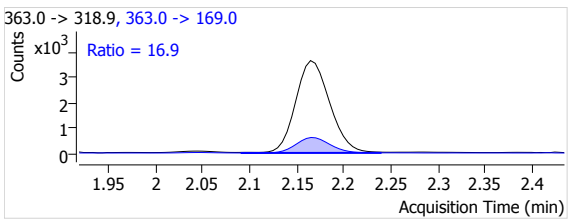

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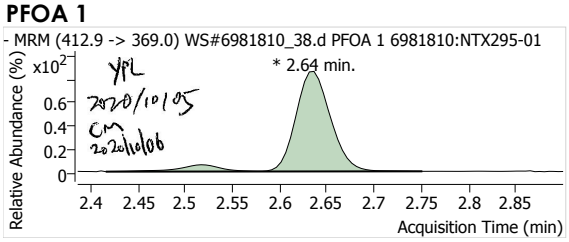

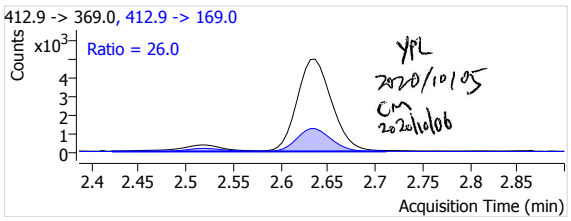

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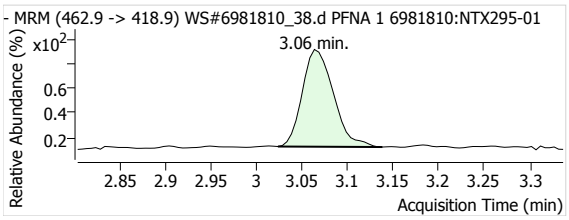

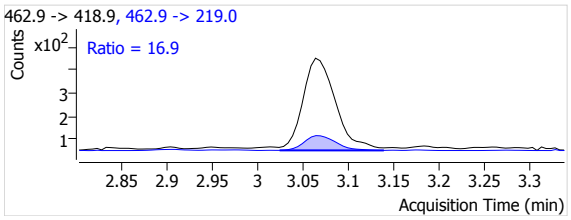

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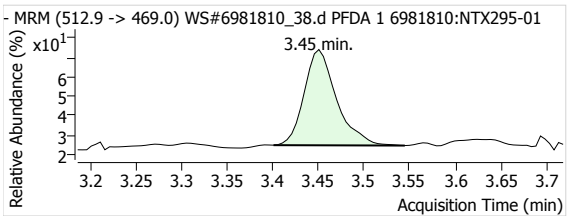

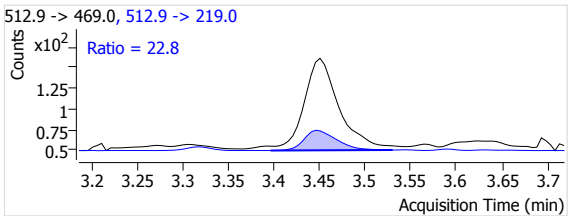

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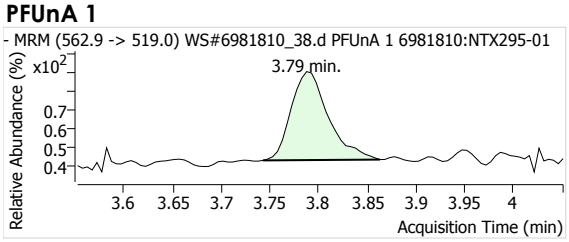

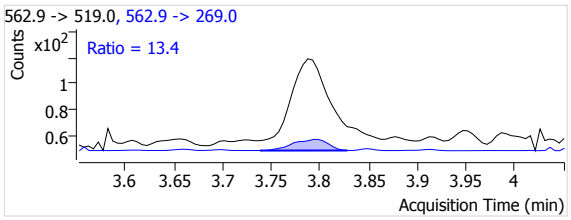

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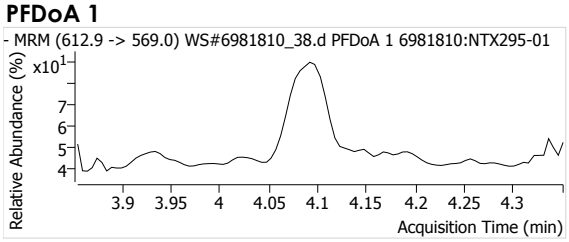

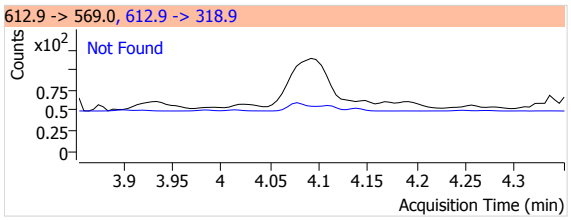

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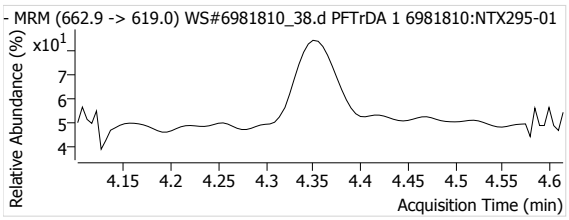

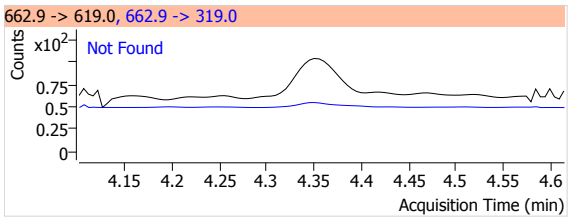

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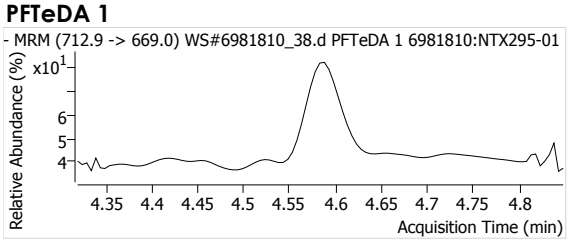

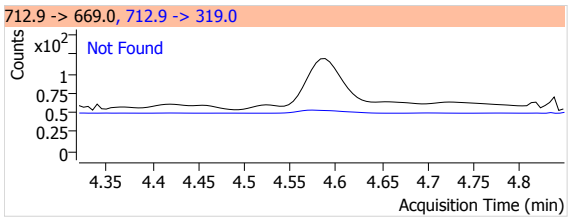

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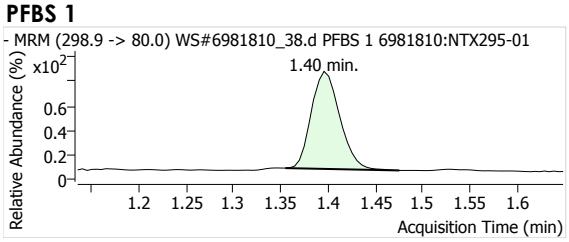

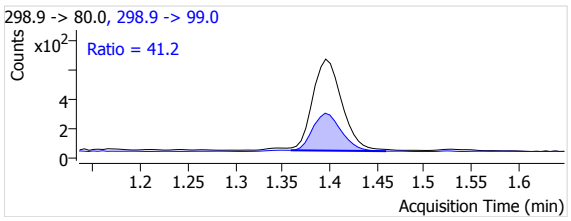

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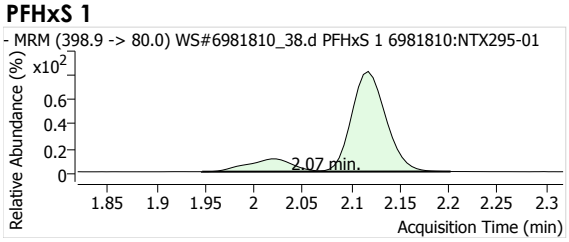

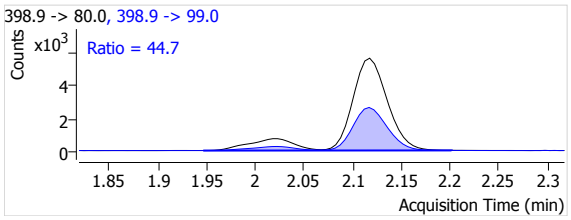

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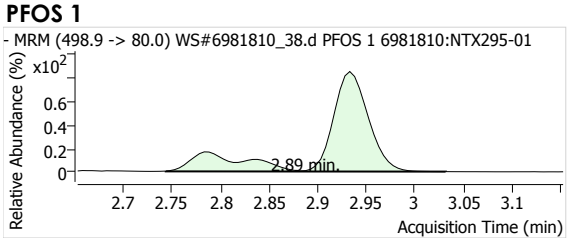

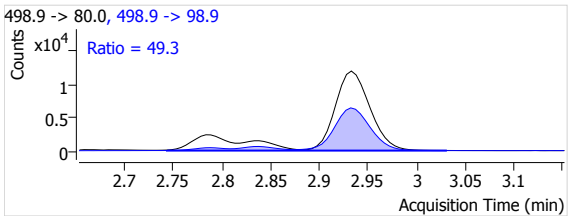

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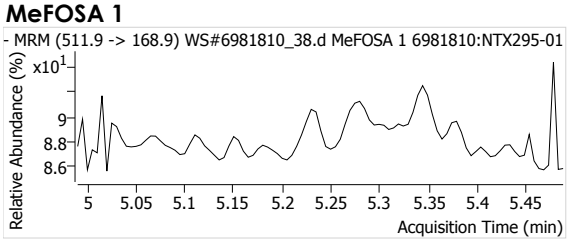

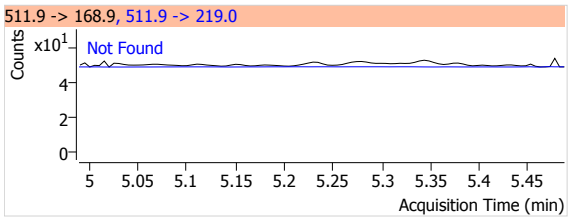

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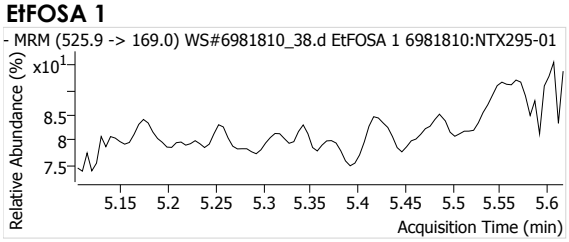

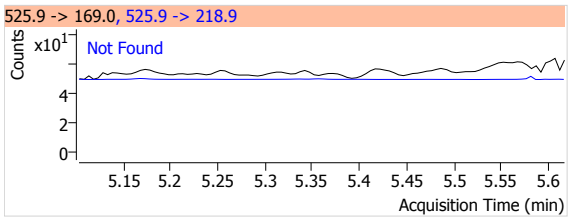

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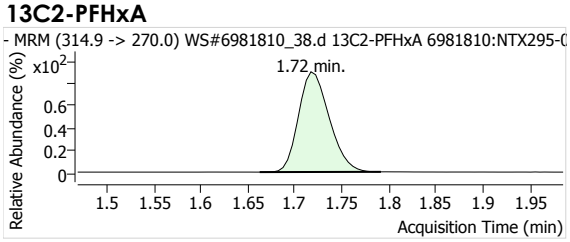

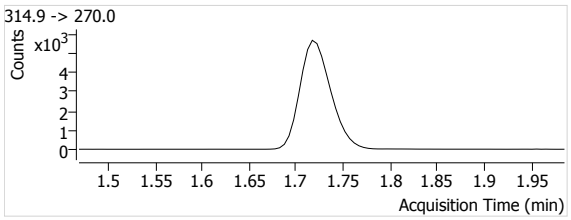

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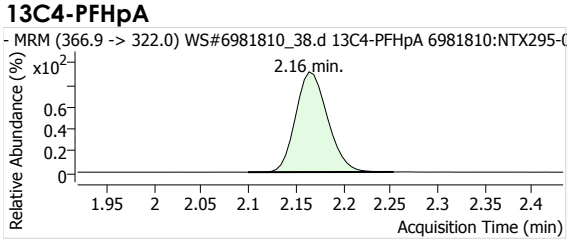

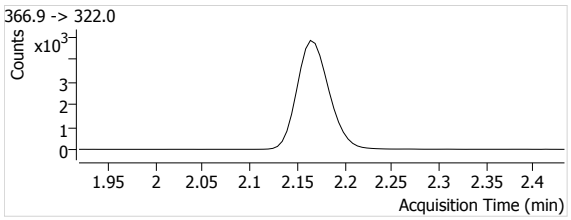

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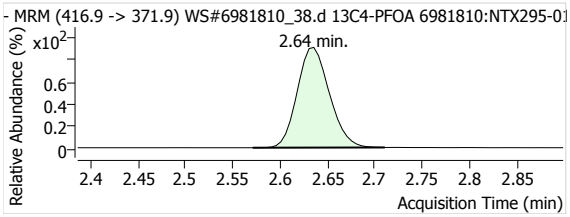

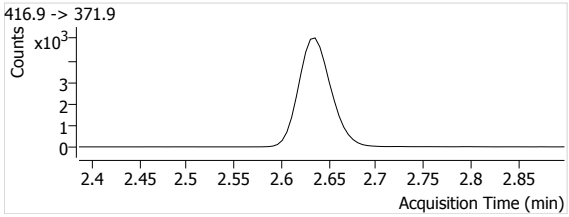

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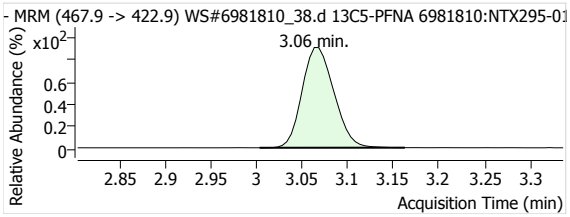
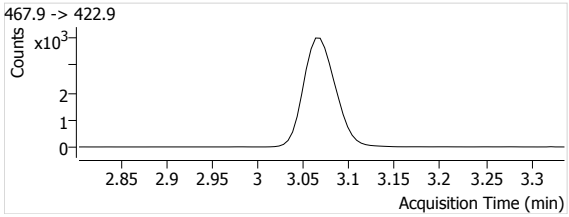
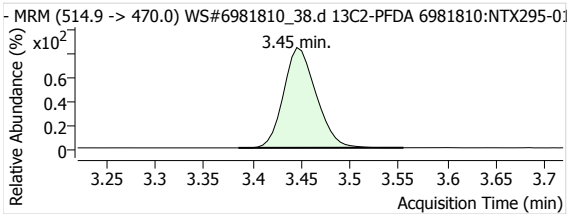
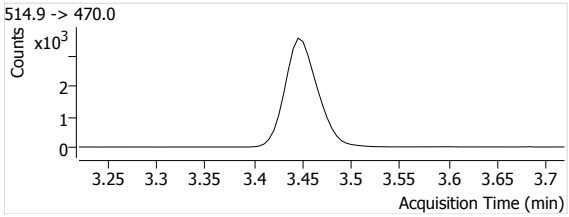


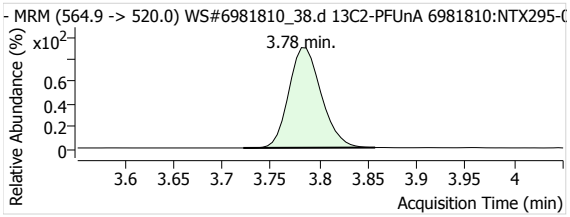


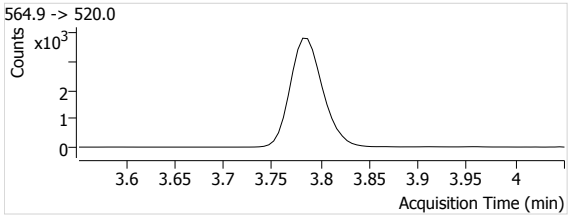
13C2-PFDA





13C2-PFUnA





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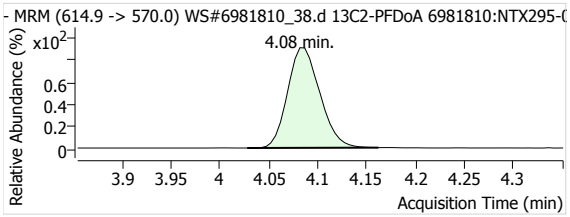

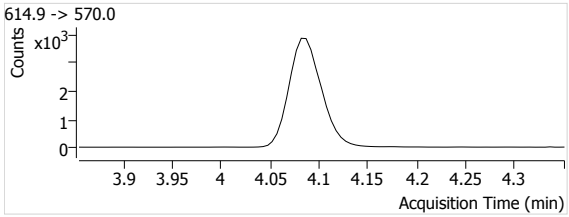

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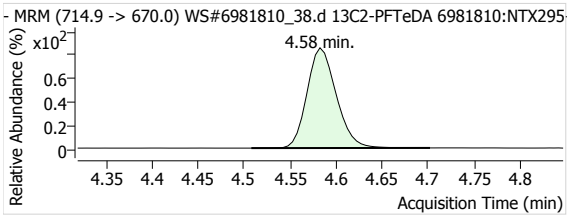

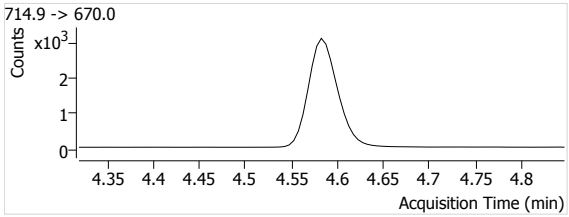

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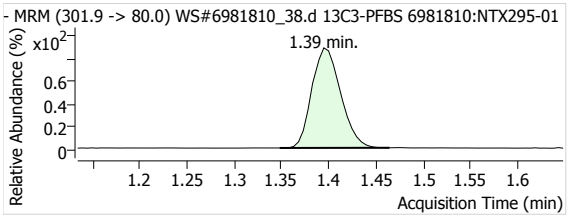
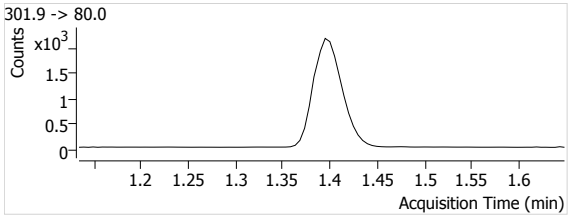
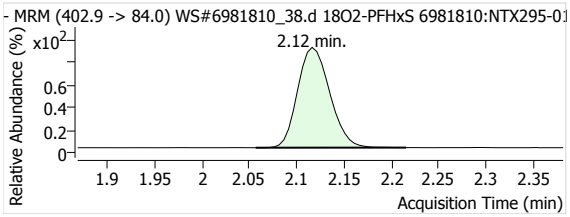
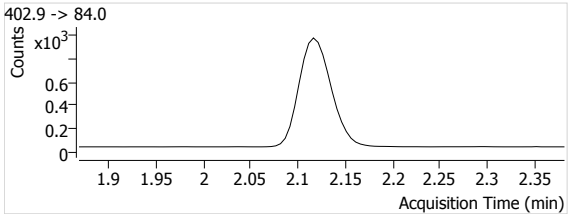


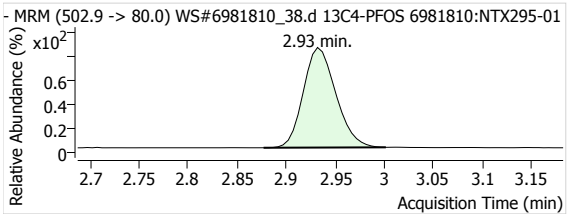


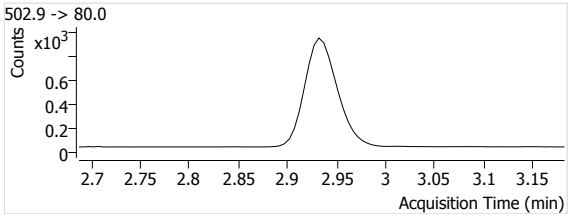
18O2-PFHxS



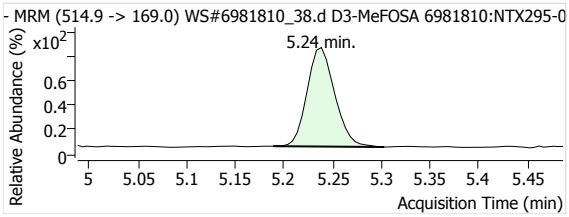


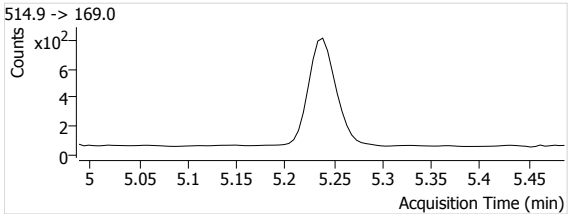
13C4-PFOS



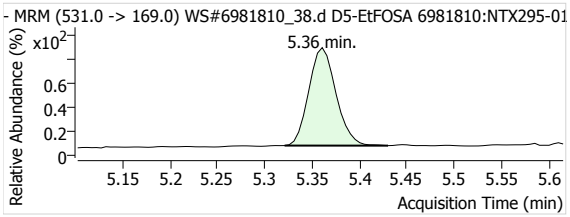


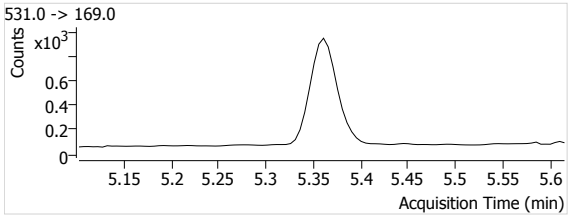
D3-MeFOSA





D5-EtFOSA





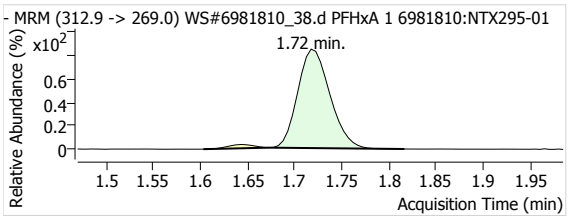
Quantitative Analysis Report

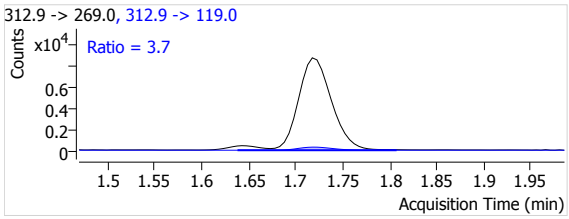
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX295-01	**Data File**	WS#6981810_38.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-D1
Acq. Date-Time	2020/10/05 11:40:24 AM	**Dil.**	0.0
Comment	Reported all except PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2437	--	20322	1.72	229	1.5975	750	1.72	55	3.7
PFHpA 1	µg/L	--	0.0876	--	8881	2.16	86	0.7927	1500	2.17	41	16.9
PFOA 1	µg/L	--	0.1782	--	12462	2.64	113	1.0551	3089	2.63	419	24.8
PFNA 1	µg/L	--	0.0100	--	918	3.06	29	0.0962	155	3.06	23	16.9
PFDA 1	µg/L	--	0.0018	--	263	3.45	9	0.0322	60	3.45	33	22.8
PFUnA 1	µg/L	--	0.0007	--	164	3.79	4	0.0189	22	3.80	3	13.4
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0387	--	1266	1.40	48	0.2866	522	1.40	42	41.2
PFHxS 1	µg/L	--	0.9183	--	16140	2.07	756	7.3934	7214	2.07	339	44.7
PFOS 1	µg/L	--	2.6582	--	38816	2.89	291	18.7425	19133	2.89	550	49.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	102.3082	--	12721	1.72	772		--	--	--	--
13C4-PFHpA	µg/L	--	107.8975	--	11203	2.16	1074		--	--	--	--
13C4-PFOA	µg/L	--	104.7167	--	11811	2.64	1296		--	--	--	--
13C5-PFNA	µg/L	--	107.8671	--	9543	3.06	655		--	--	--	--
13C2-PFDA	µg/L	--	104.6709	--	8157	3.45	723		--	--	--	--
13C2-PFUnA	µg/L	--	102.1184	--	8677	3.78	545		--	--	--	--
13C2-PFDoA	µg/L	--	95.2292	--	8643	4.08	379		--	--	--	--
13C2-PFTeDA	µg/L	--	94.6055	--	6787	4.58	942		--	--	--	--
13C3-PFBS	µg/L	--	103.6125	--	4417	1.39	227		--	--	--	--
18O2-PFHxS	µg/L	--	106.0739	--	2183	2.12	575		--	--	--	--
13C4-PFOS	µg/L	--	98.1982	--	2071	2.93	255		--	--	--	--
D3-MeFOSA	µg/L	--	53.9899	--	1502	5.24	52		--	--	--	--
D5-EtFOSA	µg/L	--	52.3595	--	1742	5.36	51		--	--	--	--

PFHxA 1





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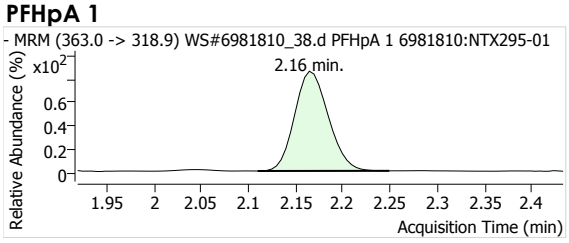
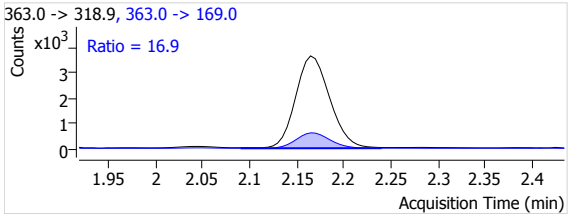
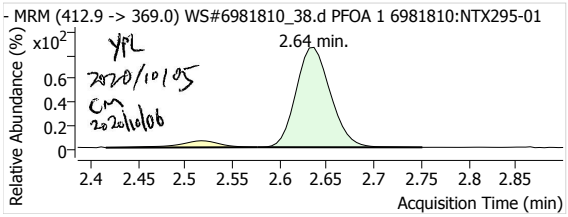
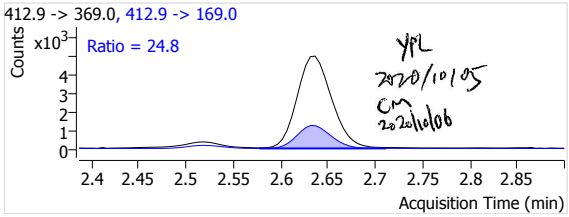




PFOA 1





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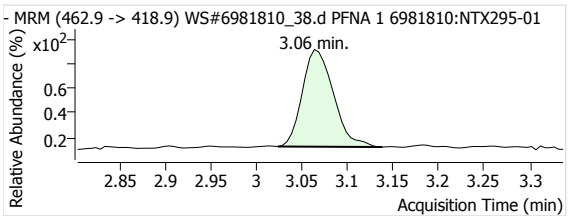

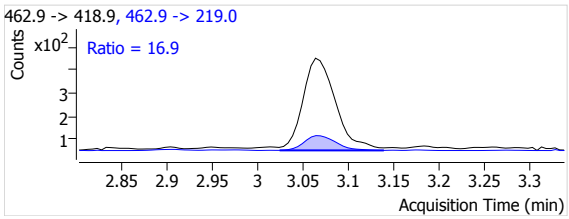

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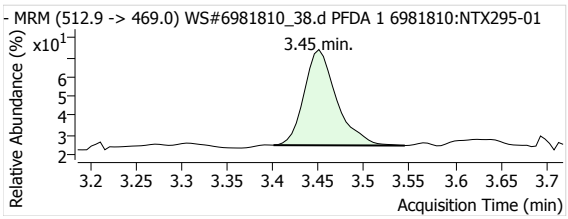

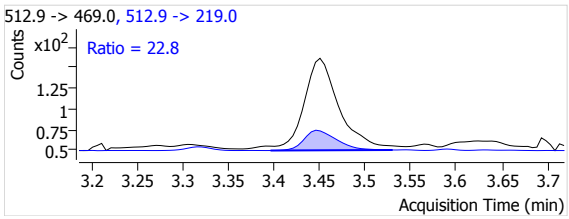

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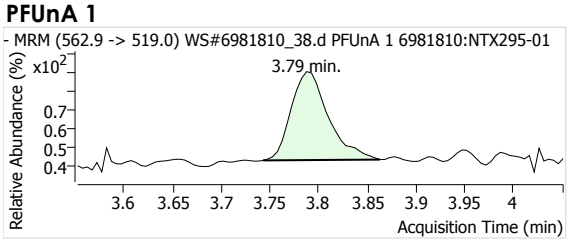

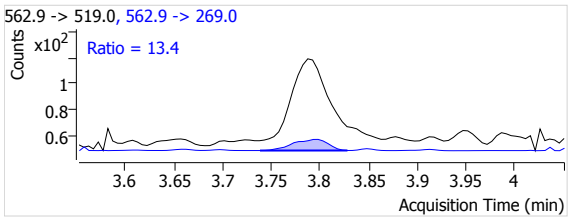

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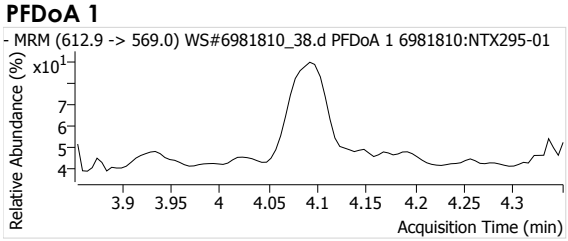

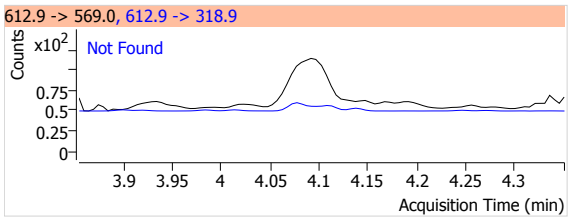

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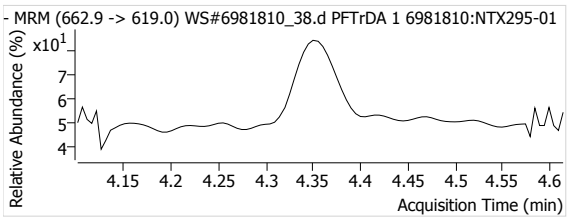

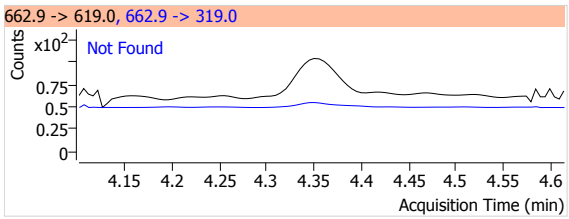

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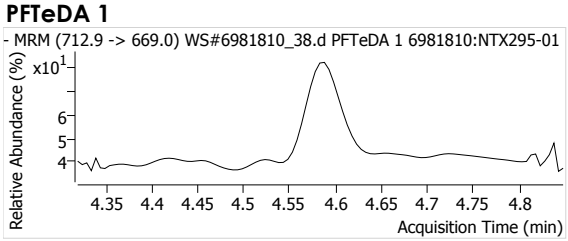

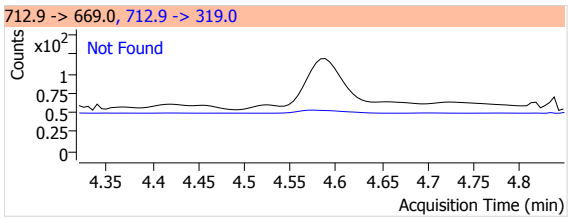

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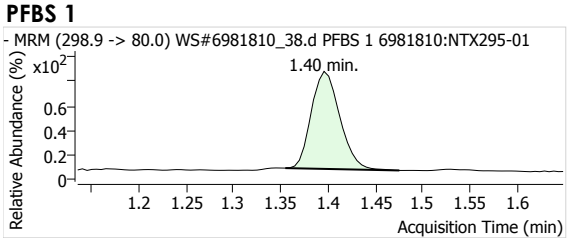
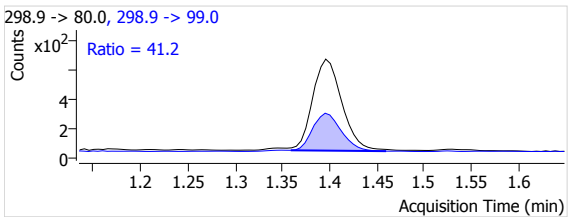
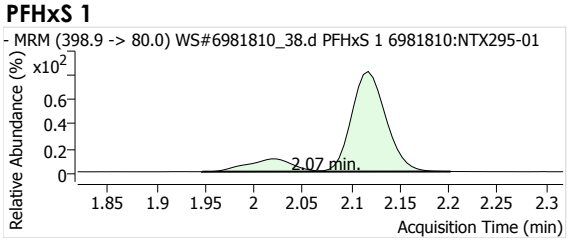
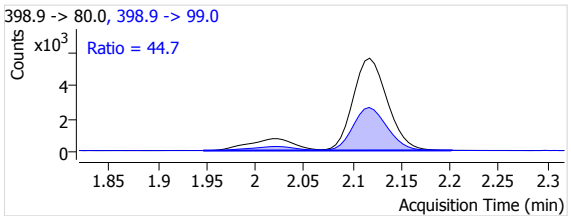


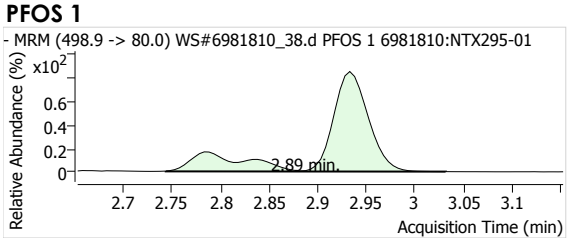


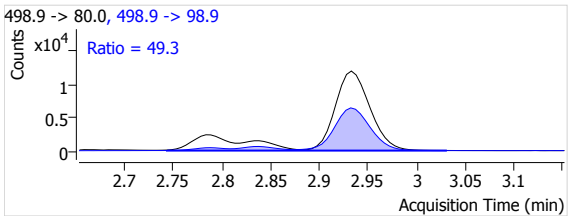
PFHxS 1





PFOS 1





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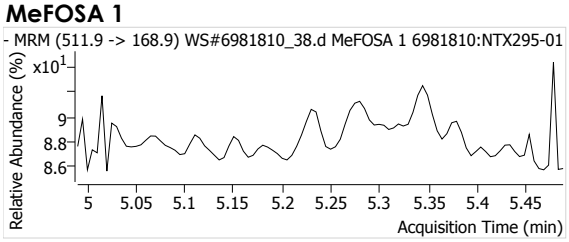

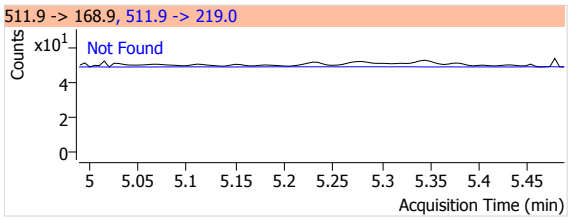

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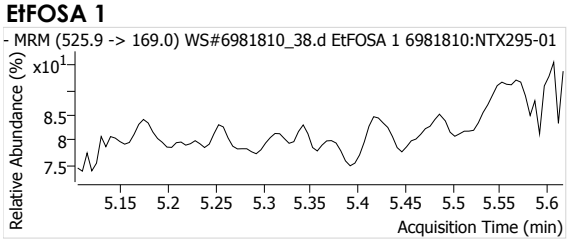
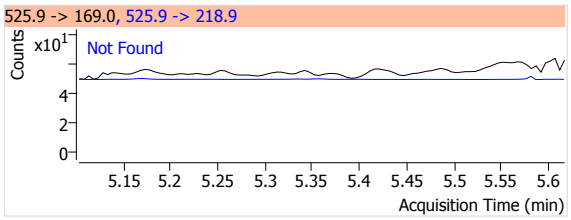
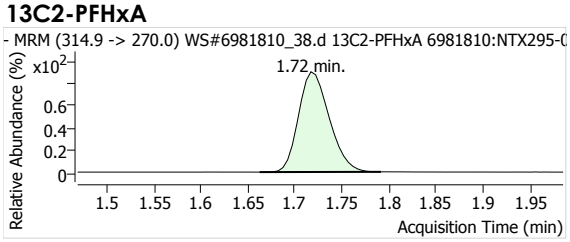
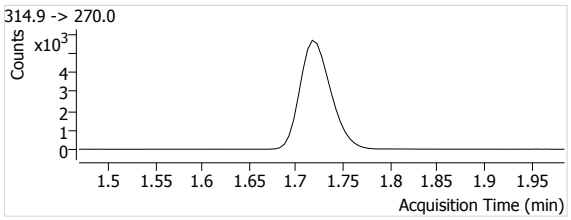




13C2-PFHxA





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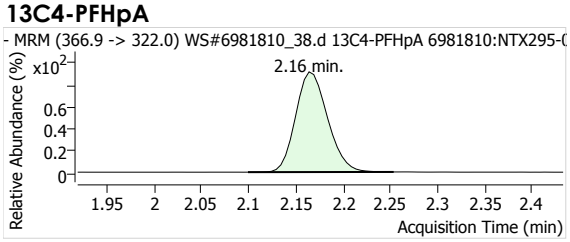

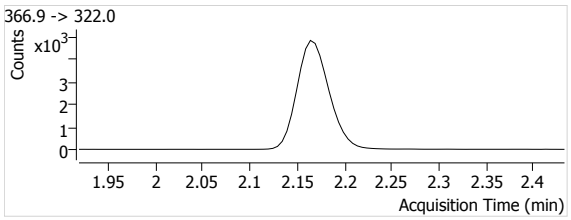

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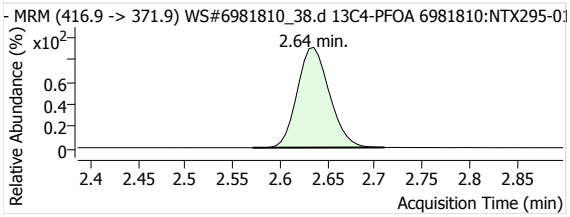

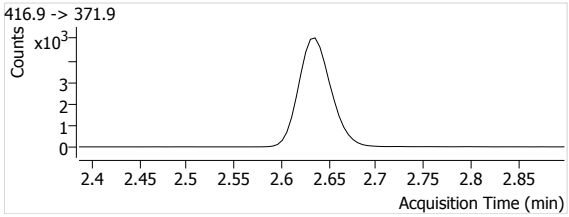

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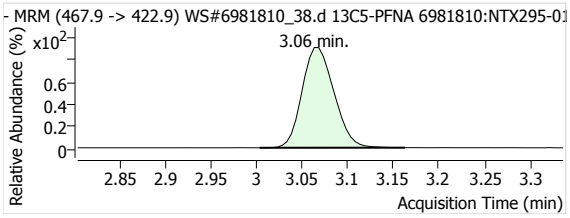

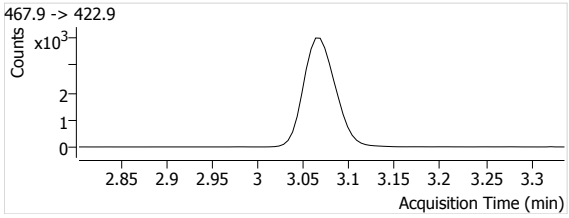

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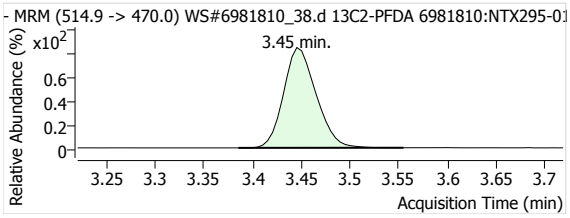

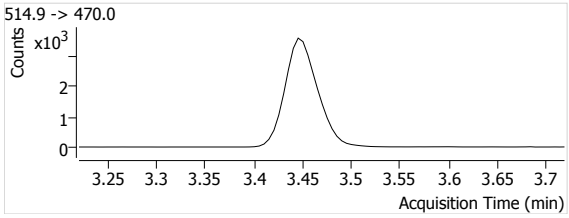

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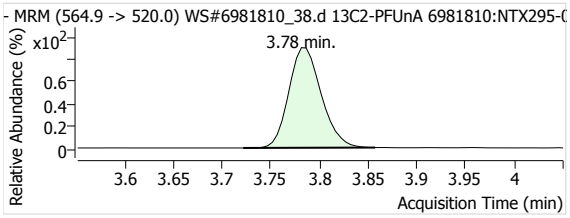

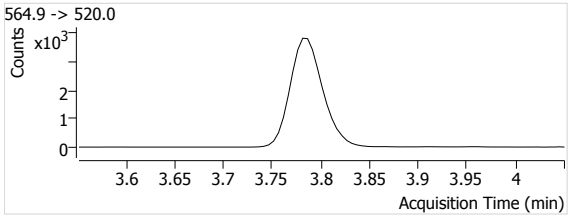

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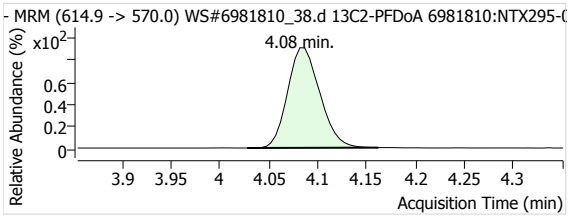

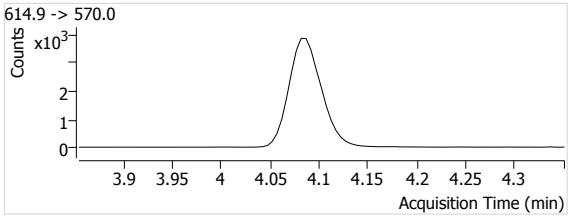

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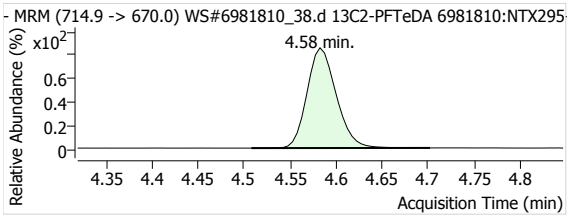

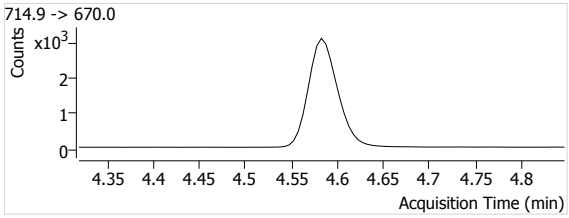

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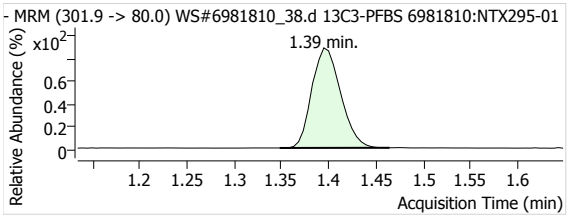

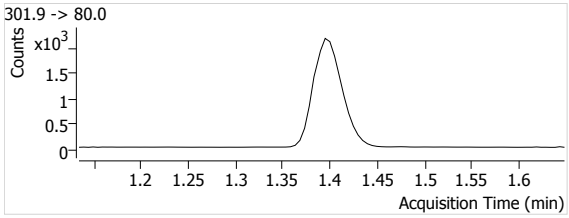

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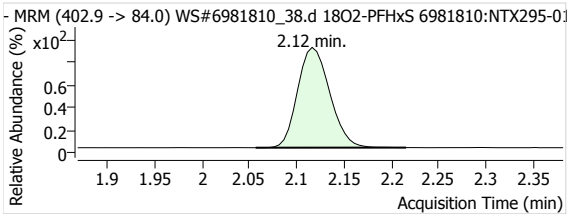

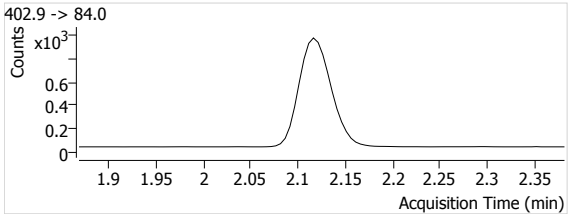

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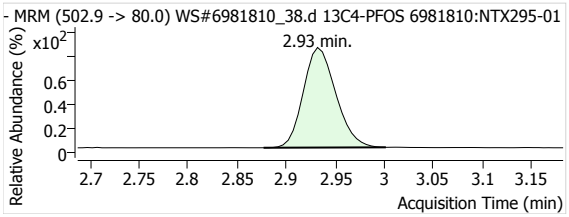
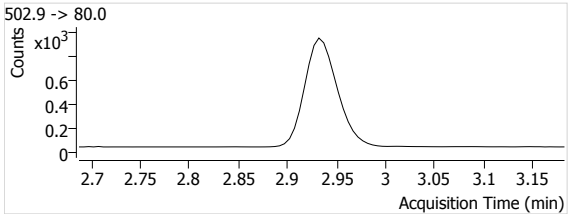
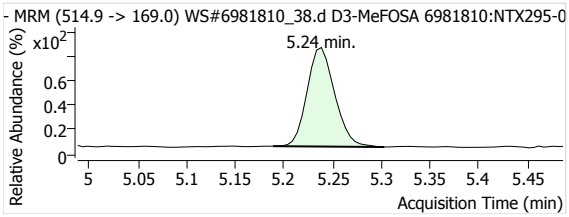
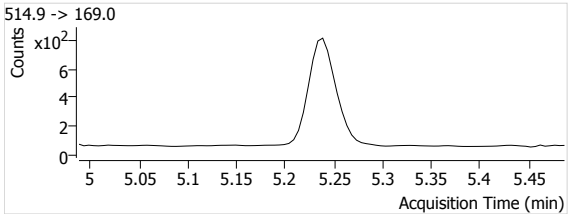




D3-MeFOSA





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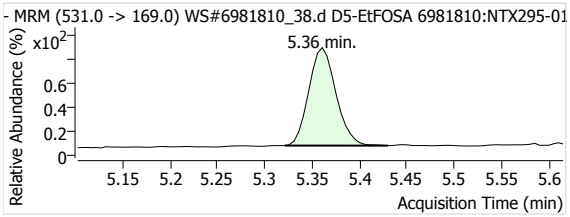
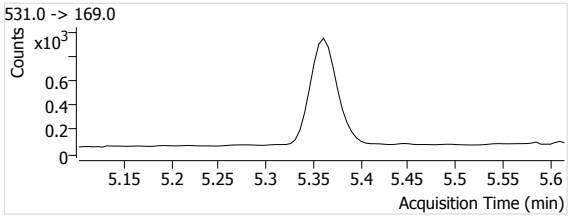




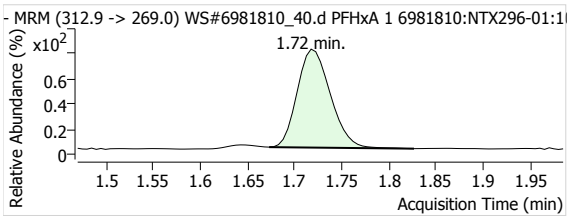
Quantitative Analysis Report

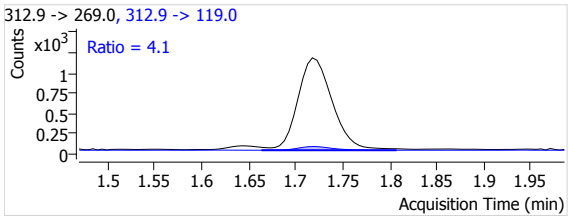
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX296-01:10x	**Data File**	WS#6981810_40.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-D2
Acq. Date-Time	2020/10/05 11:54:25 AM	**Dil.**	0.2
Comment	Reported PFOS		
User Defined			

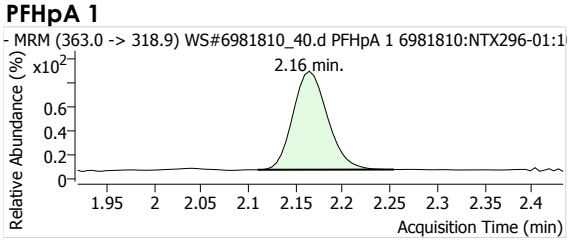
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2466	--	2735	1.72	38	0.1981	112	1.72	27	4.1
PFHpA 1	µg/L	--	0.1361	--	1825	2.16	32	0.1571	315	2.17	34	17.3
PFOA 1	µg/L	--	0.1755	--	1607	2.63	24	0.1258	379	2.63	12	23.6
PFNA 1	µg/L	--	0.0044	--	328	3.07	10	0.0315	56	3.06	11	17.1
PFDA 1	µg/L	--	0.0000	--	150	3.45	4	0.0170	9	3.44	8	6.0
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	162	4.08	4	0.0167	18	4.08	8	11.1
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0301	--	149	1.40	13	0.0311	69	1.40	19	46.3
PFHxS 1	µg/L	--	1.0224	--	2174	2.07	207	0.9496	977	2.07	245	44.9
PFOS 1	µg/L	--	3.4052	--	6771	2.89	173	2.7323	3305	2.89	329	48.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	111.0343	--	13806	1.72	669		--	--	--	--
13C4-PFHpA	µg/L	--	111.8559	--	11614	2.16	1472		--	--	--	--
13C4-PFOA	µg/L	--	113.2281	--	12771	2.63	1303		--	--	--	--
13C5-PFNA	µg/L	--	117.5879	--	10403	3.06	670		--	--	--	--
13C2-PFDA	µg/L	--	113.1657	--	8819	3.45	440		--	--	--	--
13C2-PFUnA	µg/L	--	112.0513	--	9521	3.79	772		--	--	--	--
13C2-PFDoA	µg/L	--	106.6770	--	9682	4.09	800		--	--	--	--
13C2-PFTeDA	µg/L	--	110.8168	--	7950	4.58	353		--	--	--	--
13C3-PFBS	µg/L	--	112.2684	--	4786	1.39	817		--	--	--	--
18O2-PFHxS	µg/L	--	111.2245	--	2289	2.12	745		--	--	--	--
13C4-PFOS	µg/L	--	117.4964	--	2478	2.93	334		--	--	--	--
D3-MeFOSA	µg/L	--	41.0137	--	1141	5.24	43		--	--	--	--
D5-EtFOSA	µg/L	--	38.2326	--	1272	5.36	19		--	--	--	--

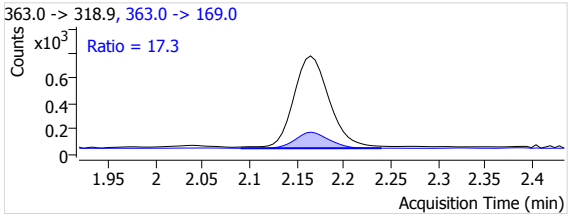
PFHxA 1



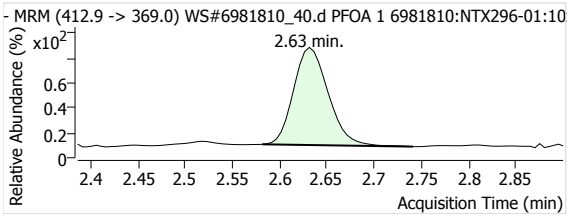


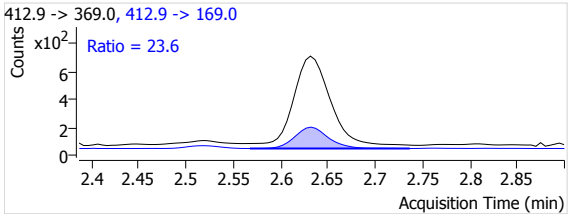
PFHpA 1



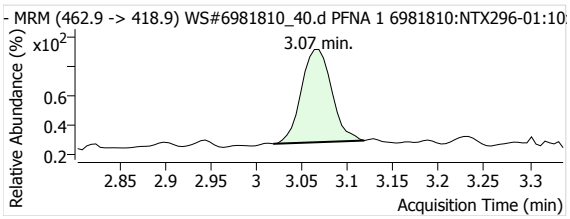


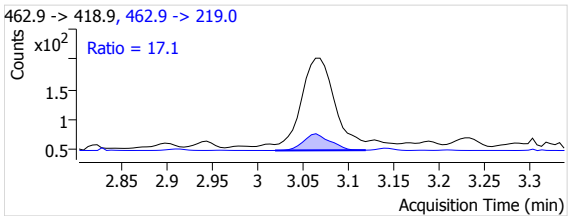
PFOA 1



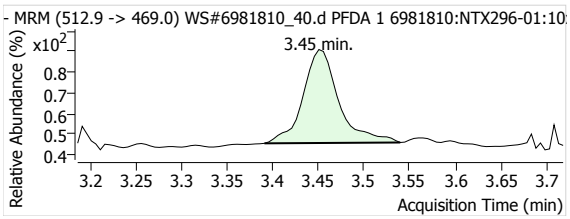


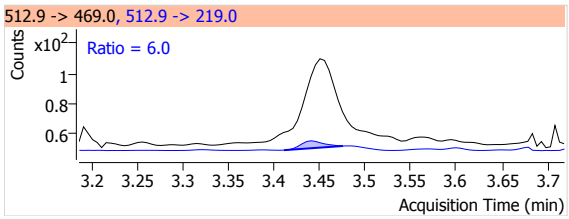
PFNA 1



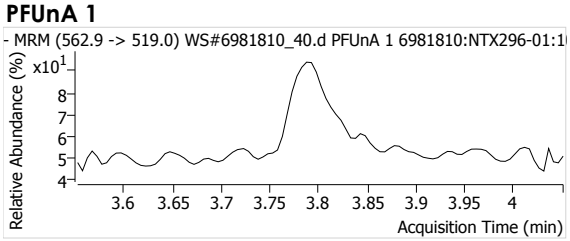


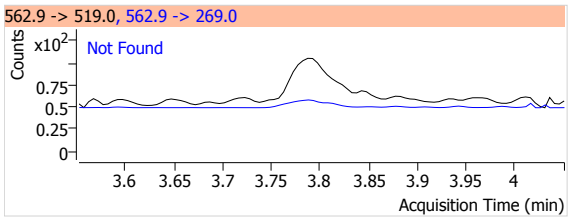
PFDA 1





PFUnA 1





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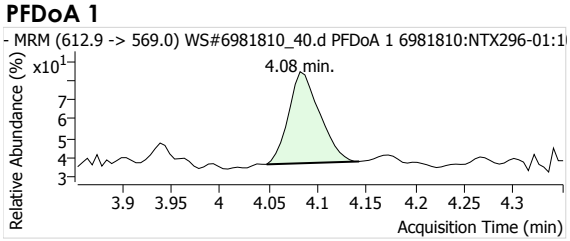

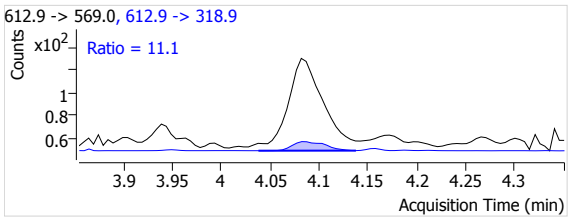

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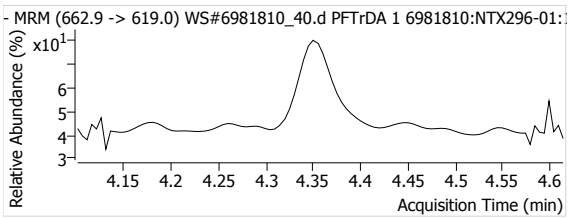

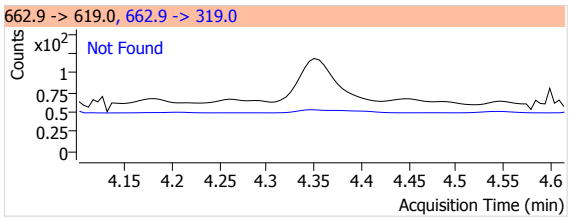

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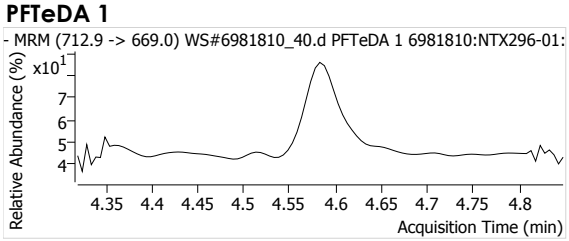

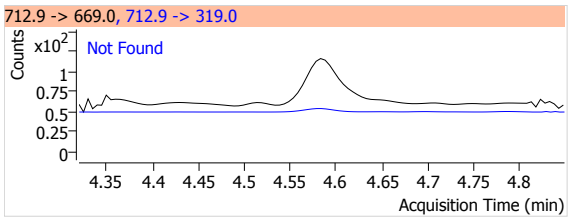

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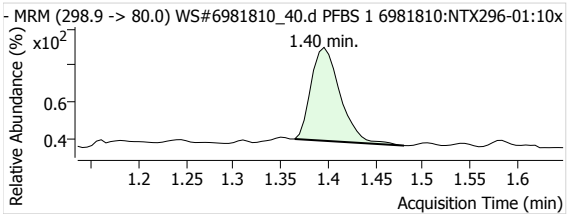

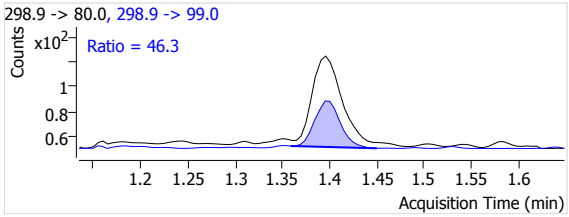

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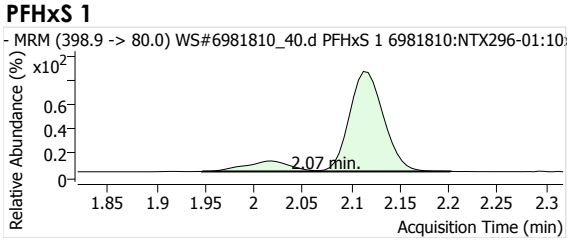
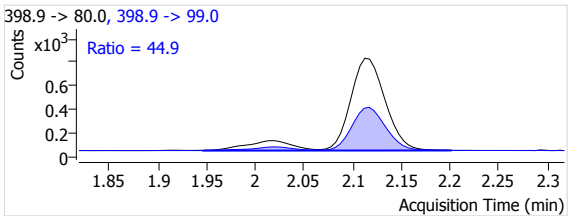
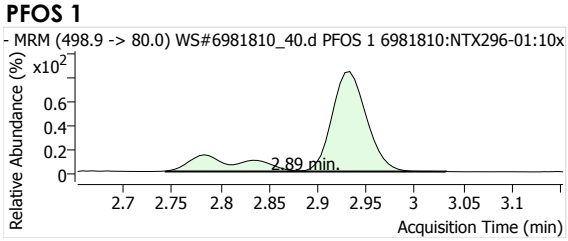
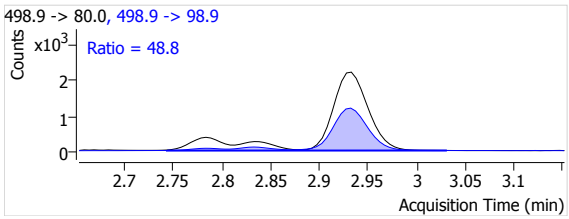




PFOS 1





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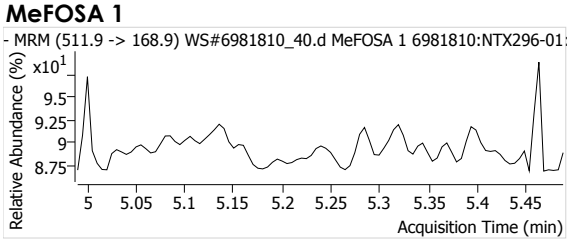

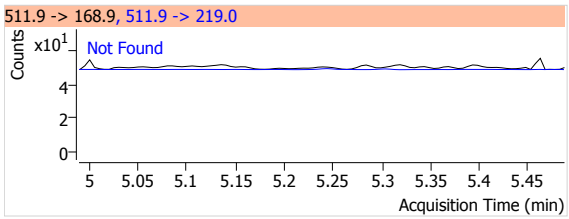

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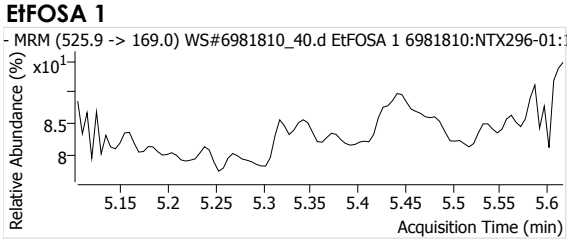

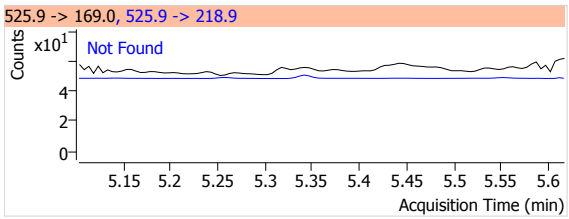

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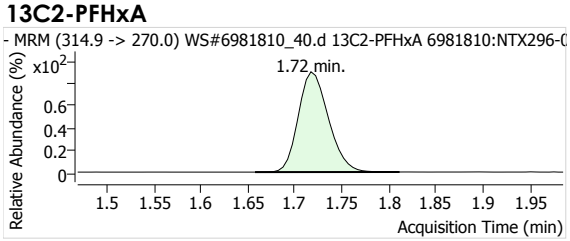

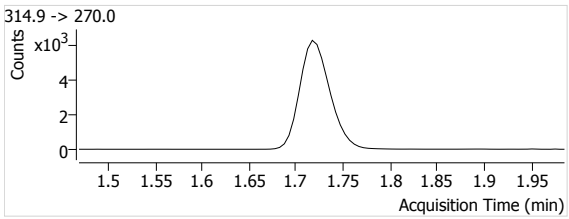

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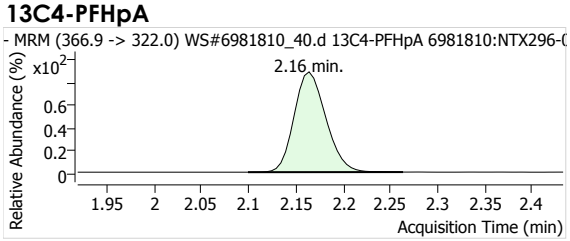

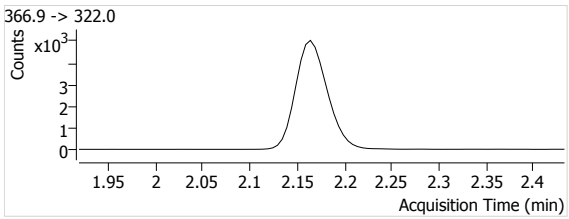

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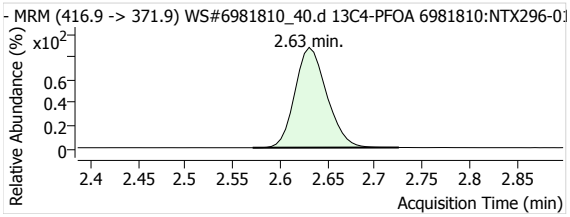

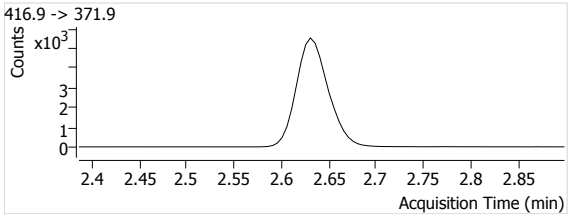

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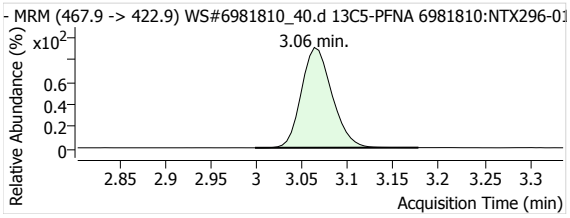

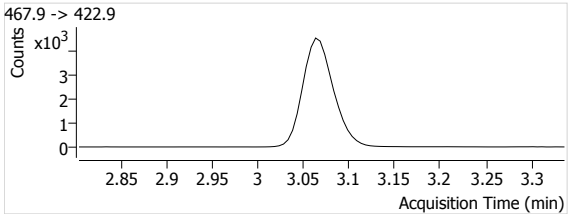

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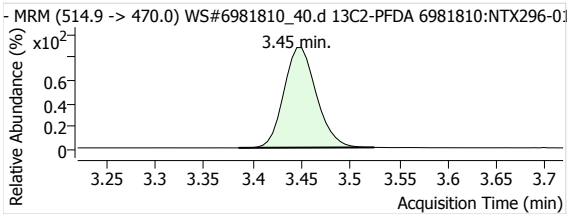

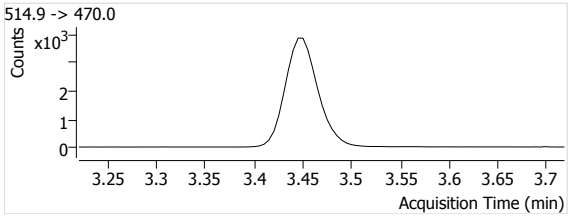

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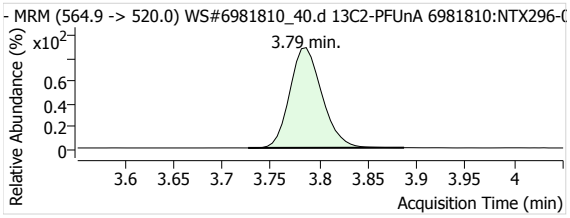

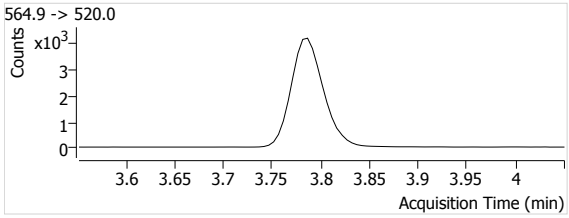

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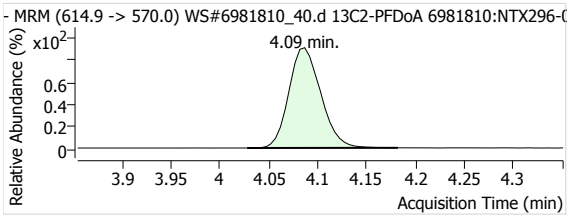

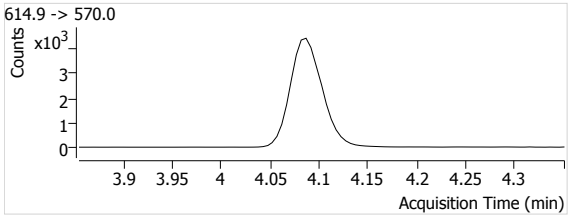

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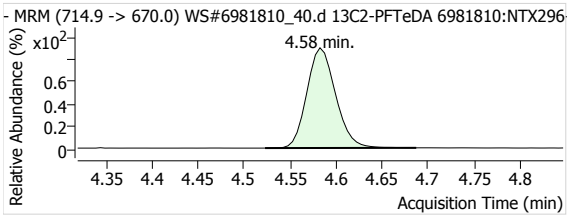

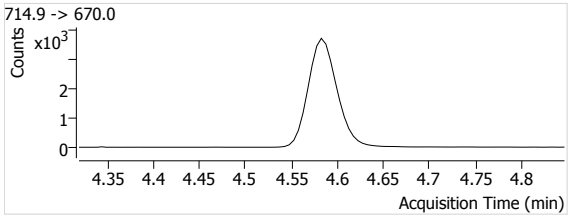

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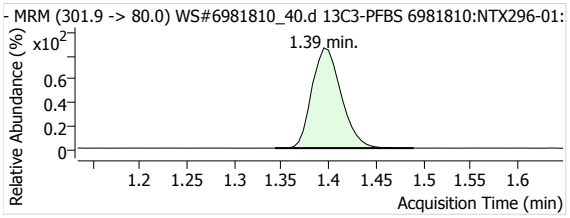

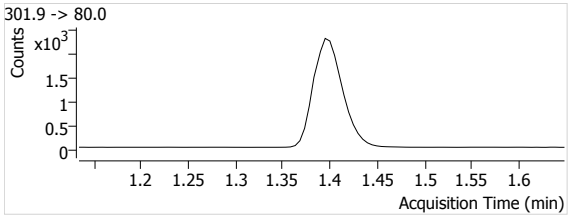

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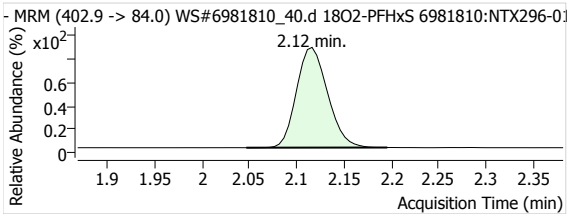

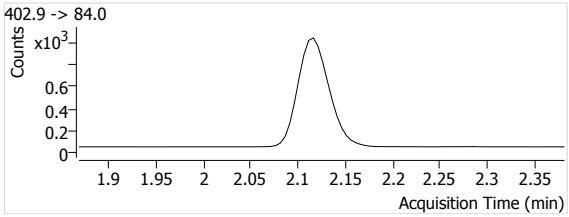

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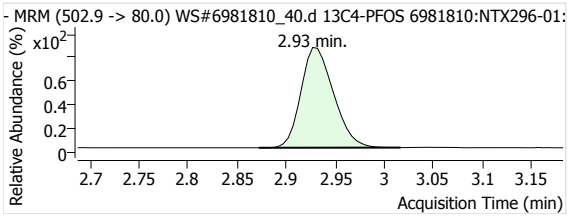

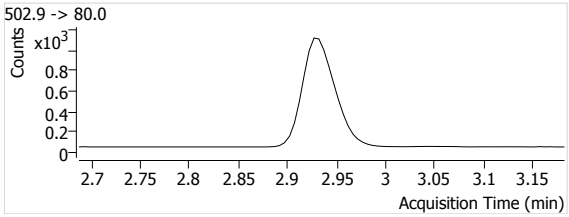

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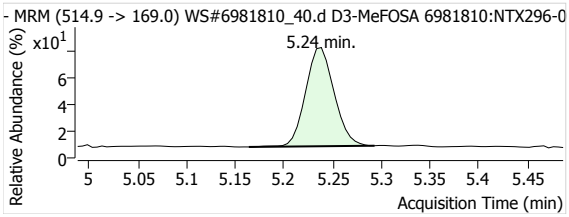

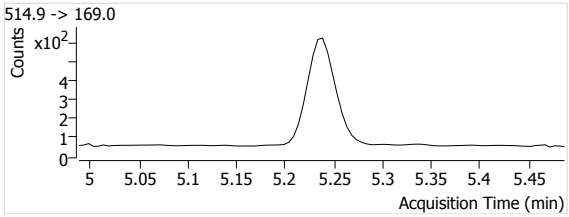

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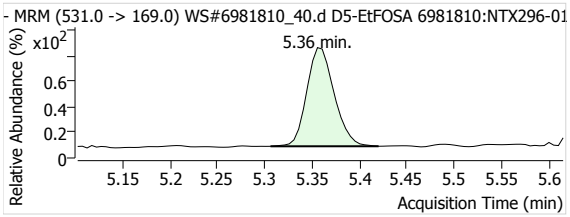
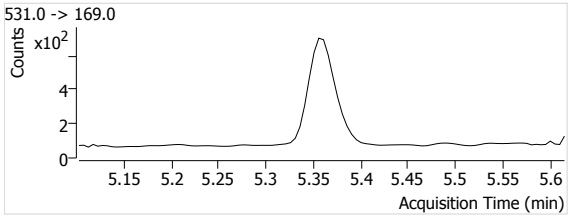




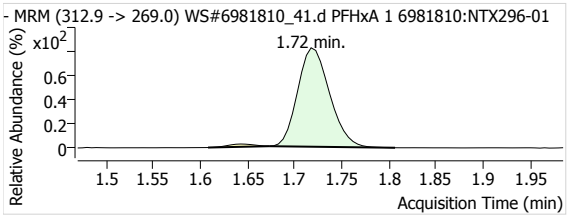
Quantitative Analysis Report

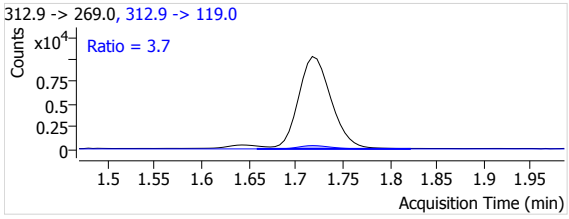
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX296-01	**Data File**	WS#6981810_41.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-D3
Acq. Date-Time	2020/10/05 12:01:23 PM	**Dil.**	0.0
Comment	Reported all except PFOS		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2509	--	23825	1.72	213	1.7191	891	1.72	69	3.7
PFHpA 1	µg/L	--	0.1413	--	15544	2.16	167	1.3235	2546	2.17	67	16.4
PFOA 1	µg/L	--	0.1920	--	15078	2.63	184	1.1881	3811	2.63	504	25.3
PFNA 1	µg/L	--	0.0264	--	2223	3.06	78	0.2158	346	3.06	35	15.6
PFDA 1	µg/L	--	0.0031	--	368	3.45	12	0.0421	71	3.45	11	19.3
PFUnA 1	µg/L	--	0.0004	--	155	3.78	3	0.0171	16	3.78	6	10.3
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0012	--	221	4.35	2	0.0309	12	4.36	17	5.4
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0333	--	1199	1.40	42	0.2589	452	1.40	37	37.7
PFHxS 1	µg/L	--	1.0415	--	19675	2.07	1142	8.7679	8853	2.07	396	45.0
PFOS 1	µg/L	--	3.7488	--	60298	2.89	349	27.6471	30055	2.89	770	49.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	111.4605	--	13859	1.72	1431		--	--	--	--
13C4-PFHpA	µg/L	--	113.1176	--	11745	2.16	639		--	--	--	--
13C4-PFOA	µg/L	--	112.5188	--	12691	2.63	1222		--	--	--	--
13C5-PFNA	µg/L	--	116.4463	--	10302	3.06	862		--	--	--	--
13C2-PFDA	µg/L	--	112.2546	--	8748	3.45	585		--	--	--	--
13C2-PFUnA	µg/L	--	106.8142	--	9076	3.78	867		--	--	--	--
13C2-PFDoA	µg/L	--	97.9617	--	8891	4.08	409		--	--	--	--
13C2-PFTeDA	µg/L	--	99.7630	--	7157	4.58	603		--	--	--	--
13C3-PFBS	µg/L	--	108.6559	--	4632	1.39	198		--	--	--	--
18O2-PFHxS	µg/L	--	109.0379	--	2244	2.12	519		--	--	--	--
13C4-PFOS	µg/L	--	103.4139	--	2181	2.93	288		--	--	--	--
D3-MeFOSA	µg/L	--	66.2473	--	1843	5.24	89		--	--	--	--
D5-EtFOSA	µg/L	--	63.7812	--	2122	5.36	49		--	--	--	--

PFHxA 1





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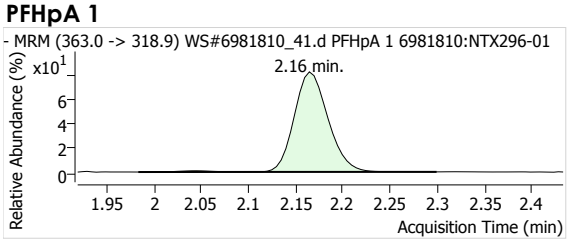

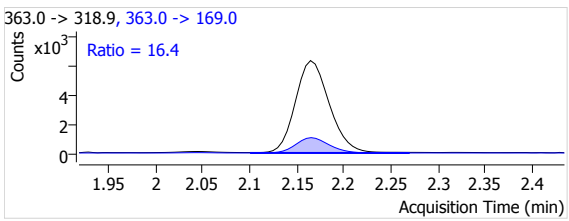

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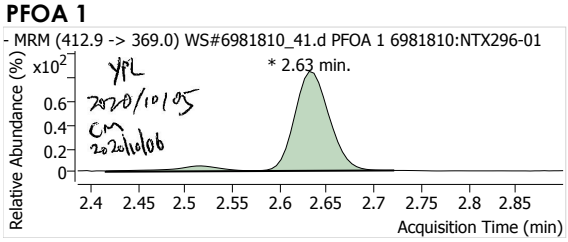

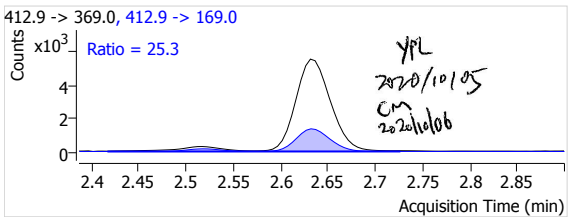

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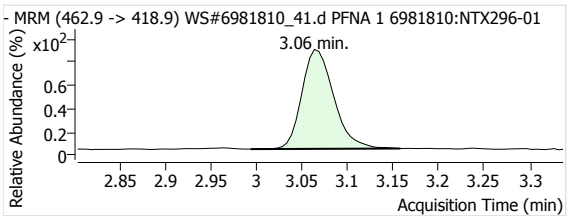

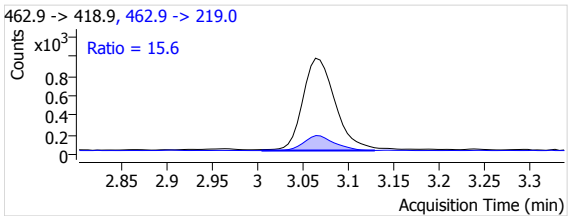

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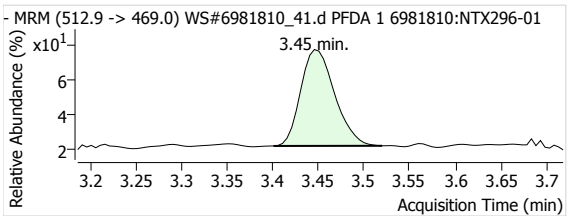

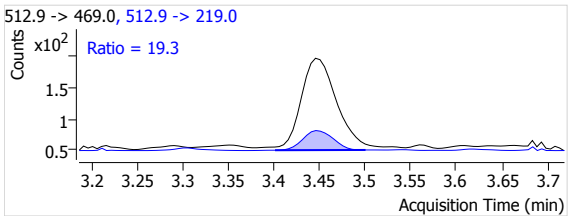

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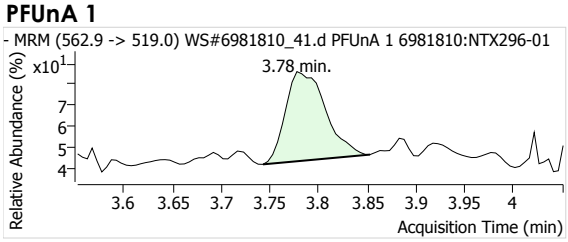

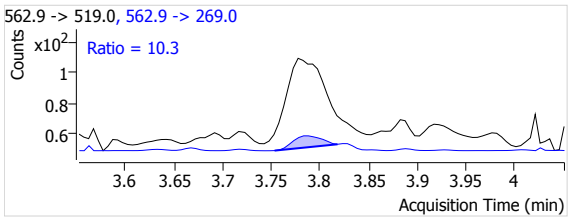

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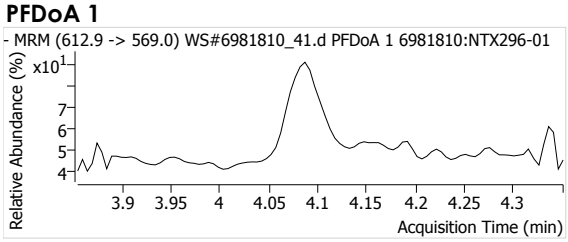

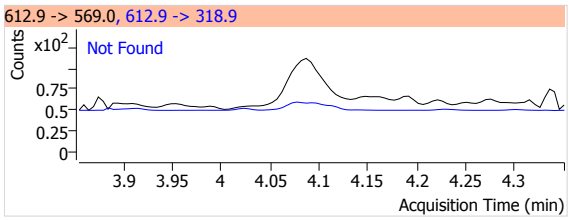

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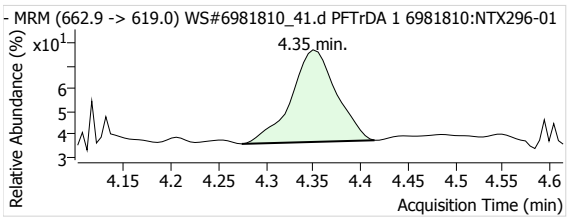

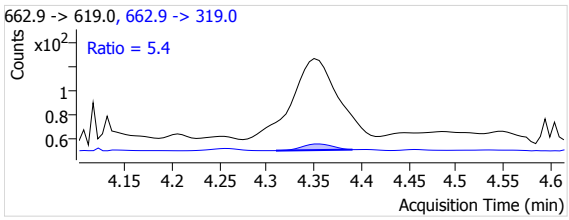

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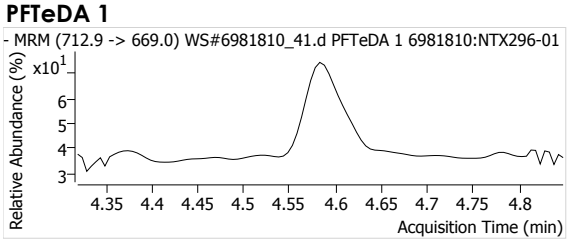

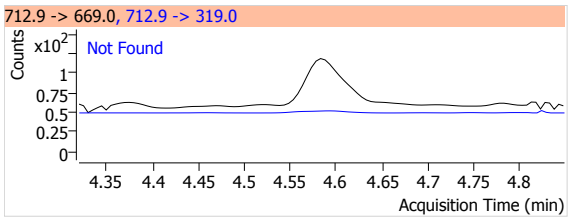

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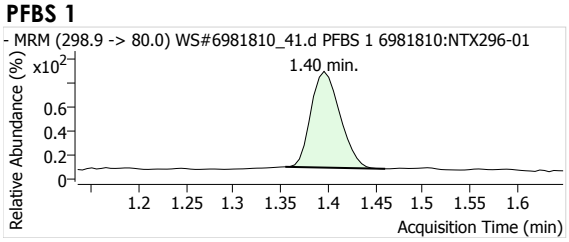

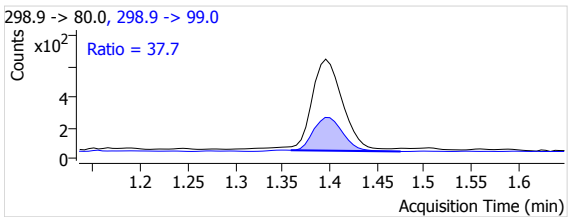

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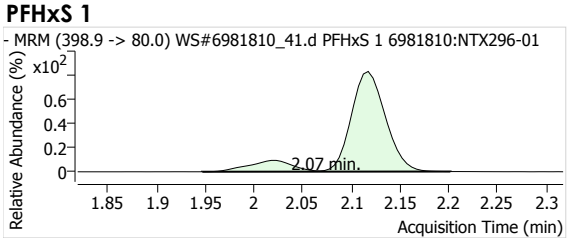
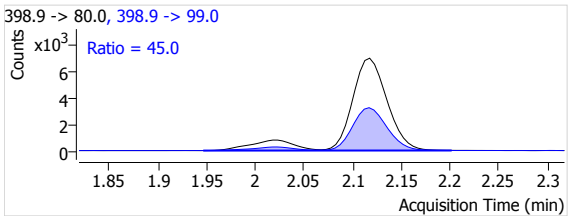
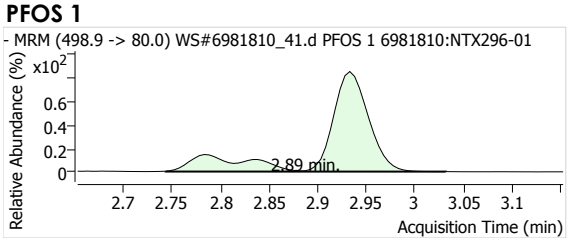
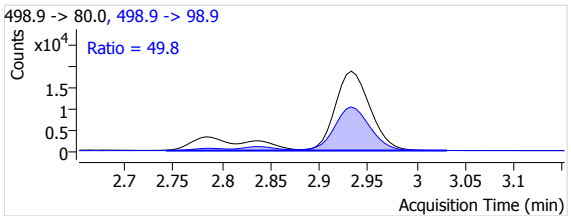




PFOS 1





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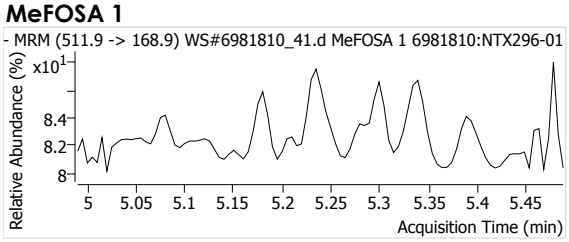

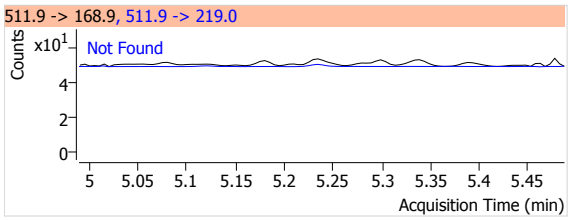

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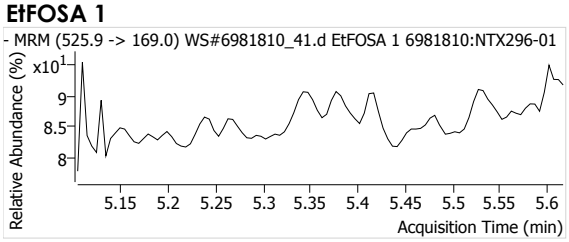

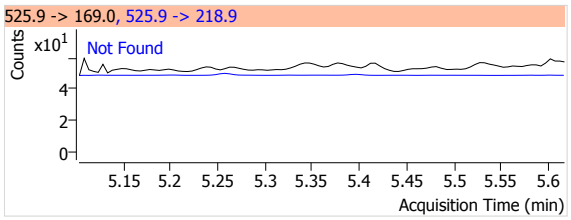

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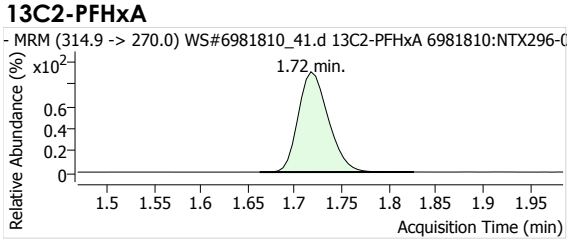

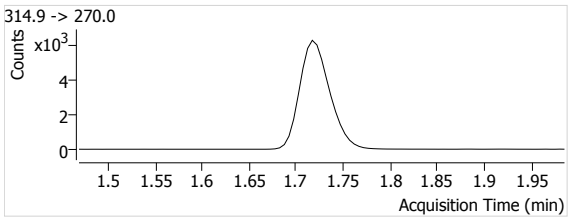

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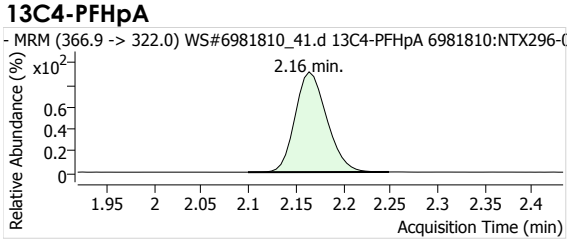

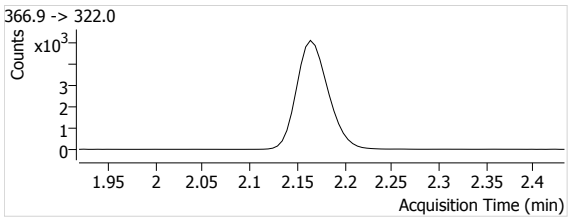

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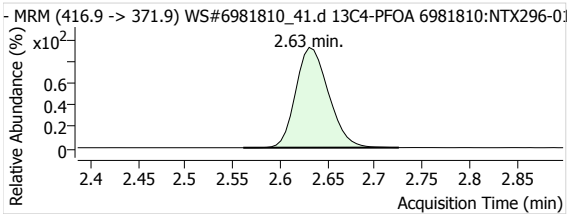

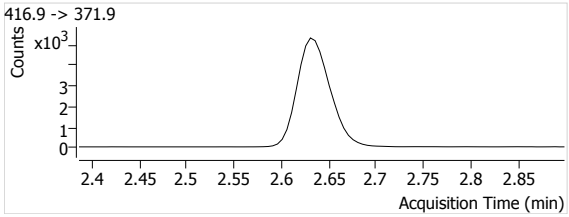

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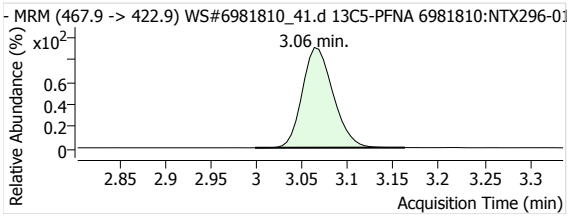

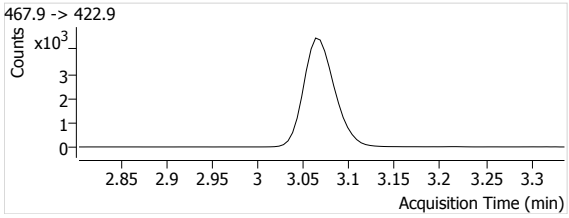

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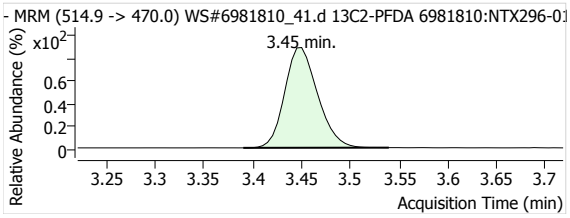

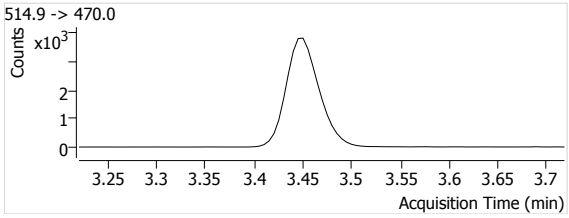

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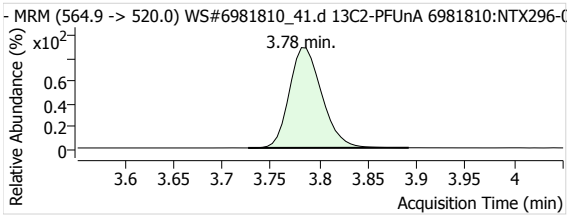

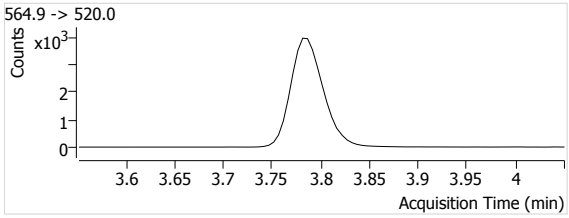

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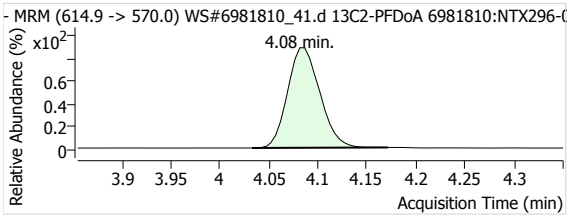

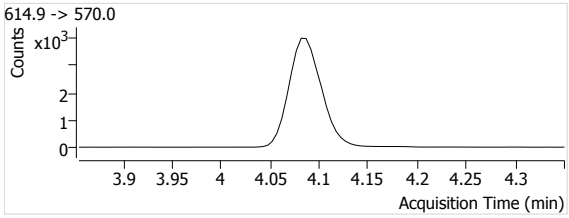

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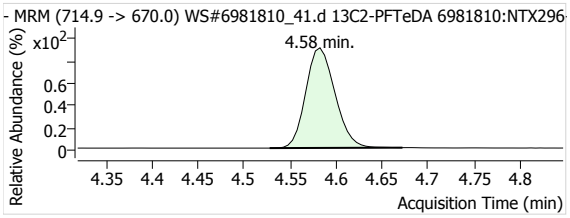

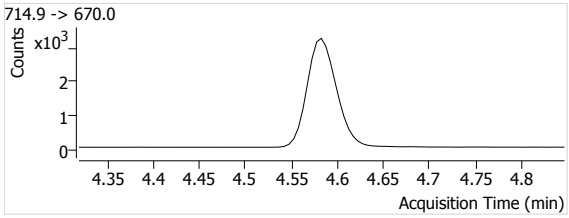

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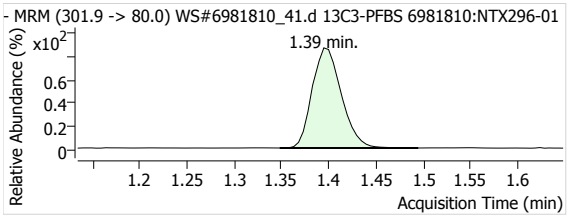

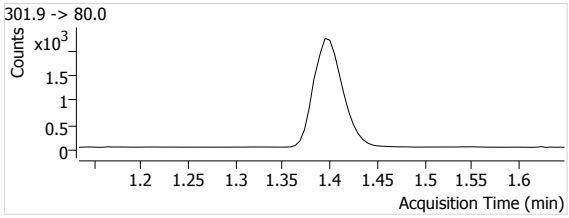

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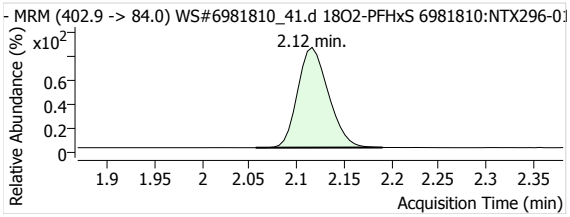

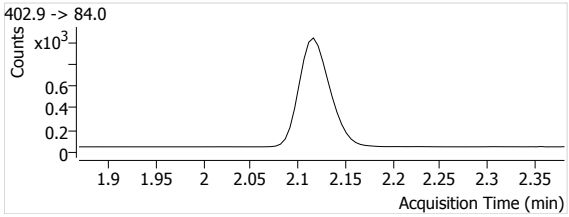

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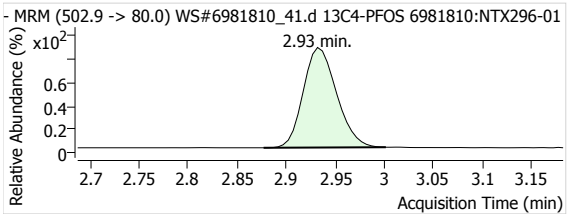
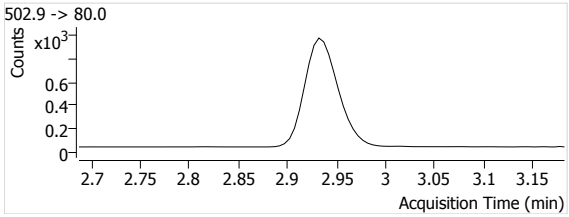
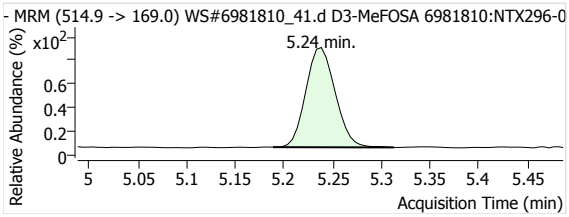
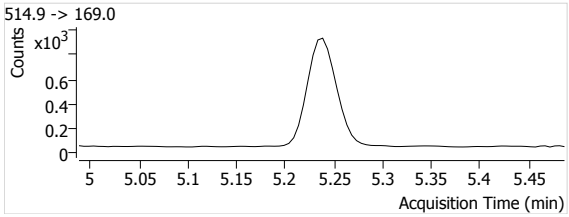




D3-MeFOSA





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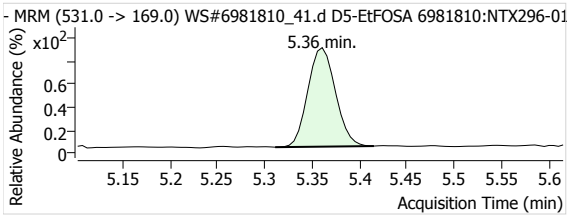
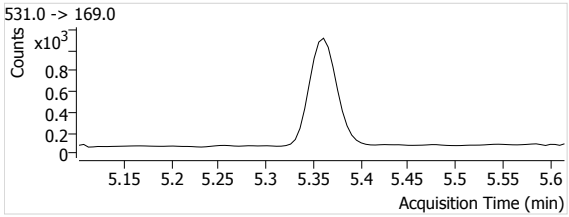




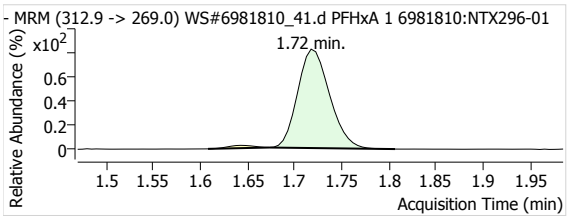
Quantitative Analysis Report

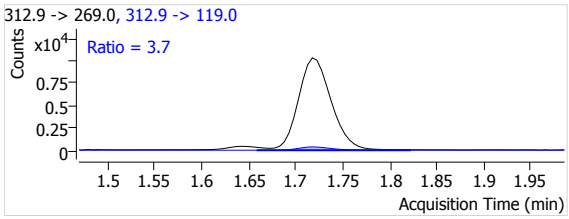
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX296-01	**Data File**	WS#6981810_41.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-D3
Acq. Date-Time	2020/10/05 12:01:23 PM	**Dil.**	0.0
Comment	Reported all except PFOS		
User Defined	MI PFOA		

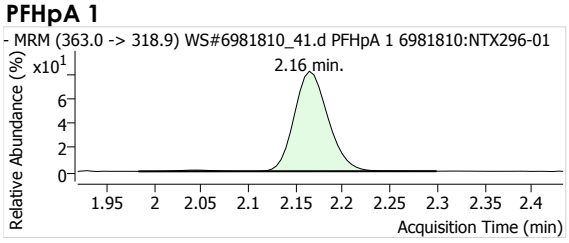
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.2509	--	23825	1.72	213	1.7191	891	1.72	69	3.7
PFHpA 1	µg/L	--	0.1413	--	15544	2.16	167	1.3235	2546	2.17	67	16.4
PFOA 1	µg/L	--	0.1751	--	13764	2.63	184	1.0845	3365	2.63	503	24.4
PFNA 1	µg/L	--	0.0264	--	2223	3.06	78	0.2158	346	3.06	35	15.6
PFDA 1	µg/L	--	0.0031	--	368	3.45	12	0.0421	71	3.45	11	19.3
PFUnA 1	µg/L	--	0.0004	--	155	3.78	3	0.0171	16	3.78	6	10.3
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0012	--	221	4.35	2	0.0309	12	4.36	17	5.4
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0333	--	1199	1.40	42	0.2589	452	1.40	37	37.7
PFHxS 1	µg/L	--	1.0415	--	19675	2.07	1142	8.7679	8853	2.07	396	45.0
PFOS 1	µg/L	--	3.7488	--	60298	2.89	349	27.6471	30055	2.89	770	49.8
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	111.4605	--	13859	1.72	1431		--	--	--	--
13C4-PFHpA	µg/L	--	113.1176	--	11745	2.16	639		--	--	--	--
13C4-PFOA	µg/L	--	112.5188	--	12691	2.63	1222		--	--	--	--
13C5-PFNA	µg/L	--	116.4463	--	10302	3.06	862		--	--	--	--
13C2-PFDA	µg/L	--	112.2546	--	8748	3.45	585		--	--	--	--
13C2-PFUnA	µg/L	--	106.8142	--	9076	3.78	867		--	--	--	--
13C2-PFDoA	µg/L	--	97.9617	--	8891	4.08	409		--	--	--	--
13C2-PFTeDA	µg/L	--	99.7630	--	7157	4.58	603		--	--	--	--
13C3-PFBS	µg/L	--	108.6559	--	4632	1.39	198		--	--	--	--
18O2-PFHxS	µg/L	--	109.0379	--	2244	2.12	519		--	--	--	--
13C4-PFOS	µg/L	--	103.4139	--	2181	2.93	288		--	--	--	--
D3-MeFOSA	µg/L	--	66.2473	--	1843	5.24	89		--	--	--	--
D5-EtFOSA	µg/L	--	63.7812	--	2122	5.36	49		--	--	--	--

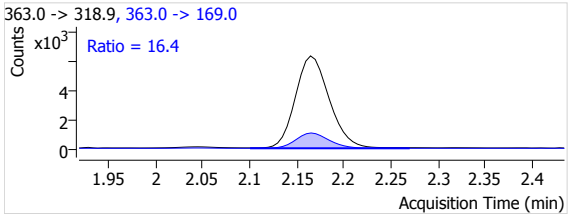
PFHxA 1



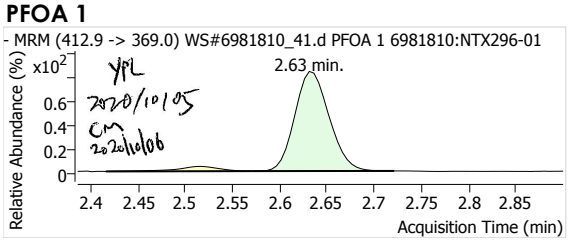


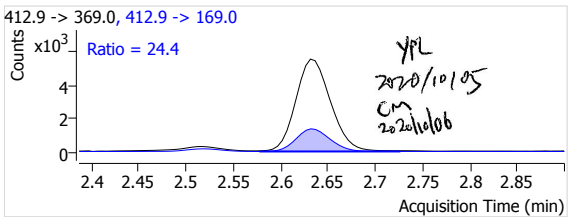
PFHpA 1





PFOA 1





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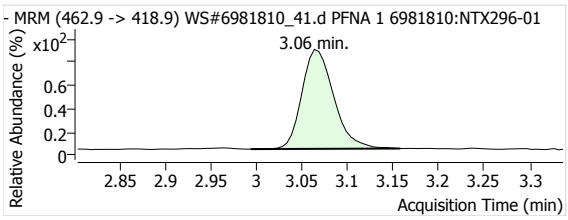
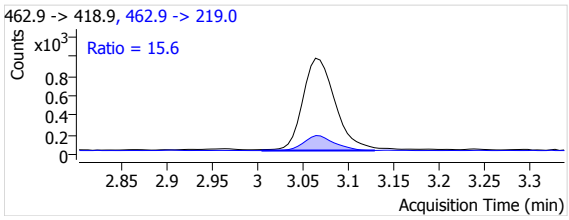
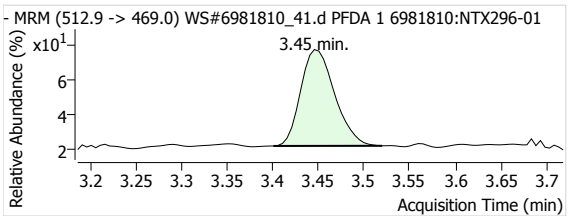
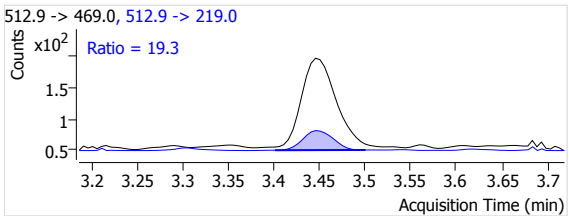




PFDA 1





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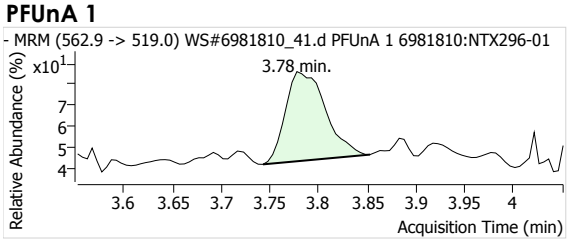

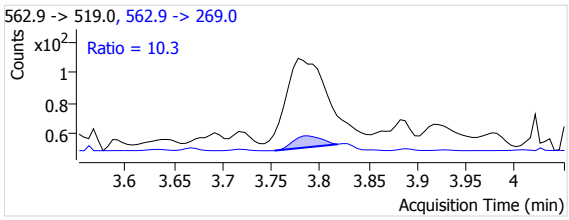

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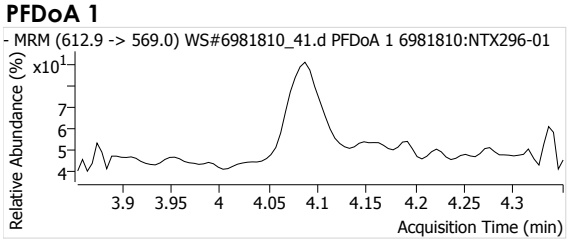

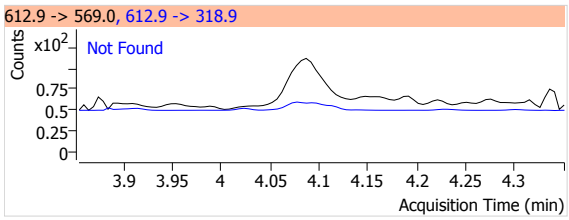

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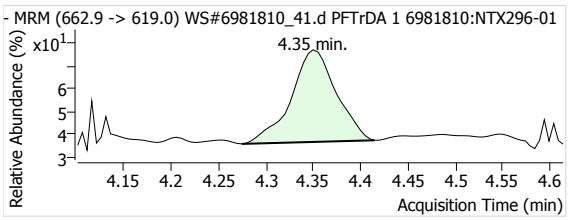

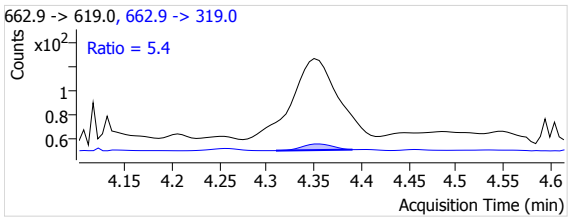

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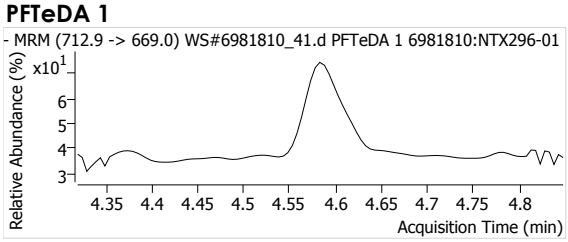

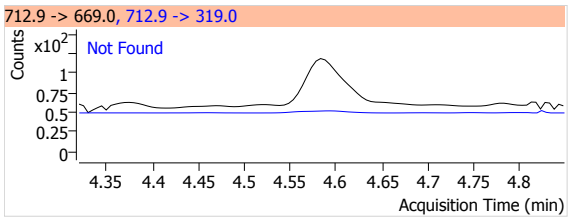

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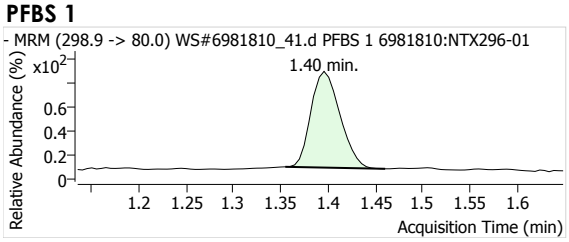

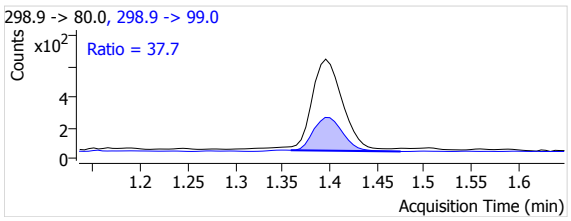

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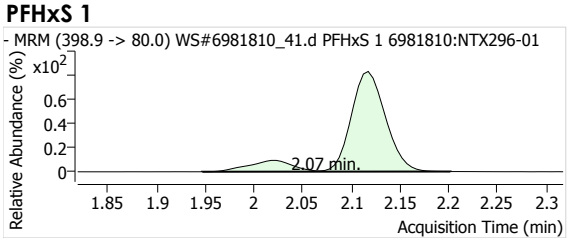

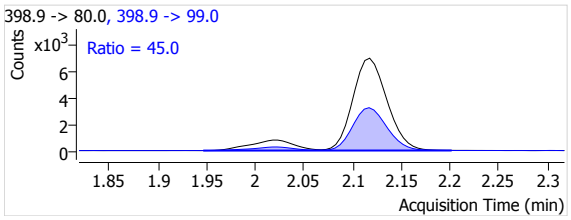

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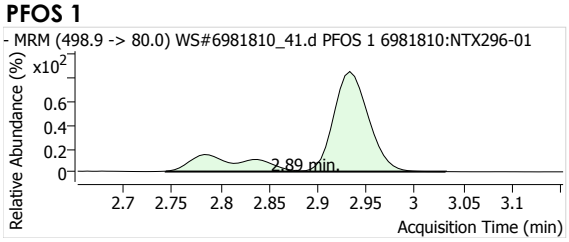

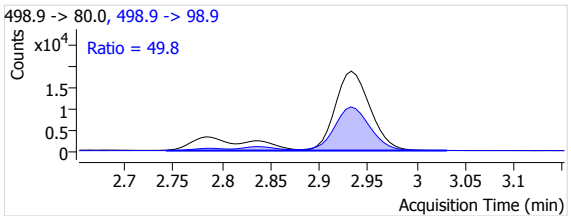

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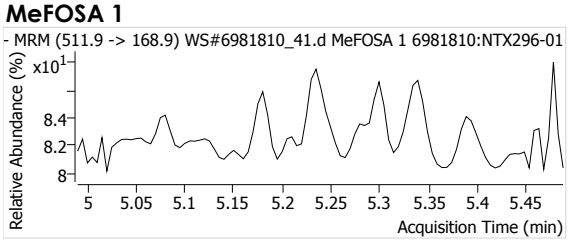

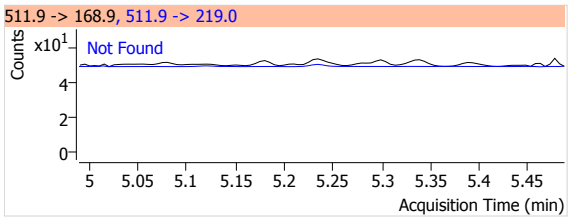

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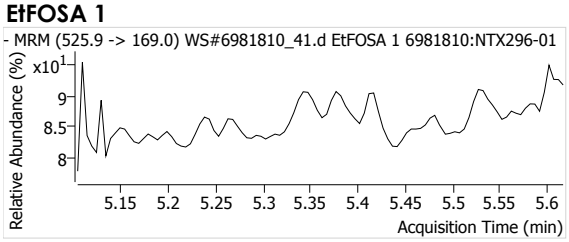

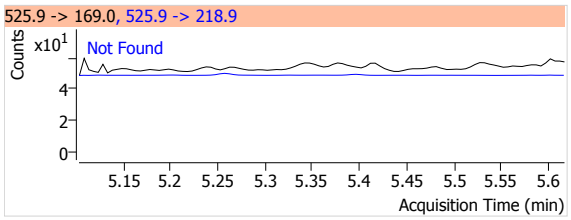

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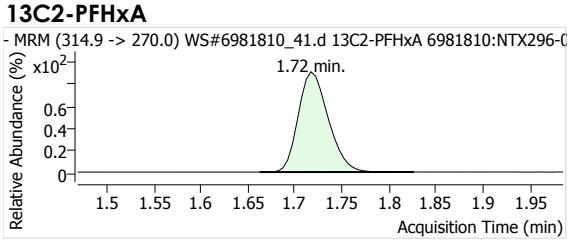

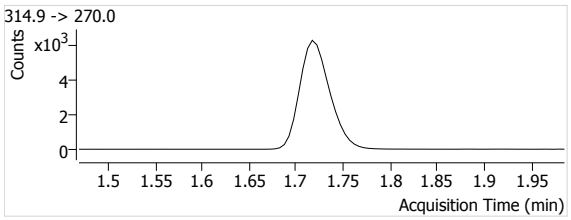

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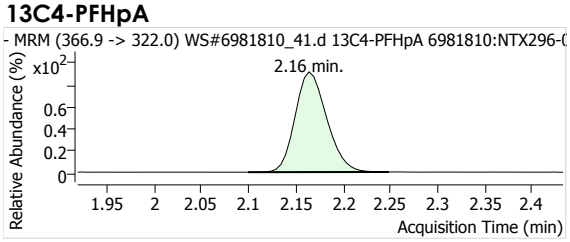

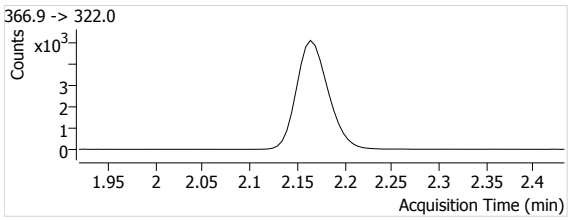

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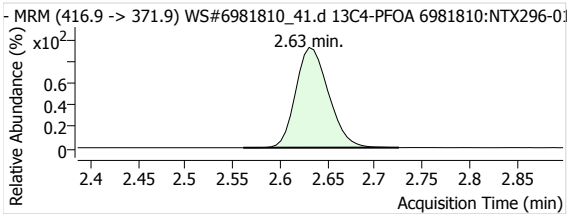

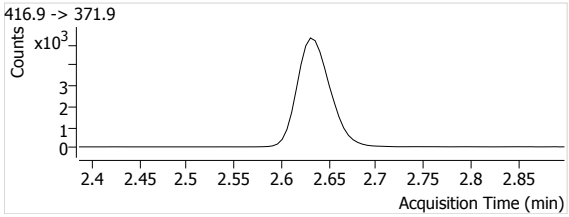

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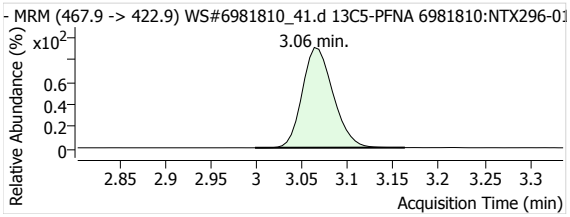

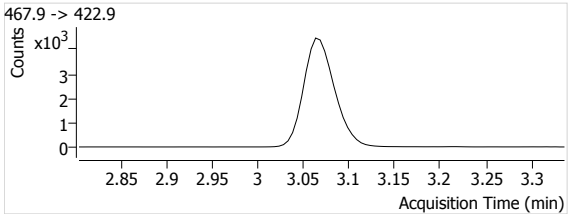

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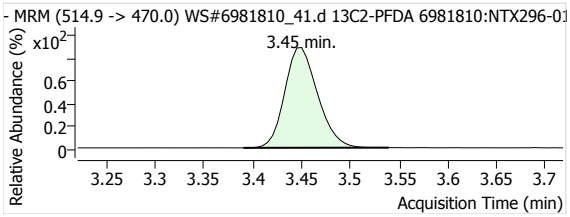

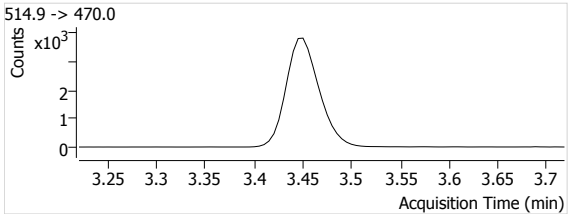

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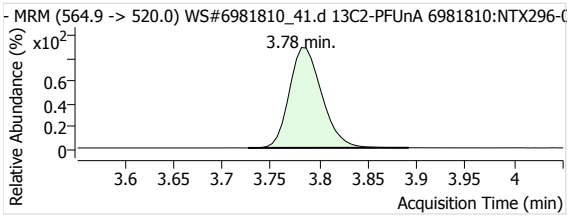

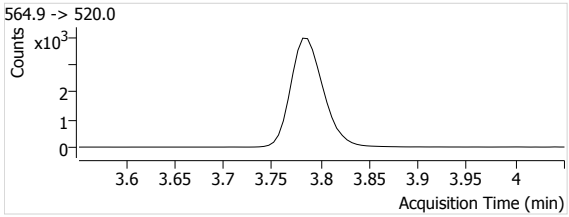

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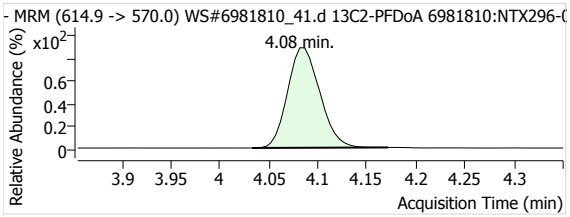

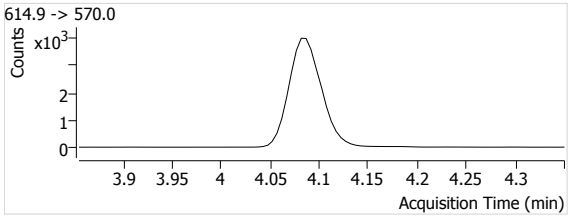

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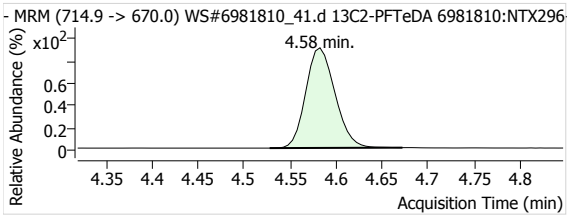

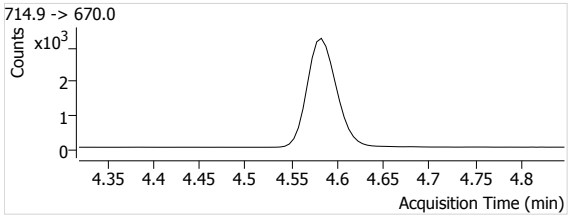

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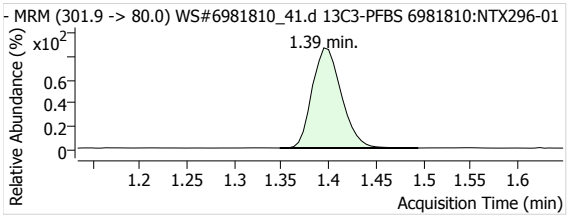

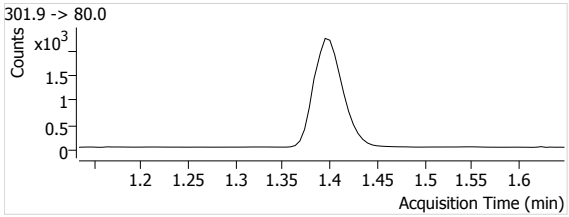

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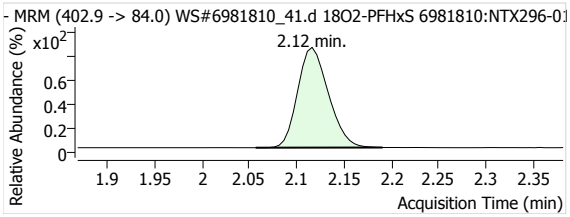

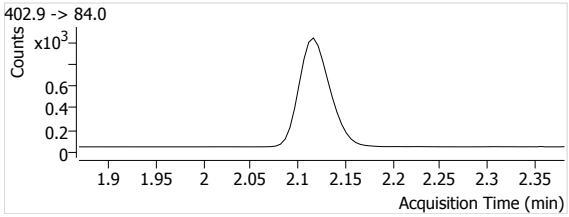

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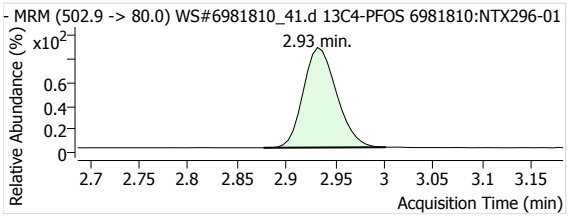

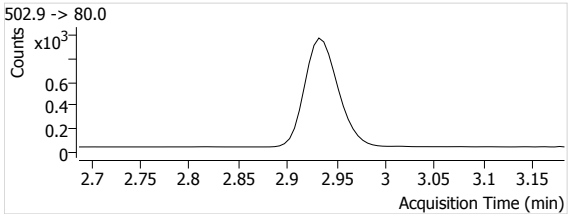

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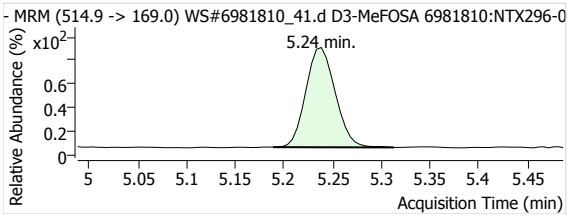

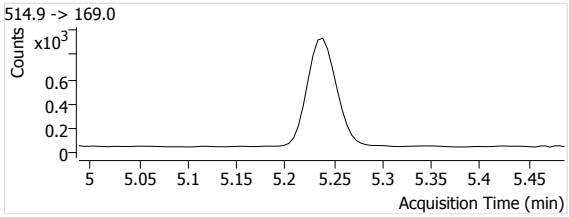

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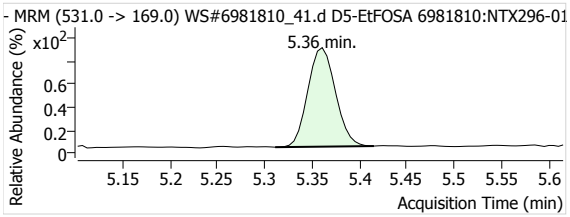
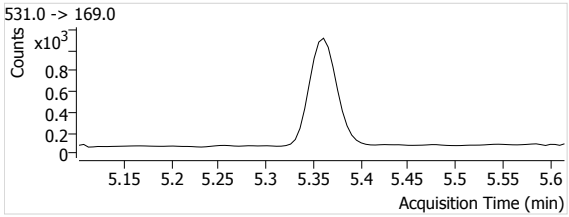




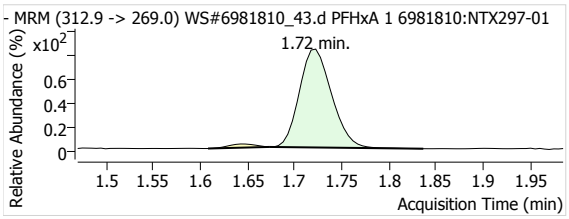
Quantitative Analysis Report

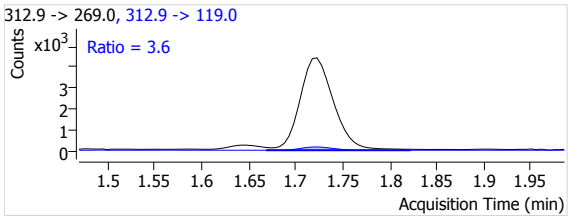
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX297-01	**Data File**	WS#6981810_43.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-D4
Acq. Date-Time	2020/10/05 12:15:24 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0964	--	10283	1.72	100	0.7280	374	1.72	29	3.6
PFHpA 1	µg/L	--	0.0534	--	6689	2.16	66	0.5564	1114	2.17	39	16.7
PFOA 1	µg/L	--	0.0622	--	5418	2.64	105	0.4244	1404	2.63	261	25.9
PFNA 1	µg/L	--	0.0053	--	703	3.07	16	0.0694	121	3.07	25	17.2
PFDA 1	µg/L	--	0.0009	--	237	3.45	5	0.0277	36	3.45	8	15.2
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	170	4.09	3	0.0184	26	4.08	21	15.3
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0197	--	797	1.40	24	0.1690	324	1.40	32	40.7
PFHxS 1	µg/L	--	0.4872	--	10651	2.07	565	4.4678	4793	2.07	309	45.0
PFOS 1	µg/L	--	0.7531	--	14426	2.89	290	6.0412	7111	2.89	518	49.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	113.5998	--	14125	1.72	804		--	--	--	--
13C4-PFHpA	µg/L	--	115.7758	--	12021	2.16	1155		--	--	--	--
13C4-PFOA	µg/L	--	113.1661	--	12764	2.64	833		--	--	--	--
13C5-PFNA	µg/L	--	114.5021	--	10130	3.07	723		--	--	--	--
13C2-PFDA	µg/L	--	109.7523	--	8553	3.45	924		--	--	--	--
13C2-PFUnA	µg/L	--	112.2161	--	9535	3.79	593		--	--	--	--
13C2-PFDoA	µg/L	--	101.9061	--	9249	4.09	1010		--	--	--	--
13C2-PFTeDA	µg/L	--	99.1915	--	7116	4.58	1177		--	--	--	--
13C3-PFBS	µg/L	--	110.6498	--	4717	1.39	203		--	--	--	--
18O2-PFHxS	µg/L	--	115.8406	--	2384	2.12	365		--	--	--	--
13C4-PFOS	µg/L	--	113.2290	--	2388	2.93	593		--	--	--	--
D3-MeFOSA	µg/L	--	52.0848	--	1449	5.24	71		--	--	--	--
D5-EtFOSA	µg/L	--	51.2774	--	1706	5.36	54		--	--	--	--

PFHxA 1





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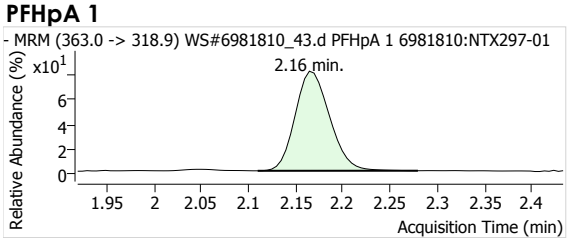

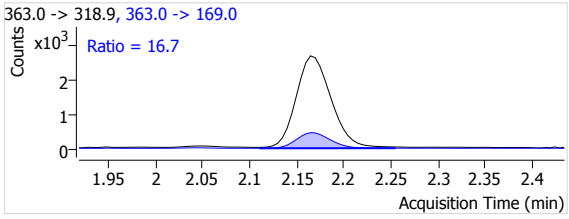

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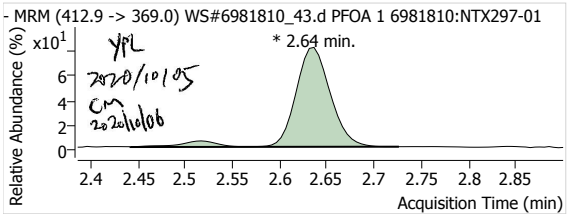

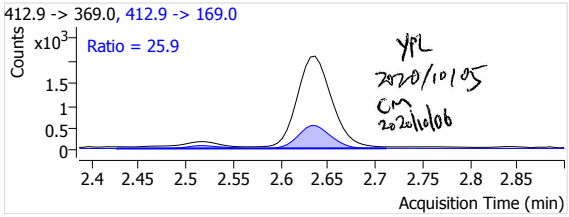

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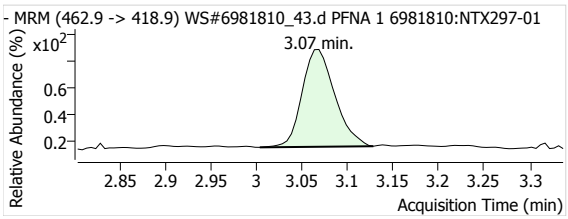

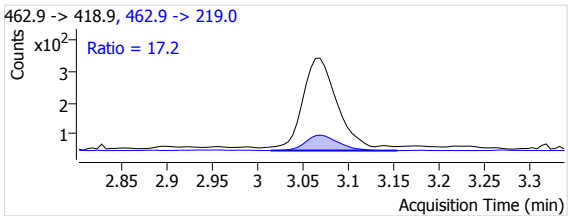

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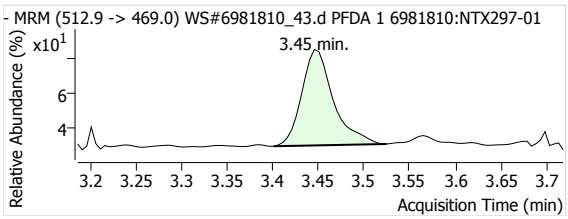

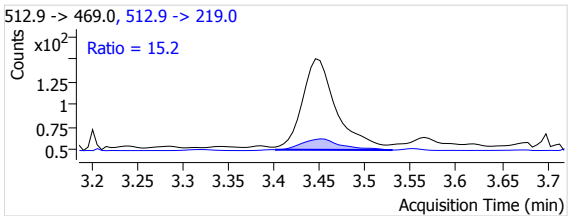

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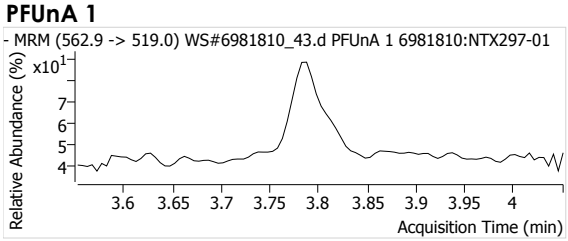

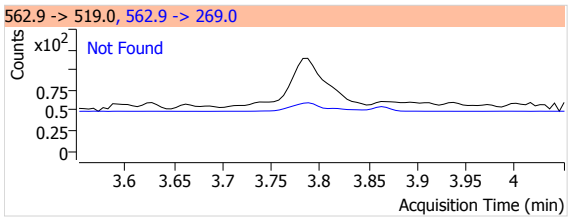

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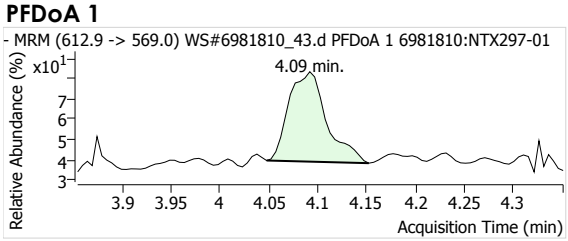

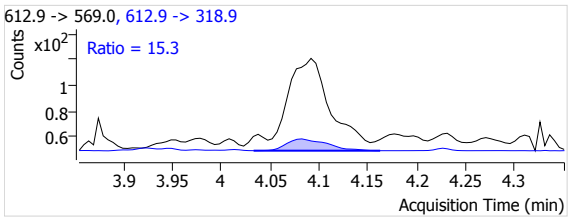

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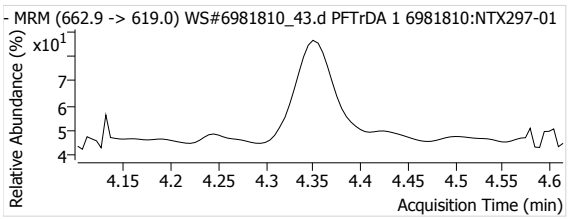

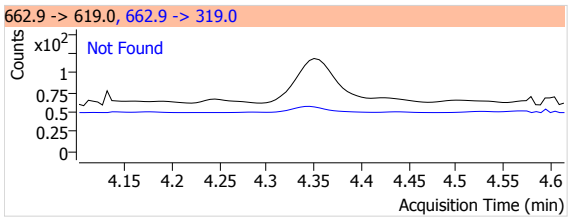

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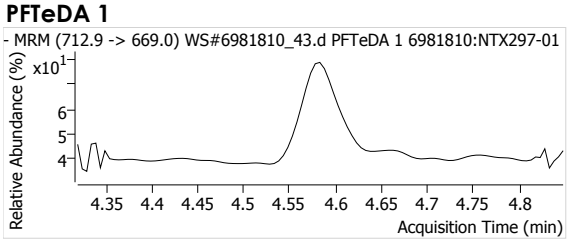

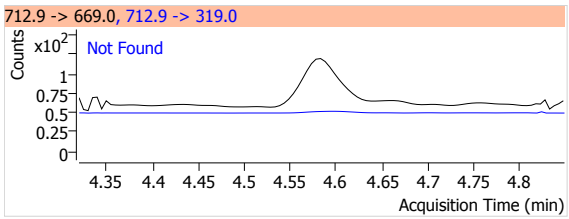

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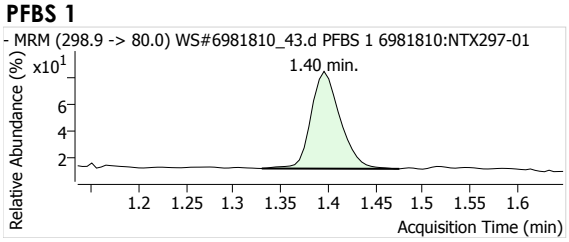

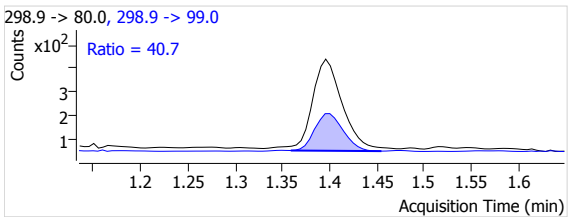

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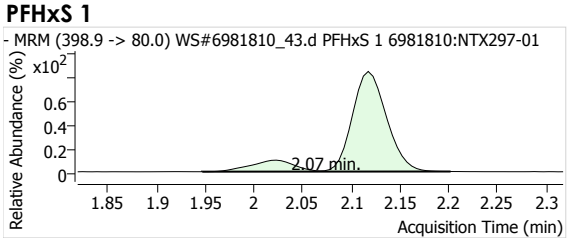

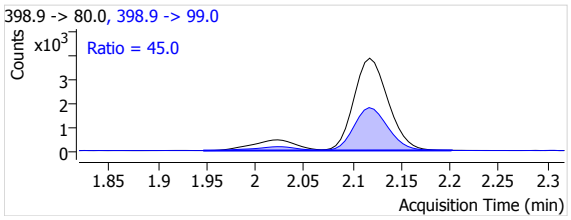

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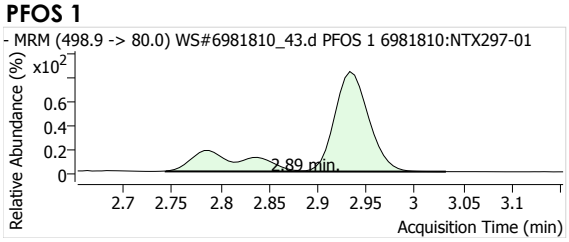

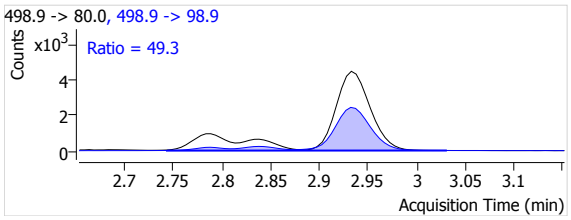

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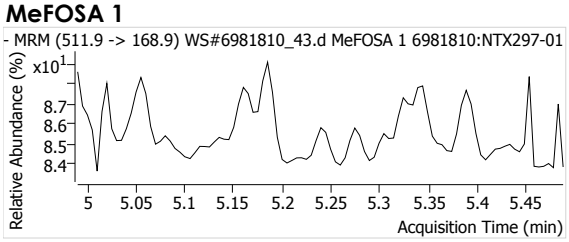

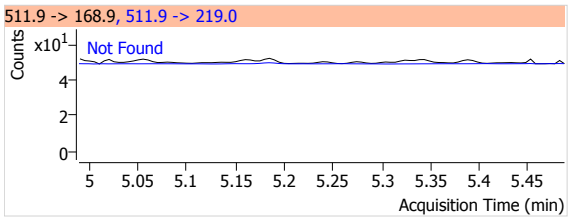

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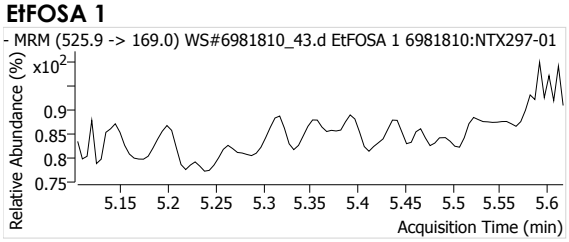

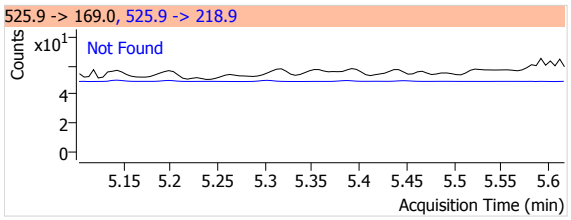

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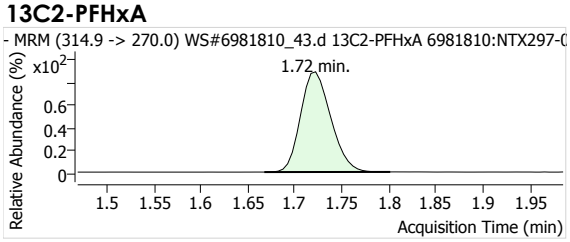

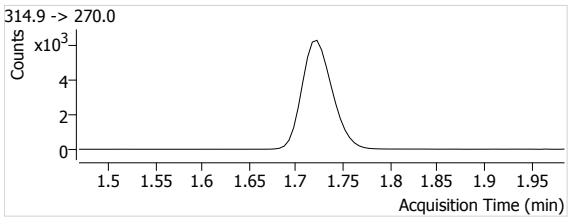

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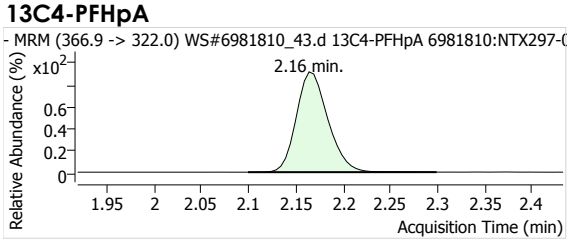

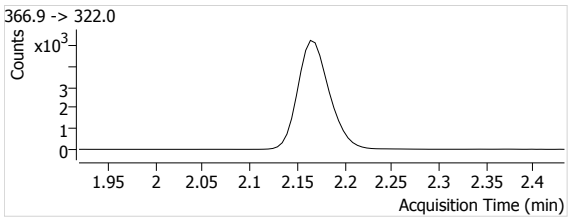

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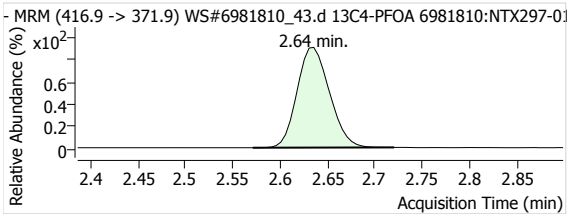

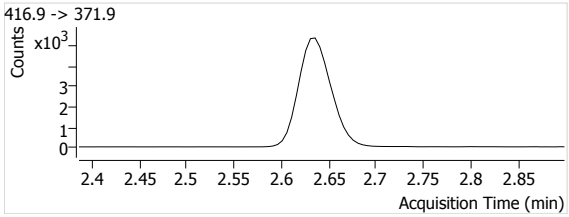

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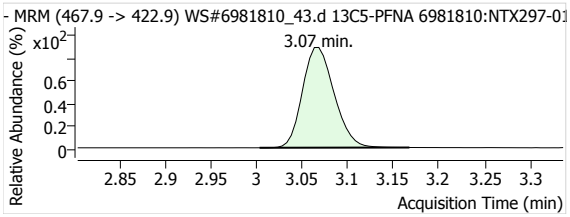

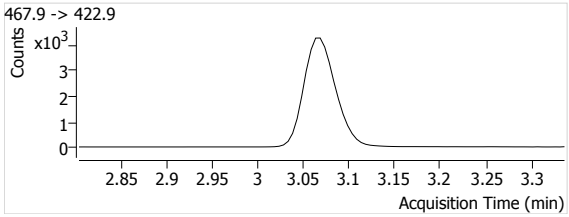

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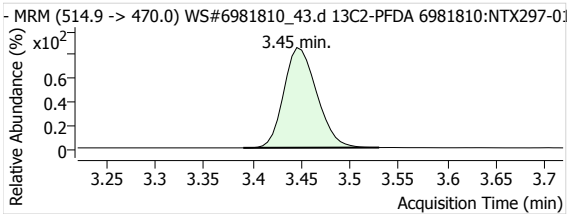

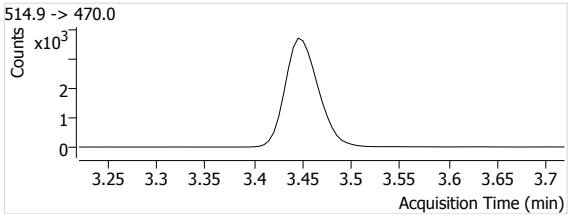

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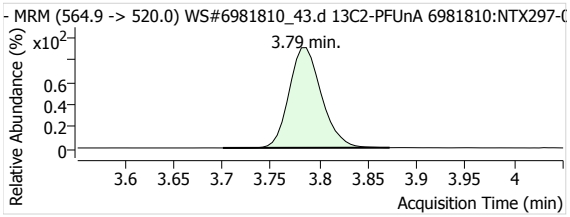

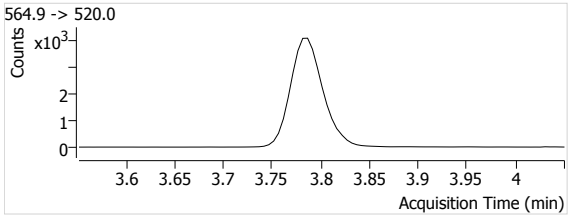

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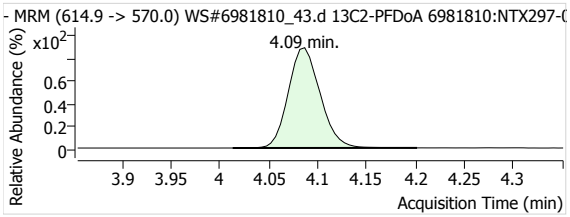

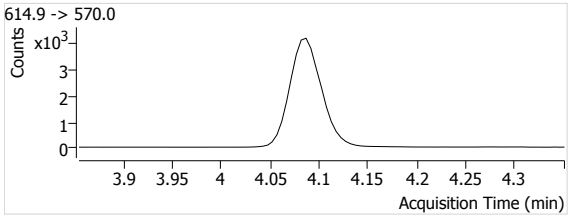

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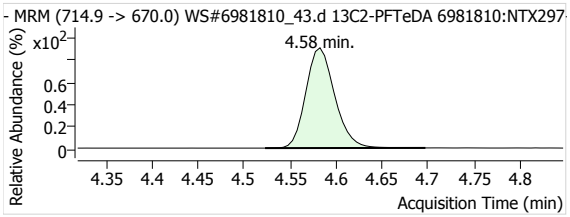

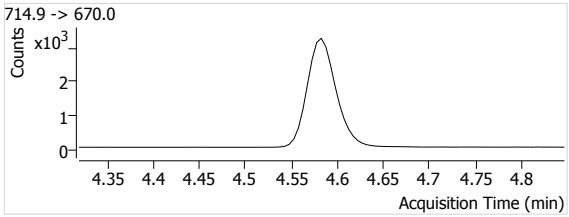

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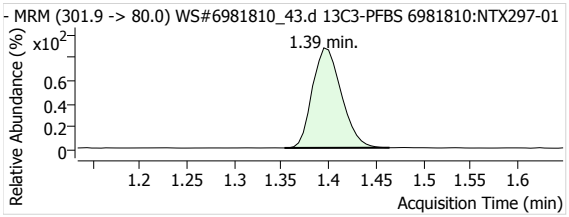

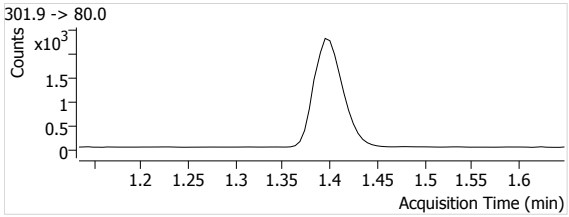

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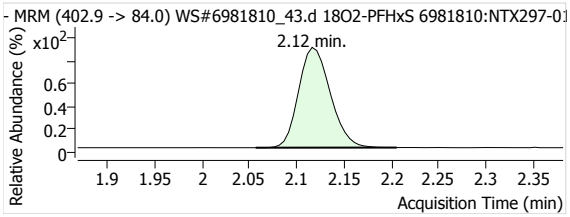

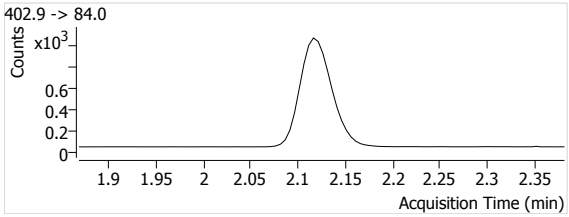

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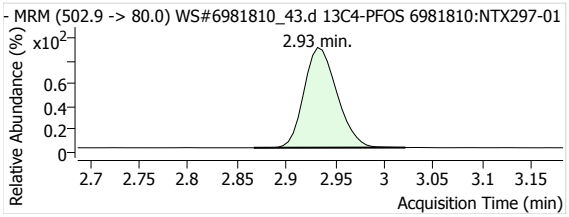
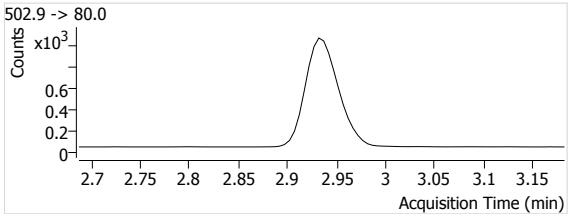
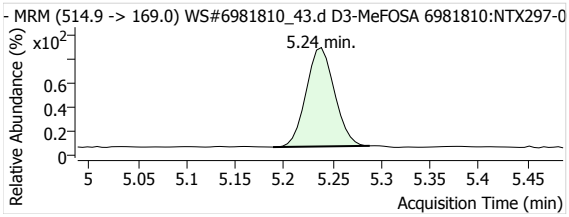
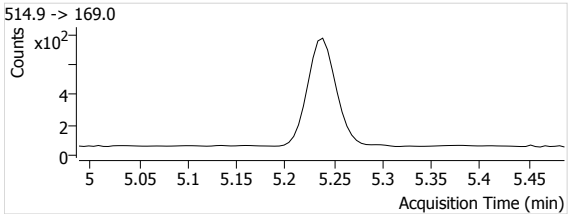




D3-MeFOSA





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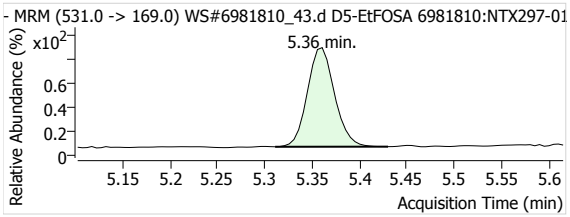
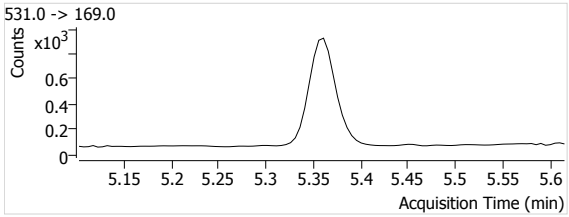




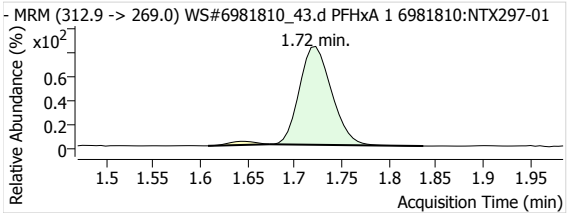
Quantitative Analysis Report

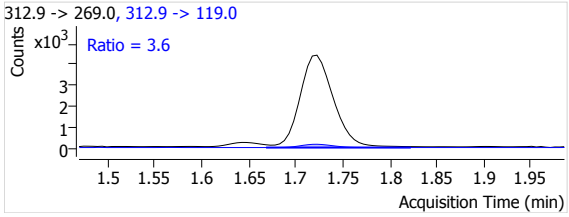
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX297-01	**Data File**	WS#6981810_43.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-D4
Acq. Date-Time	2020/10/05 12:15:24 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0964	--	10283	1.72	100	0.7280	374	1.72	29	3.6
PFHpA 1	µg/L	--	0.0534	--	6689	2.16	66	0.5564	1114	2.17	39	16.7
PFOA 1	µg/L	--	0.0577	--	5034	2.64	155	0.3944	1221	2.63	261	24.3
PFNA 1	µg/L	--	0.0053	--	703	3.07	16	0.0694	121	3.07	25	17.2
PFDA 1	µg/L	--	0.0009	--	237	3.45	5	0.0277	36	3.45	8	15.2
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	170	4.09	3	0.0184	26	4.08	21	15.3
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0197	--	797	1.40	24	0.1690	324	1.40	32	40.7
PFHxS 1	µg/L	--	0.4872	--	10651	2.07	565	4.4678	4793	2.07	309	45.0
PFOS 1	µg/L	--	0.7531	--	14426	2.89	290	6.0412	7111	2.89	518	49.3
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	113.5998	--	14125	1.72	804		--	--	--	--
13C4-PFHpA	µg/L	--	115.7758	--	12021	2.16	1155		--	--	--	--
13C4-PFOA	µg/L	--	113.1661	--	12764	2.64	833		--	--	--	--
13C5-PFNA	µg/L	--	114.5021	--	10130	3.07	723		--	--	--	--
13C2-PFDA	µg/L	--	109.7523	--	8553	3.45	924		--	--	--	--
13C2-PFUnA	µg/L	--	112.2161	--	9535	3.79	593		--	--	--	--
13C2-PFDoA	µg/L	--	101.9061	--	9249	4.09	1010		--	--	--	--
13C2-PFTeDA	µg/L	--	99.1915	--	7116	4.58	1177		--	--	--	--
13C3-PFBS	µg/L	--	110.6498	--	4717	1.39	203		--	--	--	--
18O2-PFHxS	µg/L	--	115.8406	--	2384	2.12	365		--	--	--	--
13C4-PFOS	µg/L	--	113.2290	--	2388	2.93	593		--	--	--	--
D3-MeFOSA	µg/L	--	52.0848	--	1449	5.24	71		--	--	--	--
D5-EtFOSA	µg/L	--	51.2774	--	1706	5.36	54		--	--	--	--

PFHxA 1





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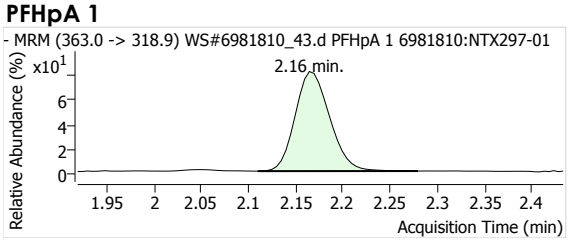

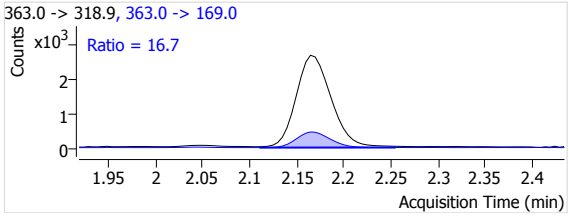

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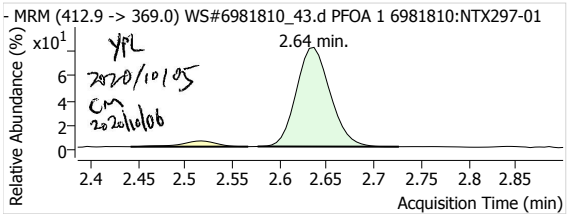

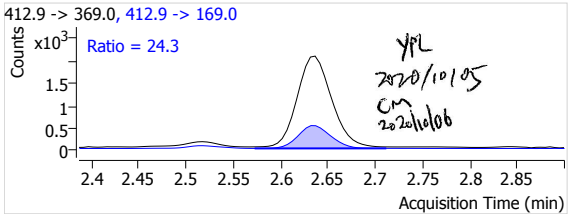

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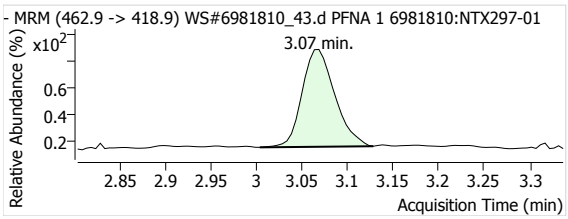

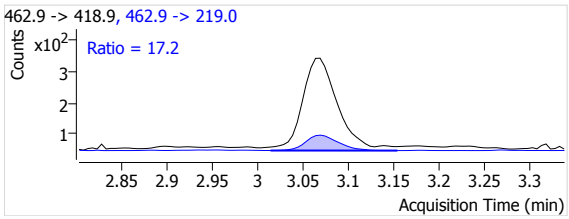

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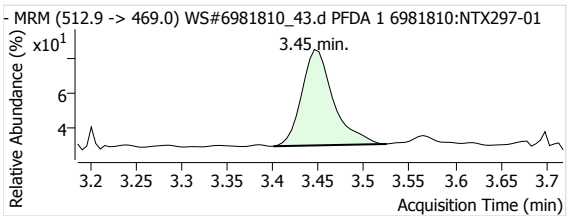

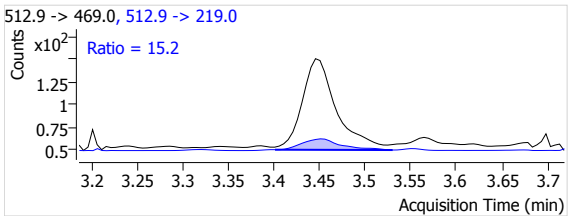

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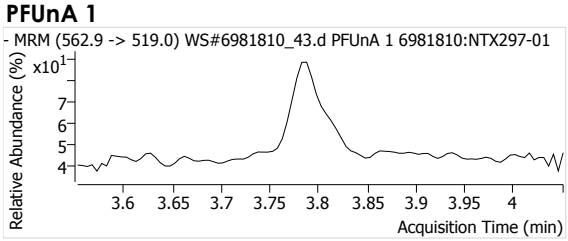

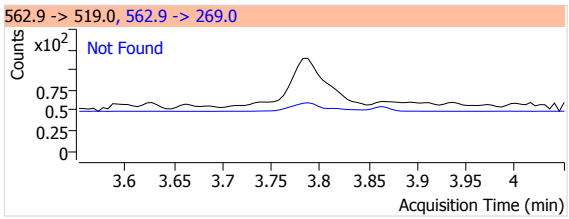

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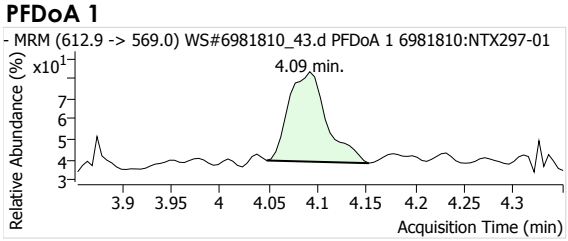

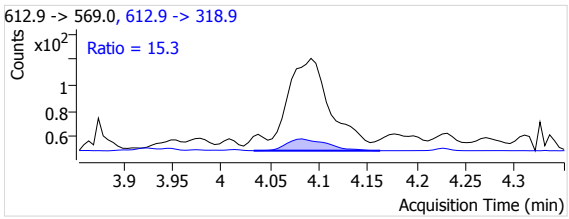

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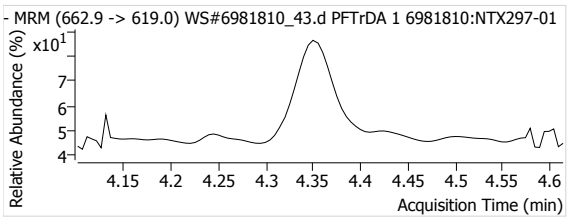

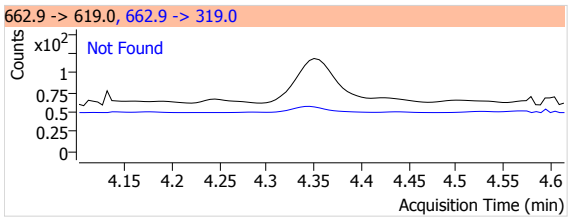

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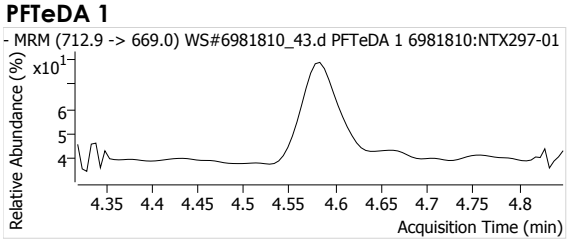

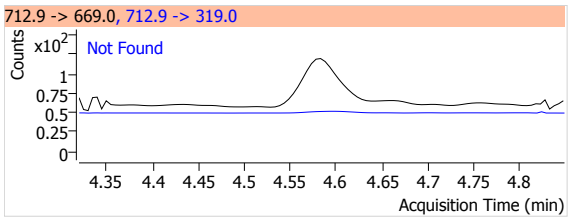

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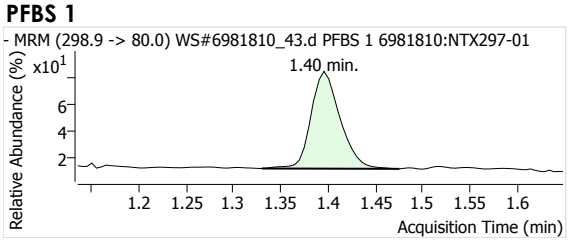

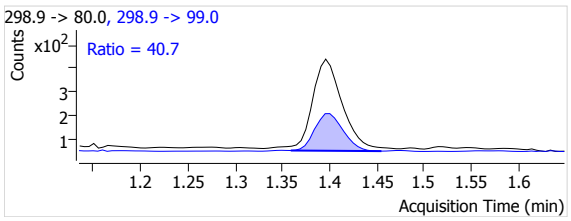

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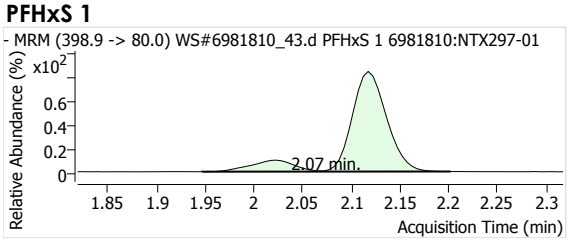

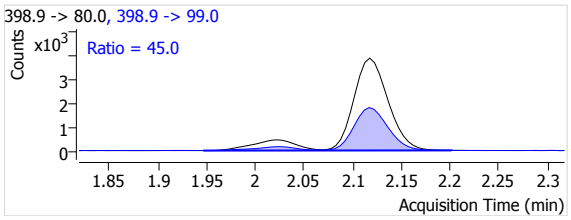

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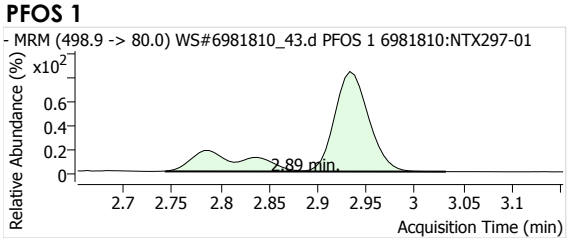

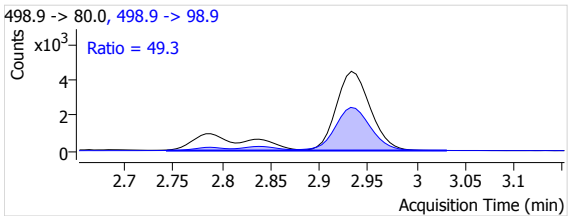

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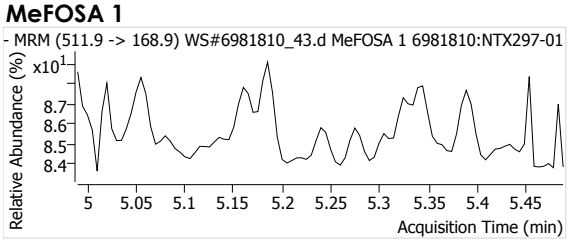

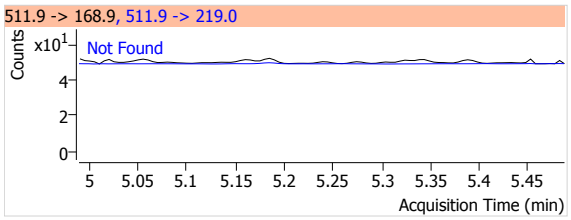

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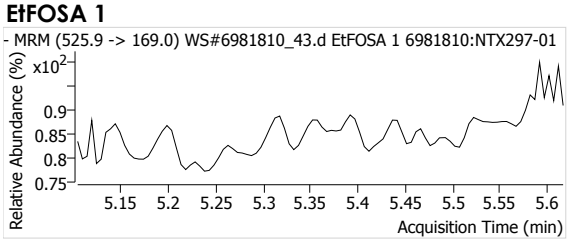

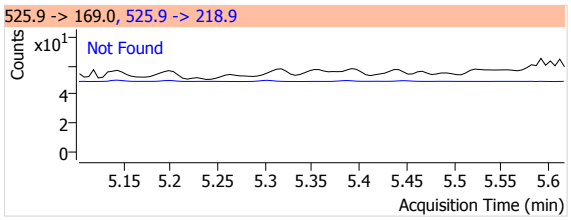

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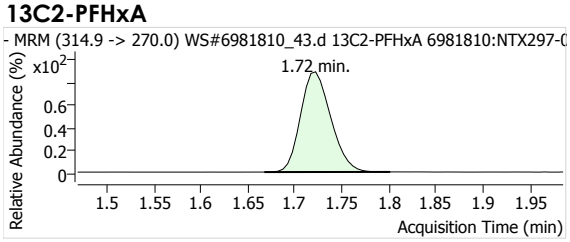

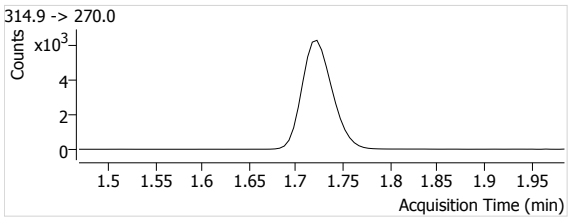

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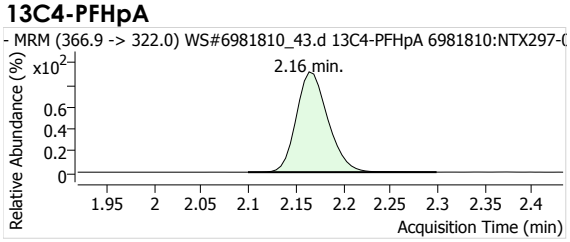

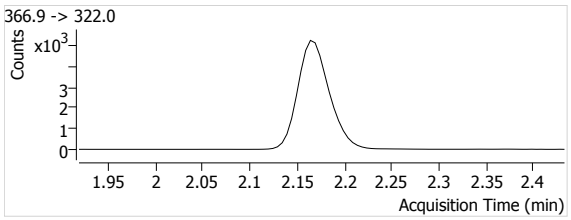

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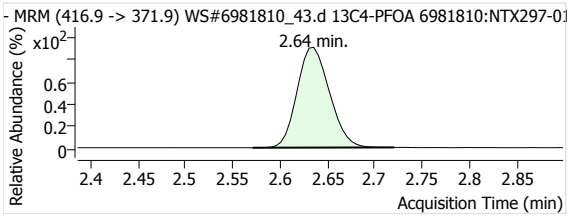

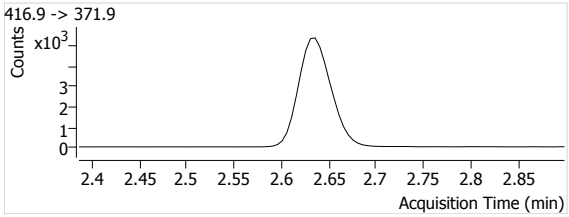

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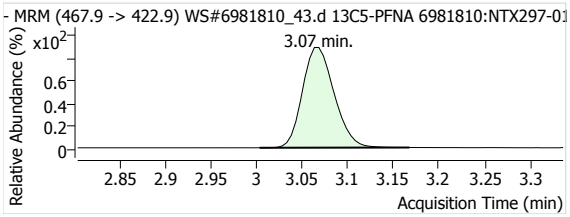

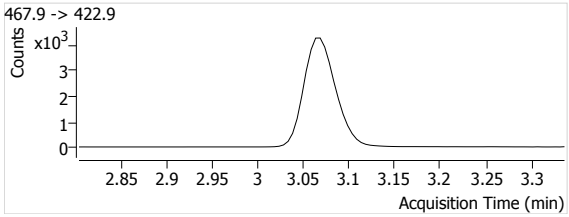

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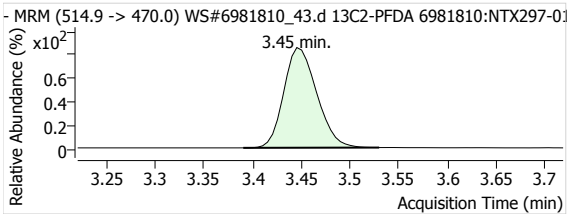

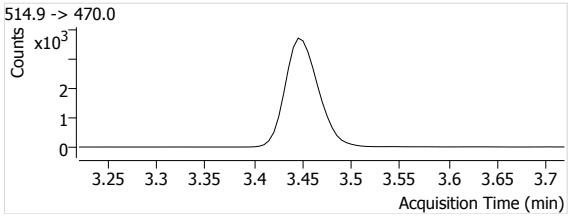

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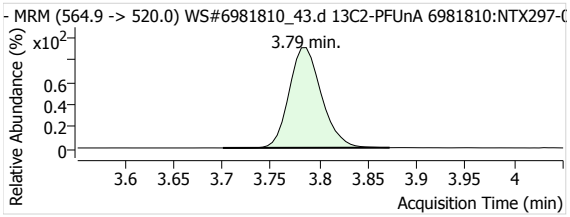

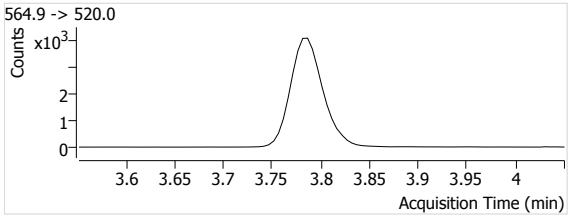

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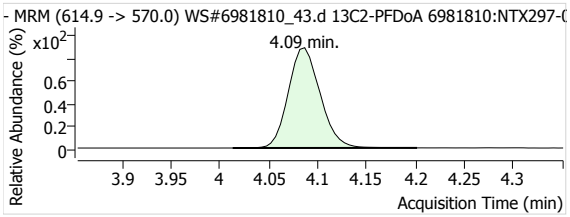

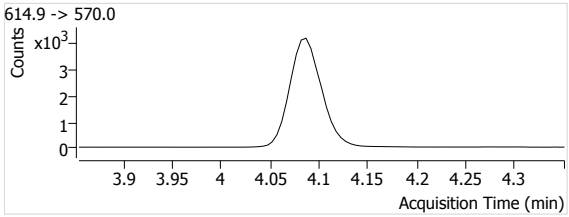

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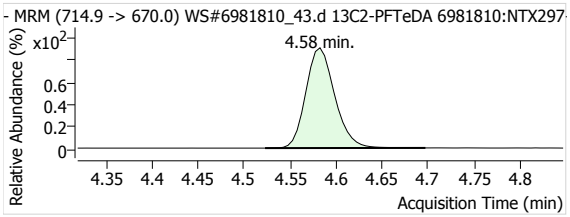

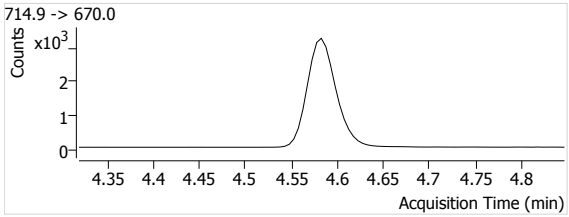

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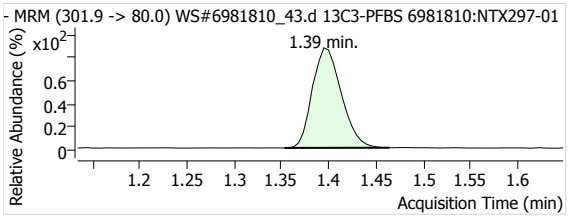

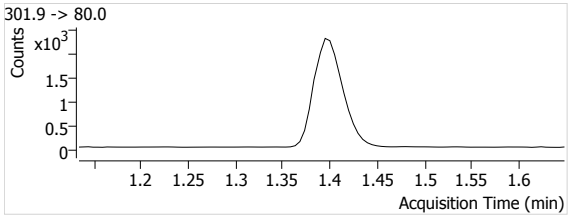

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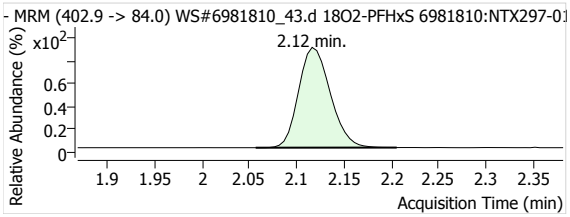

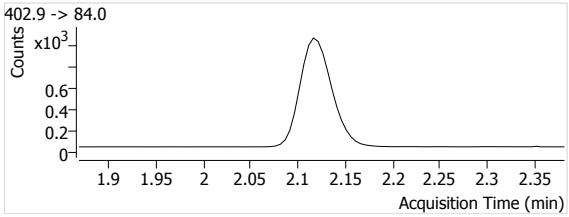

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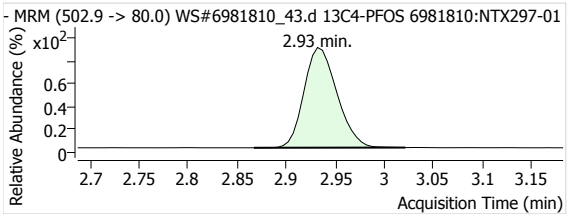
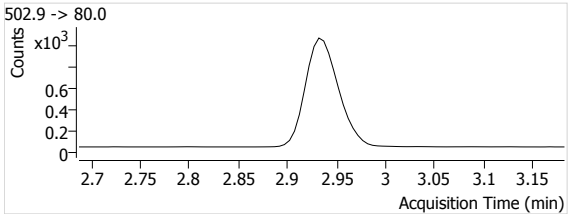
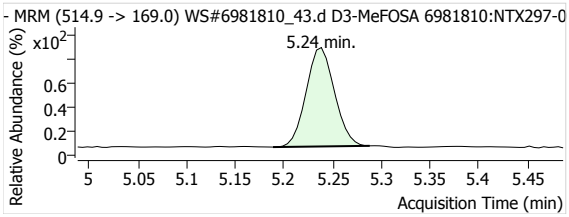
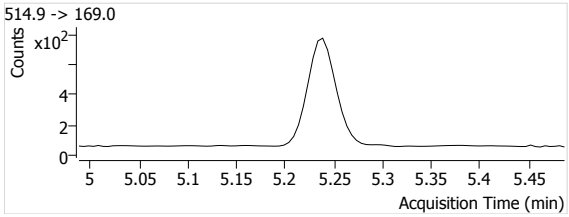


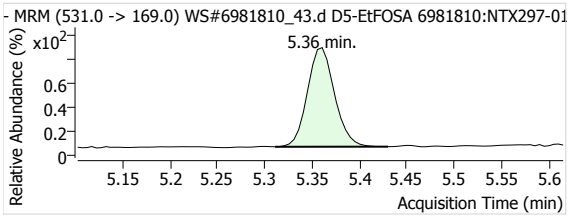


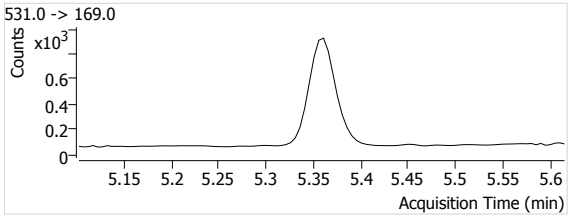
D3-MeFOSA





D5-EtFOSA





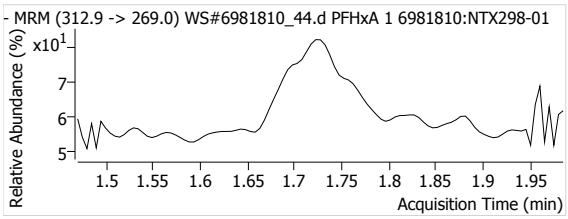
Quantitative Analysis Report

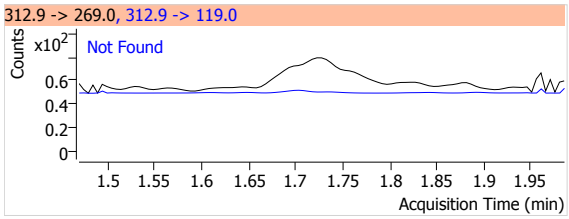
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX298-01	**Data File**	WS#6981810_44.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-D5
Acq. Date-Time	2020/10/05 12:22:23 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	0.0000	--	150	3.46	3	0.0166	35	3.46	5	23.3
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	167	4.09	3	0.0178	9	4.08	7	5.4
PFTrDA 1	µg/L	--	0.0003	--	184	4.35	3	0.0243	17	4.36	10	9.2
PFTeDA 1	µg/L	--	0.0000	--	200	4.58	4	0.0264	7	4.59	5	3.5
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	111.2997	--	13839	1.72	767		--	--	--	--
13C4-PFHpA	µg/L	--	112.1930	--	11649	2.16	915		--	--	--	--
13C4-PFOA	µg/L	--	113.0863	--	12755	2.64	1179		--	--	--	--
13C5-PFNA	µg/L	--	116.1976	--	10280	3.07	805		--	--	--	--
13C2-PFDA	µg/L	--	116.0529	--	9044	3.45	954		--	--	--	--
13C2-PFUnA	µg/L	--	107.8381	--	9163	3.79	505		--	--	--	--
13C2-PFDoA	µg/L	--	103.5258	--	9396	4.09	561		--	--	--	--
13C2-PFTeDA	µg/L	--	105.4224	--	7563	4.58	1072		--	--	--	--
13C3-PFBS	µg/L	--	105.2311	--	4486	1.39	462		--	--	--	--
18O2-PFHxS	µg/L	--	110.8358	--	2281	2.12	801		--	--	--	--
13C4-PFOS	µg/L	--	113.9403	--	2403	2.93	398		--	--	--	--
D3-MeFOSA	µg/L	--	86.4486	--	2405	5.24	69		--	--	--	--
D5-EtFOSA	µg/L	--	78.9901	--	2628	5.36	47		--	--	--	--

PFHxA 1





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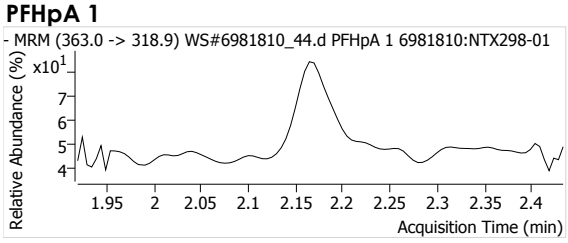

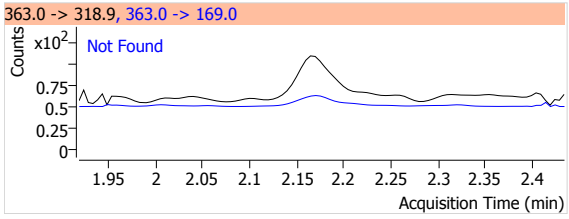

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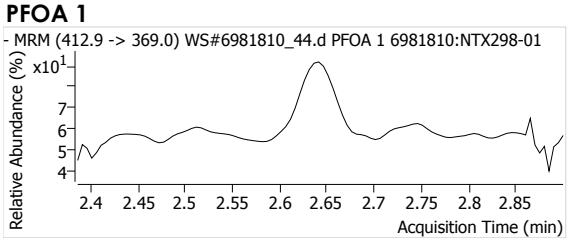

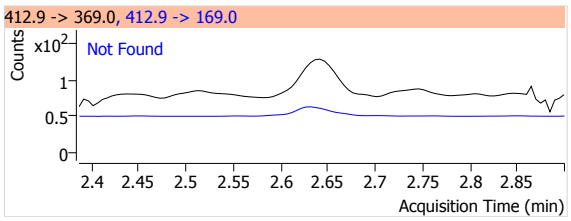

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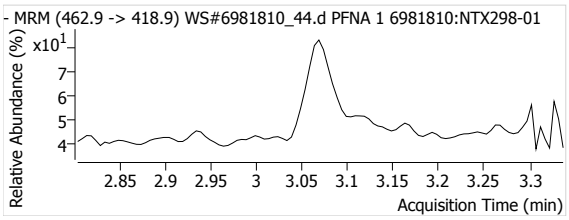

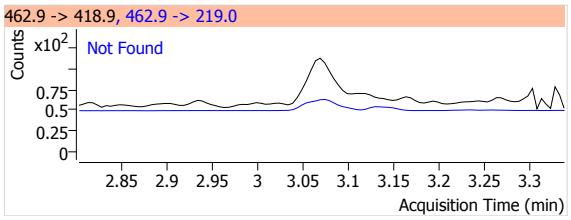

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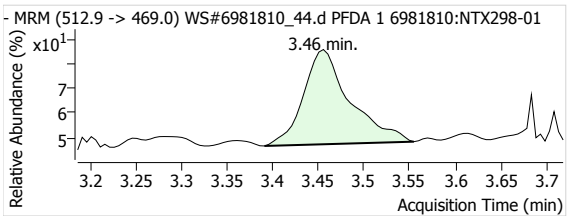

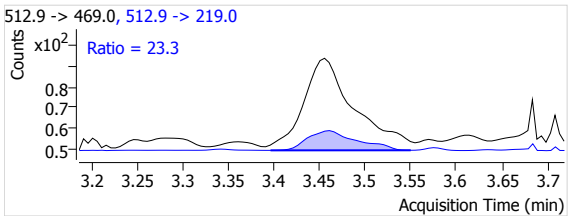

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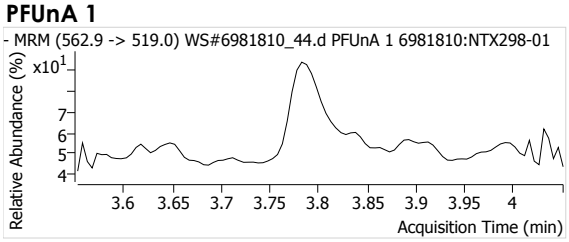

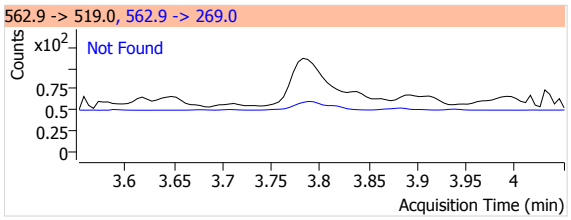

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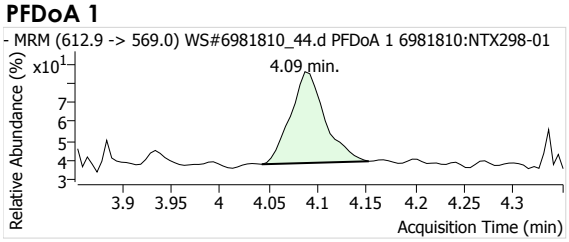

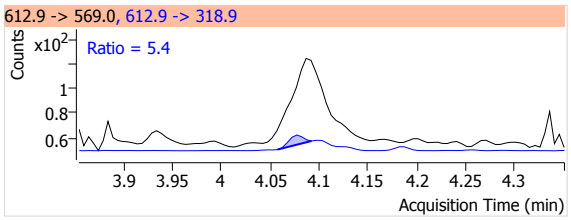

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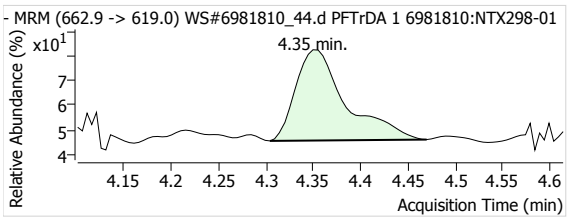

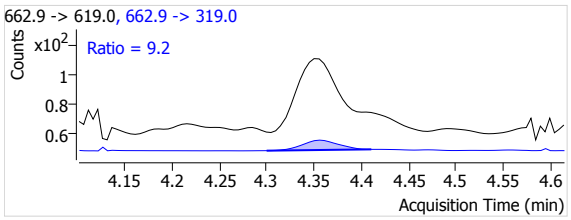

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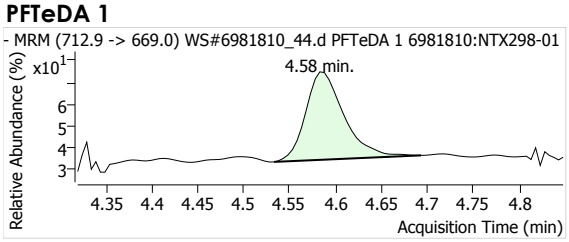

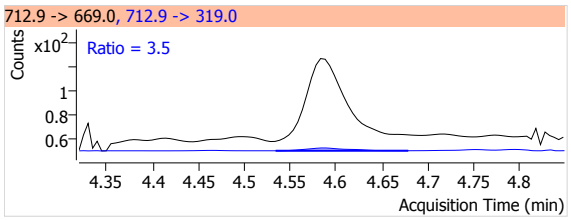

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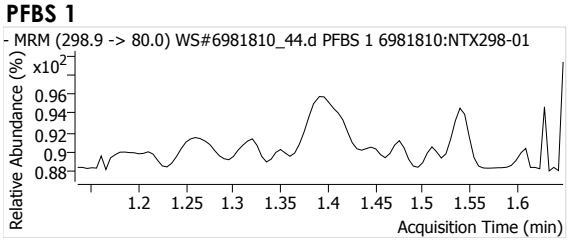

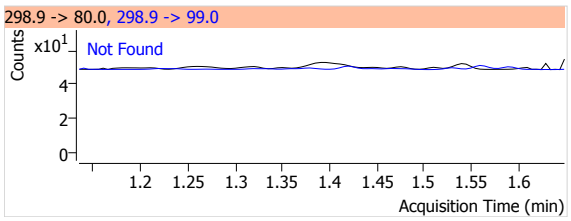

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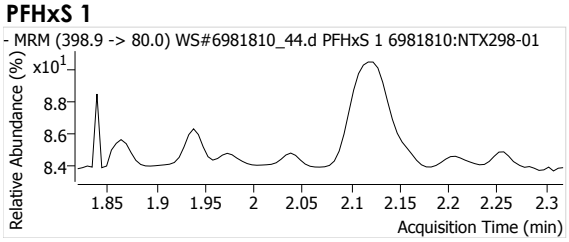

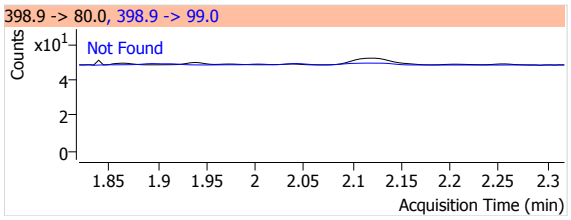

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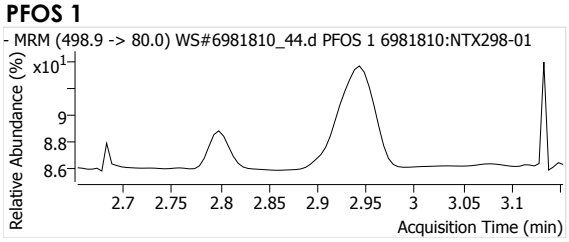

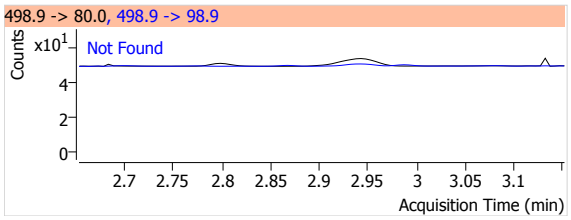

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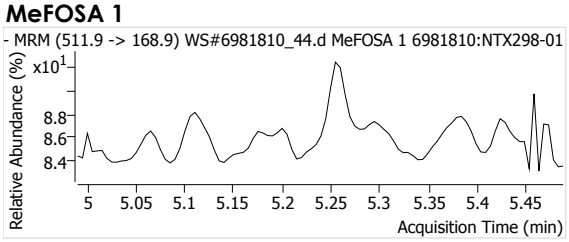

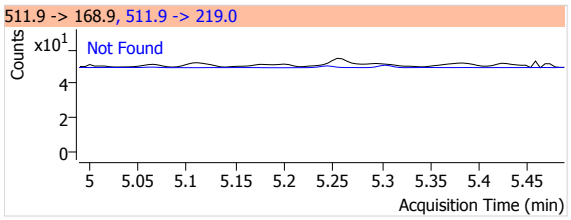

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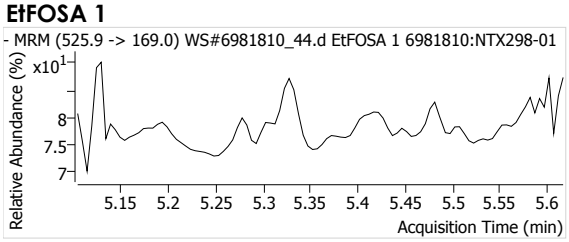

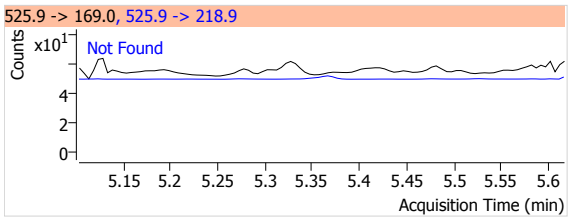

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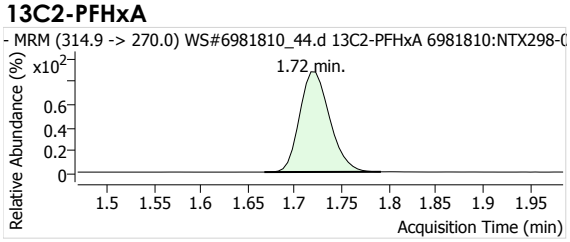

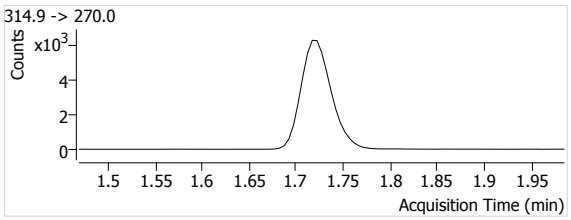

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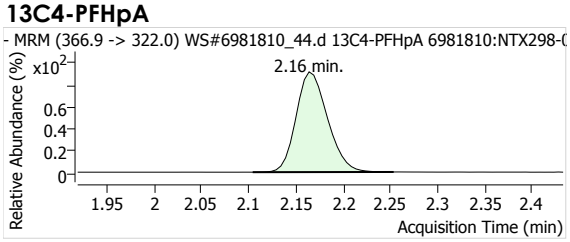

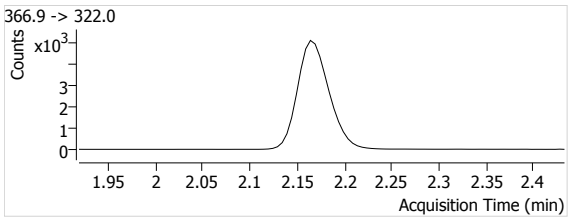

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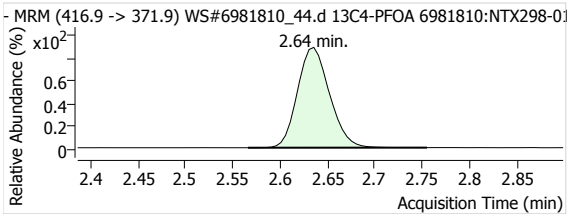

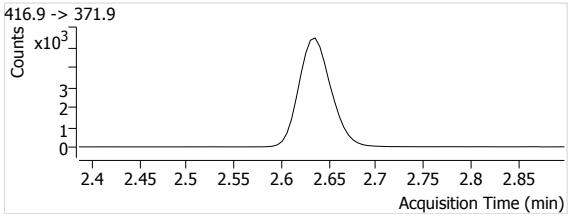

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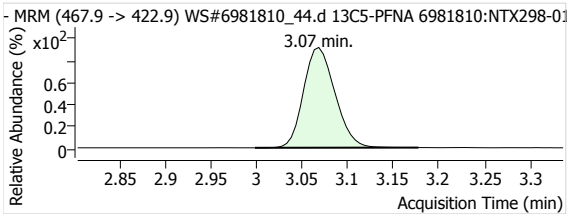

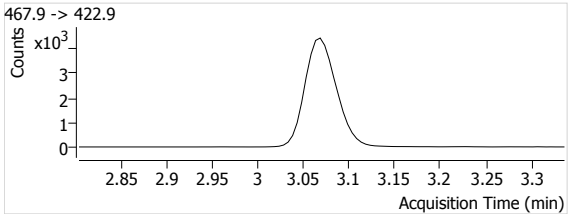

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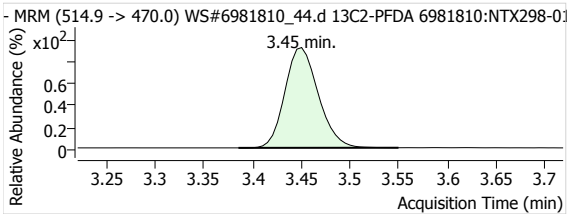

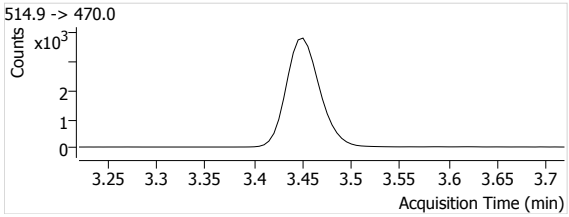

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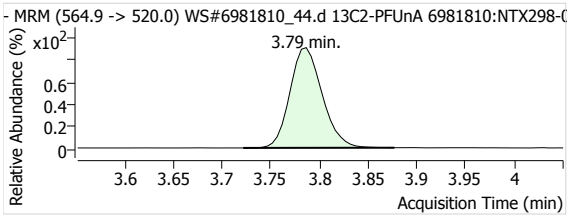

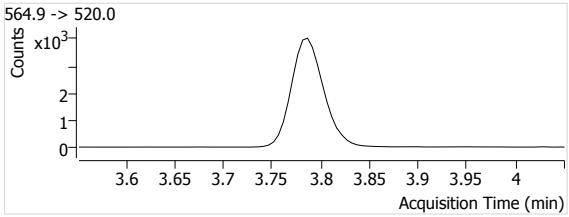

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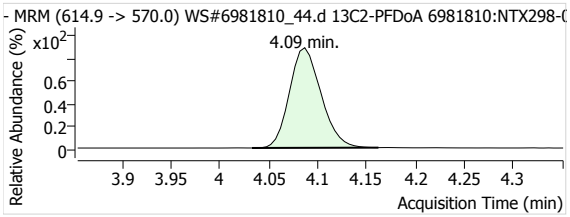

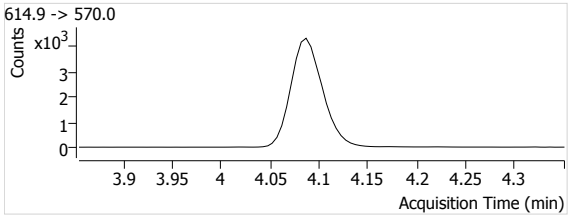

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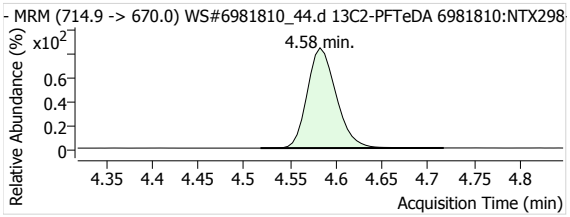

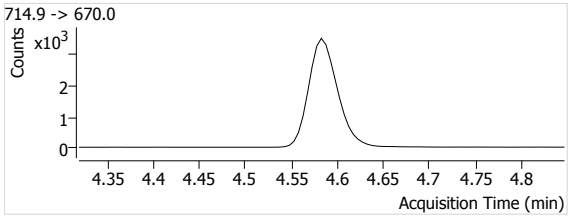

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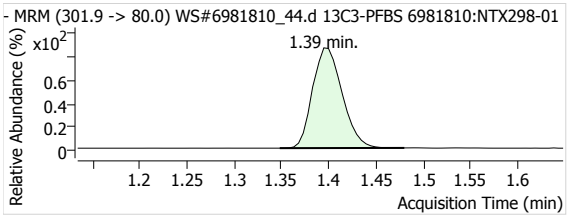

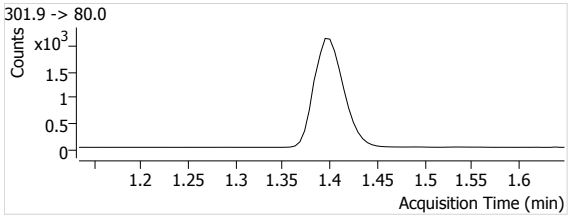

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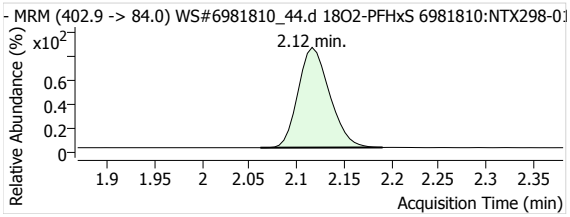

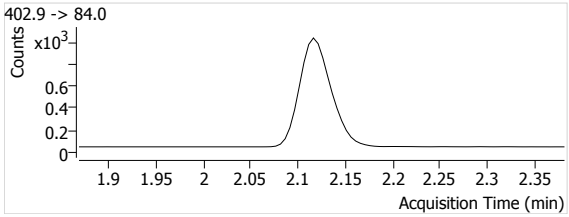

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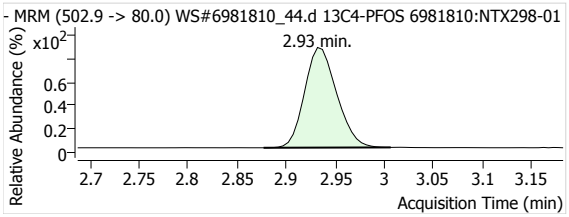

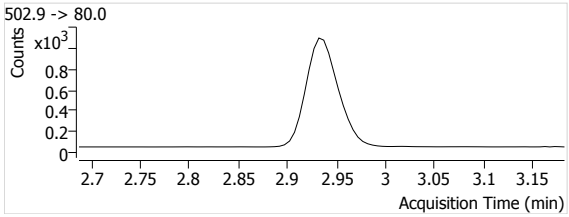

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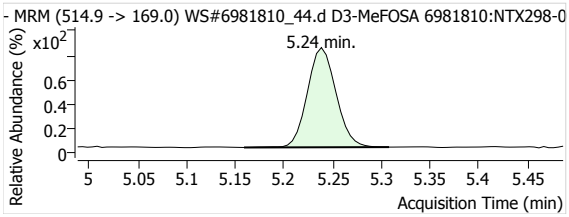

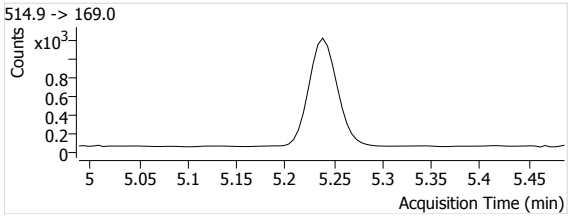

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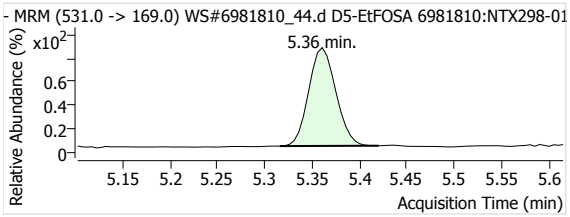
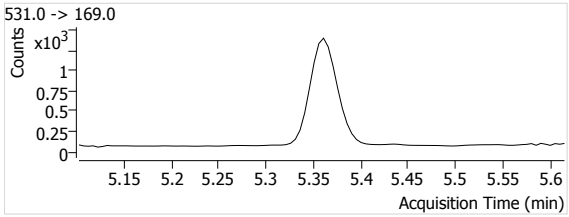




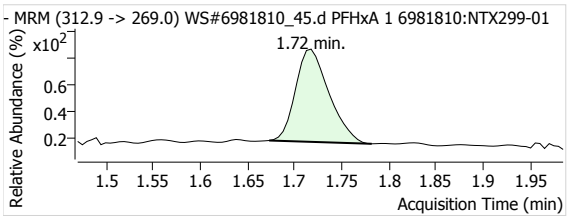
Quantitative Analysis Report

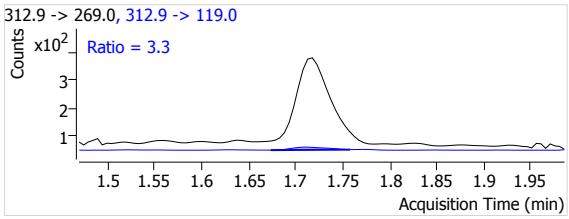
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:NTX299-01	**Data File**	WS#6981810_45.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-D6
Acq. Date-Time	2020/10/05 12:29:23 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0055	--	748	1.72	14	0.0565	25	1.71	4	3.3
PFHpA 1	µg/L	--	0.0003	--	265	2.16	3	0.0233	56	2.17	5	21.1
PFOA 1	µg/L	--	0.0439	--	3732	2.63	43	0.3018	991	2.63	52	26.6
PFNA 1	µg/L	--	0.0026	--	478	3.06	17	0.0483	64	3.06	9	13.4
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0012	--	179	4.09	5	0.0290	17	4.09	7	9.5
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0119	--	474	1.40	16	0.1045	197	1.40	14	41.6
PFHxS 1	µg/L	--	0.0988	--	2046	2.07	130	0.9179	958	2.07	172	46.8
PFOS 1	µg/L	--	0.2113	--	4086	2.89	128	1.6961	1795	2.89	225	43.9
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	106.4822	--	13240	1.72	1146		--	--	--	--
13C4-PFHpA	µg/L	--	109.5348	--	11373	2.16	1105		--	--	--	--
13C4-PFOA	µg/L	--	109.6108	--	12363	2.63	1085		--	--	--	--
13C5-PFNA	µg/L	--	111.7893	--	9890	3.07	639		--	--	--	--
13C2-PFDA	µg/L	--	106.8651	--	8328	3.45	458		--	--	--	--
13C2-PFUnA	µg/L	--	96.2693	--	8180	3.79	567		--	--	--	--
13C2-PFDoA	µg/L	--	67.8933	--	6162	4.09	338		--	--	--	--
13C2-PFTeDA	µg/L	--	63.3817	--	4547	4.58	479		--	--	--	--
13C3-PFBS	µg/L	--	106.3805	--	4535	1.39	248		--	--	--	--
18O2-PFHxS	µg/L	--	108.3090	--	2229	2.12	394		--	--	--	--
13C4-PFOS	µg/L	--	114.2248	--	2409	2.93	287		--	--	--	--
D3-MeFOSA	µg/L	--	65.0611	--	1810	5.24	69		--	--	--	--
D5-EtFOSA	µg/L	--	56.3270	--	1874	5.36	53		--	--	--	--

PFHxA 1





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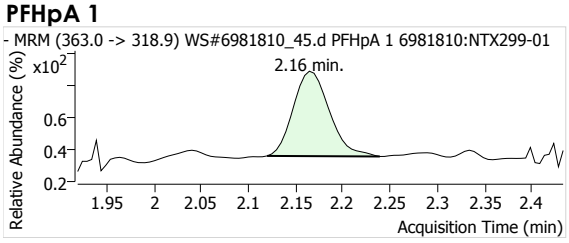

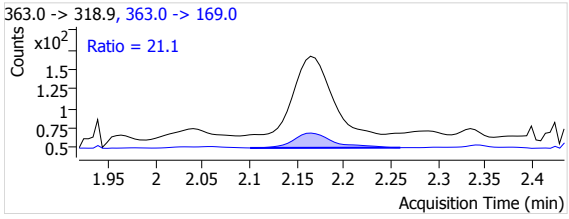

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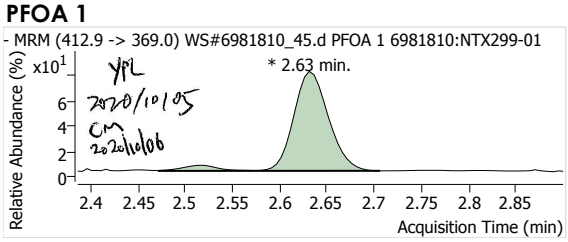

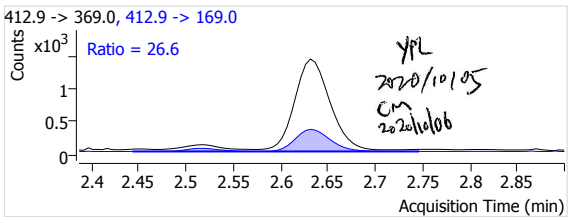

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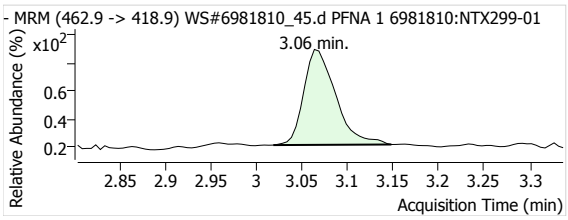

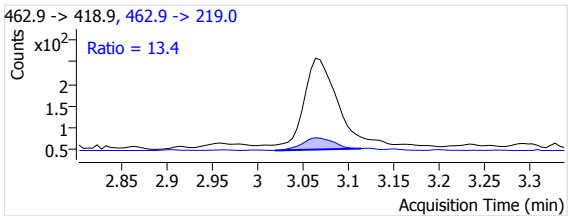

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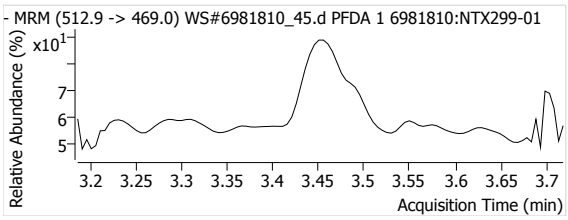

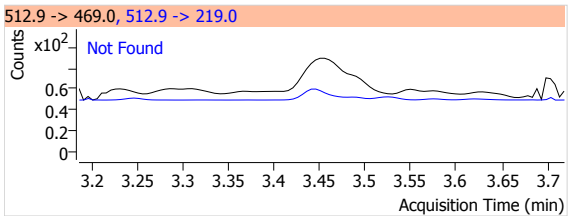

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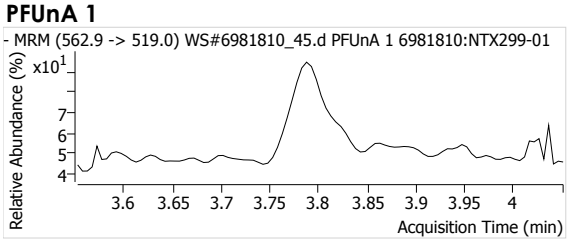

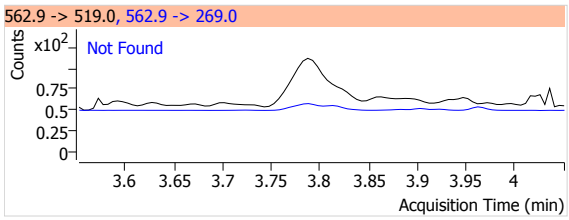

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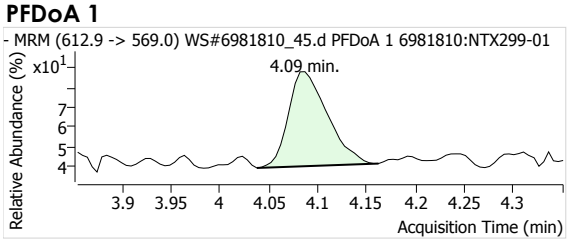

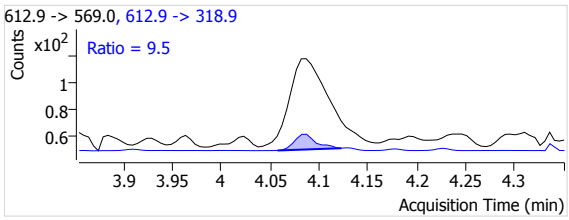

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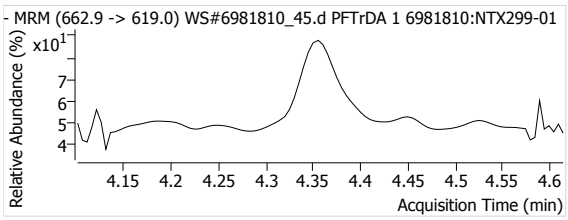

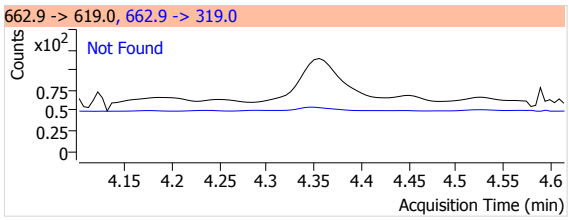

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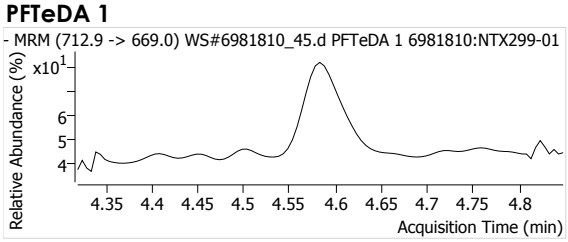

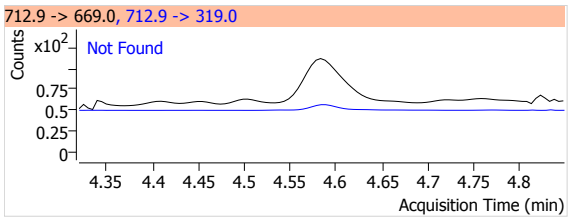

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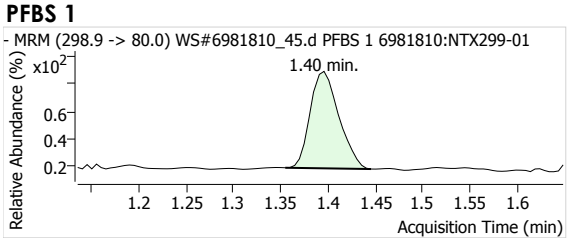

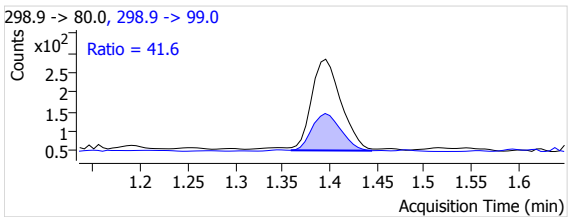

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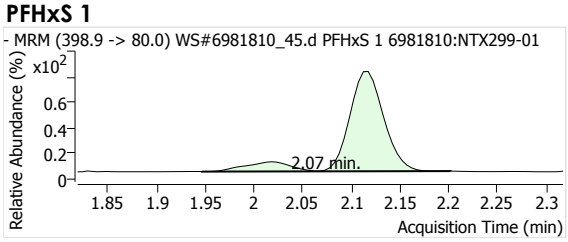

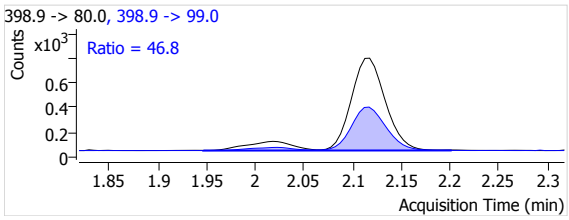

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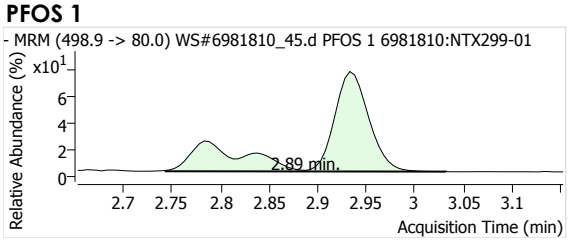

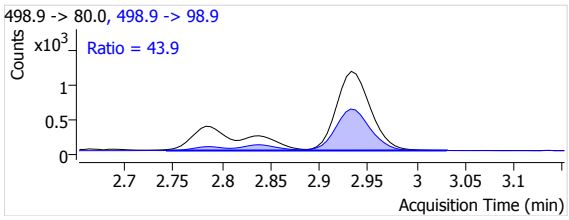

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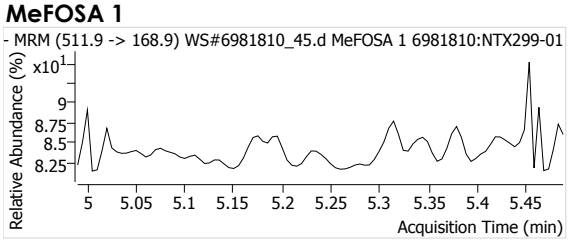

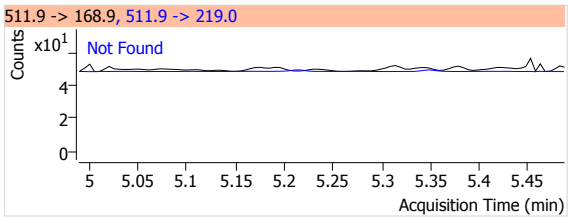

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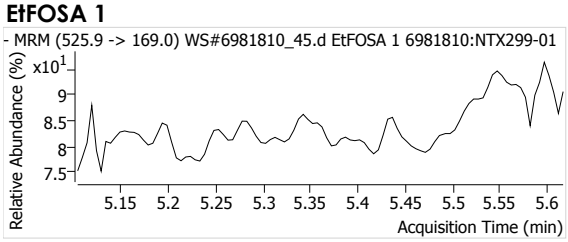

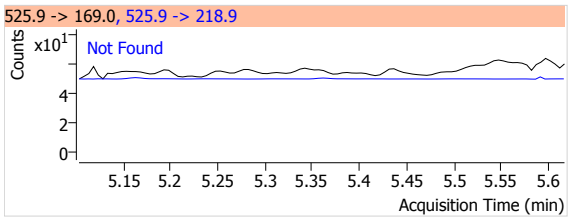

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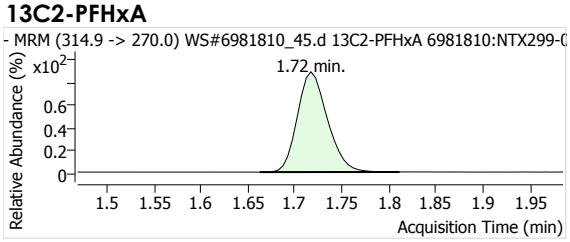

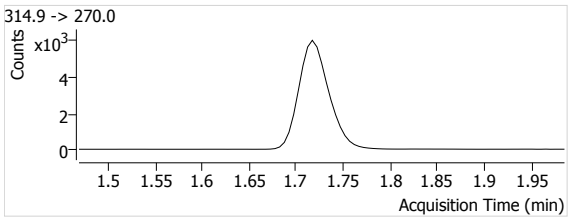

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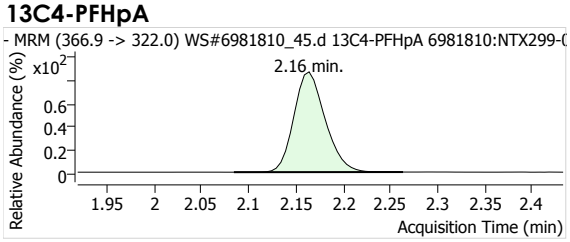

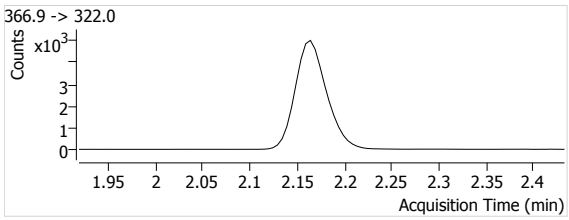

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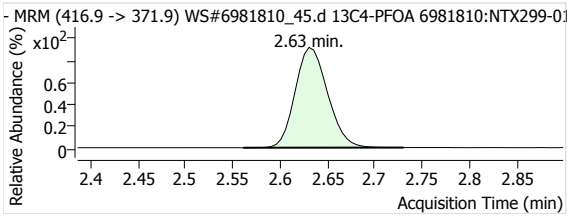

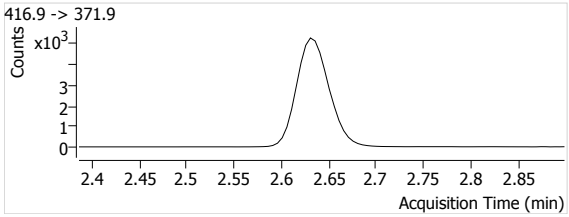

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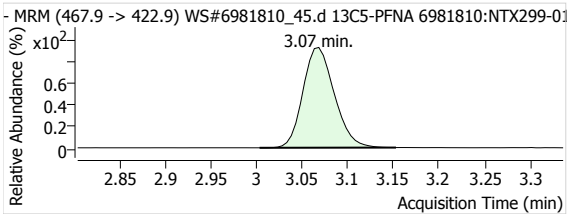

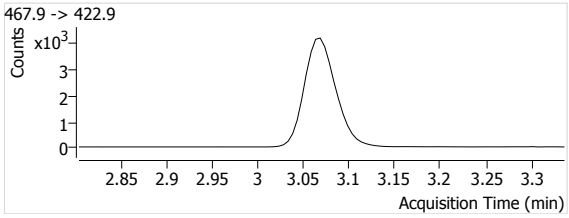

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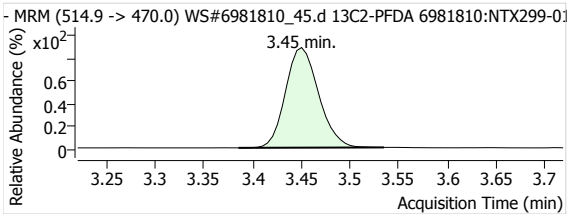

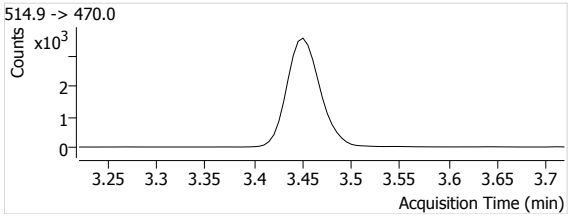

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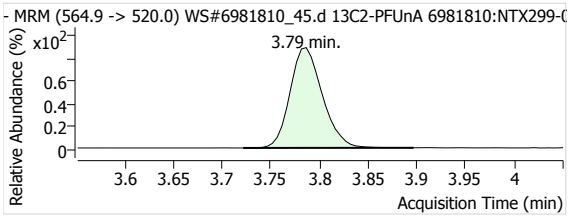

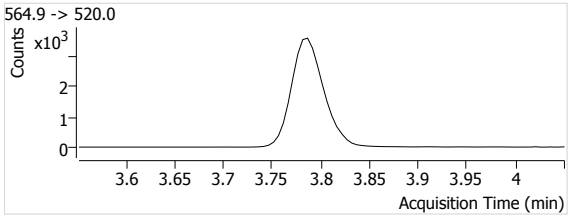

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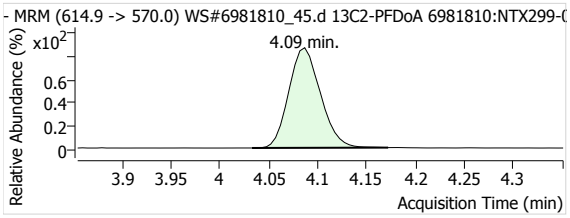

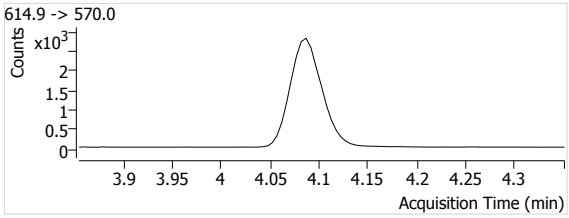

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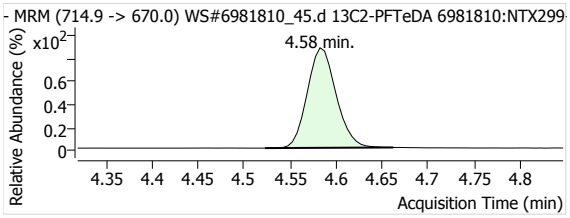

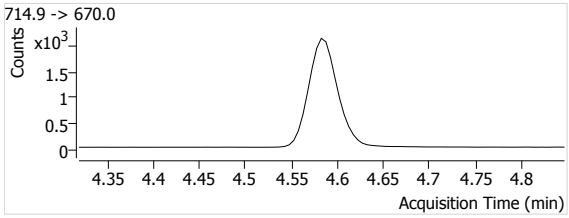

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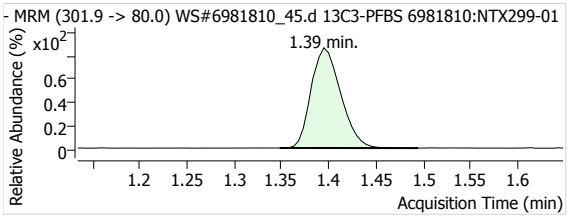

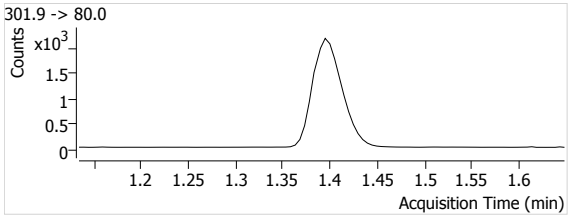

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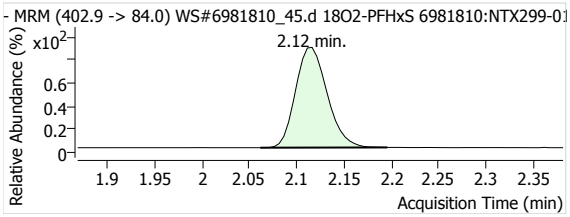

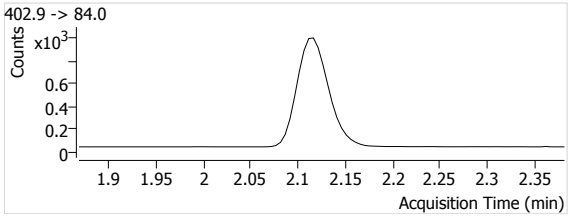

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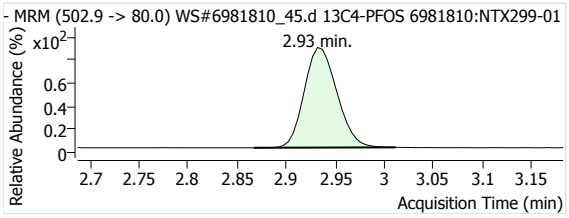

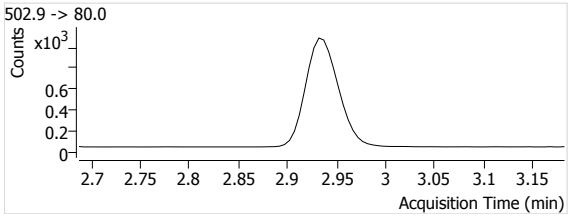

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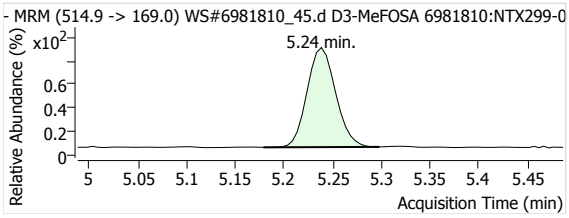

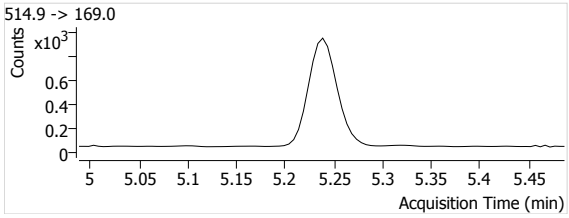

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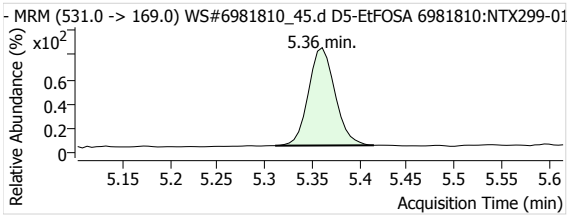
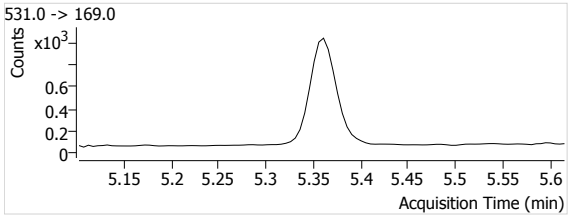




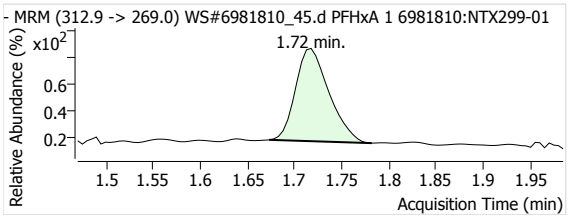
Quantitative Analysis Report

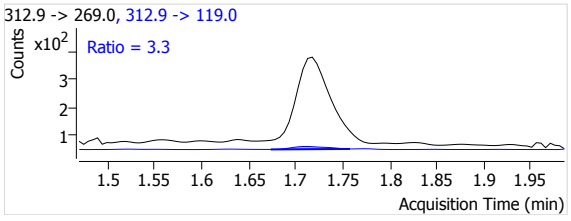
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:NTX299-01	**Data File**	WS#6981810_45.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-D6
Acq. Date-Time	2020/10/05 12:29:23 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0055	--	748	1.72	14	0.0565	25	1.71	4	3.3
PFHpA 1	µg/L	--	0.0003	--	265	2.16	3	0.0233	56	2.17	5	21.1
PFOA 1	µg/L	--	0.0411	--	3501	2.63	26	0.2832	869	2.63	51	24.8
PFNA 1	µg/L	--	0.0026	--	478	3.06	17	0.0483	64	3.06	9	13.4
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0012	--	179	4.09	5	0.0290	17	4.09	7	9.5
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0119	--	474	1.40	16	0.1045	197	1.40	14	41.6
PFHxS 1	µg/L	--	0.0988	--	2046	2.07	130	0.9179	958	2.07	172	46.8
PFOS 1	µg/L	--	0.2113	--	4086	2.89	128	1.6961	1795	2.89	225	43.9
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	106.4822	--	13240	1.72	1146		--	--	--	--
13C4-PFHpA	µg/L	--	109.5348	--	11373	2.16	1105		--	--	--	--
13C4-PFOA	µg/L	--	109.6108	--	12363	2.63	1085		--	--	--	--
13C5-PFNA	µg/L	--	111.7893	--	9890	3.07	639		--	--	--	--
13C2-PFDA	µg/L	--	106.8651	--	8328	3.45	458		--	--	--	--
13C2-PFUnA	µg/L	--	96.2693	--	8180	3.79	567		--	--	--	--
13C2-PFDoA	µg/L	--	67.8933	--	6162	4.09	338		--	--	--	--
13C2-PFTeDA	µg/L	--	63.3817	--	4547	4.58	479		--	--	--	--
13C3-PFBS	µg/L	--	106.3805	--	4535	1.39	248		--	--	--	--
18O2-PFHxS	µg/L	--	108.3090	--	2229	2.12	394		--	--	--	--
13C4-PFOS	µg/L	--	114.2248	--	2409	2.93	287		--	--	--	--
D3-MeFOSA	µg/L	--	65.0611	--	1810	5.24	69		--	--	--	--
D5-EtFOSA	µg/L	--	56.3270	--	1874	5.36	53		--	--	--	--

PFHxA 1





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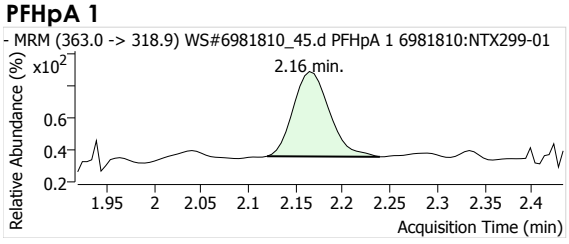

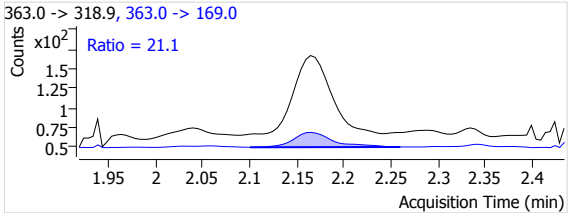

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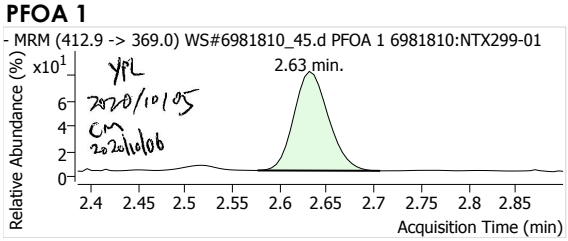

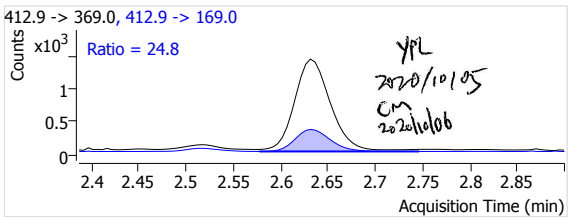

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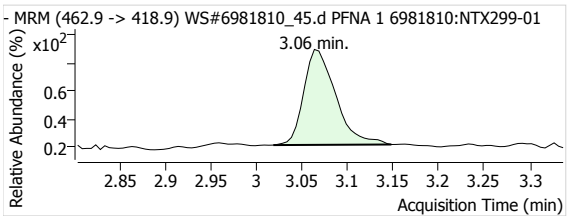

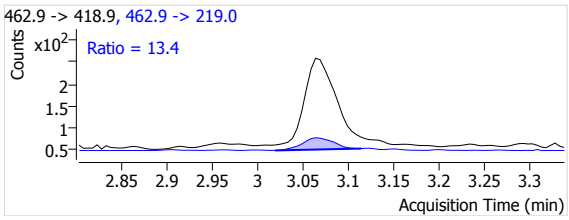

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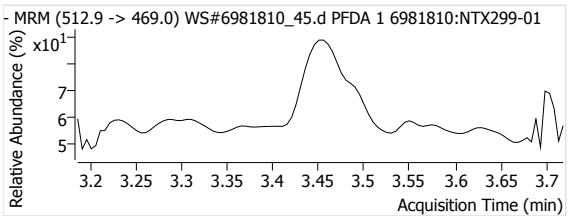

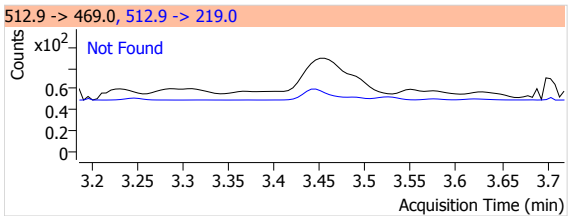

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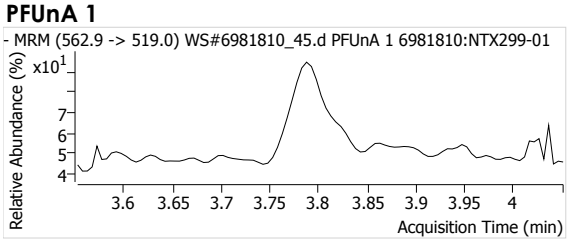

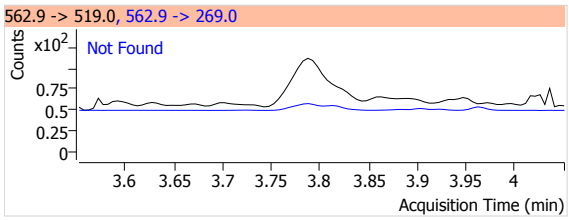

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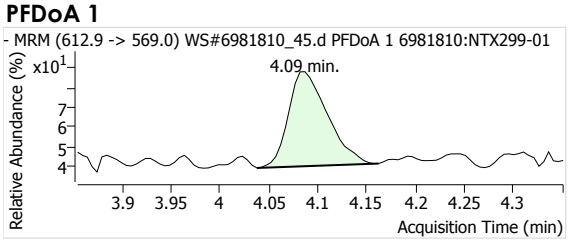

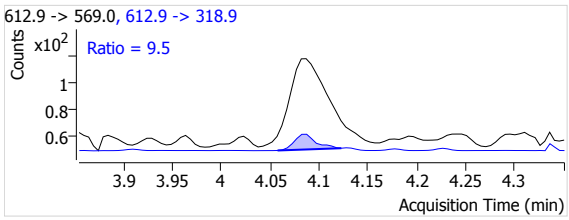

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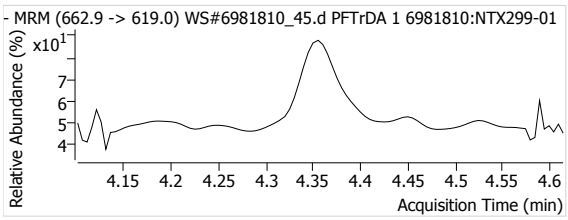

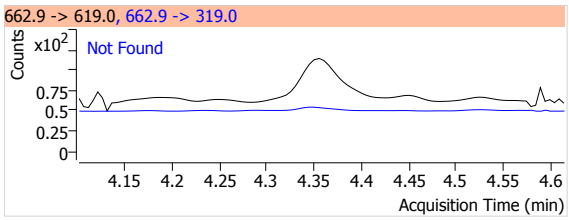

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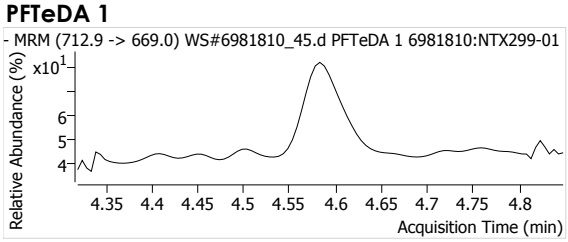

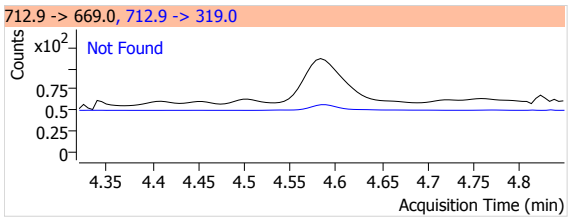

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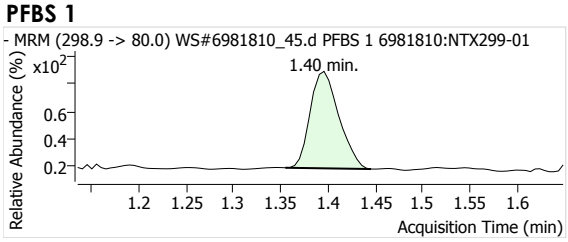

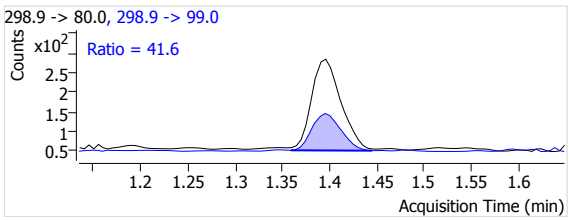

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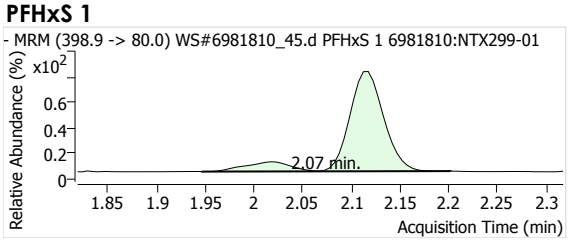
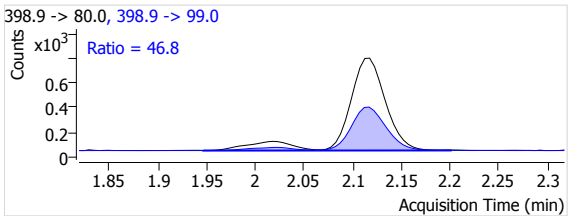
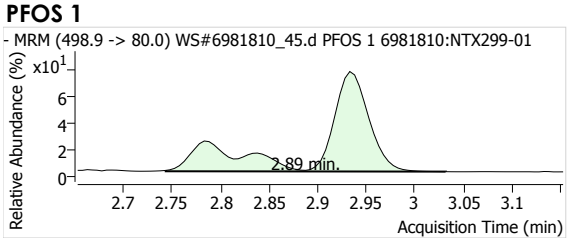
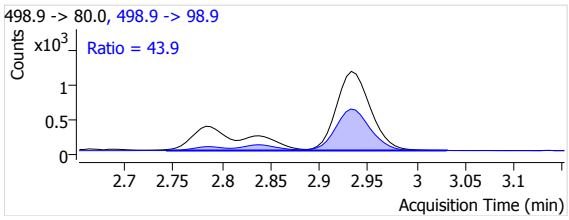




PFOS 1





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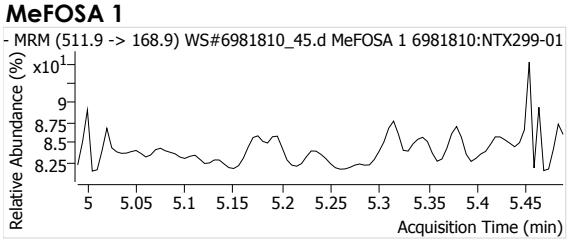

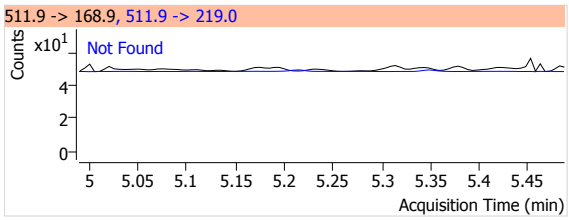

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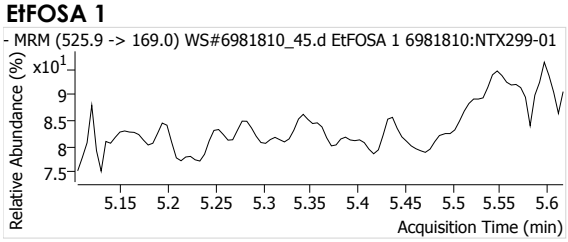

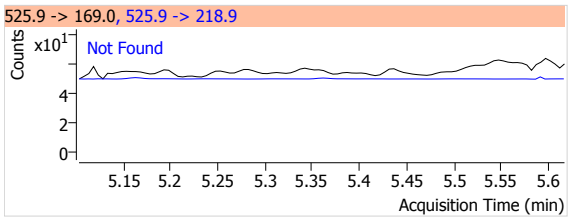

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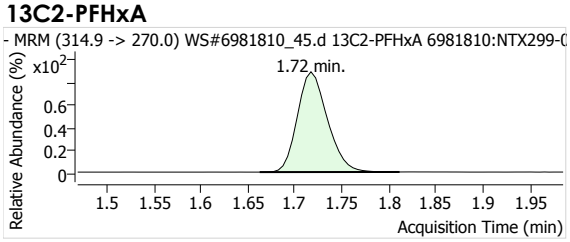

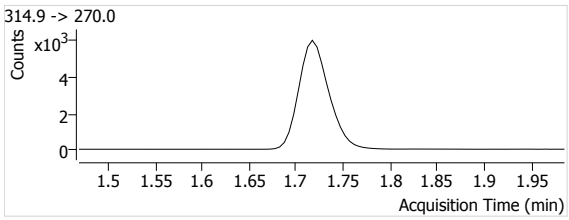

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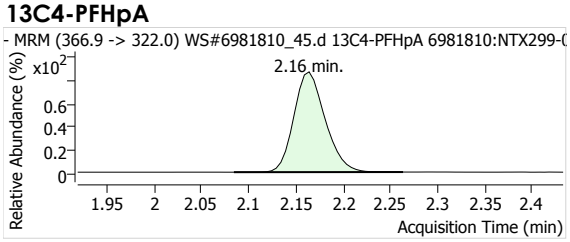

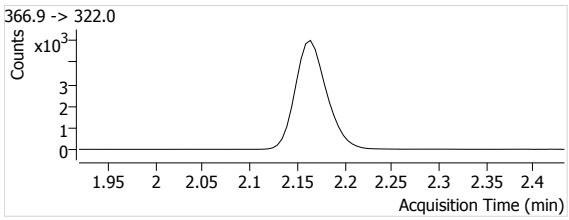

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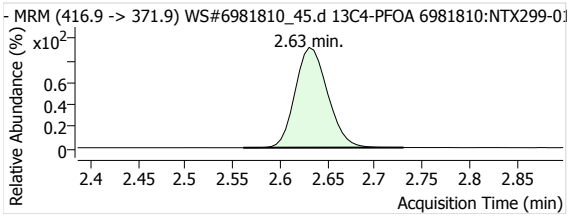
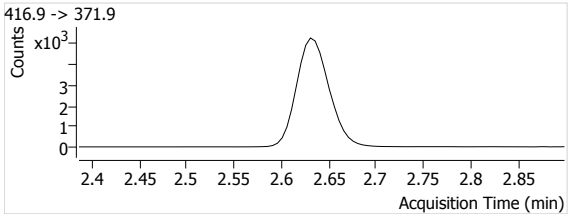
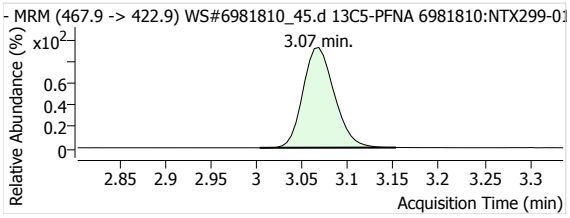
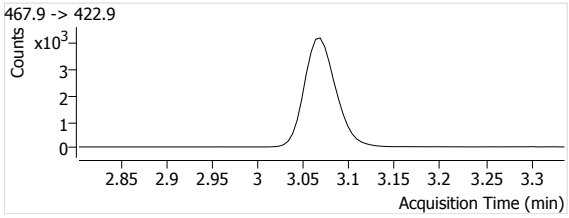


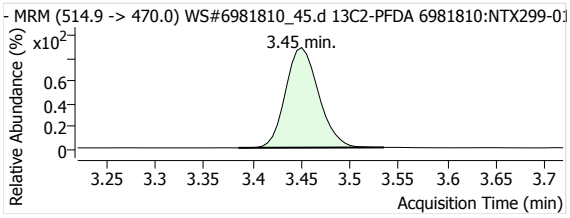


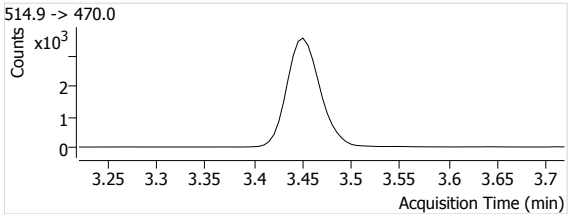
13C5-PFNA



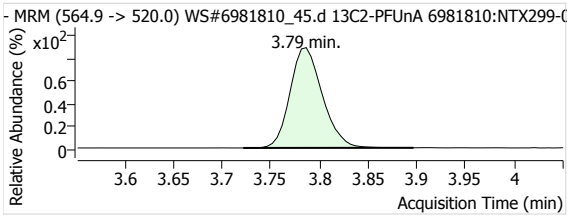


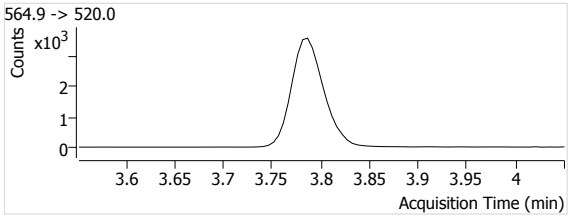
13C2-PFDA





13C2-PFUnA





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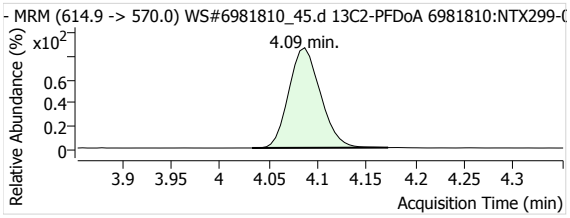

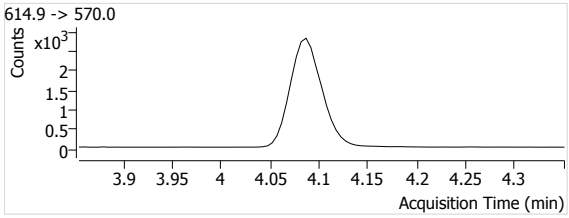

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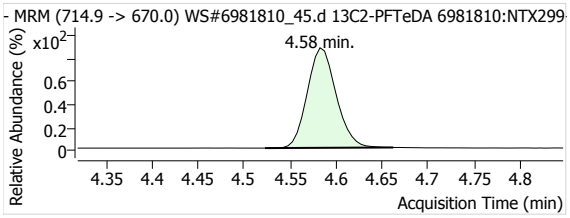
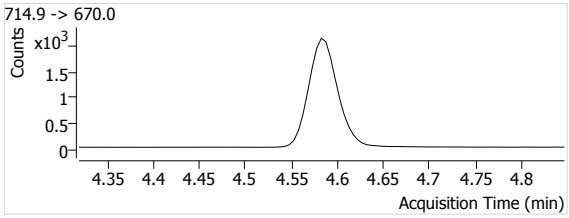
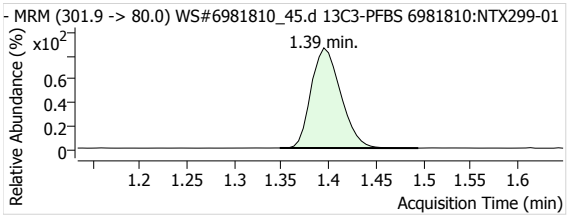
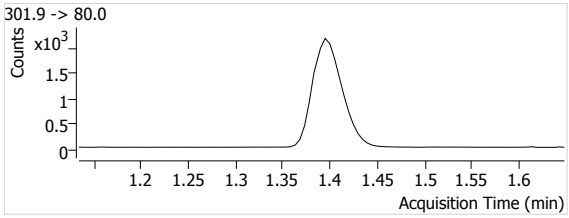


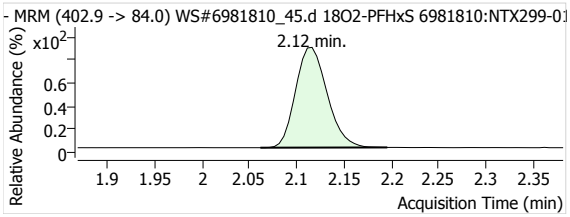


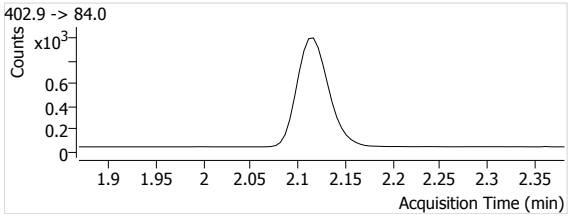
13C3-PFBS



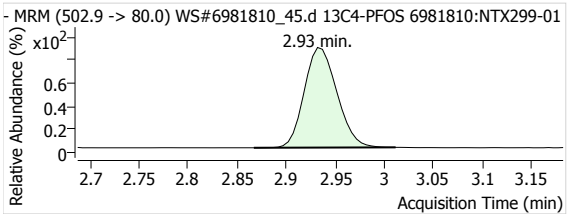


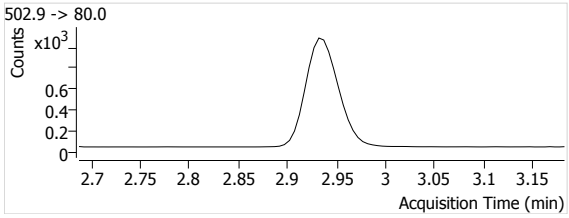
18O2-PFHxS



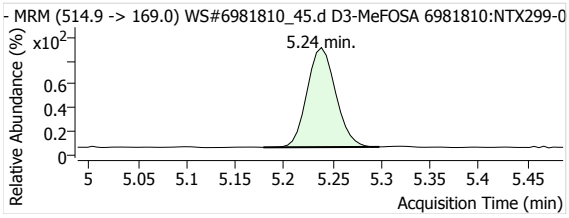


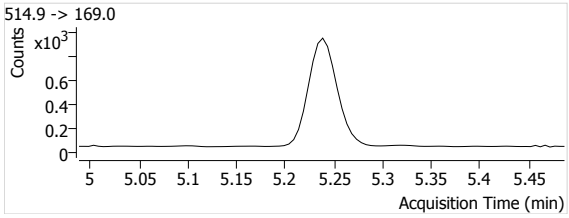
13C4-PFOS



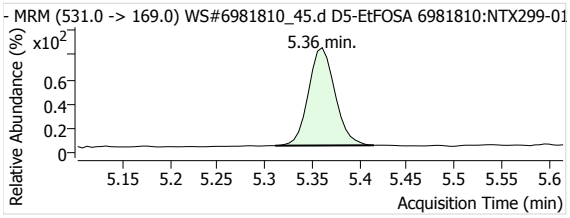


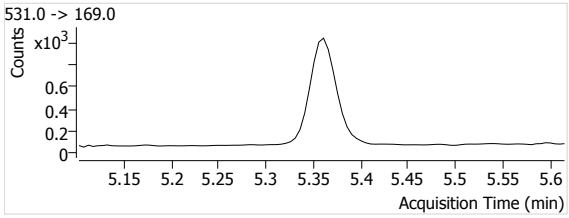
D3-MeFOSA





D5-EtFOSA





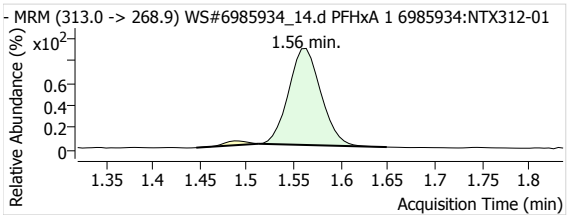
Quantitative Analysis Report

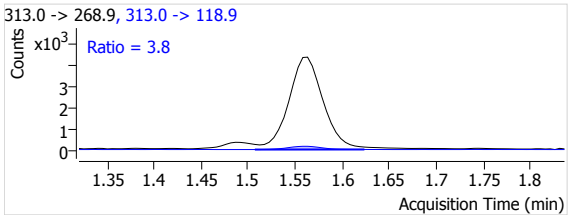
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	6985934:NTX312-01	**Data File**	WS#6985934_14.d
Type	Sample	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-B4
Acq. Date-Time	2020/10/07 2:44:20 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	0.0668	--	10068	1.56	98	0.6856	382	1.56	51	3.8
PFHpA 1	µg/L	--	0.0148	--	2336	1.98	26	0.1189	420	1.98	22	18.0
PFOA 1	µg/L	--	0.0598	--	9998	2.44	95	0.5540	2124	2.44	91	21.2
PFNA 1	µg/L	--	0.0075	--	948	2.89	9	0.0561	200	2.88	7	21.1
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	0.0160	--	474	1.27	23	0.1467	189	1.27	9	39.9
PFHxS 1	µg/L	--	0.2861	--	6603	1.94	103	2.8096	3296	1.94	92	49.9
PFOS 1	µg/L	--	0.3897	--	7808	2.75	20	3.2104	3599	2.75	65	46.1
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	101.4579	--	14684	1.56	470		--	--	--	--
13C4-PFHpA	µg/L	--	95.5496	--	19645	1.98	648		--	--	--	--
13C4-PFOA	µg/L	--	99.3558	--	18046	2.44	708		--	--	--	--
13C5-PFNA	µg/L	--	98.2800	--	16913	2.89	1084		--	--	--	--
13C2-PFDA	µg/L	--	93.0342	--	12795	3.29	749		--	--	--	--
13C2-PFUnA	µg/L	--	89.9840	--	14608	3.64	449		--	--	--	--
13C2-PFDoA	µg/L	--	85.0965	--	16667	3.95	1000		--	--	--	--
13C2-PFTeDA	µg/L	--	74.0901	--	19868	4.47	937		--	--	--	--
13C3-PFBS	µg/L	--	96.5929	--	3232	1.27	155		--	--	--	--
18O2-PFHxS	µg/L	--	89.5579	--	2350	1.97	194		--	--	--	--
13C4-PFOS	µg/L	--	93.5385	--	2432	2.80	367		--	--	--	--
D3-MeFOSA	µg/L	--	60.9874	--	3780	5.20	66		--	--	--	--
D5-EtFOSA	µg/L	--	58.2295	--	3177	5.33	94		--	--	--	--

PFHxA 1





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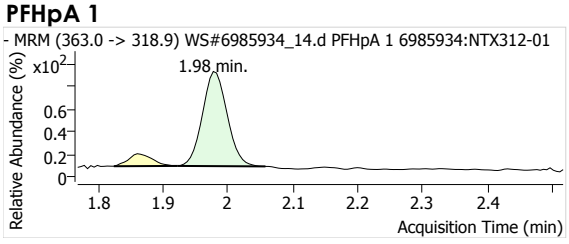
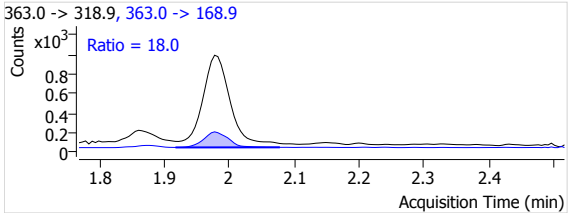
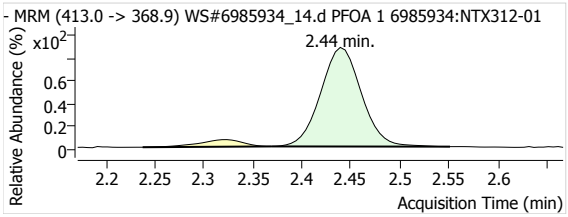
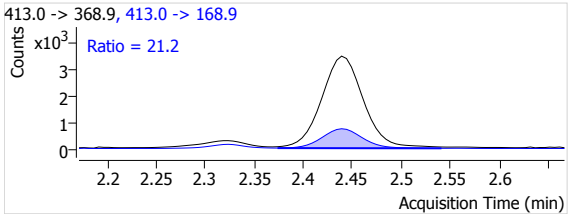




PFOA 1





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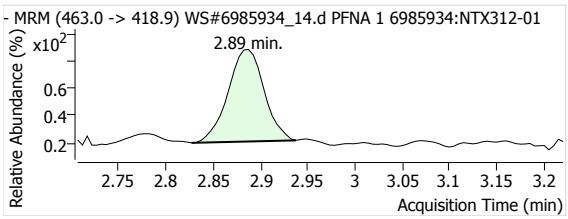

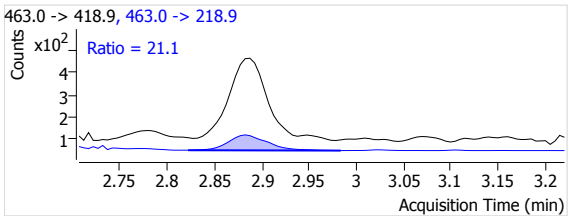

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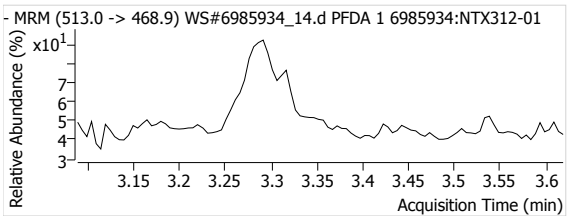

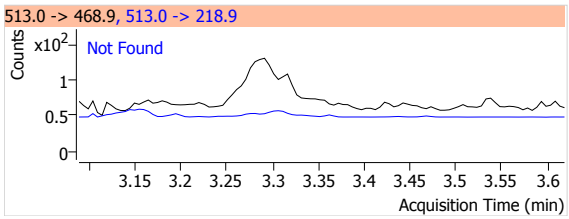

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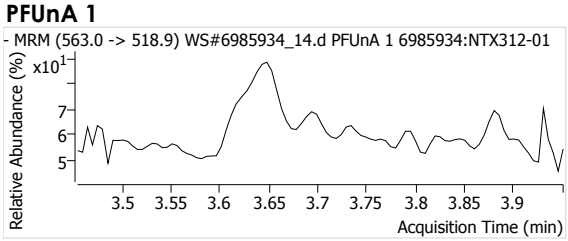

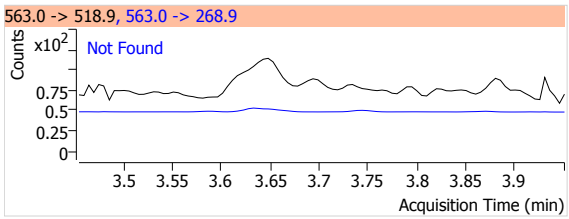

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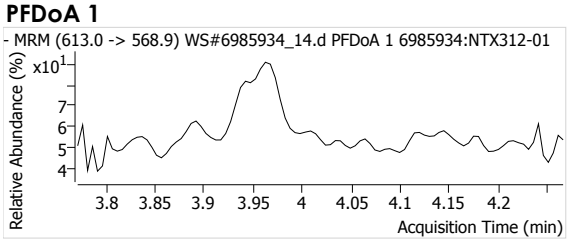

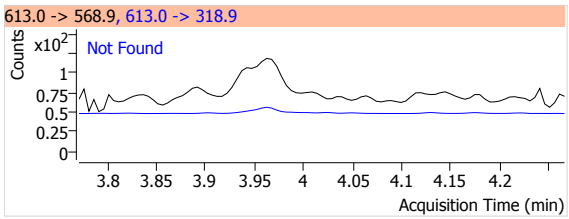

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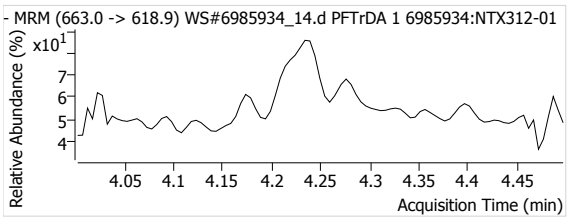

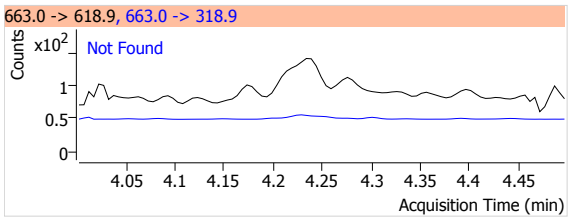

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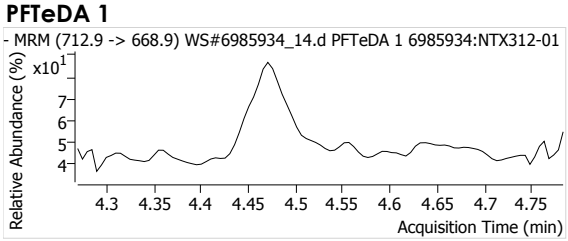
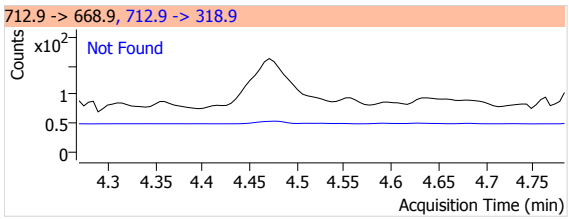
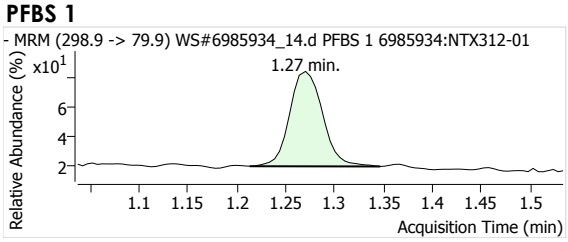
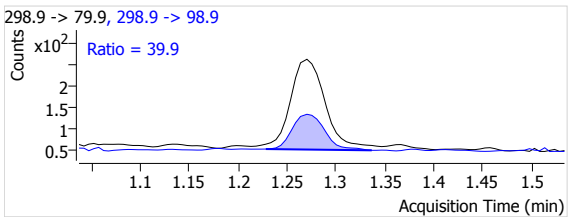




PFBS 1





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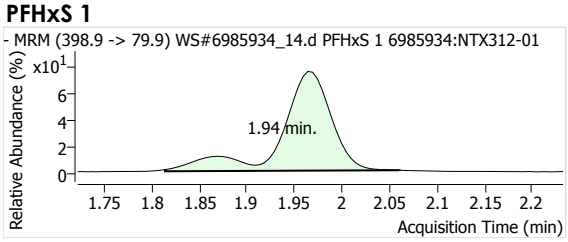
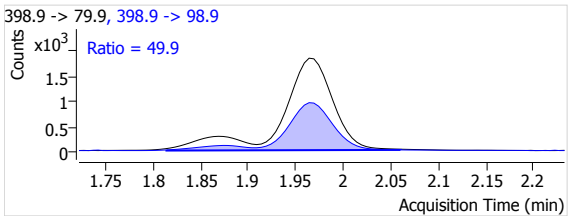
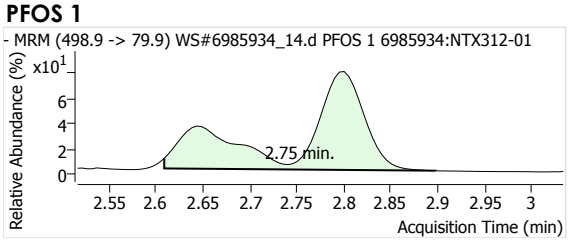
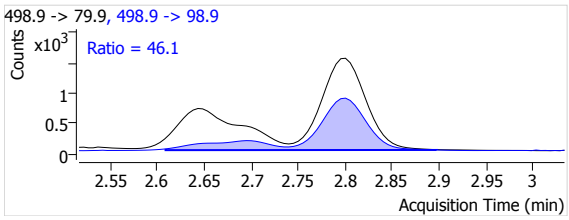




PFOS 1





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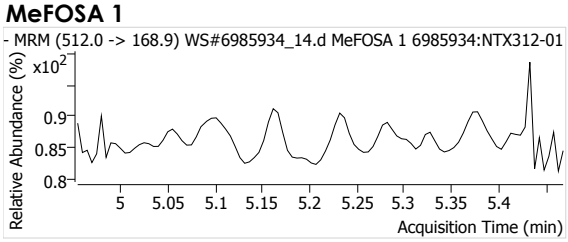

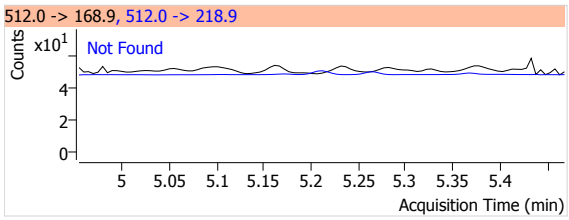

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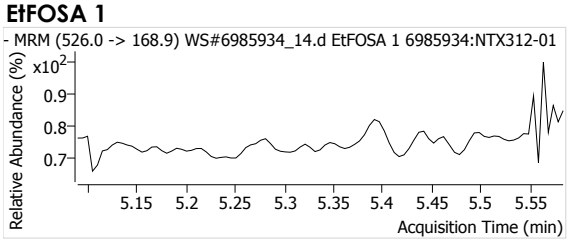
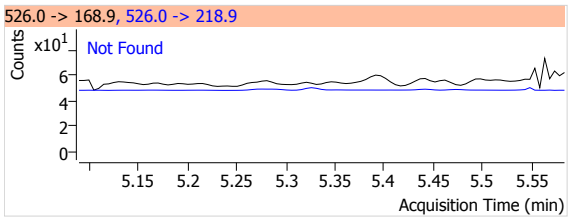
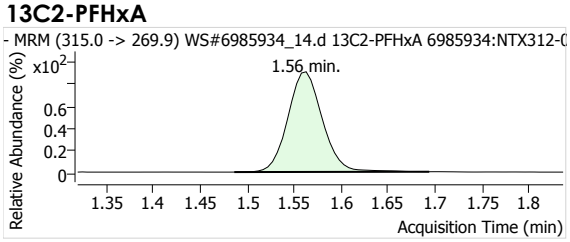
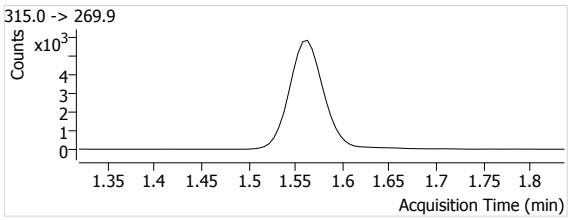




13C2-PFHxA





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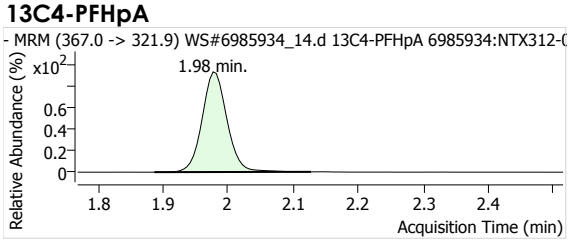

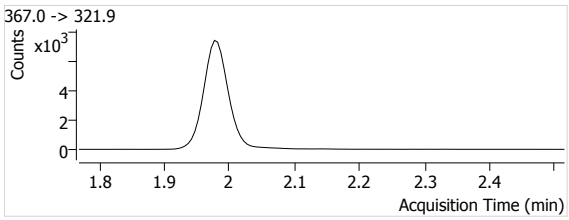

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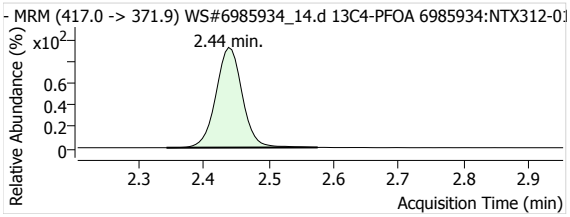

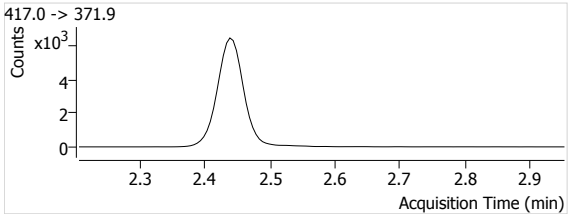

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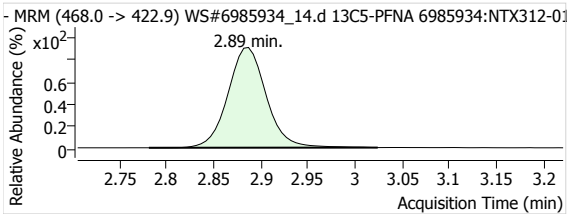

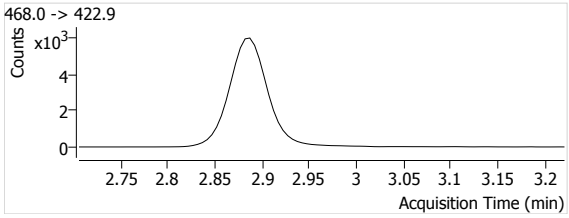

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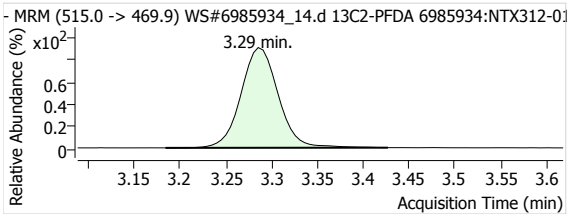

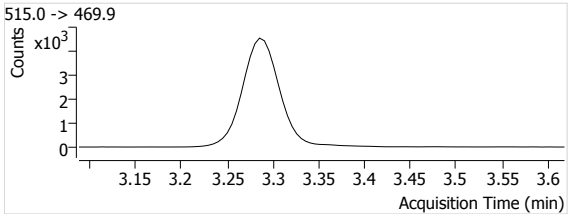

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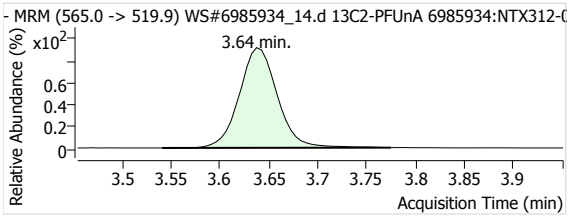

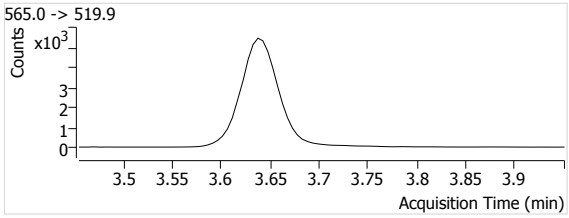

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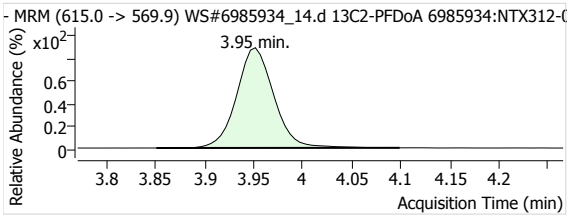

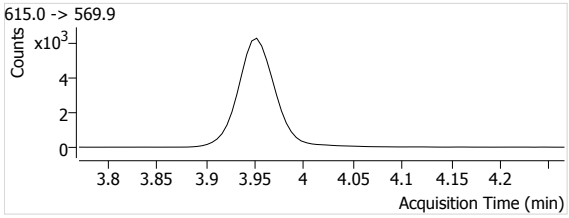

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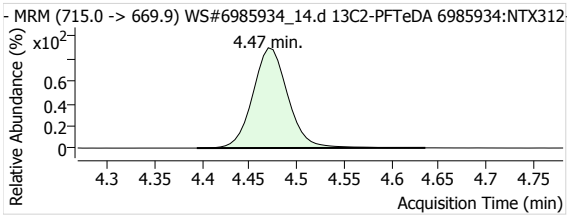

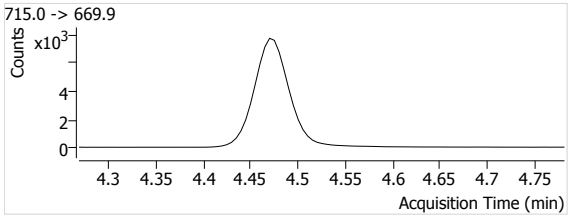

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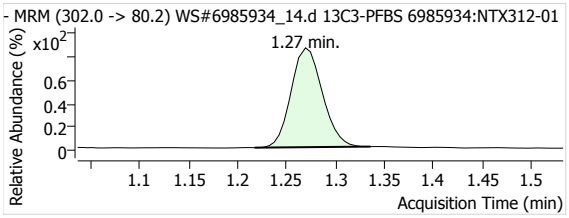

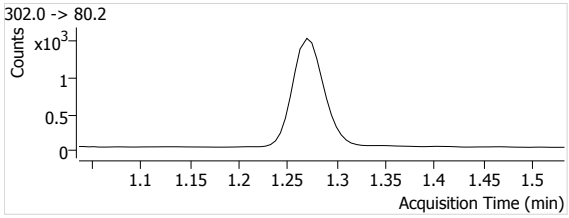

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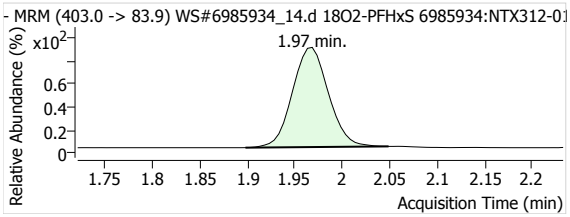

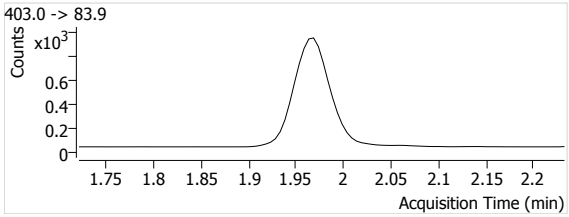

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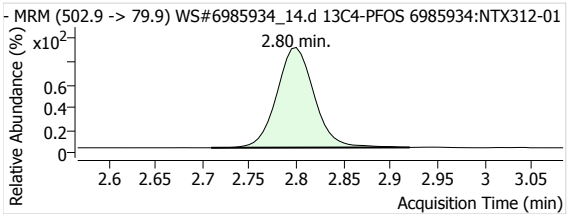
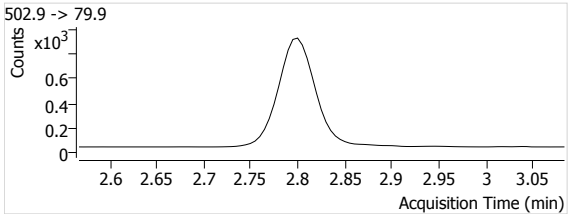
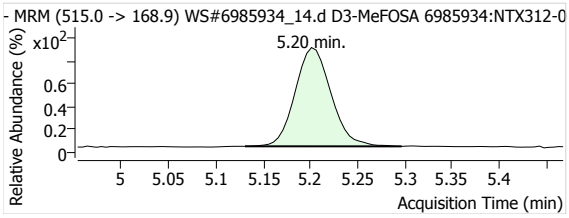
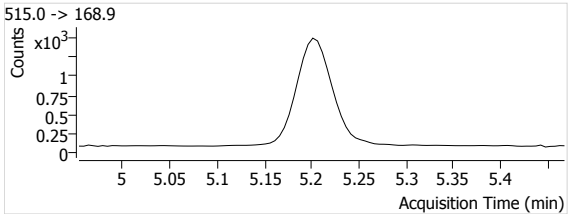




D3-MeFOSA





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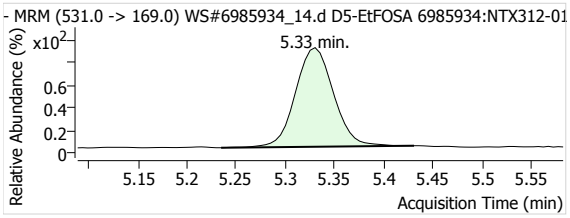
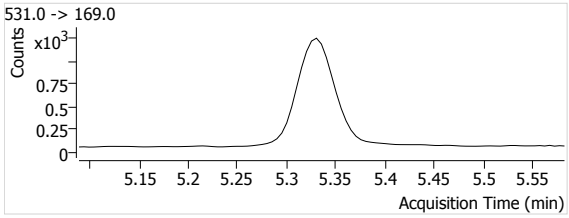




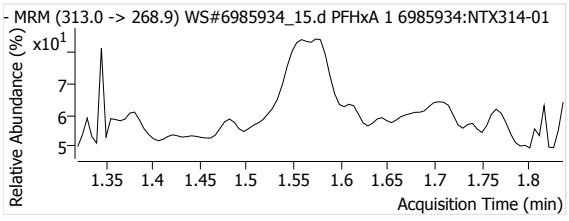
Quantitative Analysis Report

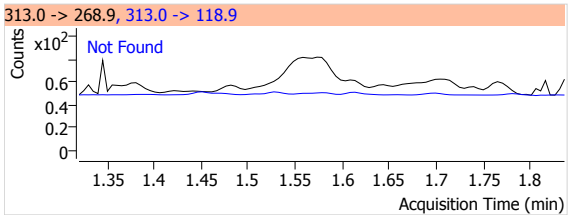
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	6985934:NTX314-01	**Data File**	WS#6985934_15.d
Type	Sample	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-B5
Acq. Date-Time	2020/10/07 2:51:16 PM	**Dil.**	0.0
Comment	Re-injected to confirm recovery		
User Defined			

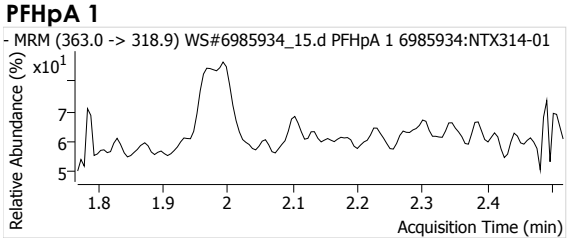
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	100.8084	--	14590	1.56	623		--	--	--	--
13C4-PFHpA	µg/L	--	99.7811	--	20515	1.98	521		--	--	--	--
13C4-PFOA	µg/L	--	101.2773	--	18395	2.44	834		--	--	--	--
13C5-PFNA	µg/L	--	101.9699	--	17548	2.88	672		--	--	--	--
13C2-PFDA	µg/L	--	96.4953	--	13271	3.29	324		--	--	--	--
13C2-PFUnA	µg/L	--	92.1030	--	14952	3.64	701		--	--	--	--
13C2-PFDoA	µg/L	--	89.2372	--	17478	3.95	464		--	--	--	--
13C2-PFTeDA	µg/L	--	83.4129	--	22368	4.47	680		--	--	--	--
13C3-PFBS	µg/L	--	42.6181	--	1426	1.27	160		--	--	--	--
18O2-PFHxS	µg/L	--	66.4253	--	1743	1.96	113		--	--	--	--
13C4-PFOS	µg/L	--	82.6154	--	2148	2.80	213		--	--	--	--
D3-MeFOSA	µg/L	--	71.2972	--	4419	5.20	76		--	--	--	--
D5-EtFOSA	µg/L	--	73.2038	--	3994	5.33	94		--	--	--	--

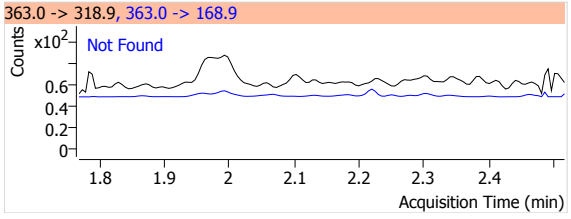
PFHxA 1





PFHpA 1





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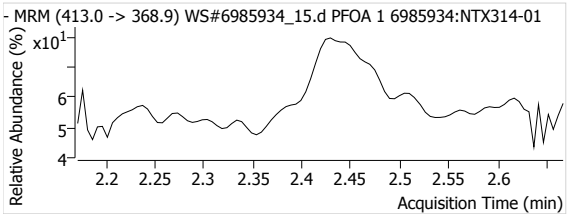

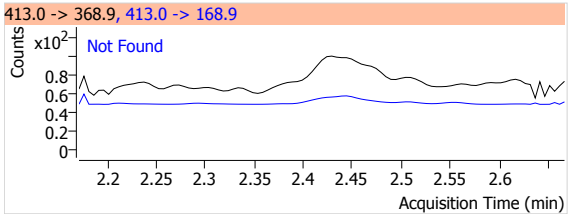

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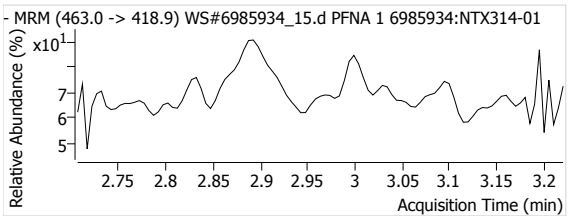
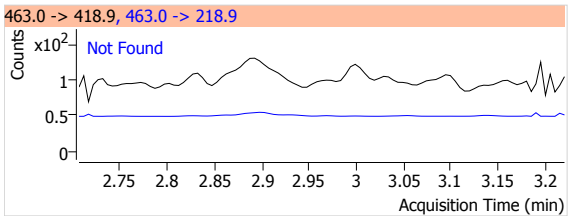
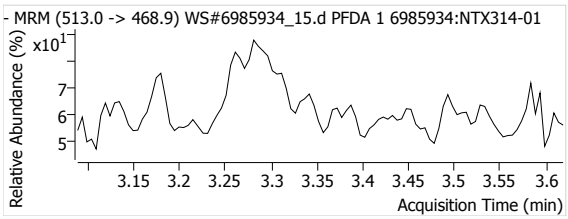
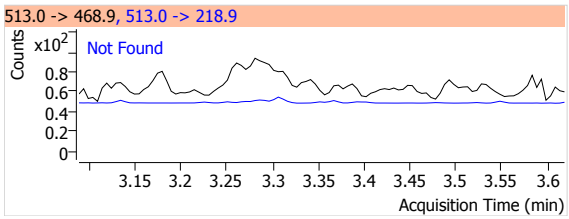




PFDA 1





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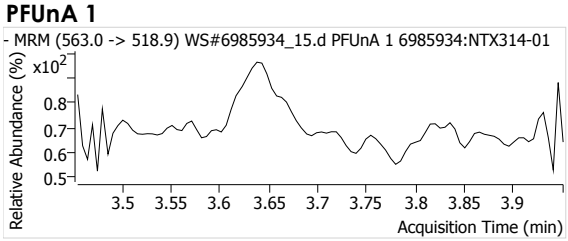

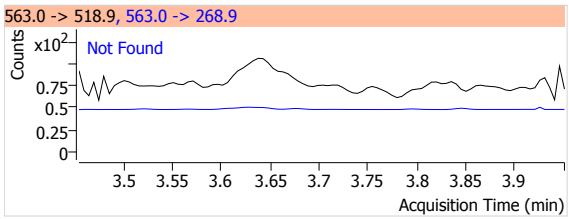

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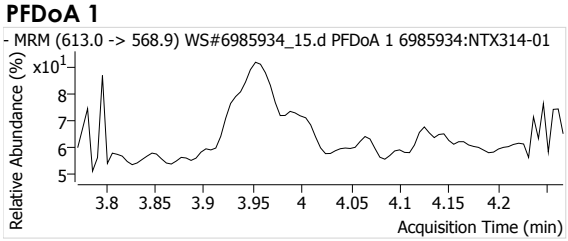

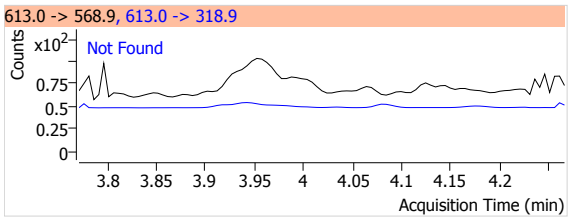

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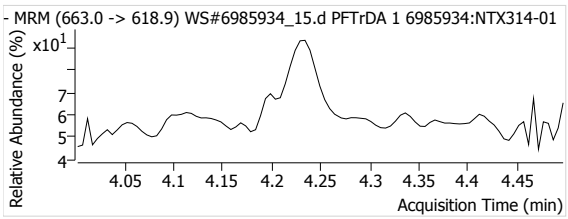

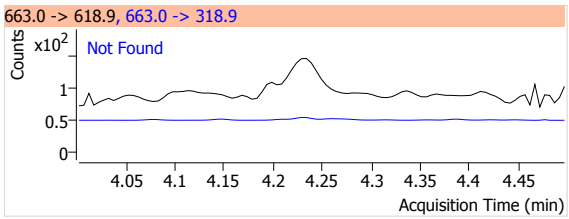

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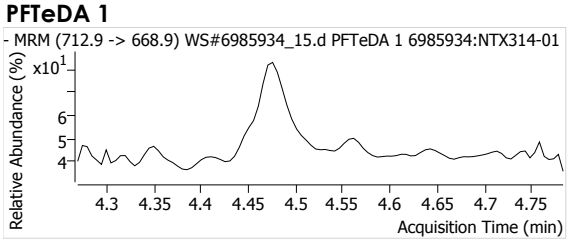

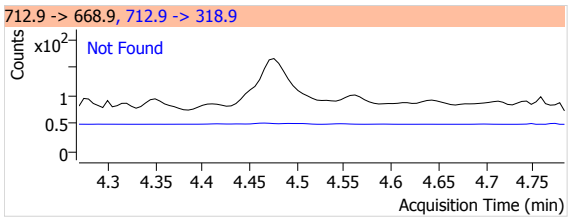

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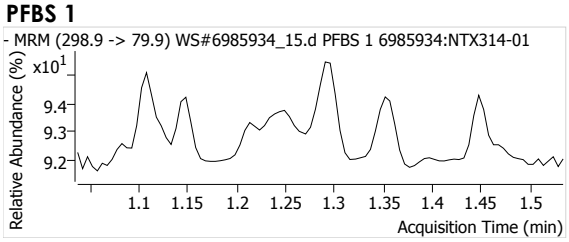

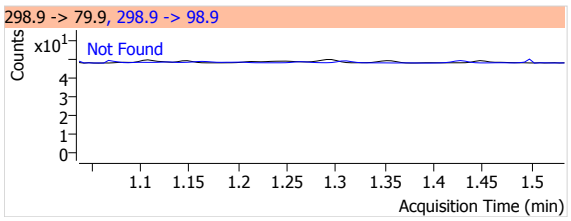

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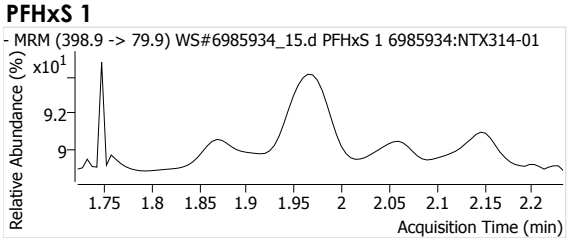
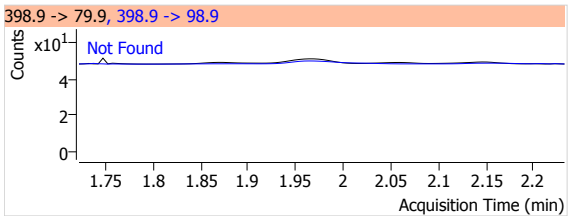
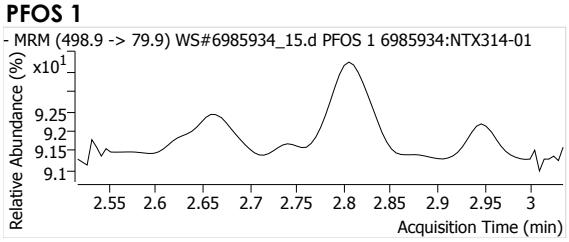
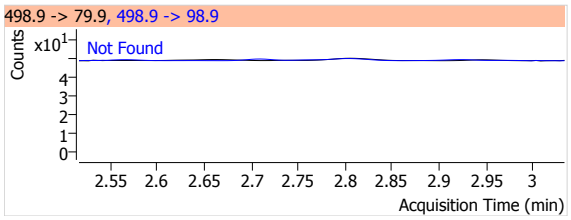




PFOS 1





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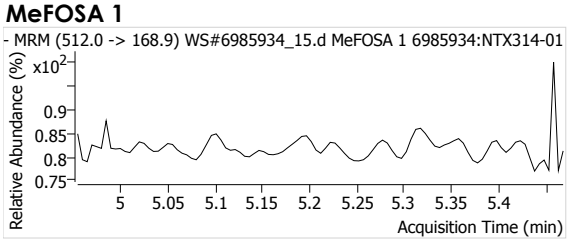

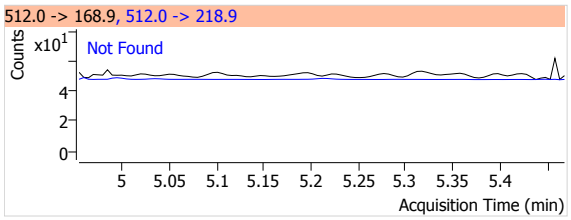

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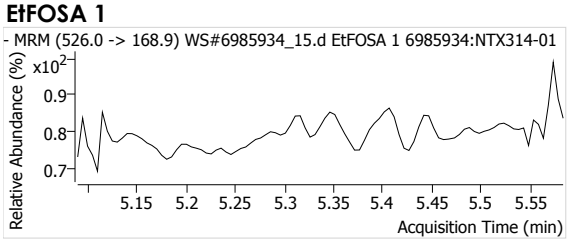

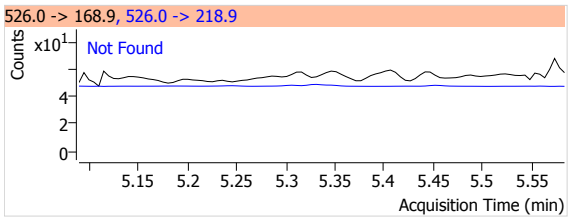

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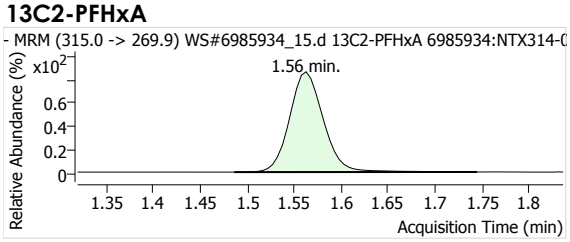

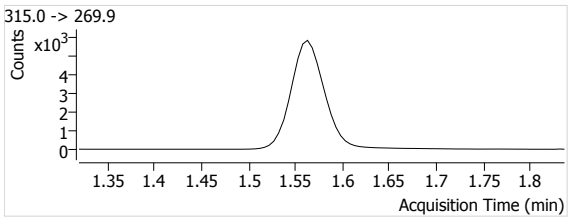

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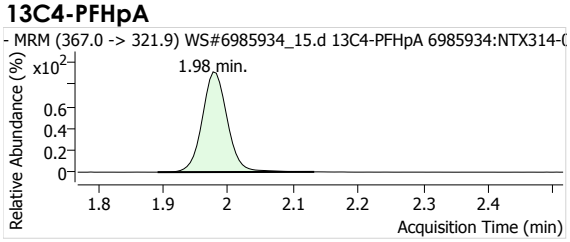

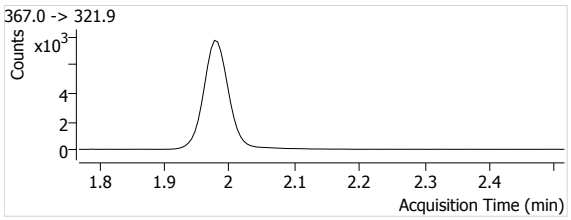

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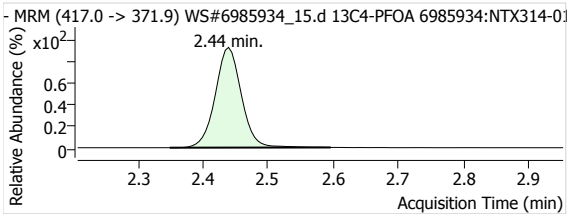

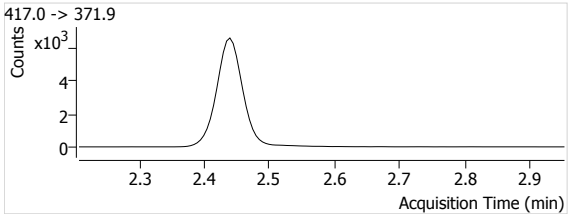

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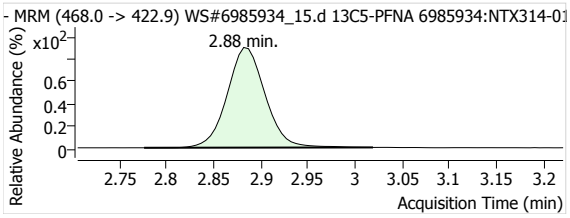

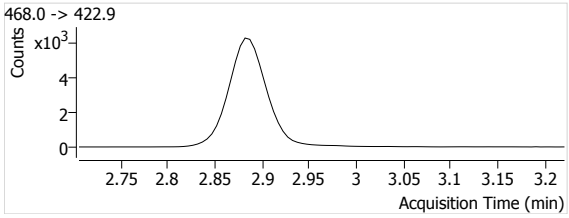

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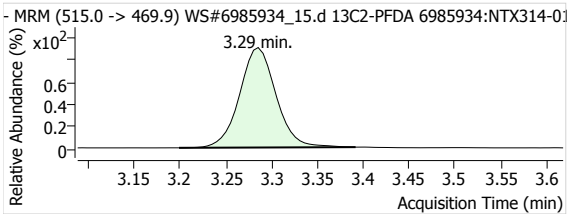

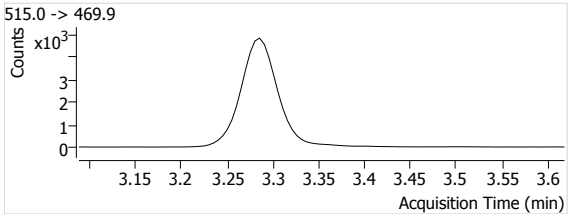

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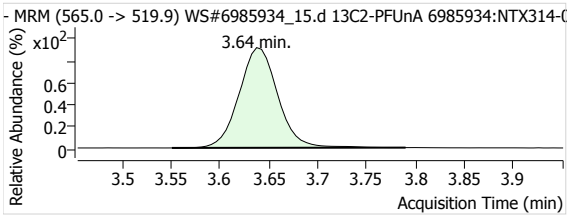

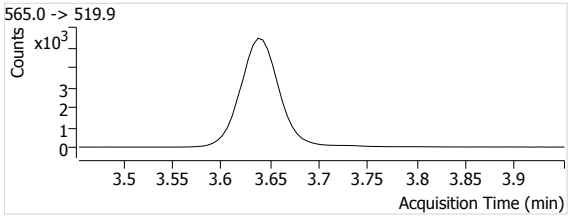

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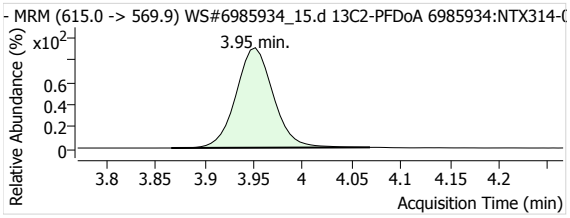

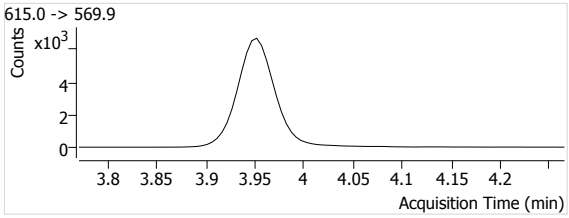

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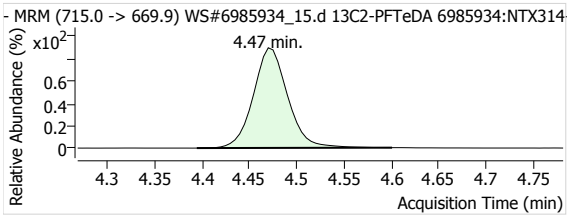

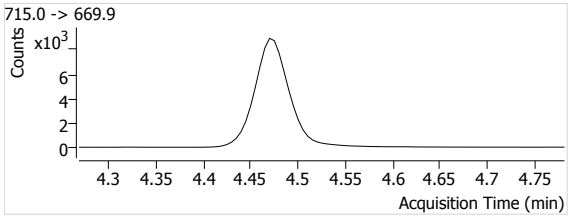

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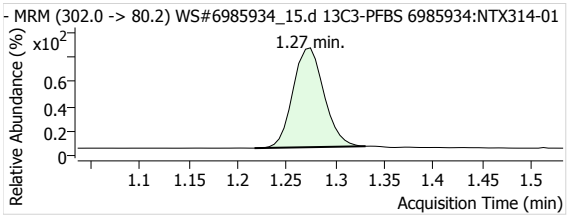

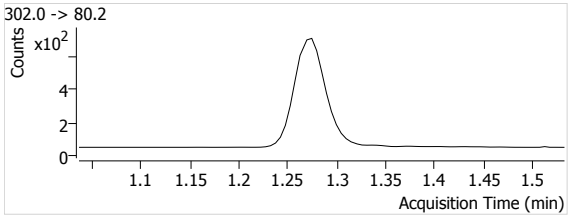

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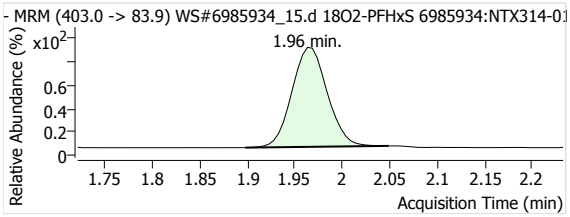

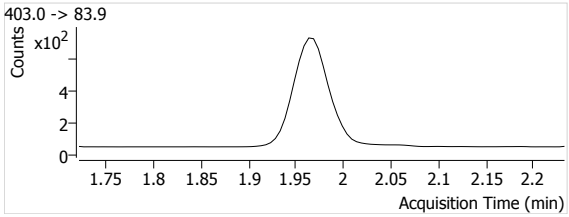

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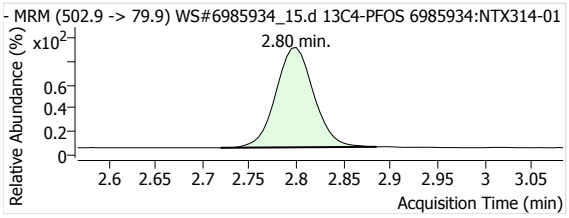

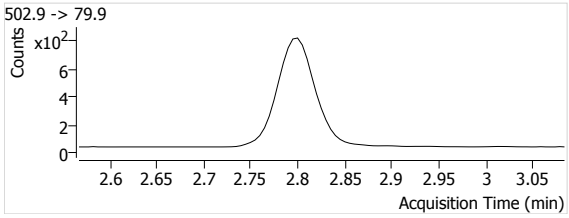

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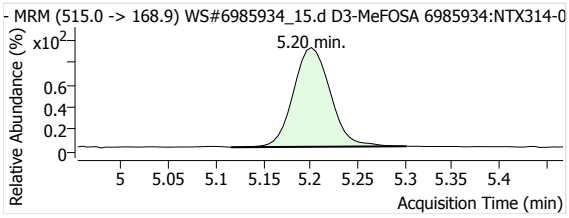

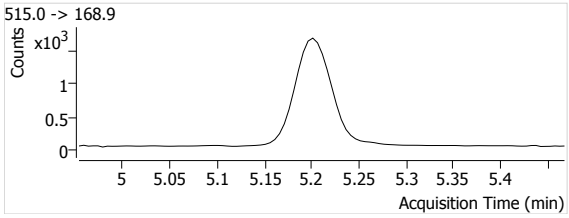

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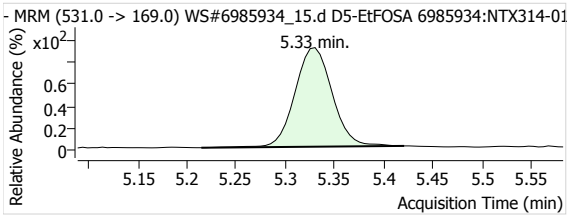
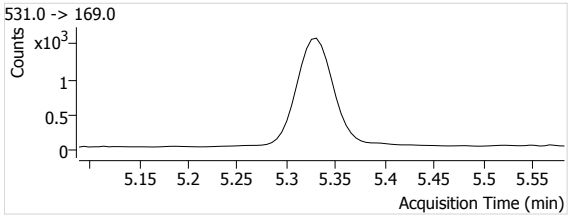




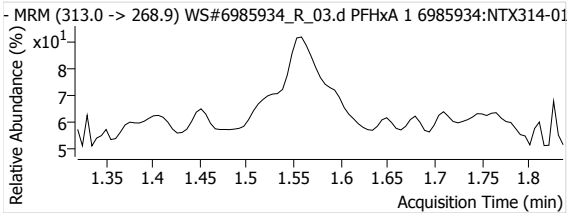
Quantitative Analysis Report

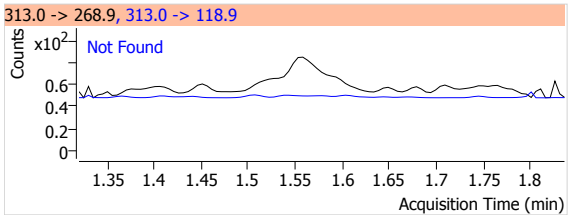
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	6985934:NTX314-01:R	**Data File**	WS#6985934_R_03.d
Type	Sample	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A3
Acq. Date-Time	2020/10/07 8:21:30 PM	**Dil.**	0.0
Comment	Re-injection, reported		
User Defined			

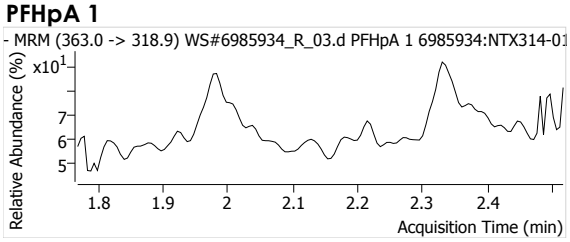
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	114.3716	--	16553	1.56	535		--	--	--	--
13C4-PFHpA	µg/L	--	115.6420	--	23776	1.98	301		--	--	--	--
13C4-PFOA	µg/L	--	120.5528	--	21896	2.44	634		--	--	--	--
13C5-PFNA	µg/L	--	122.3662	--	21058	2.88	639		--	--	--	--
13C2-PFDA	µg/L	--	113.0372	--	15546	3.28	353		--	--	--	--
13C2-PFUnA	µg/L	--	110.2316	--	17895	3.64	510		--	--	--	--
13C2-PFDoA	µg/L	--	103.9007	--	20350	3.95	730		--	--	--	--
13C2-PFTeDA	µg/L	--	96.2448	--	25809	4.47	981		--	--	--	--
13C3-PFBS	µg/L	--	48.9540	--	1638	1.27	215		--	--	--	--
18O2-PFHxS	µg/L	--	75.2287	--	1974	1.97	162		--	--	--	--
13C4-PFOS	µg/L	--	90.9615	--	2365	2.79	143		--	--	--	--
D3-MeFOSA	µg/L	--	76.4279	--	4737	5.20	71		--	--	--	--
D5-EtFOSA	µg/L	--	76.2097	--	4158	5.33	100		--	--	--	--

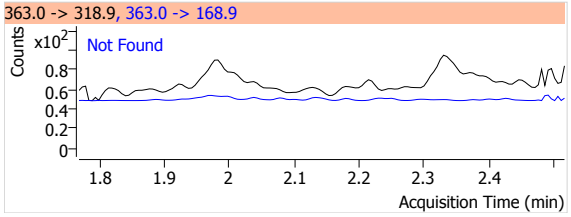
PFHxA 1



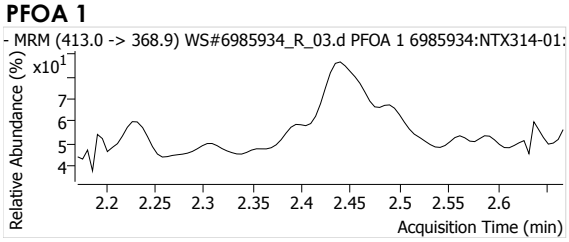


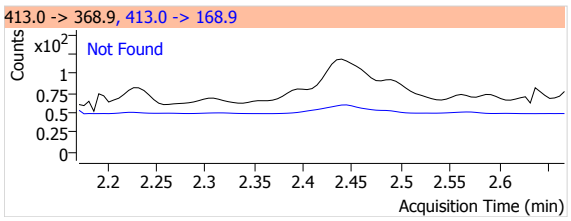
PFHpA 1





PFOA 1





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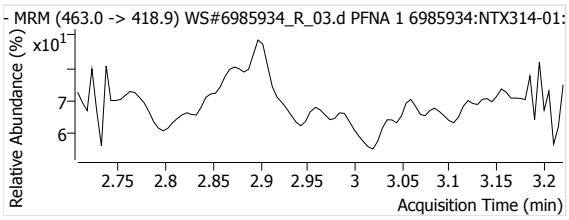

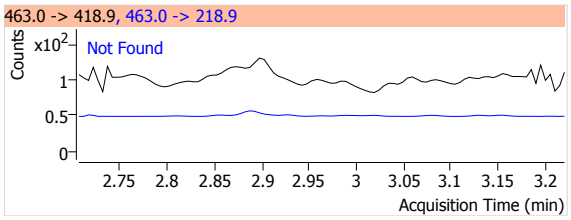

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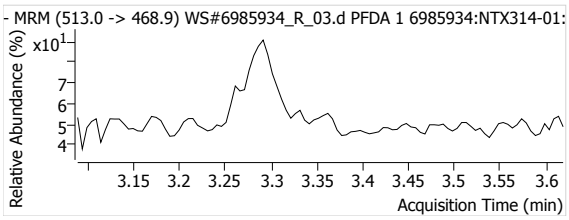

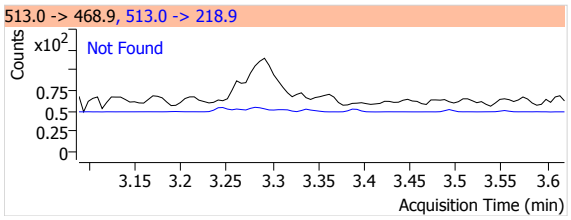

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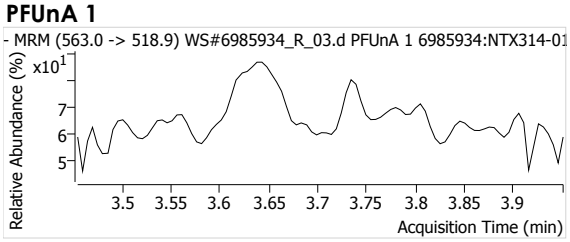

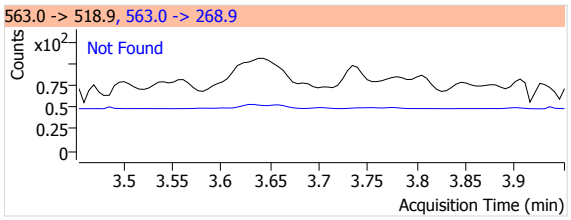

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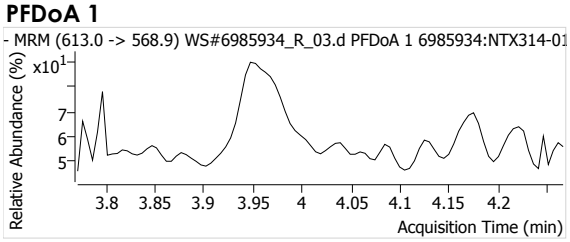

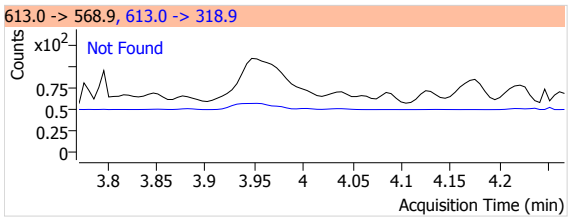

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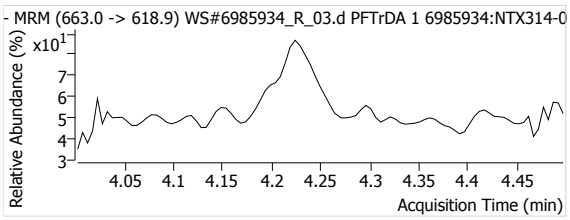

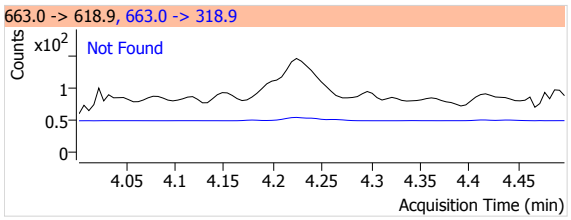

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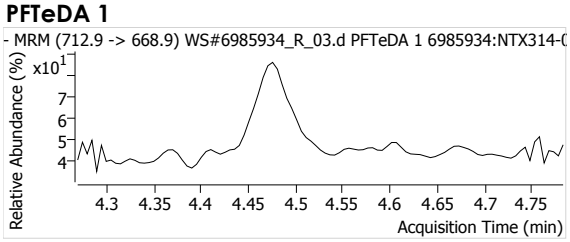

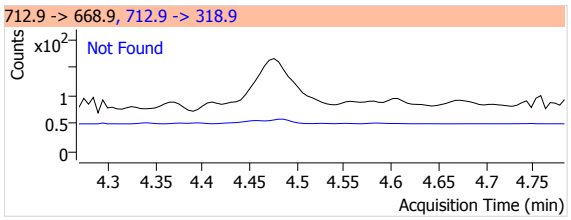

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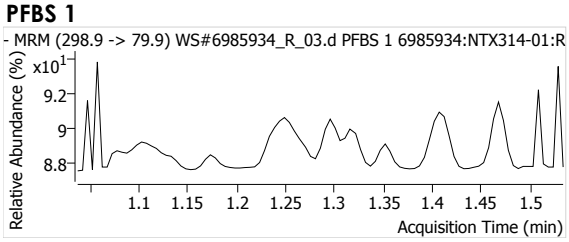

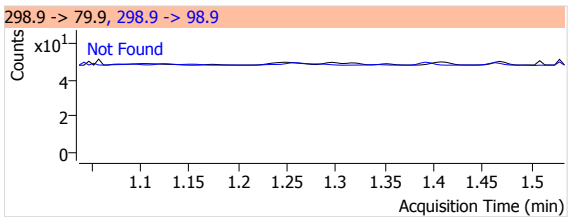

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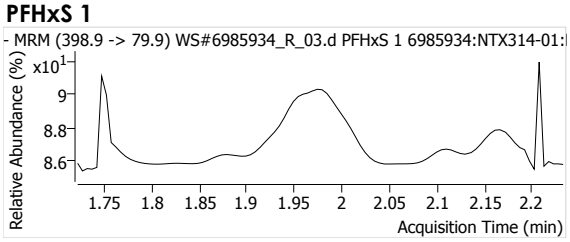

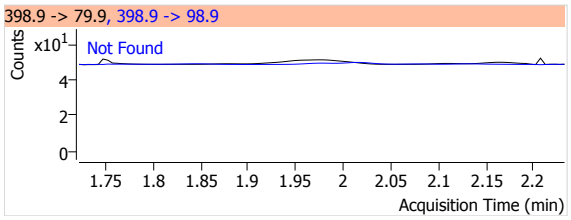

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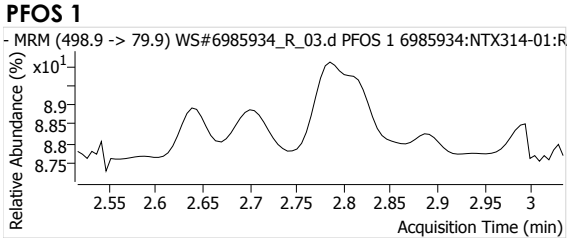

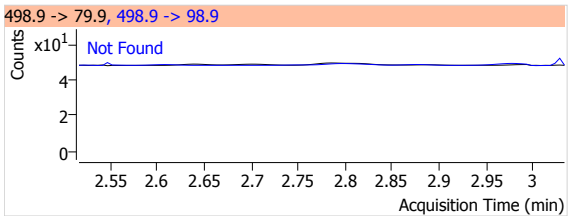

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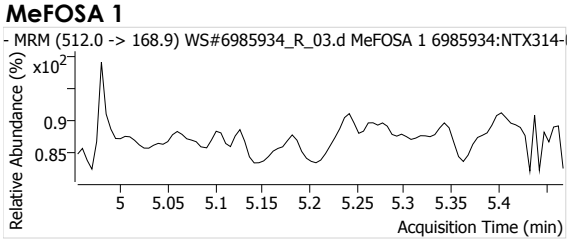

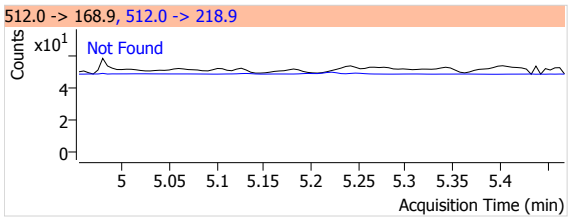

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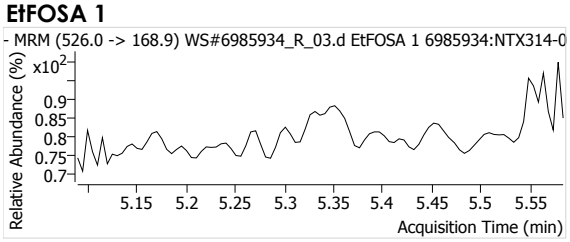

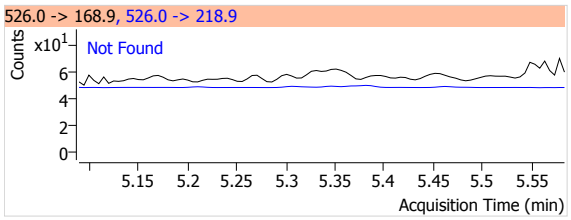

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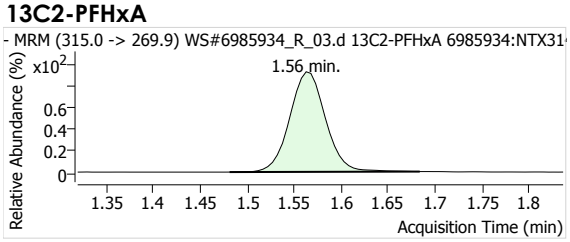

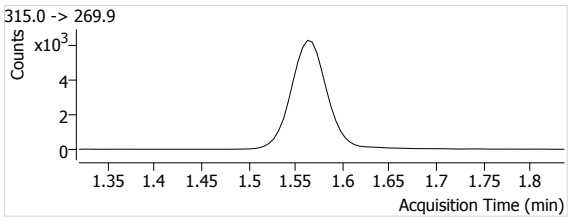

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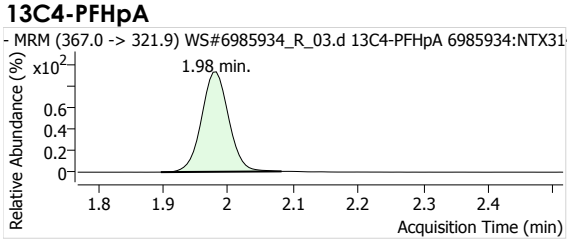

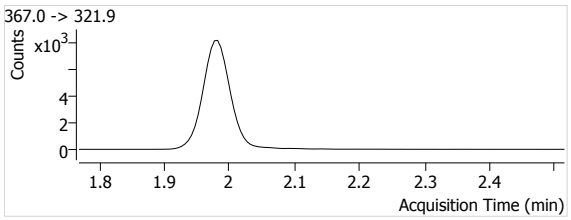

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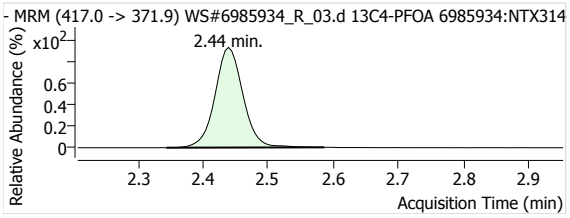

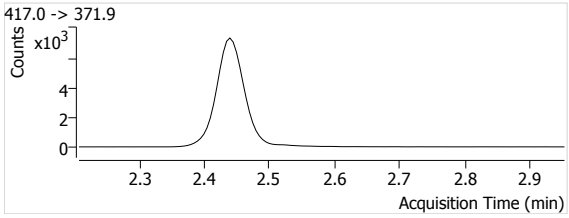

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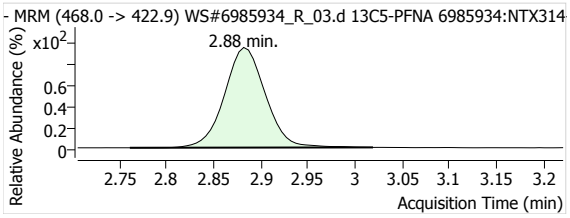

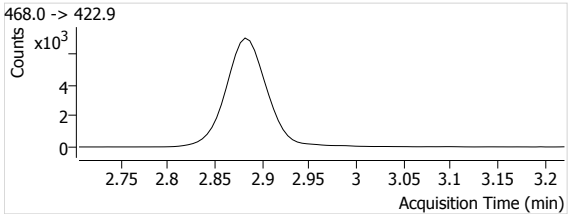

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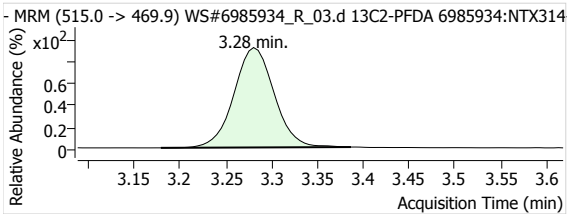

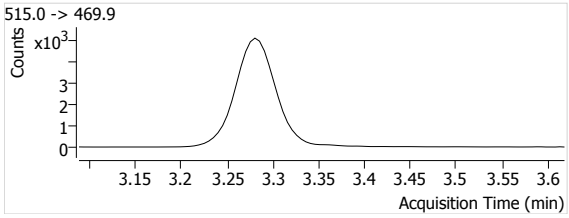

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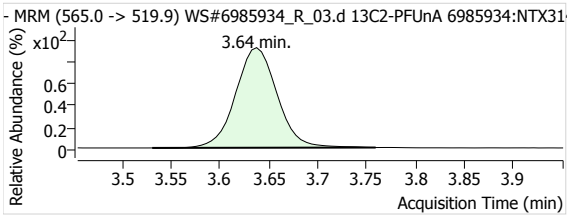

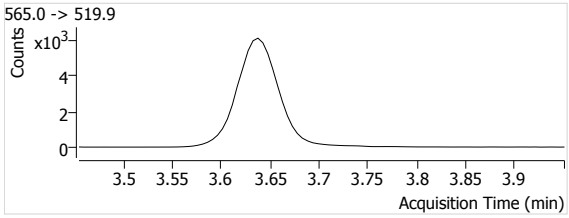

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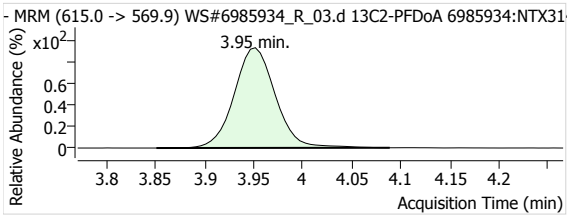

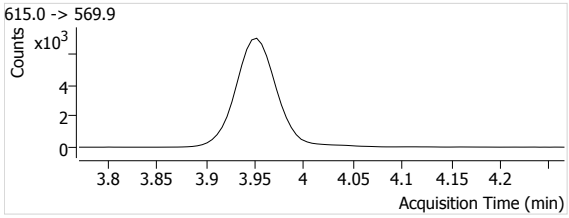

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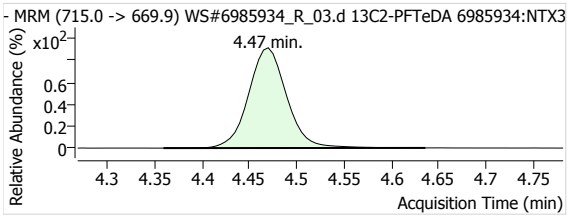

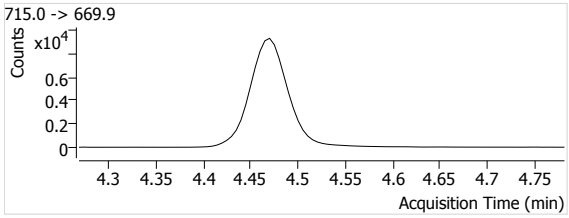

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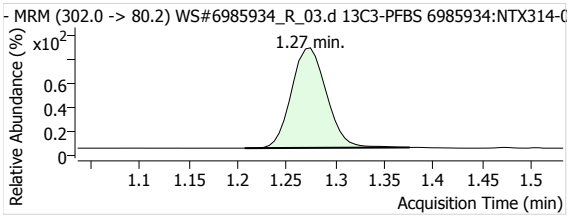

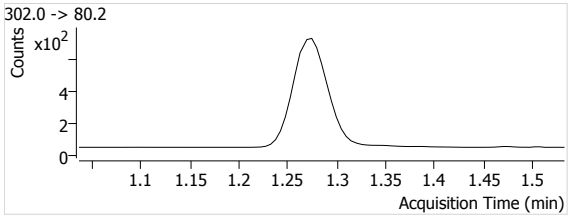

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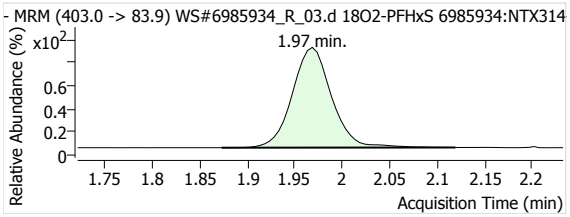

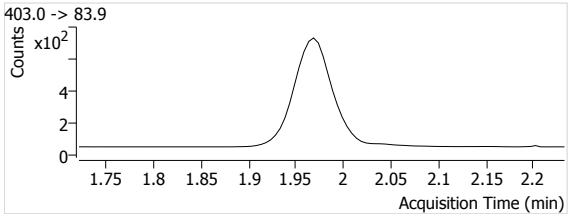

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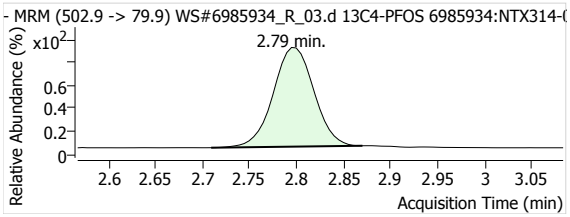

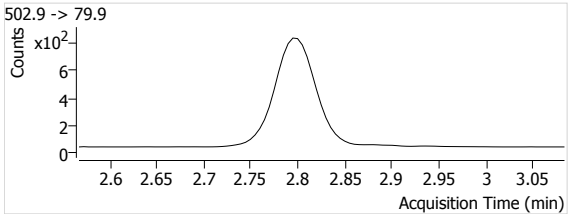

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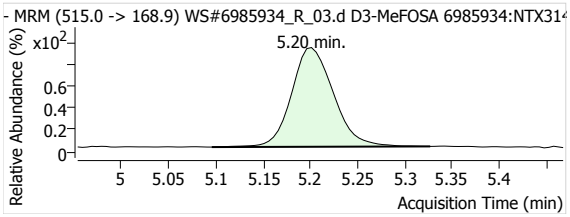

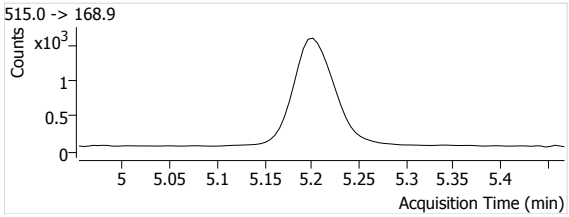

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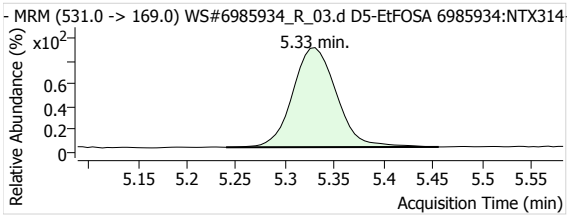
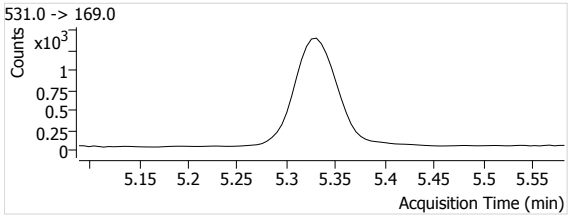




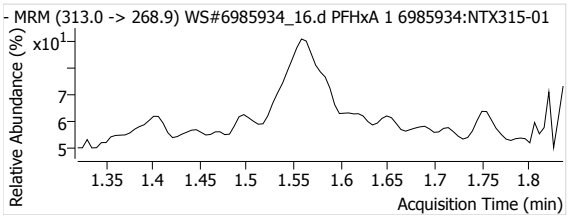
Quantitative Analysis Report

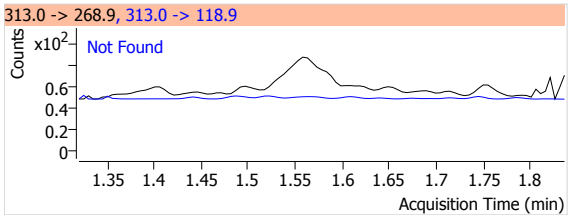
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	6985934:NTX315-01	**Data File**	WS#6985934_16.d
Type	Sample	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-B6
Acq. Date-Time	2020/10/07 2:58:12 PM	**Dil.**	0.0
Comment	-		
User Defined			

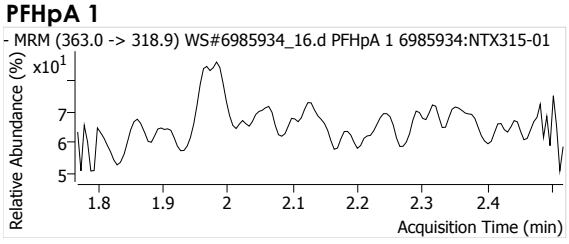
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	99.6269	--	14419	1.56	203		--	--	--	--
13C4-PFHpA	µg/L	--	100.6712	--	20698	1.98	939		--	--	--	--
13C4-PFOA	µg/L	--	103.1768	--	18740	2.44	801		--	--	--	--
13C5-PFNA	µg/L	--	101.1738	--	17411	2.88	640		--	--	--	--
13C2-PFDA	µg/L	--	95.5646	--	13143	3.29	374		--	--	--	--
13C2-PFUnA	µg/L	--	92.3987	--	15000	3.64	421		--	--	--	--
13C2-PFDoA	µg/L	--	89.8346	--	17595	3.95	969		--	--	--	--
13C2-PFTeDA	µg/L	--	80.6459	--	21626	4.48	1520		--	--	--	--
13C3-PFBS	µg/L	--	83.8613	--	2806	1.27	275		--	--	--	--
18O2-PFHxS	µg/L	--	87.8049	--	2304	1.97	279		--	--	--	--
13C4-PFOS	µg/L	--	93.4615	--	2430	2.80	618		--	--	--	--
D3-MeFOSA	µg/L	--	65.8116	--	4079	5.20	72		--	--	--	--
D5-EtFOSA	µg/L	--	67.6686	--	3692	5.33	99		--	--	--	--

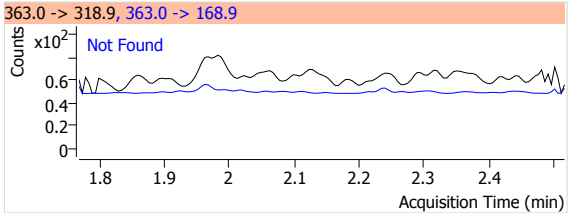
PFHxA 1



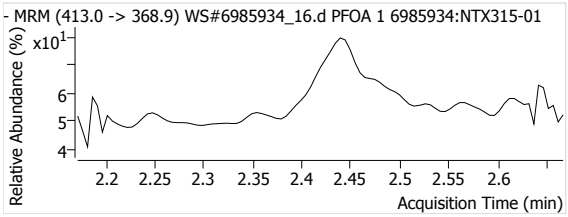


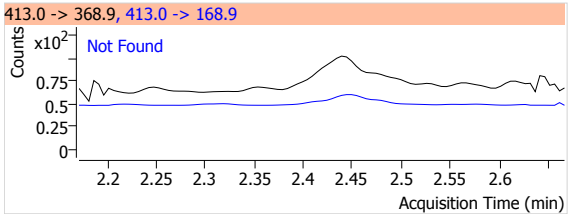
PFHpA 1





PFOA 1





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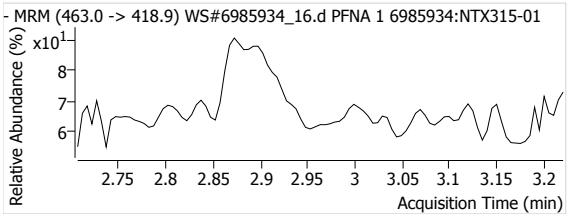
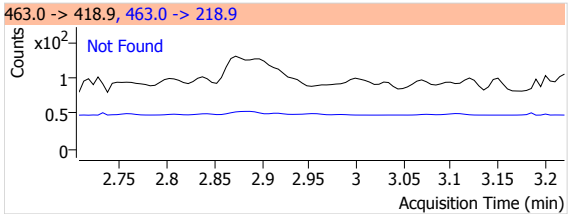
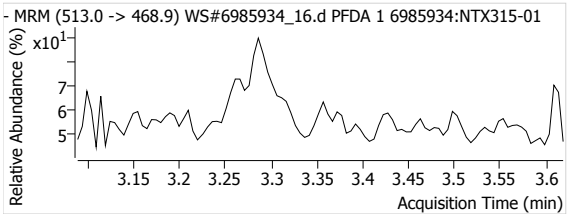
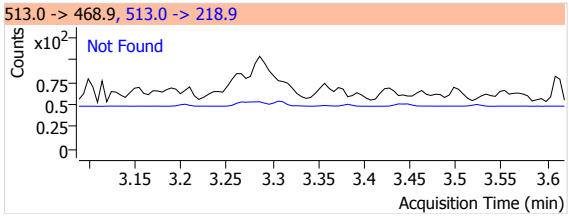




PFDA 1





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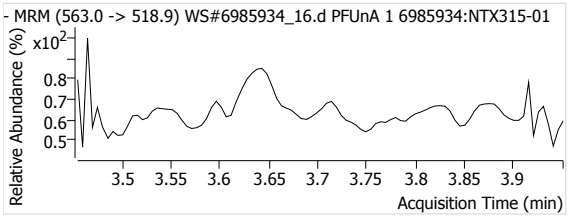

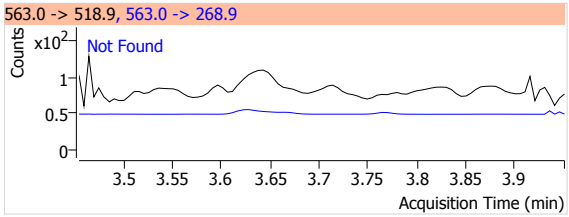

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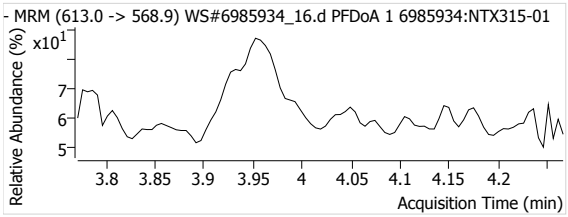

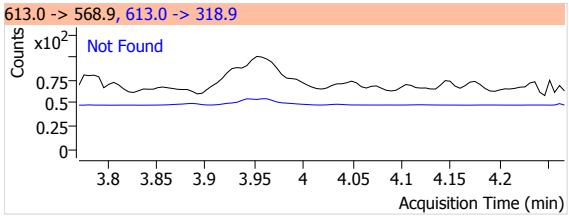

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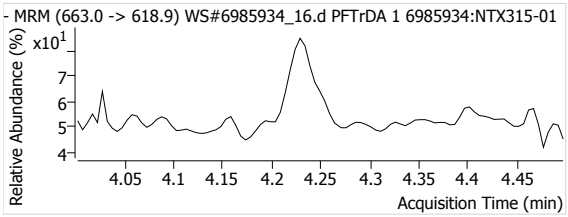

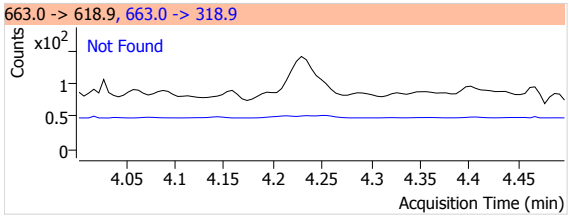

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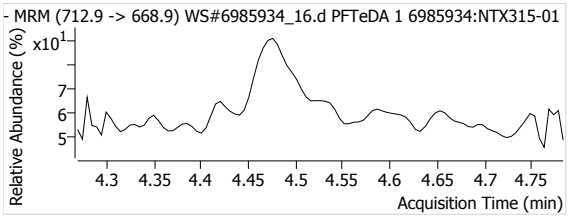

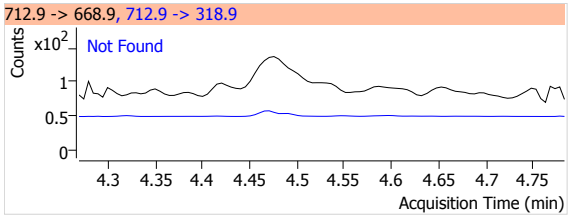

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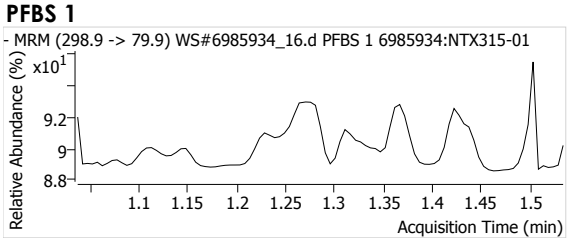

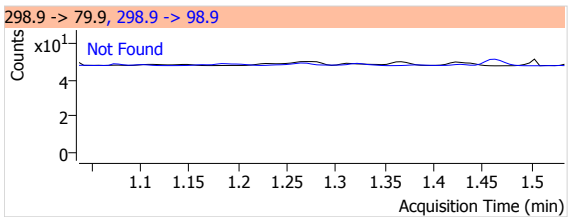

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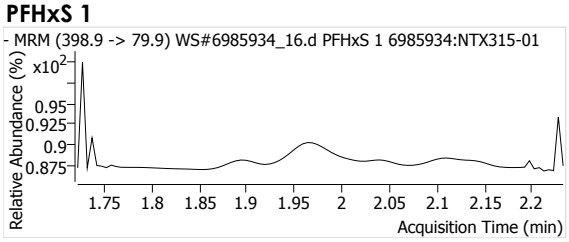

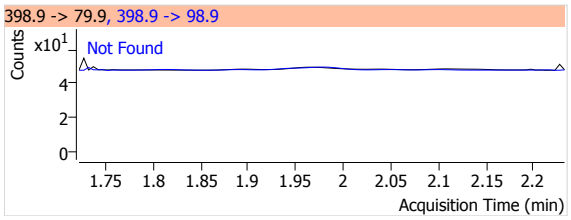

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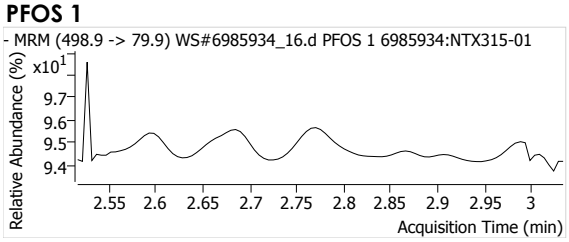

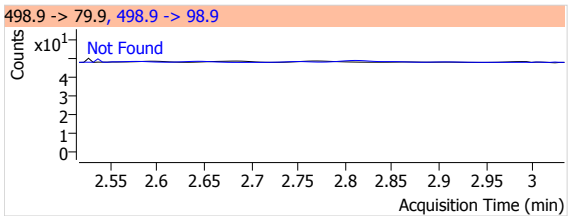

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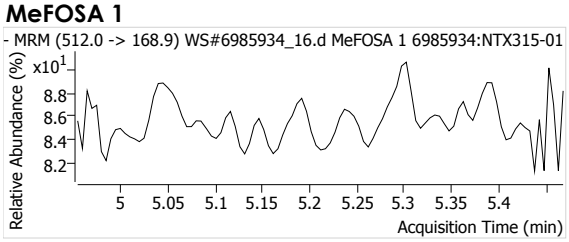

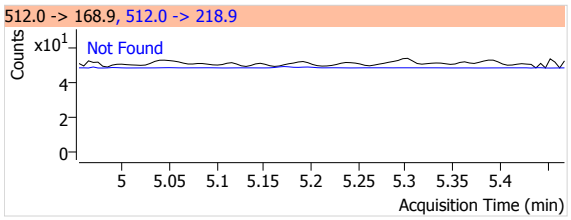

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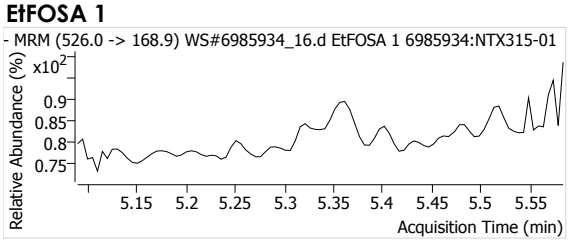

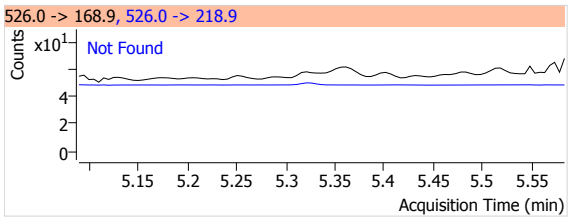

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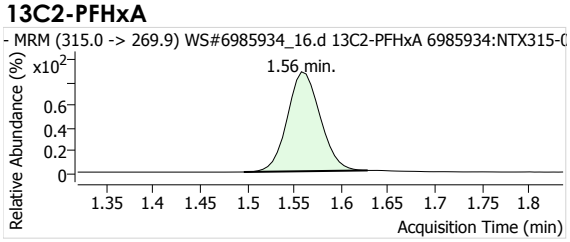

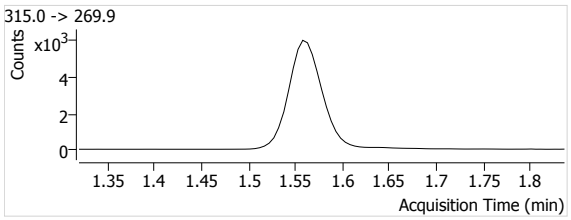

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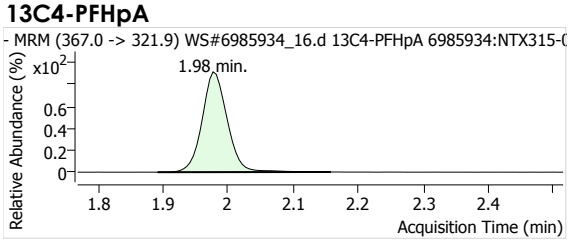

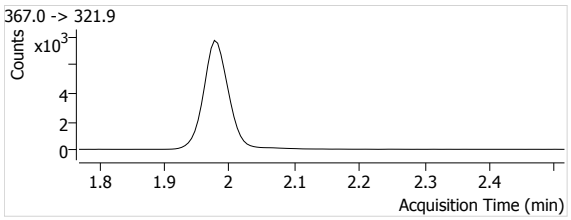

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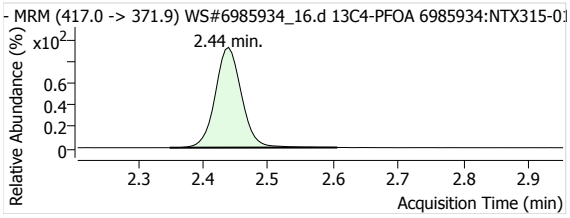

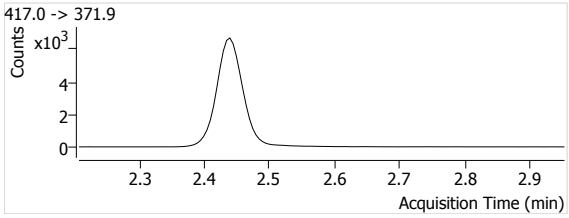

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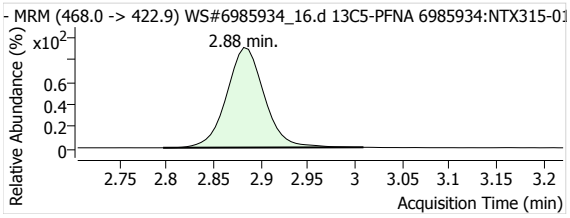

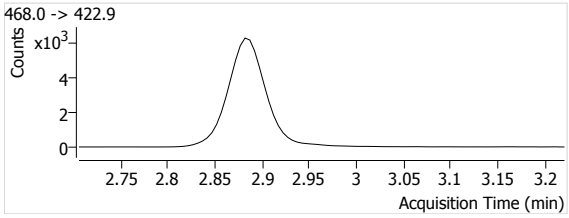

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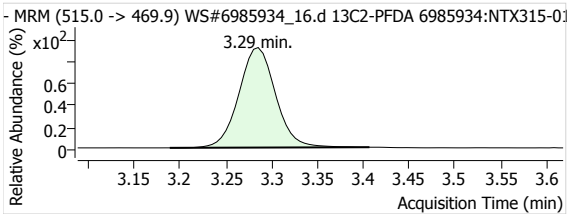

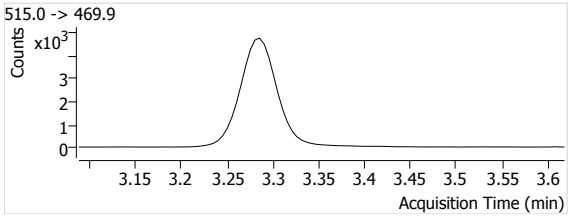

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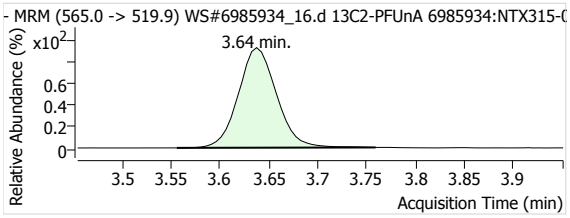

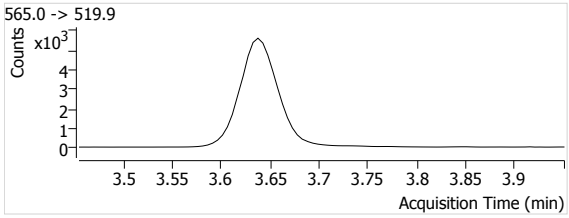

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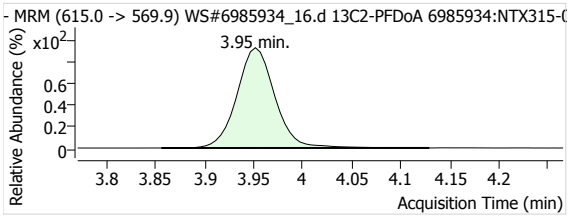

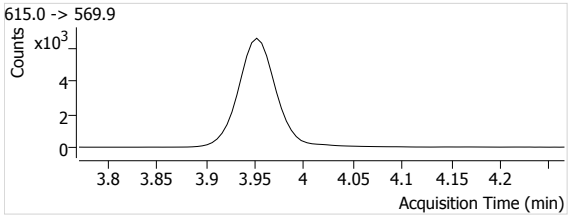

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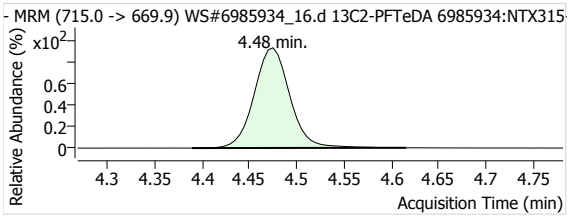

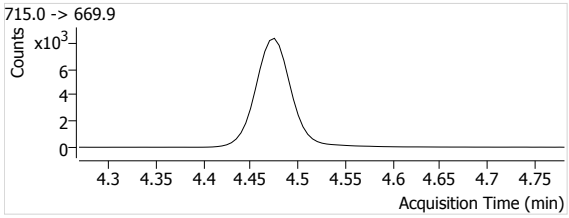

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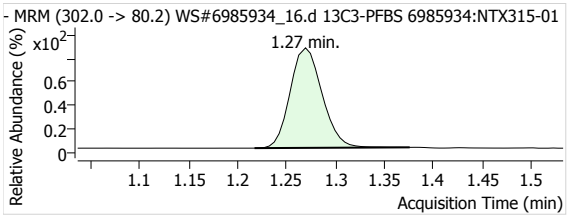

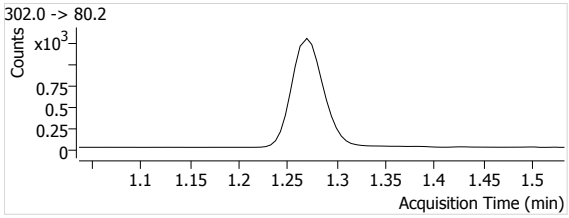

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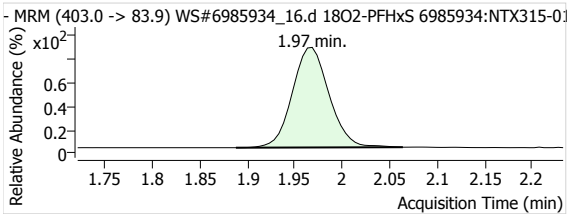

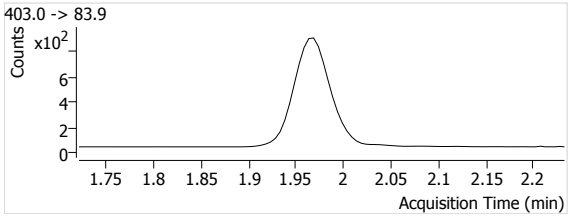

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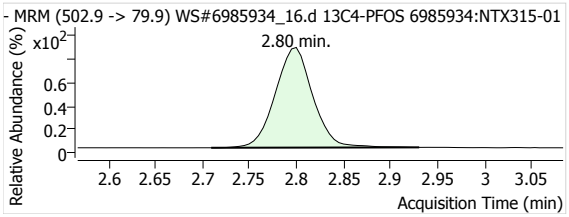

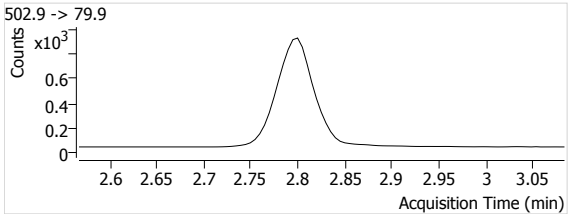

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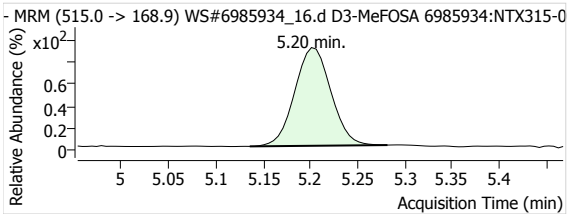

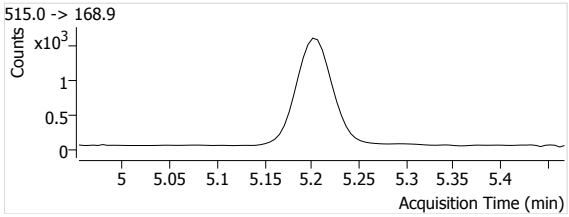

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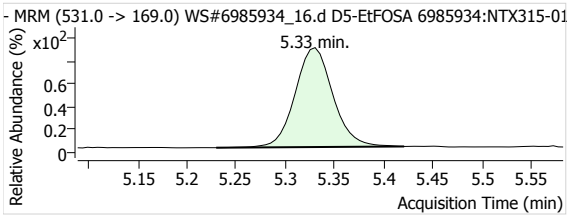
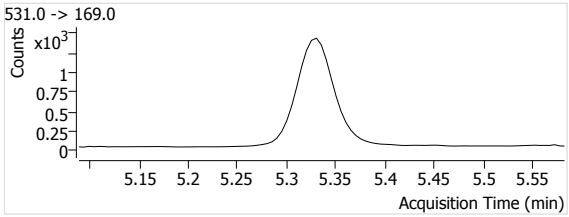




4. QA/QC Data

Bureau Veritas Canada (2019) Inc.
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.bvlabs.com

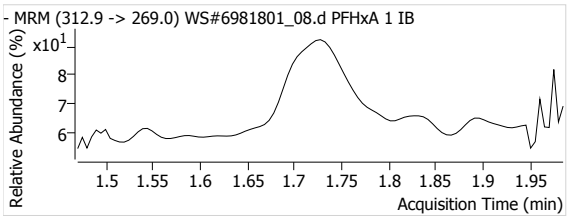
Quantitative Analysis Report

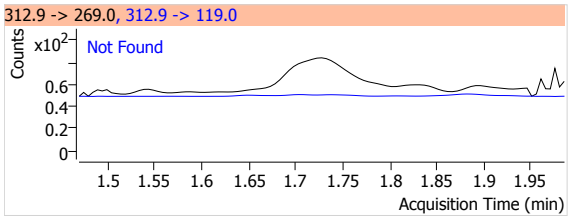
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981801_08.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A8
Acq. Date-Time	2020/10/05 1:32:37 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	203	4.36	3	0.0212	17	4.35	24	8.4
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	106.9801	--	15725	1.72	1007		--	--	--	--
13C4-PFHpA	µg/L	--	107.6319	--	13440	2.16	685		--	--	--	--
13C4-PFOA	µg/L	--	104.4234	--	14235	2.64	889		--	--	--	--
13C5-PFNA	µg/L	--	108.0783	--	11974	3.07	742		--	--	--	--
13C2-PFDA	µg/L	--	103.8356	--	10206	3.45	225		--	--	--	--
13C2-PFUnA	µg/L	--	104.2141	--	11079	3.79	1503		--	--	--	--
13C2-PFDoA	µg/L	--	107.0230	--	11795	4.09	837		--	--	--	--
13C2-PFTeDA	µg/L	--	106.5526	--	9594	4.58	589		--	--	--	--
13C3-PFBS	µg/L	--	104.1353	--	5263	1.40	831		--	--	--	--
18O2-PFHxS	µg/L	--	101.2589	--	2574	2.12	289		--	--	--	--
13C4-PFOS	µg/L	--	102.8443	--	2748	2.94	375		--	--	--	--
D3-MeFOSA	µg/L	--	105.0298	--	3696	5.24	127		--	--	--	--
D5-EtFOSA	µg/L	--	105.1939	--	4395	5.36	131		--	--	--	--

PFHxA 1





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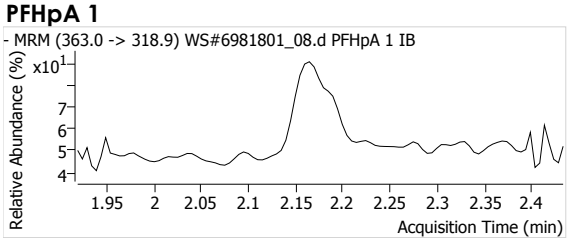
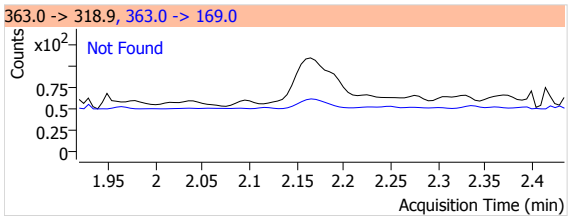
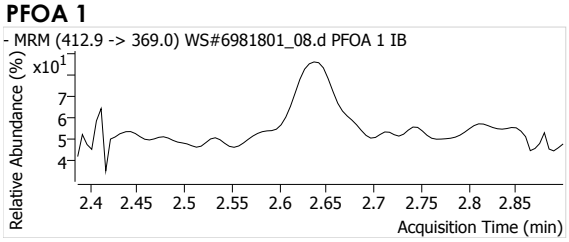
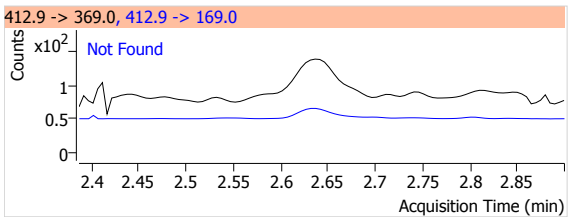




PFOA 1





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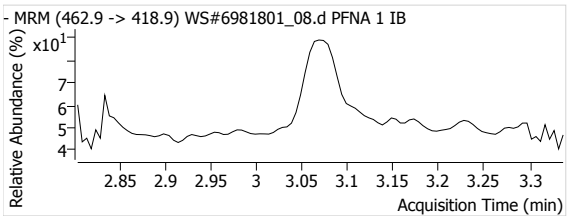

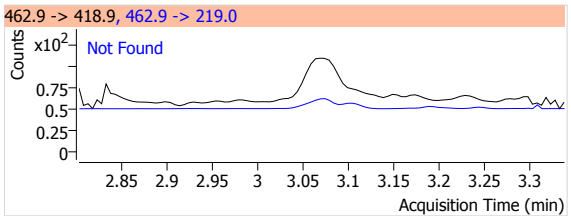

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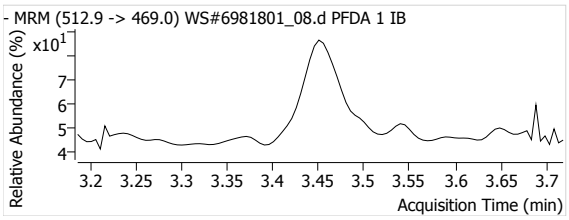

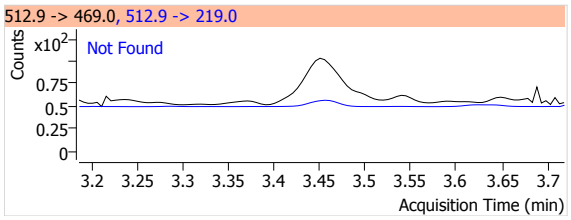

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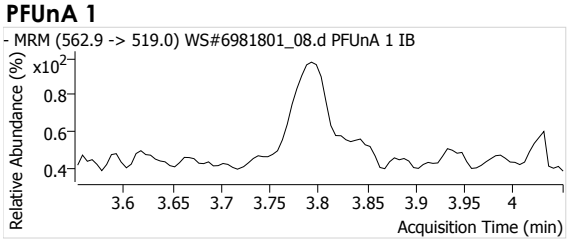

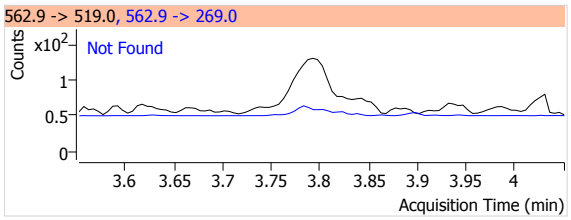

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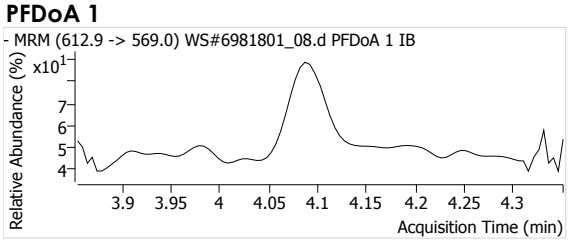

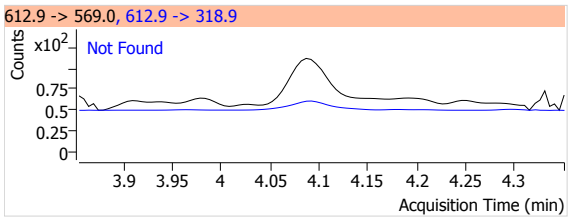

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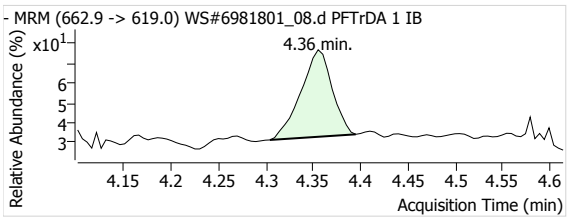

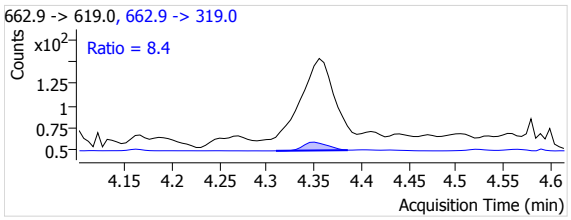

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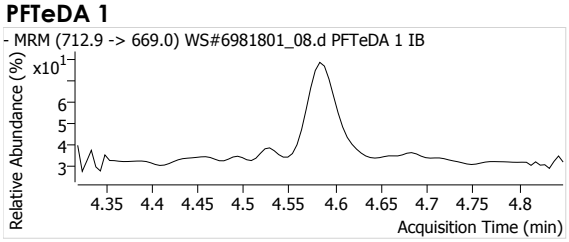

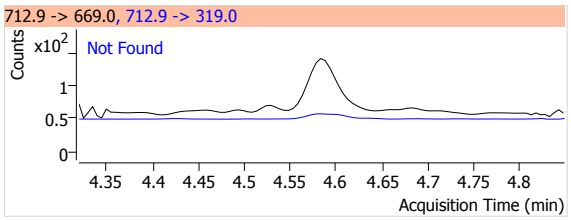

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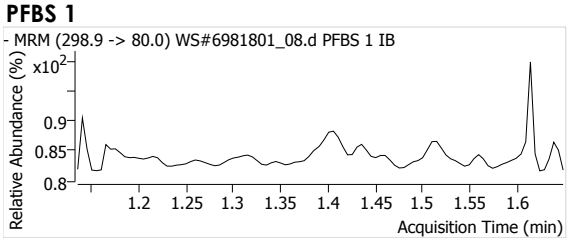

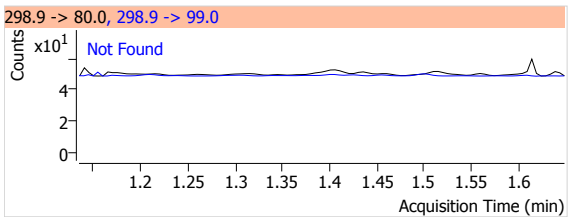

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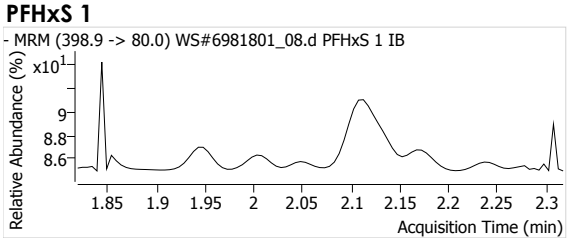
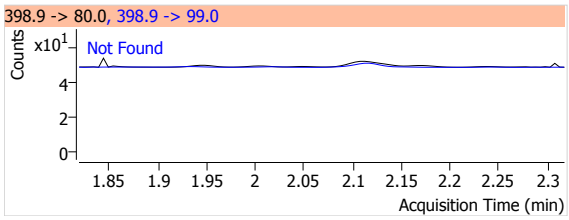
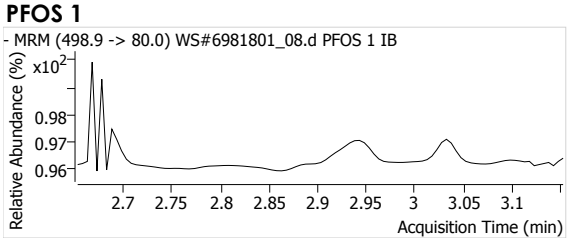
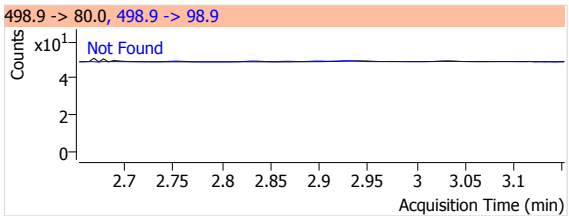




PFOS 1





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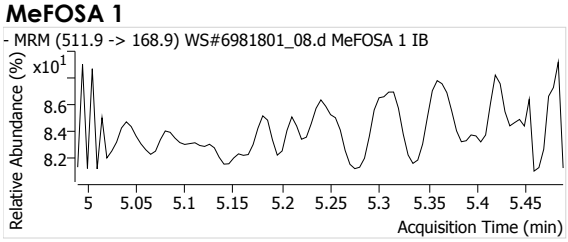

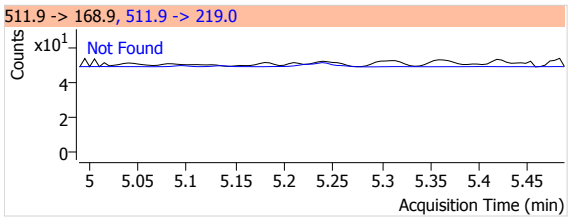

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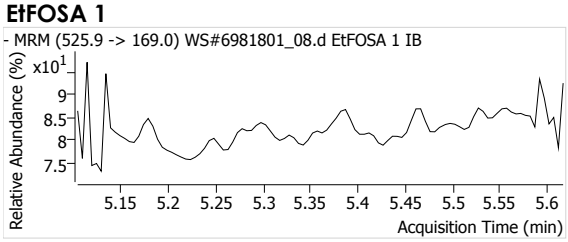

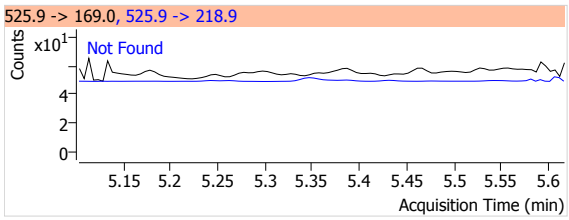

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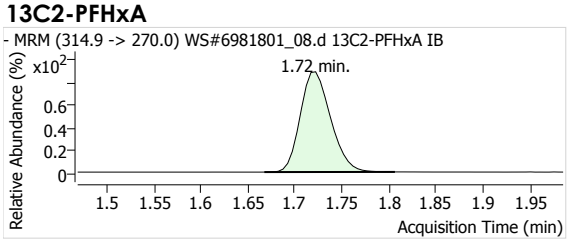

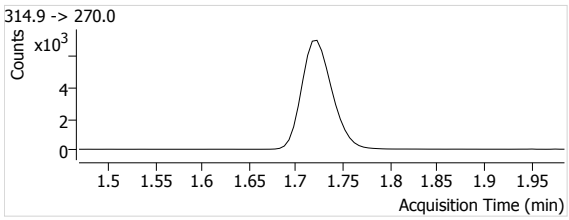

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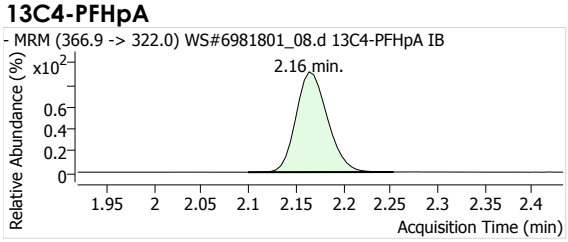

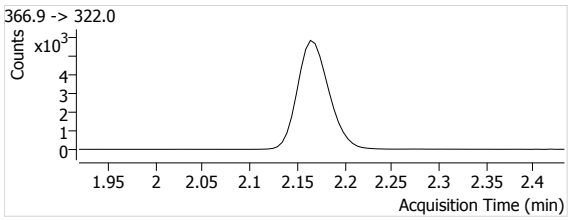

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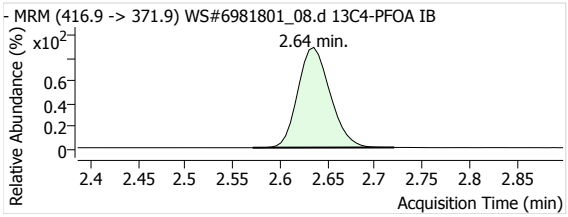

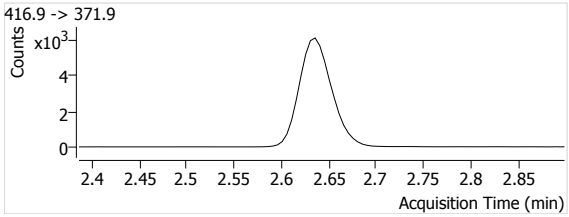

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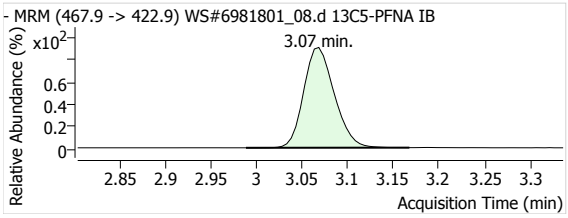

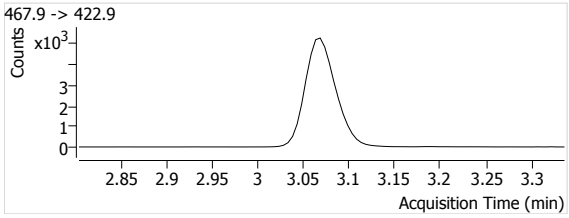

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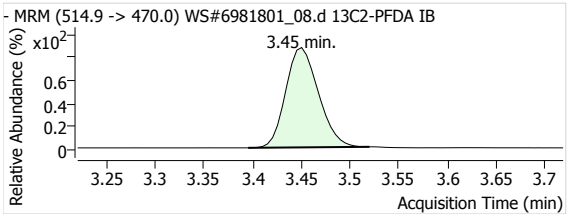

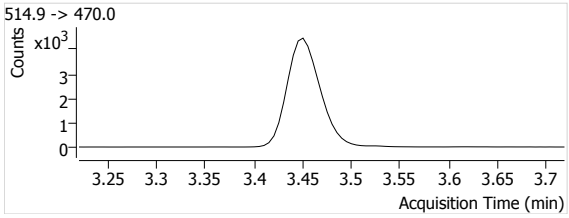

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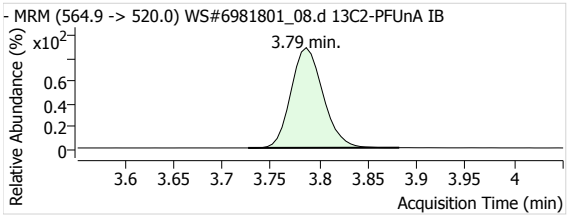

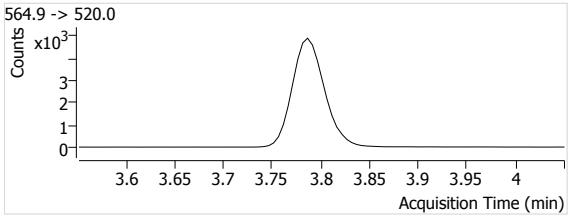

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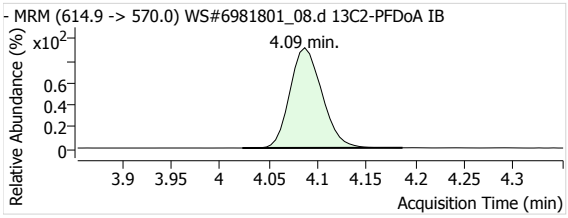

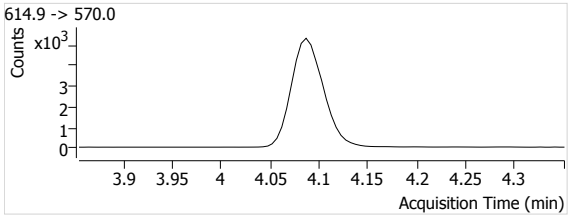

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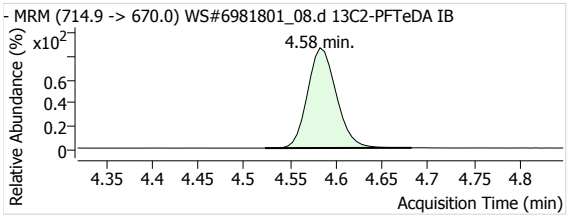

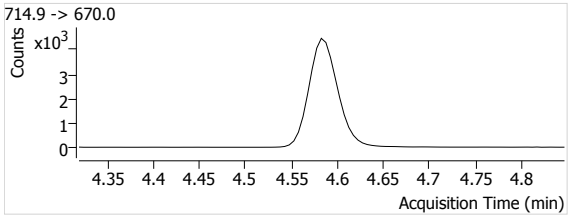

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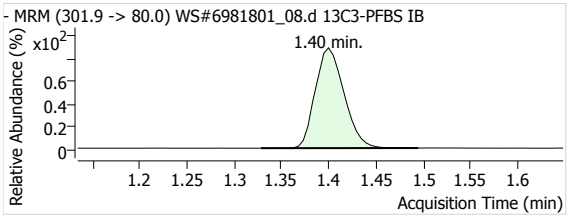

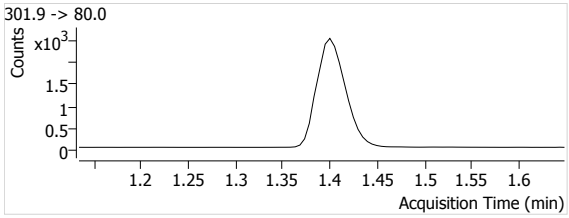

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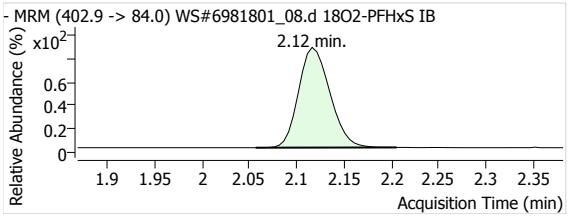

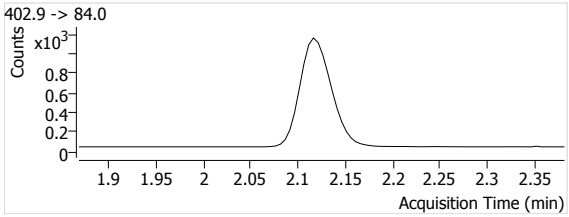

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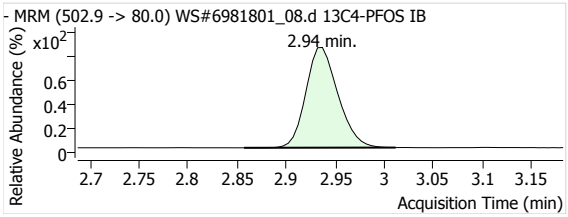
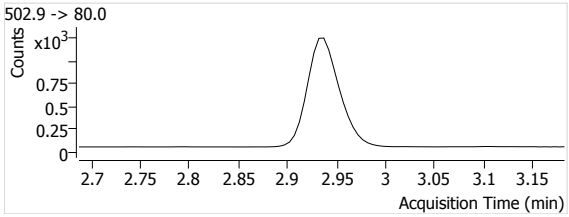
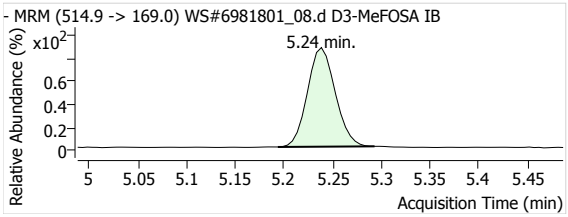
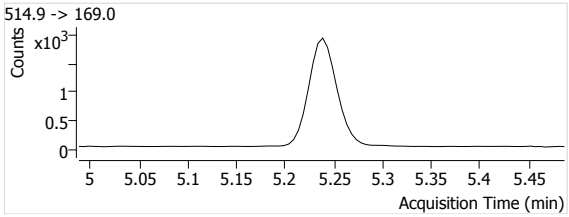




D3-MeFOSA





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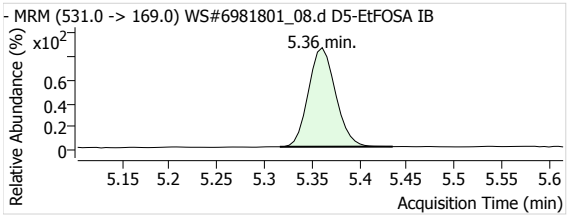
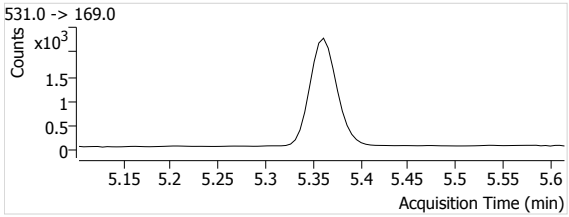




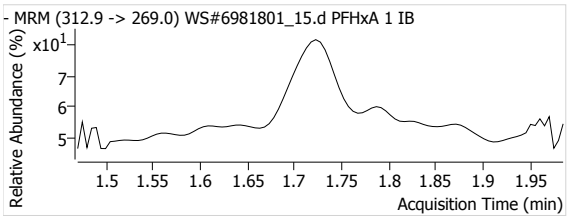
Quantitative Analysis Report

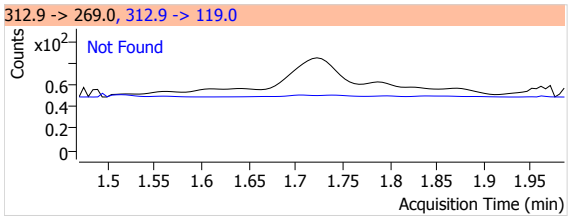
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981801_15.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A8
Acq. Date-Time	2020/10/05 2:21:33 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	186	4.09	6	0.0158	21	4.10	10	11.3
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	0.0000	--	214	4.58	4	0.0226	14	4.58	4	6.5
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	107.5856	--	15814	1.72	1342		--	--	--	--
13C4-PFHpA	µg/L	--	106.9753	--	13358	2.16	653		--	--	--	--
13C4-PFOA	µg/L	--	104.7609	--	14281	2.63	732		--	--	--	--
13C5-PFNA	µg/L	--	104.1881	--	11543	3.07	1863		--	--	--	--
13C2-PFDA	µg/L	--	102.7470	--	10099	3.45	593		--	--	--	--
13C2-PFUnA	µg/L	--	104.1388	--	11071	3.79	662		--	--	--	--
13C2-PFDoA	µg/L	--	106.5874	--	11747	4.09	776		--	--	--	--
13C2-PFTeDA	µg/L	--	105.0311	--	9457	4.58	783		--	--	--	--
13C3-PFBS	µg/L	--	103.0867	--	5210	1.40	496		--	--	--	--
18O2-PFHxS	µg/L	--	102.2817	--	2600	2.12	520		--	--	--	--
13C4-PFOS	µg/L	--	103.7425	--	2772	2.94	793		--	--	--	--
D3-MeFOSA	µg/L	--	102.3302	--	3601	5.24	119		--	--	--	--
D5-EtFOSA	µg/L	--	103.0158	--	4304	5.36	71		--	--	--	--

PFHxA 1





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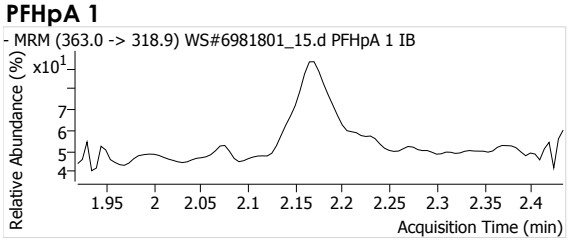

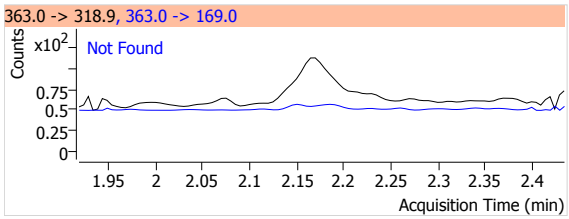

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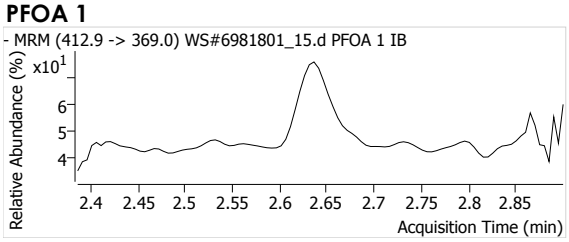

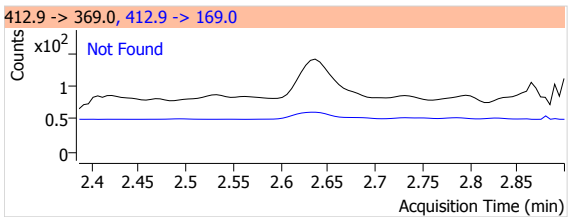

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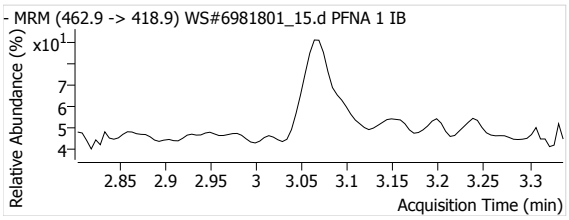

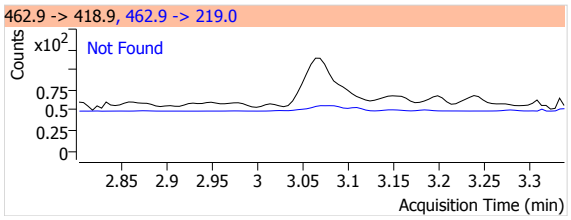

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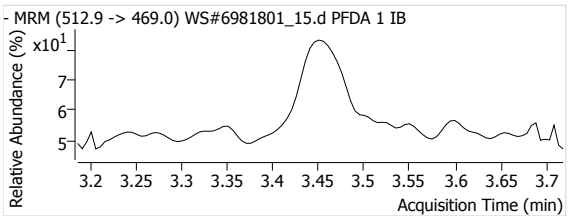

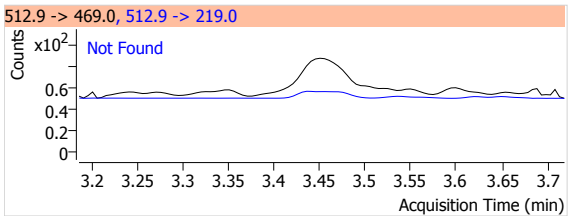

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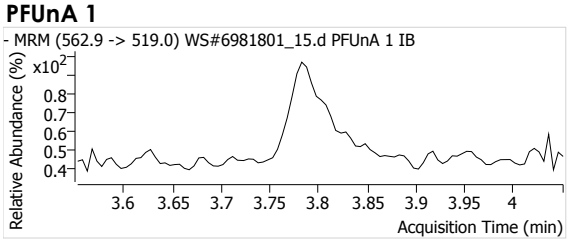

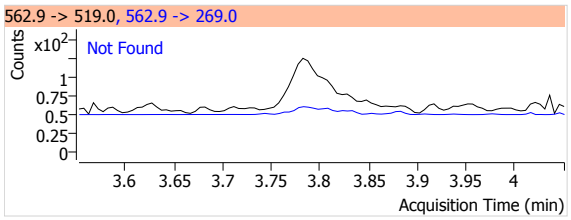

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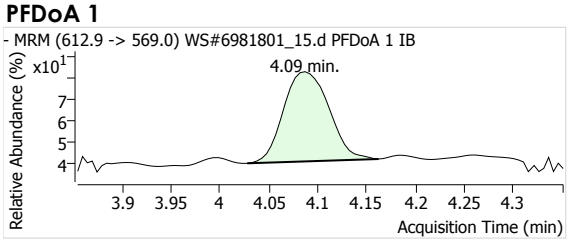

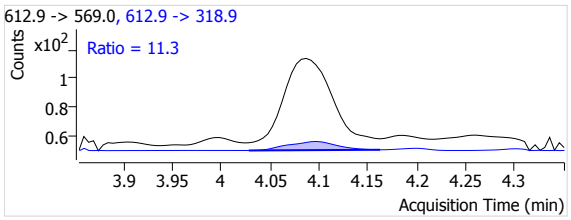

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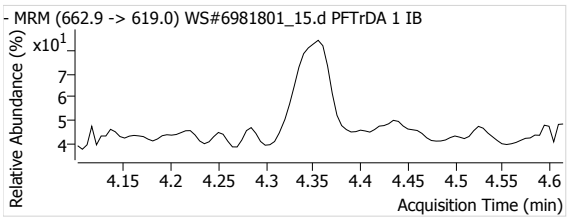

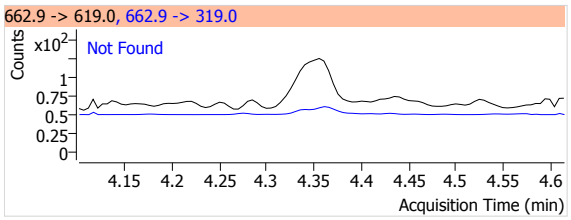

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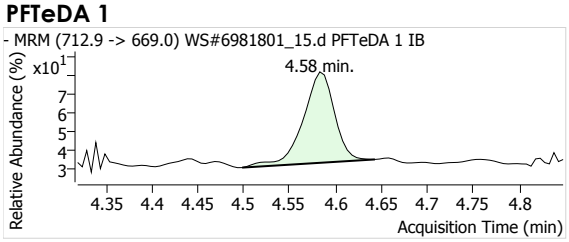

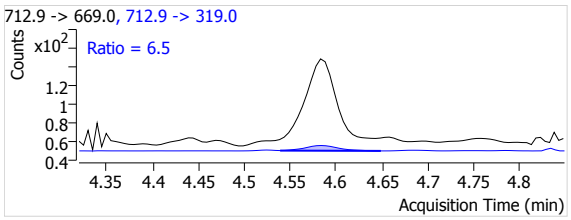

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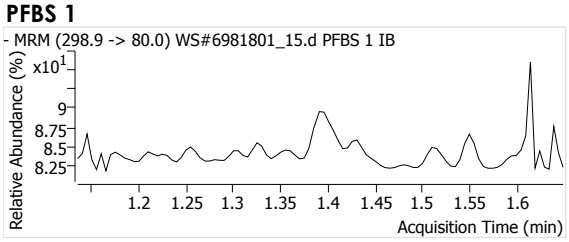

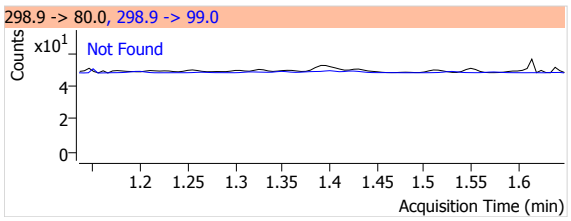

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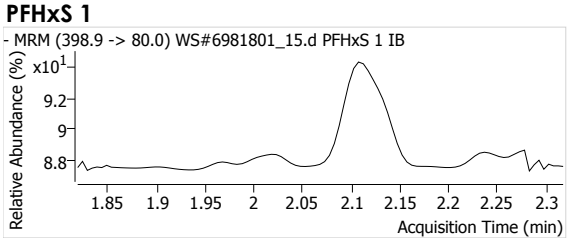
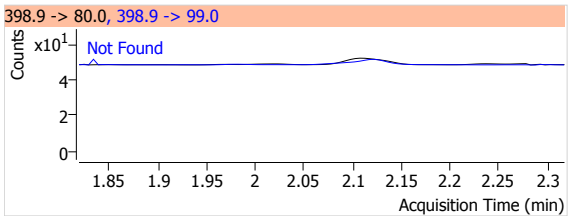
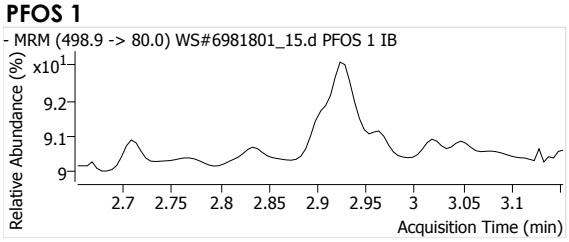
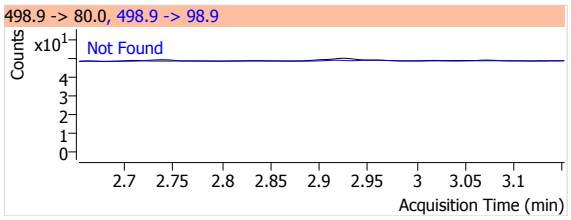




PFOS 1





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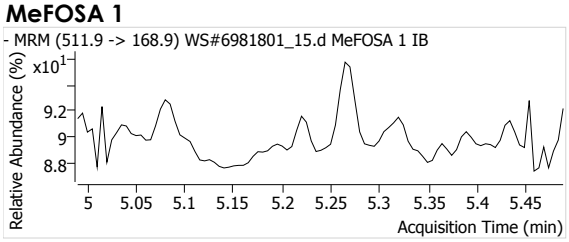

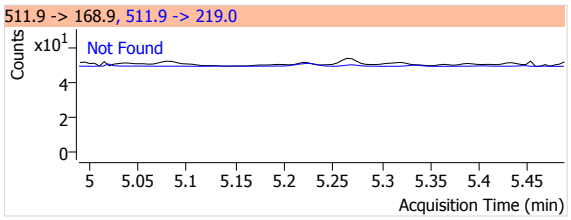

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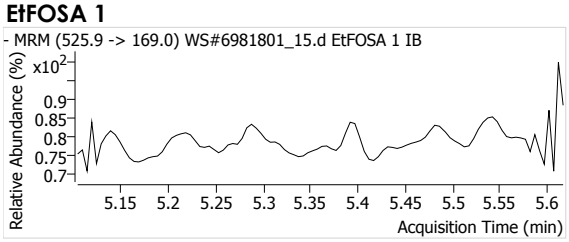

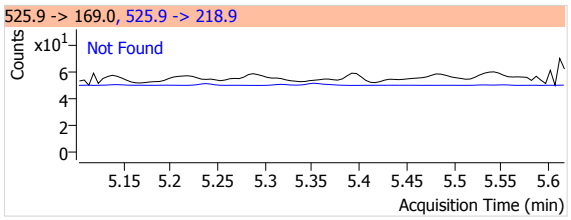

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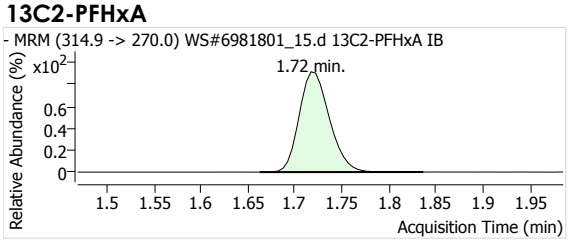

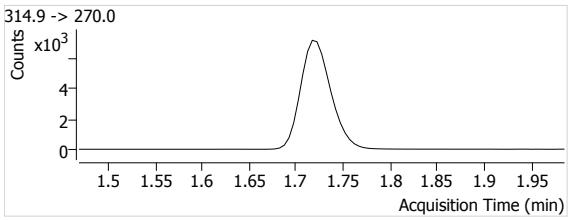

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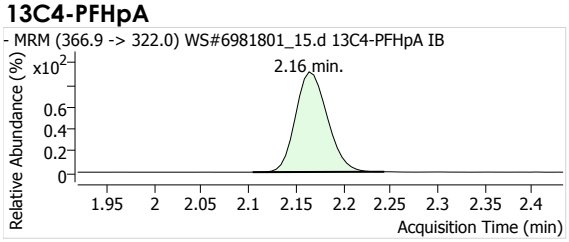

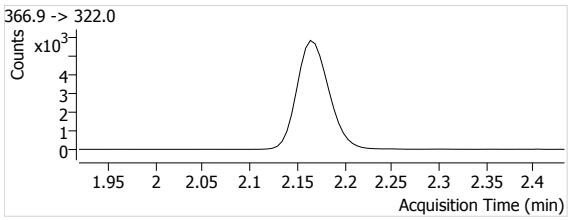

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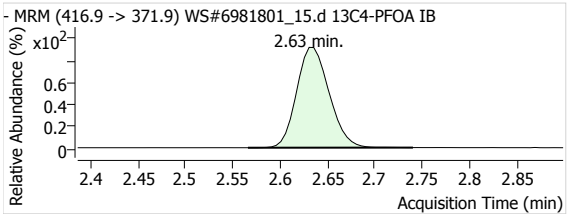

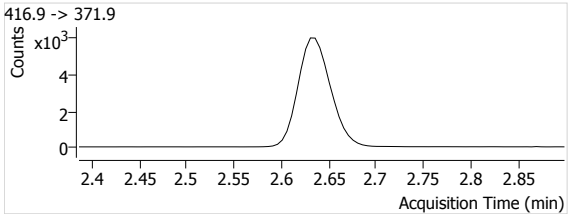

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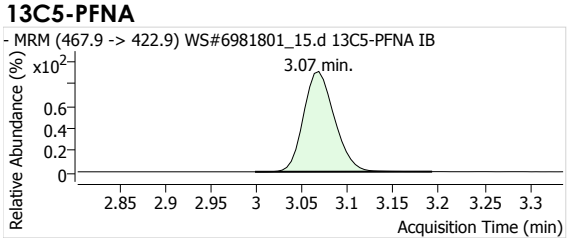

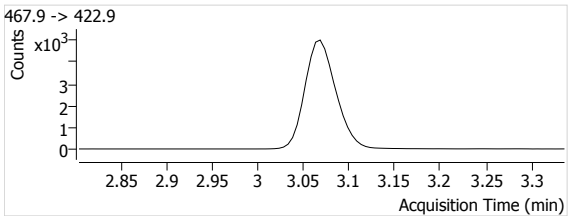

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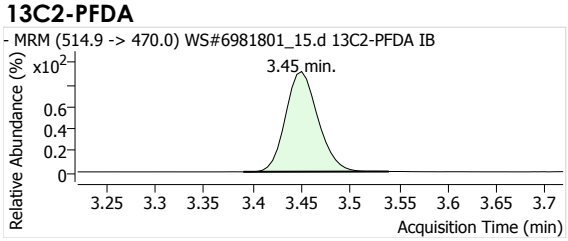

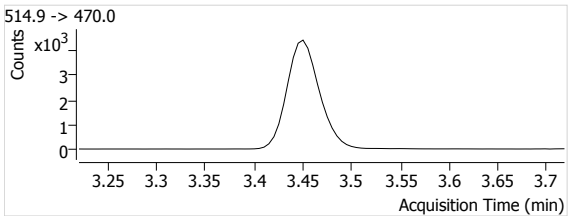

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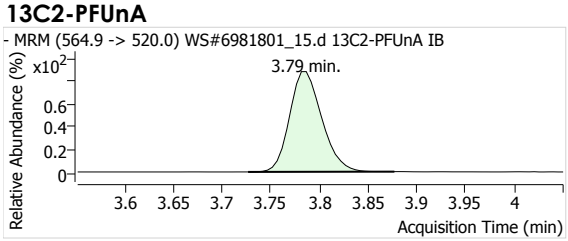

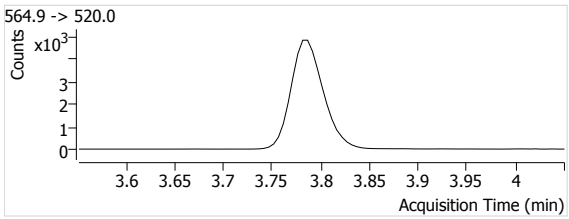

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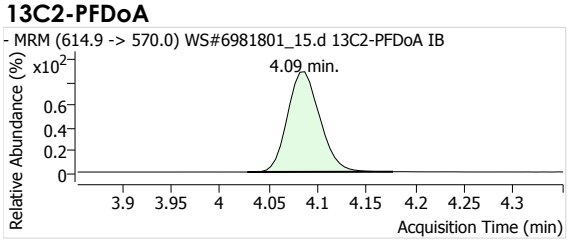

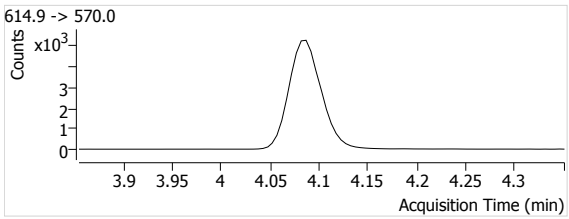

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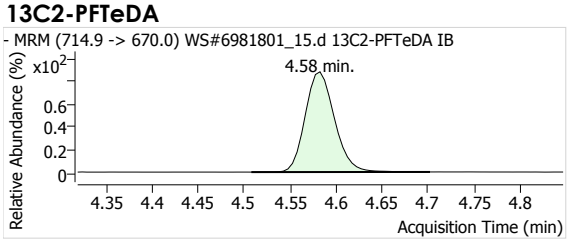

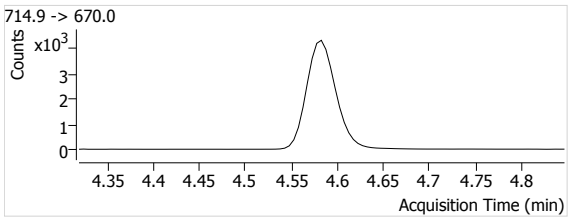

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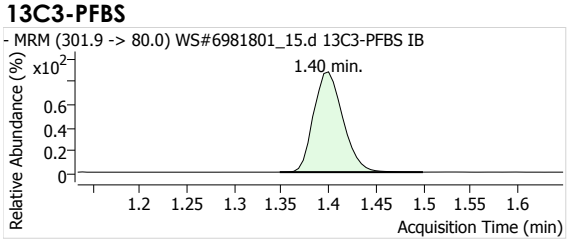

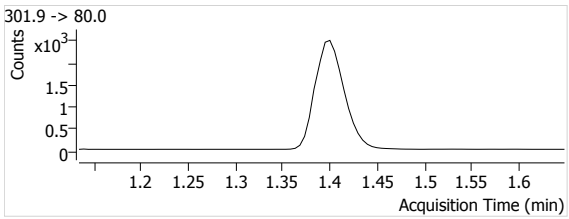

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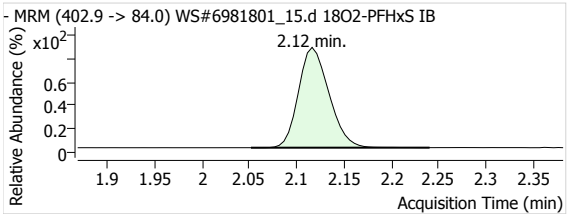

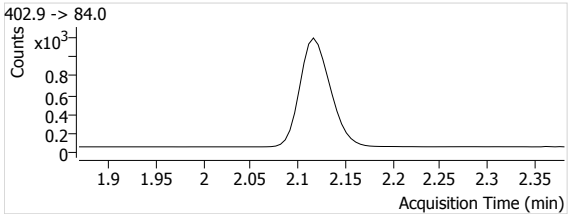

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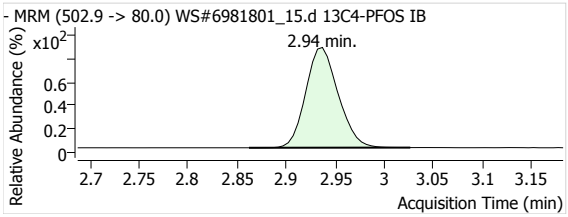

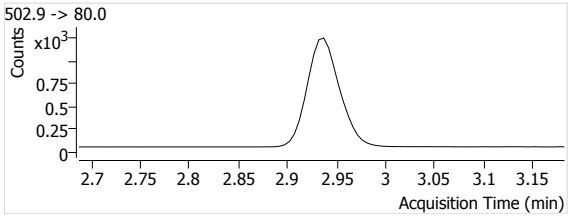

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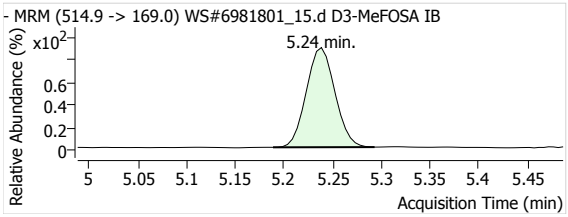
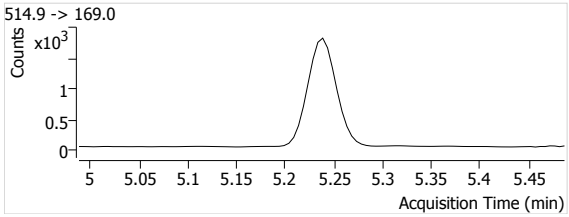
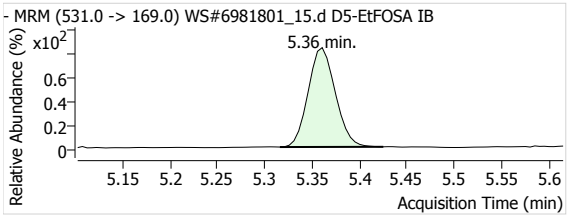
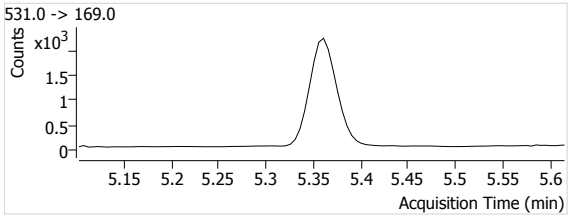




D5-EtFOSA





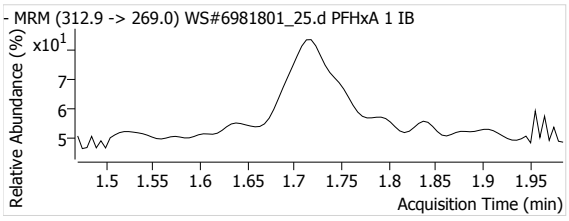
Quantitative Analysis Report

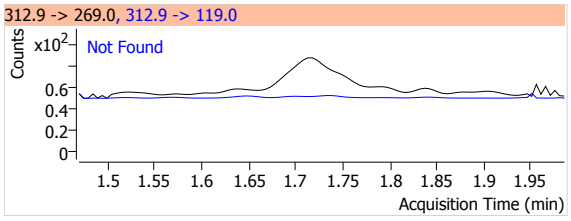
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981801_25.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A8
Acq. Date-Time	2020/10/05 3:31:30 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	103.9526	--	15280	1.72	899		--	--	--	--
13C4-PFHpA	µg/L	--	103.6598	--	12944	2.16	838		--	--	--	--
13C4-PFOA	µg/L	--	102.3621	--	13954	2.64	1341		--	--	--	--
13C5-PFNA	µg/L	--	102.7259	--	11381	3.07	921		--	--	--	--
13C2-PFDA	µg/L	--	98.5858	--	9690	3.45	789		--	--	--	--
13C2-PFUnA	µg/L	--	104.1388	--	11071	3.79	560		--	--	--	--
13C2-PFDoA	µg/L	--	101.8238	--	11222	4.09	1014		--	--	--	--
13C2-PFTeDA	µg/L	--	101.5438	--	9143	4.58	677		--	--	--	--
13C3-PFBS	µg/L	--	101.2268	--	5116	1.40	867		--	--	--	--
18O2-PFHxS	µg/L	--	99.4886	--	2529	2.12	669		--	--	--	--
13C4-PFOS	µg/L	--	104.6781	--	2797	2.94	431		--	--	--	--
D3-MeFOSA	µg/L	--	105.4561	--	3711	5.24	161		--	--	--	--
D5-EtFOSA	µg/L	--	104.2843	--	4357	5.36	118		--	--	--	--

PFHxA 1





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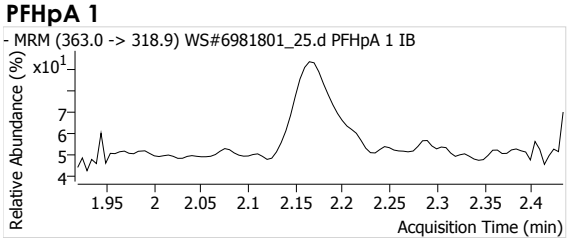

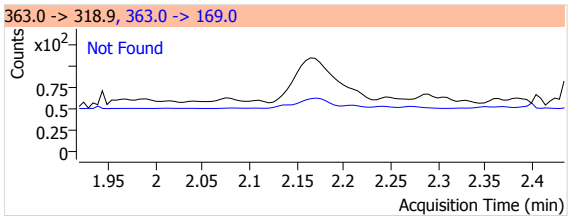

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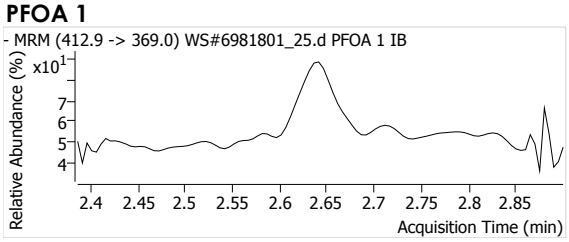

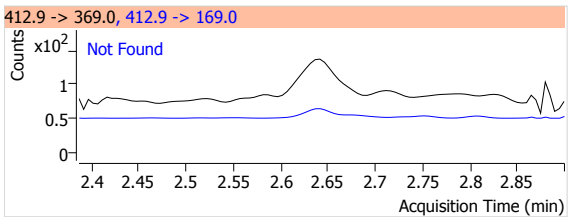

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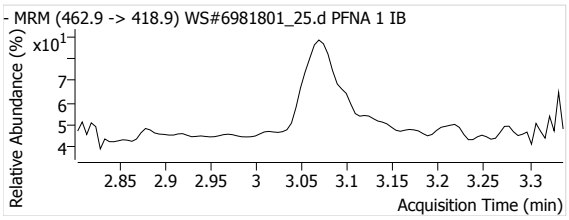

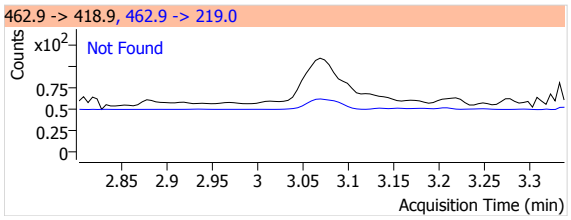

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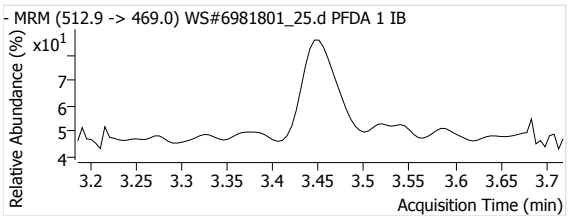

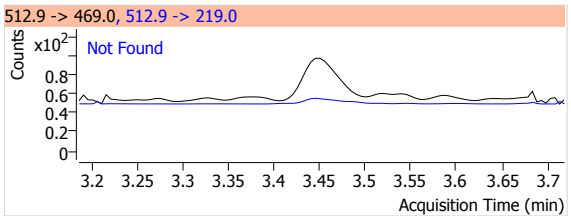

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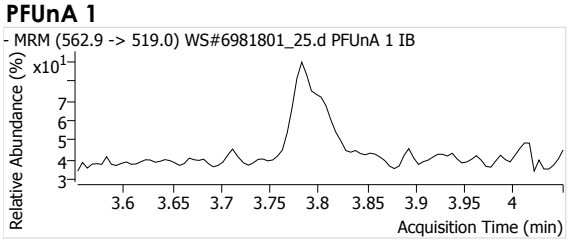

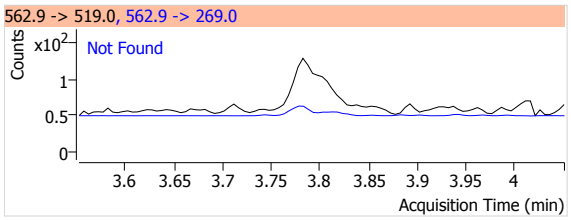

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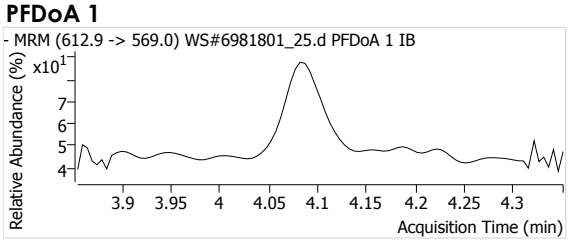

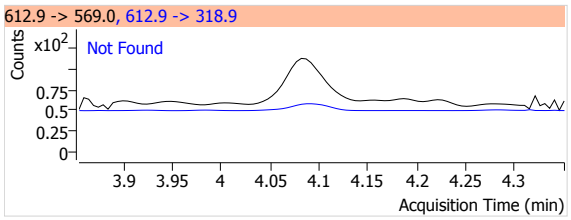

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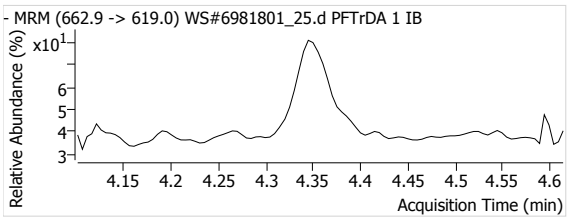

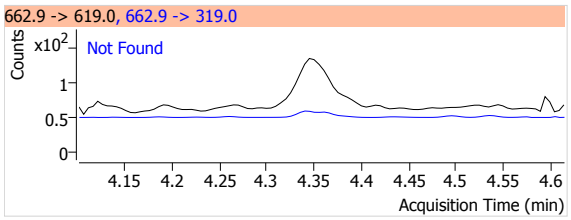

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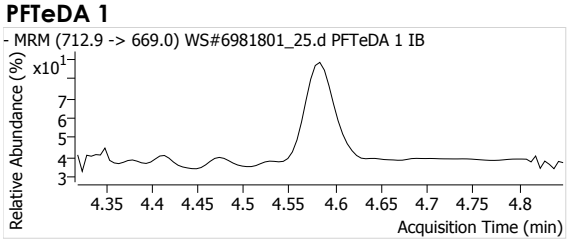

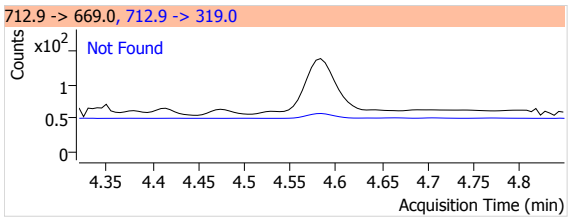

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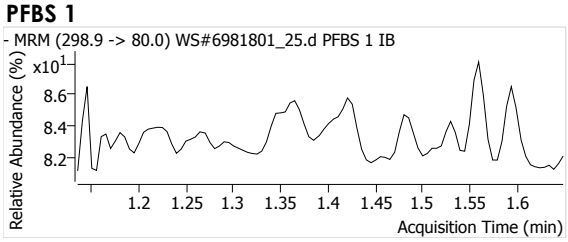

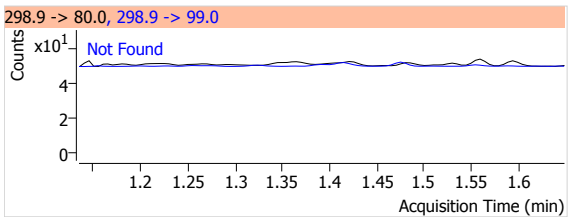

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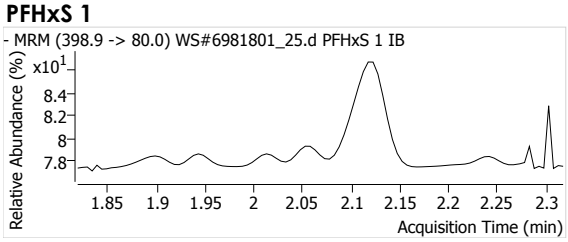

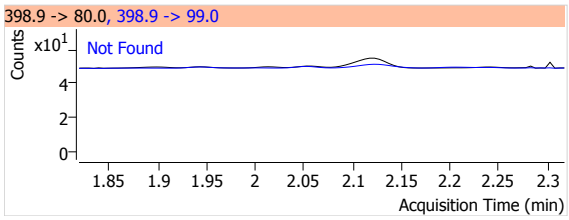

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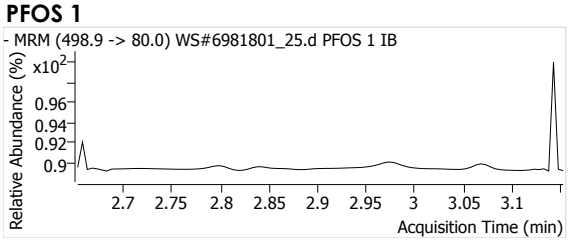

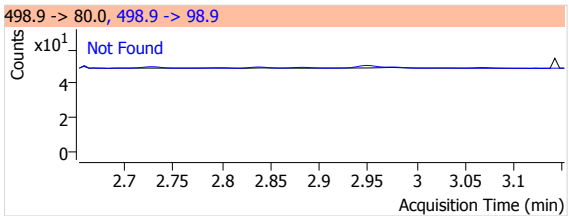

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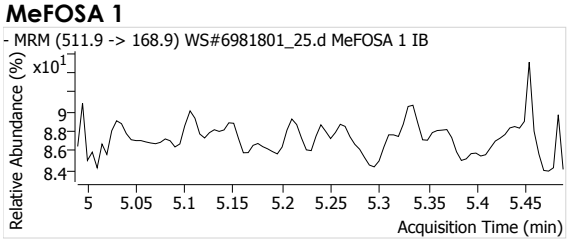

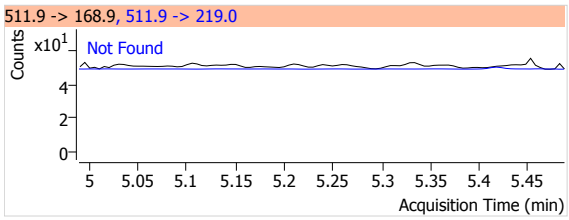

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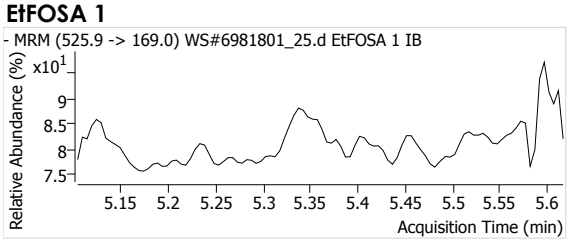

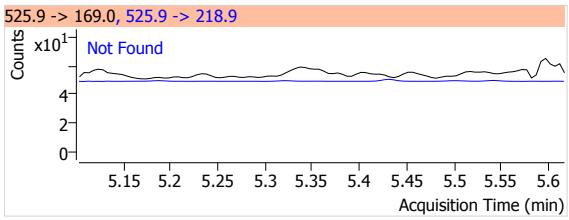

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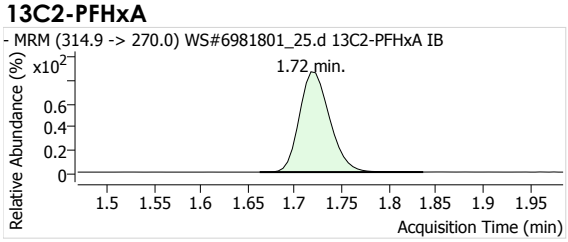

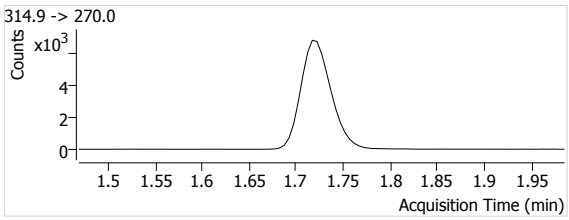

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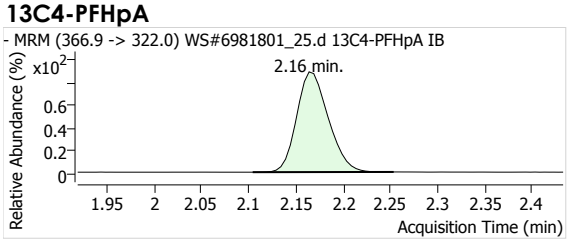

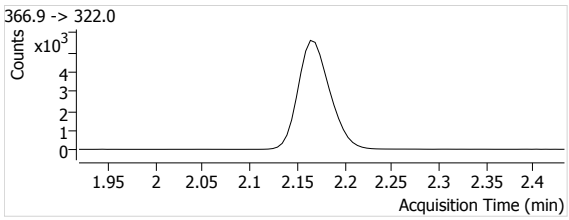

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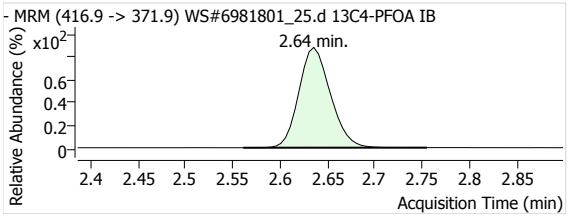

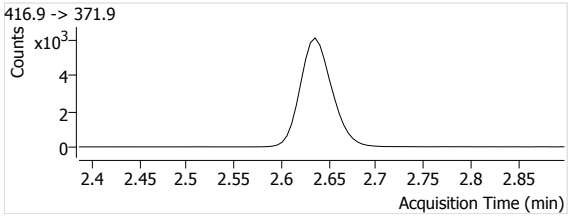

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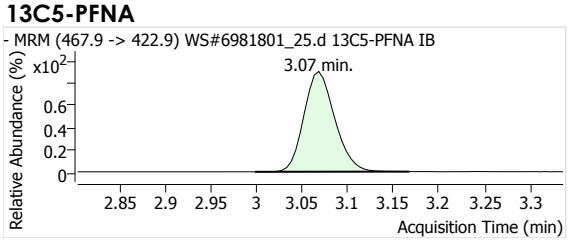

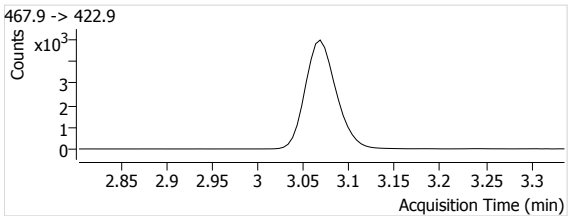

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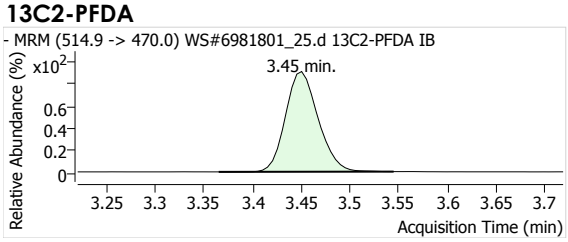

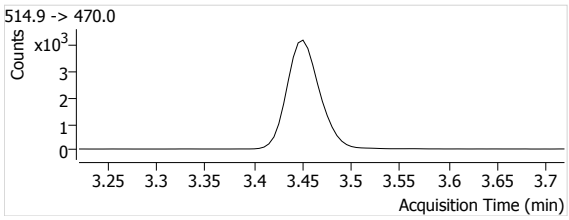

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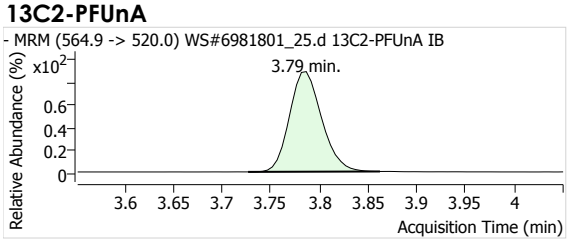

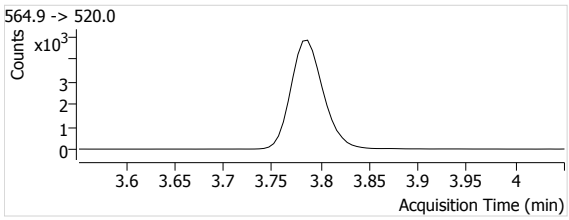

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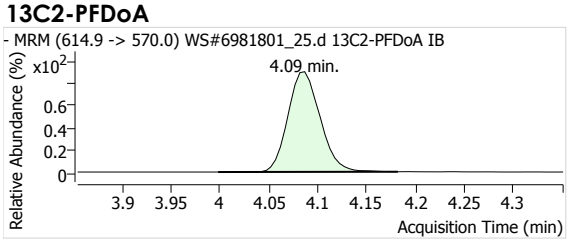

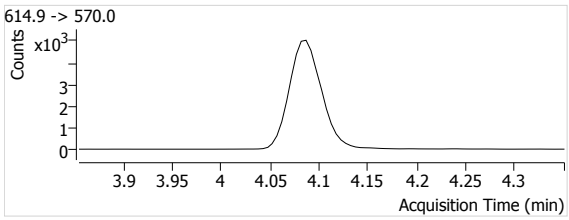

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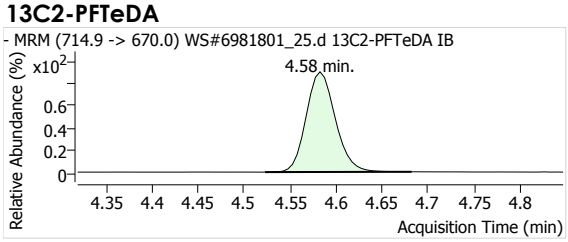

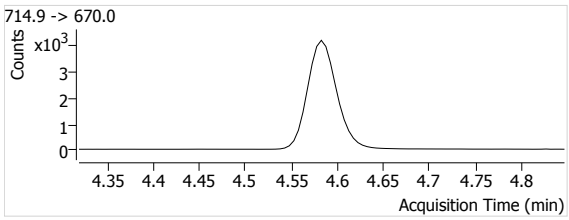

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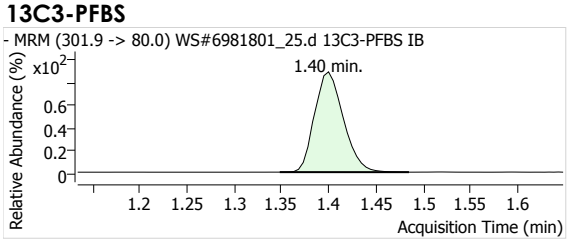

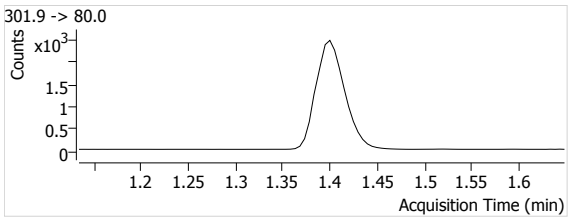

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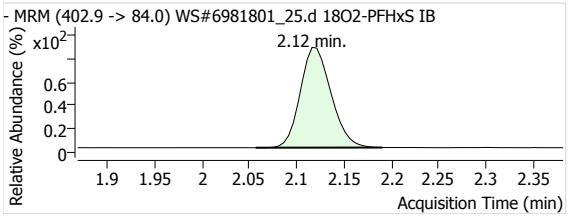

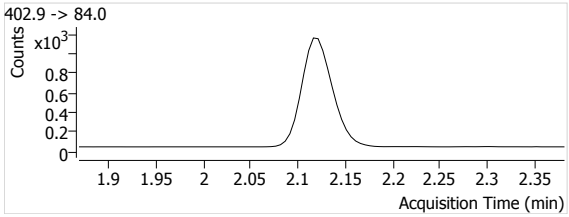

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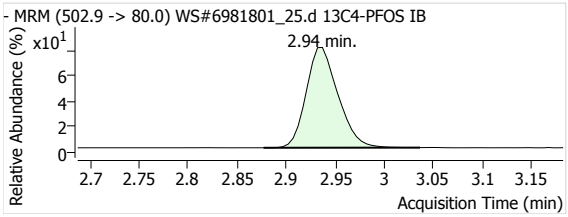
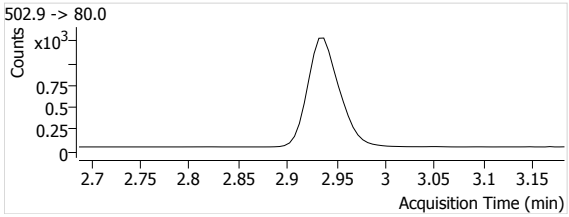
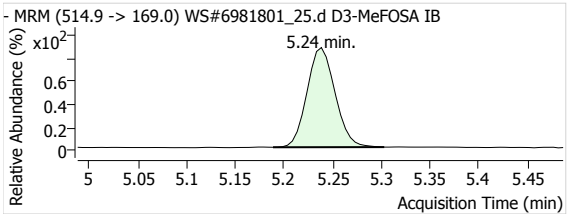
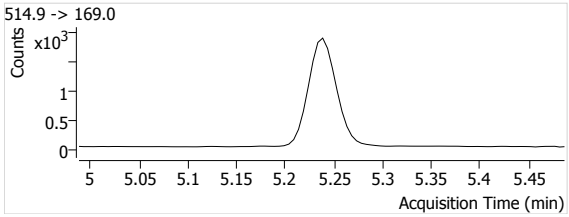


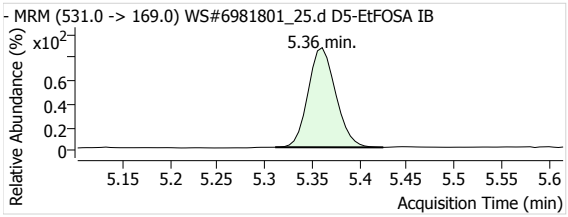


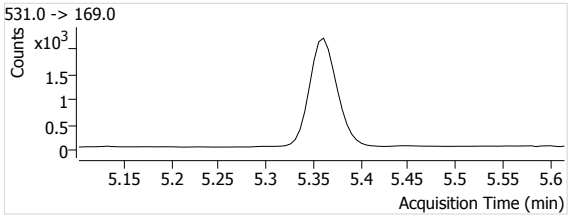
D3-MeFOSA





D5-EtFOSA





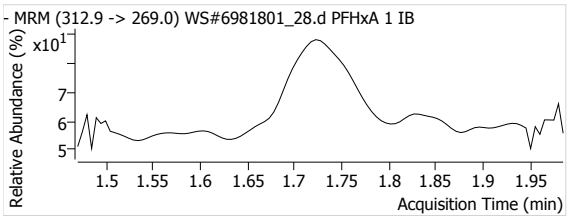
Quantitative Analysis Report

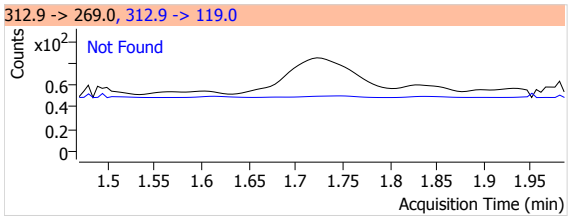
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981801_28.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A8
Acq. Date-Time	2020/10/05 3:52:28 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	103.4356	--	15204	1.72	1023		--	--	--	--
13C4-PFHpA	µg/L	--	103.8040	--	12962	2.16	1396		--	--	--	--
13C4-PFOA	µg/L	--	102.3768	--	13956	2.63	1471		--	--	--	--
13C5-PFNA	µg/L	--	101.3990	--	11234	3.07	845		--	--	--	--
13C2-PFDA	µg/L	--	103.6118	--	10184	3.45	1234		--	--	--	--
13C2-PFUnA	µg/L	--	104.4304	--	11102	3.79	391		--	--	--	--
13C2-PFDoA	µg/L	--	102.1141	--	11254	4.09	1009		--	--	--	--
13C2-PFTeDA	µg/L	--	101.0995	--	9103	4.58	1161		--	--	--	--
13C3-PFBS	µg/L	--	100.3364	--	5071	1.40	1158		--	--	--	--
18O2-PFHxS	µg/L	--	98.8198	--	2512	2.12	528		--	--	--	--
13C4-PFOS	µg/L	--	104.4162	--	2790	2.93	374		--	--	--	--
D3-MeFOSA	µg/L	--	105.4845	--	3712	5.24	152		--	--	--	--
D5-EtFOSA	µg/L	--	105.0024	--	4387	5.36	72		--	--	--	--

PFHxA 1





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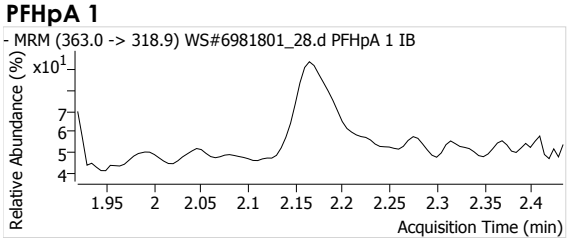

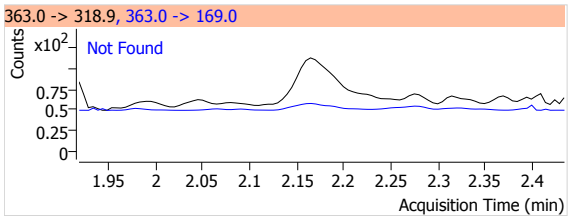

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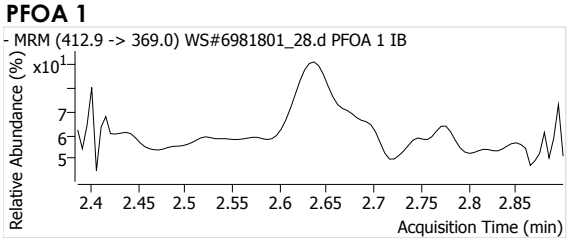

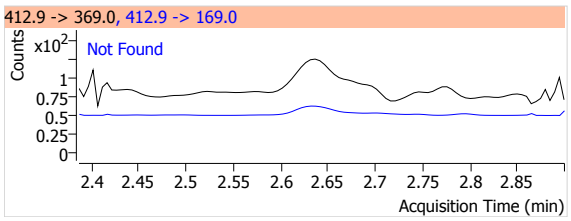

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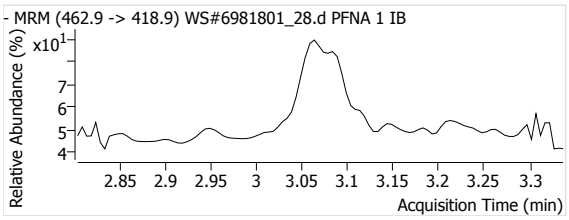

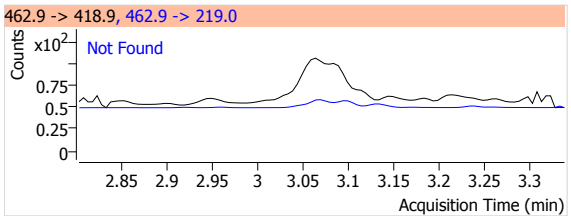

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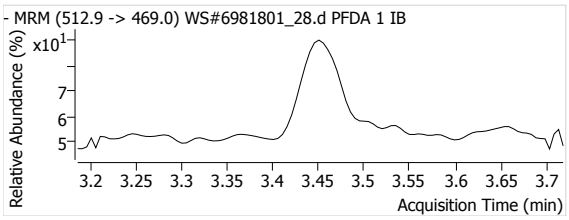

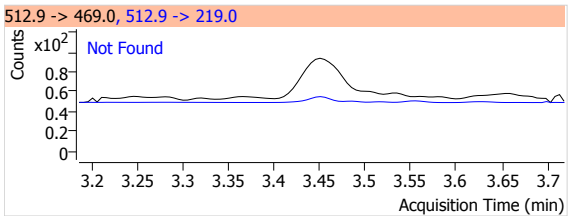

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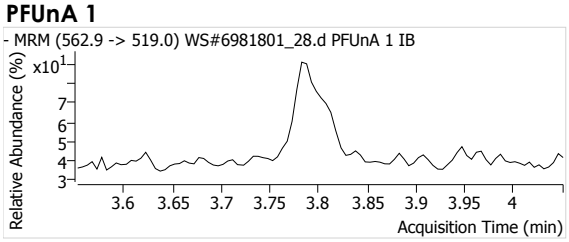

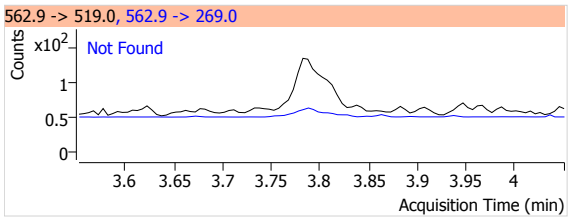

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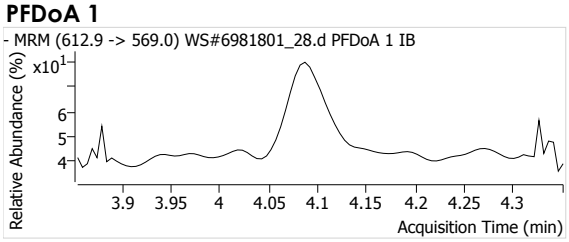

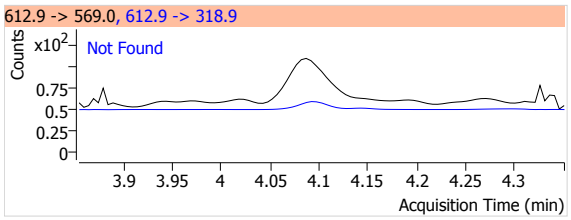

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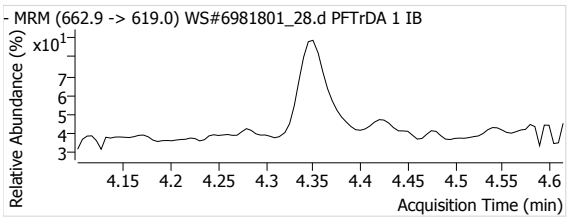

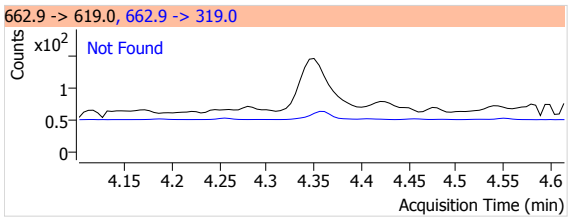

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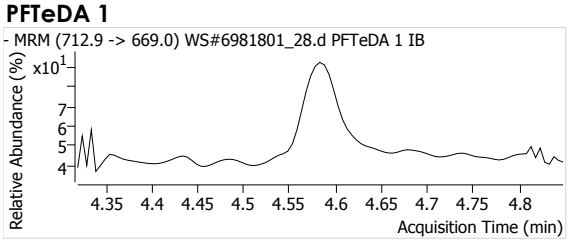

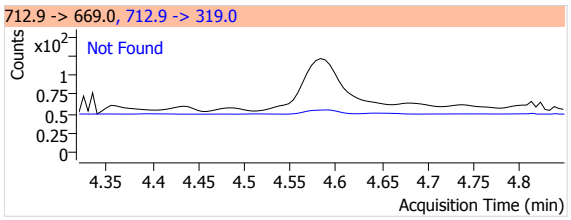

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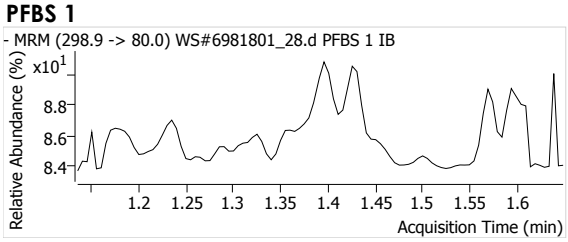

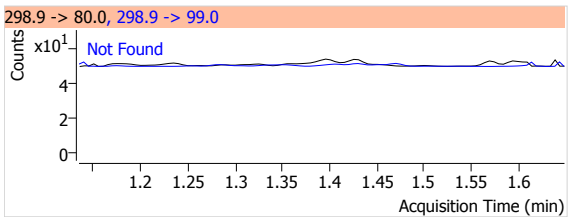

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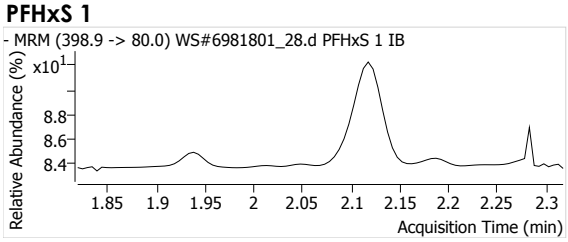

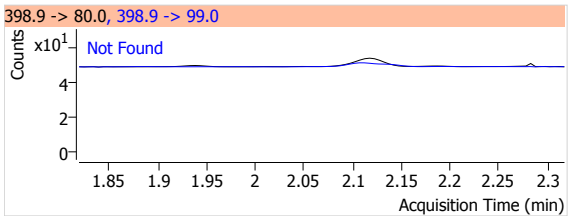

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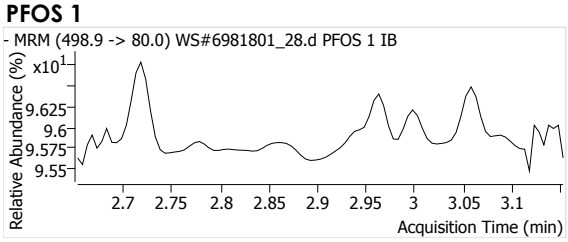

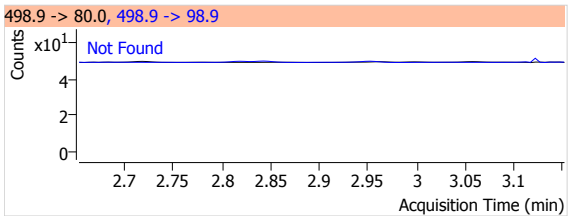

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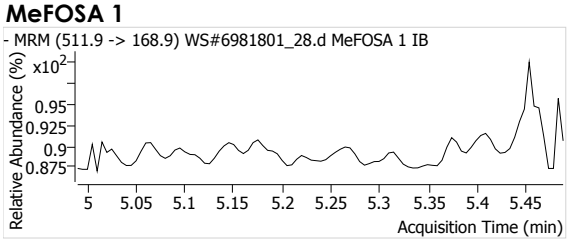

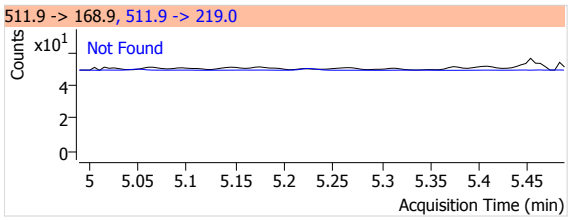

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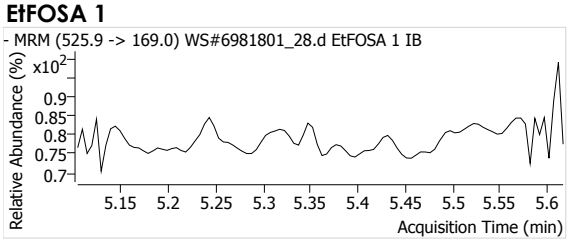

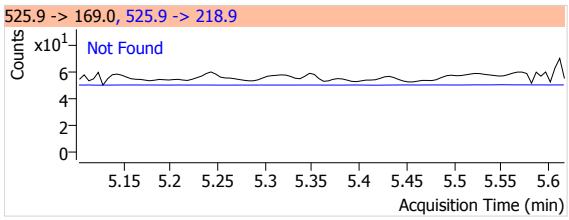

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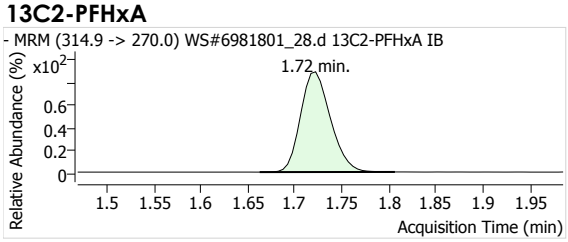

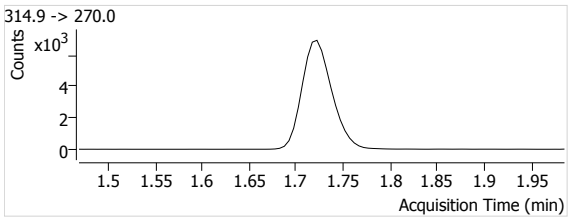

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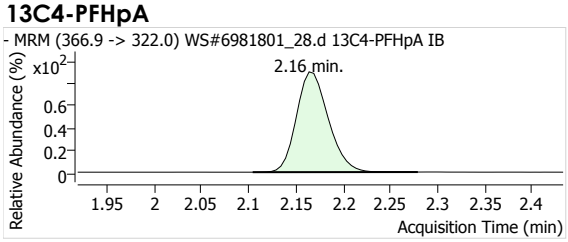

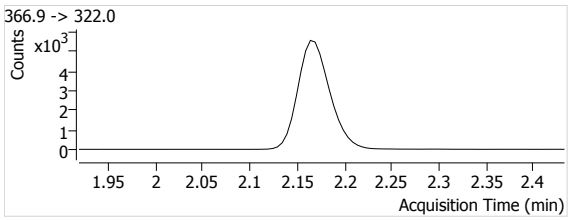

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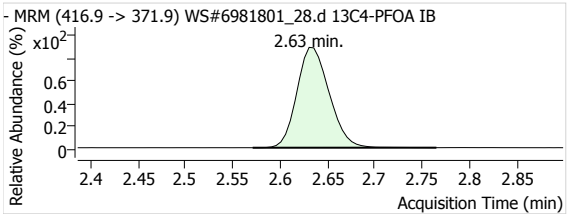

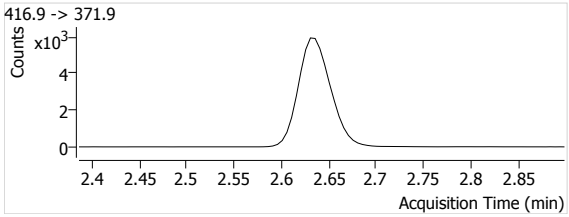

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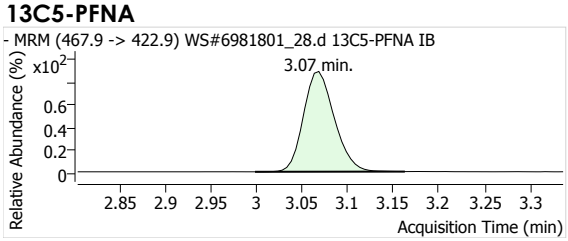

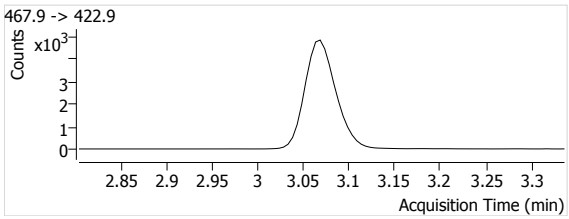

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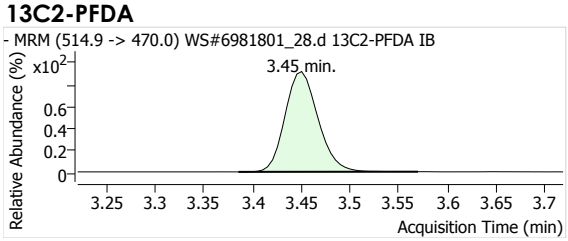

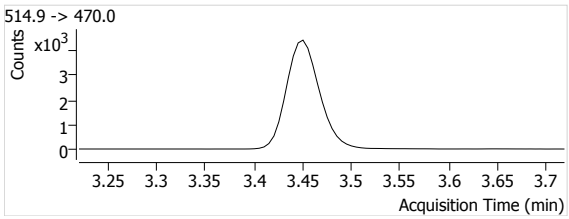

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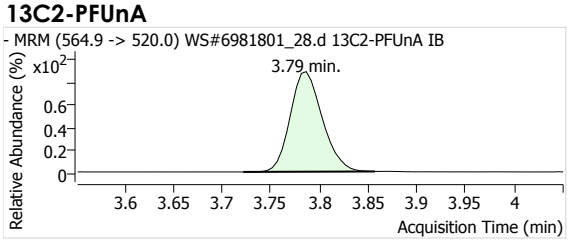

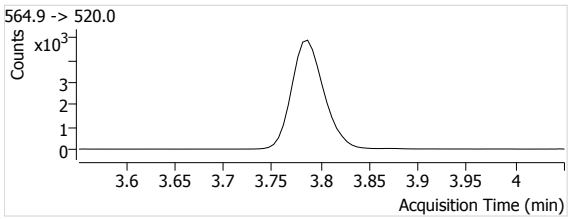

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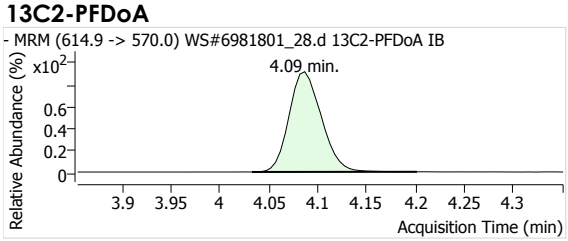

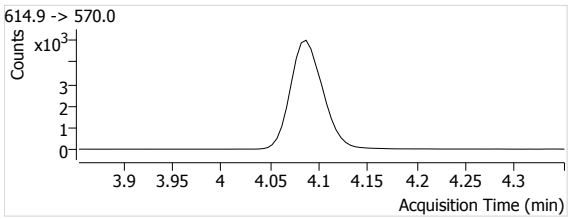

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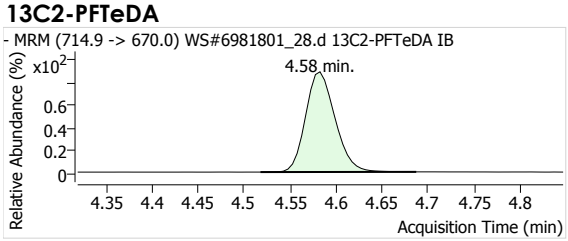

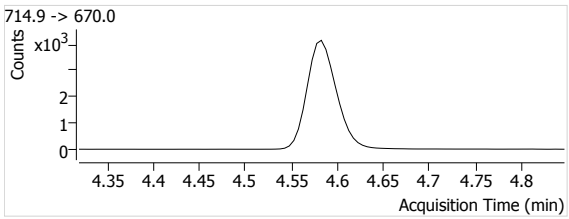

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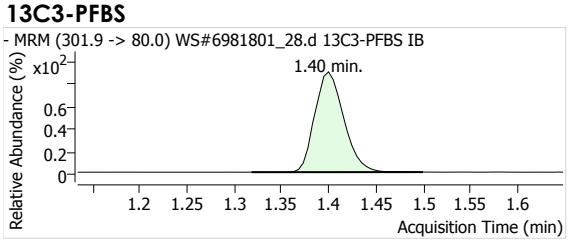
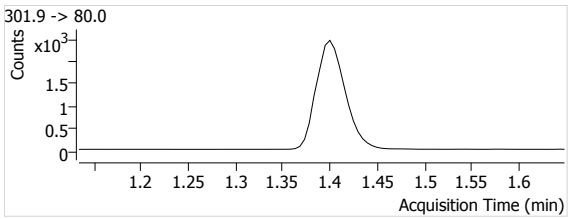
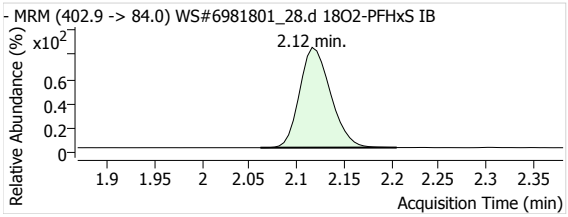
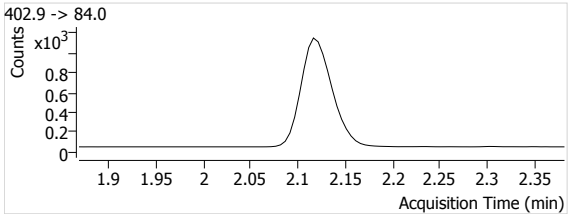




18O2-PFHxS





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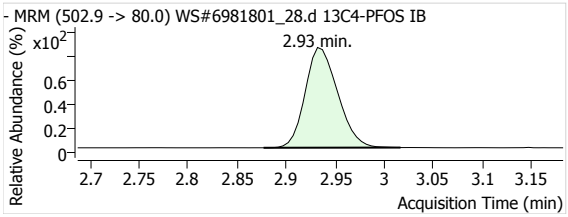
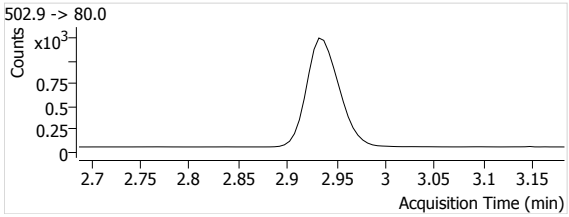
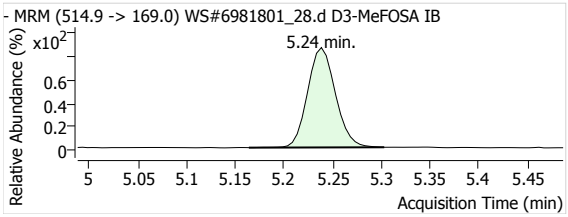
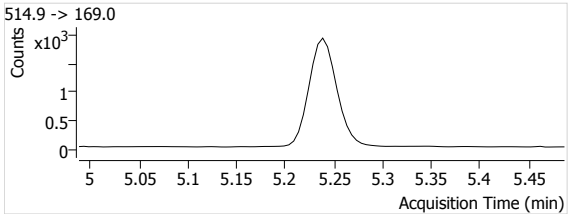




D3-MeFOSA





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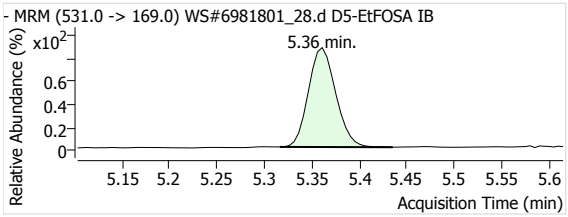
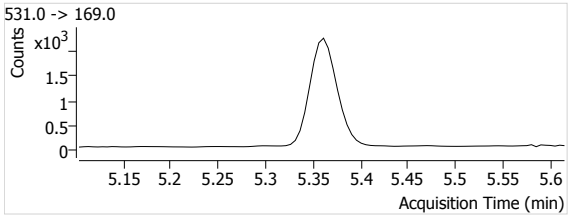




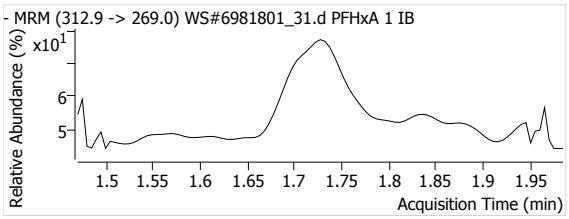
Quantitative Analysis Report

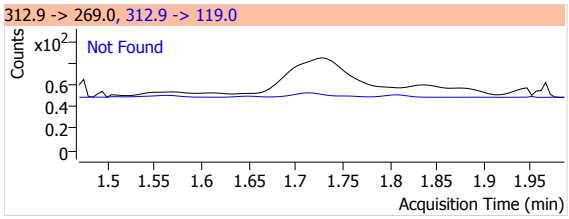
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981801_31.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A8
Acq. Date-Time	2020/10/05 4:13:27 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	202	4.35	5	0.0221	11	4.36	3	5.4
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	102.9118	--	15127	1.72	1071		--	--	--	--
13C4-PFHpA	µg/L	--	104.8931	--	13098	2.16	771		--	--	--	--
13C4-PFOA	µg/L	--	102.6629	--	13995	2.63	698		--	--	--	--
13C5-PFNA	µg/L	--	103.5743	--	11475	3.06	824		--	--	--	--
13C2-PFDA	µg/L	--	101.9839	--	10024	3.45	529		--	--	--	--
13C2-PFUnA	µg/L	--	105.4275	--	11208	3.79	732		--	--	--	--
13C2-PFDoA	µg/L	--	103.6294	--	11421	4.09	579		--	--	--	--
13C2-PFTeDA	µg/L	--	101.5438	--	9143	4.58	749		--	--	--	--
13C3-PFBS	µg/L	--	101.0487	--	5107	1.40	661		--	--	--	--
18O2-PFHxS	µg/L	--	101.3769	--	2577	2.12	658		--	--	--	--
13C4-PFOS	µg/L	--	103.2560	--	2759	2.93	350		--	--	--	--
D3-MeFOSA	µg/L	--	104.2626	--	3669	5.24	131		--	--	--	--
D5-EtFOSA	µg/L	--	99.3538	--	4151	5.36	92		--	--	--	--

PFHxA 1





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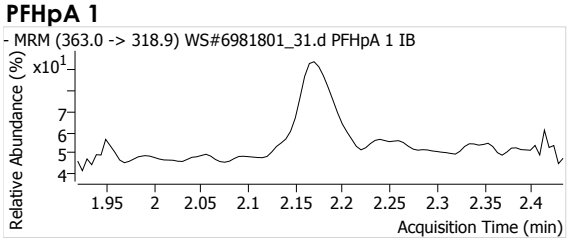

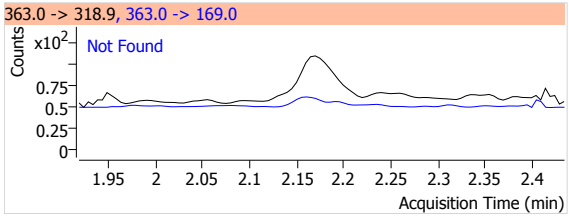

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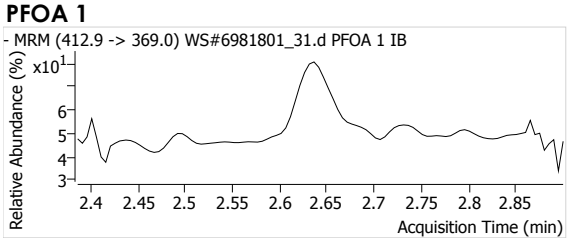

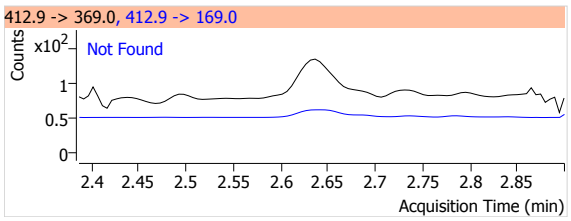

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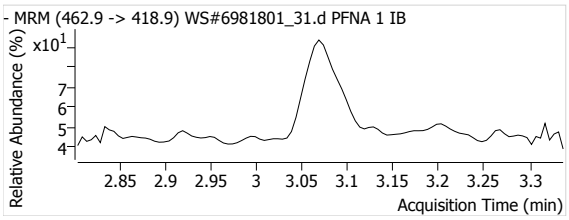

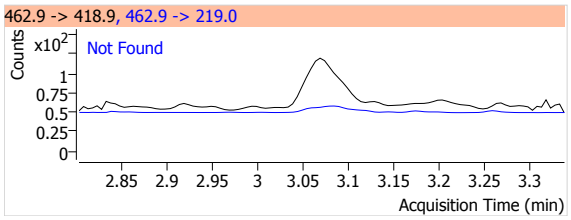

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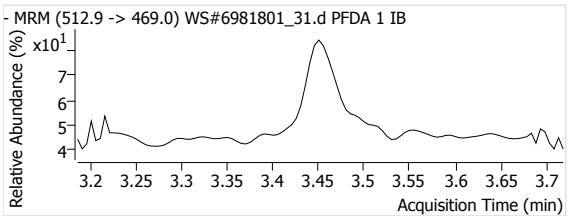

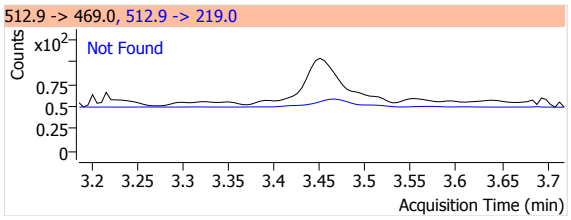

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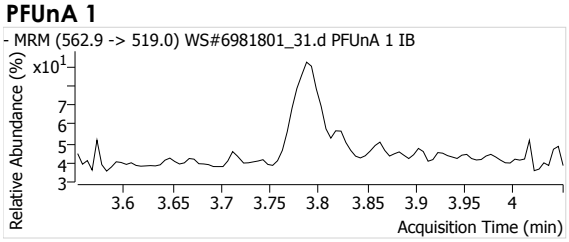

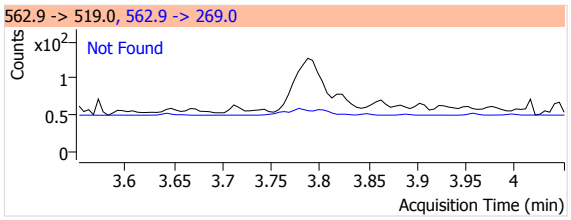

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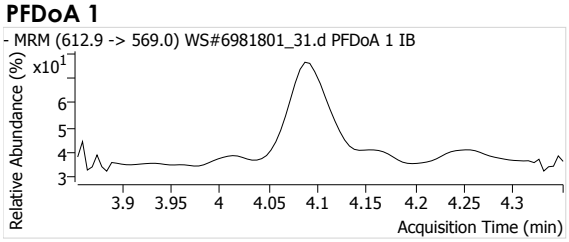

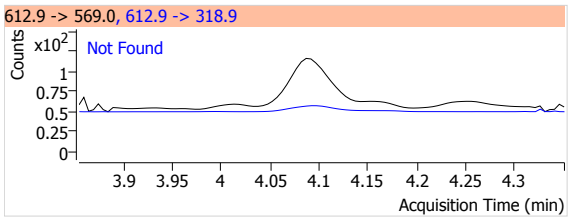

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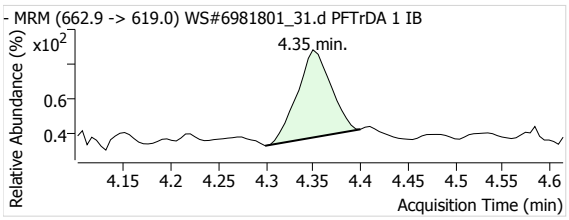

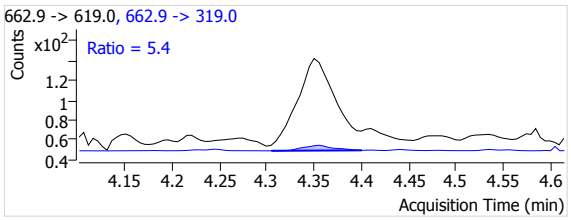

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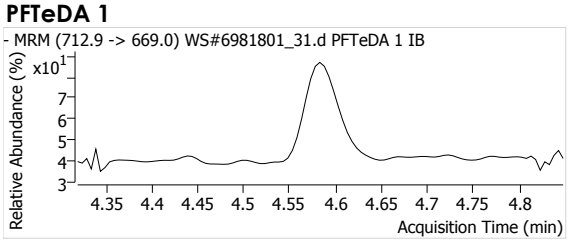

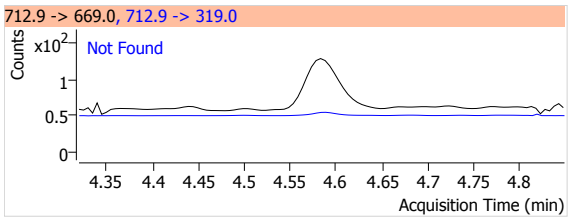

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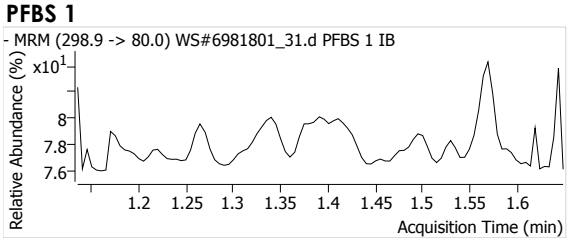

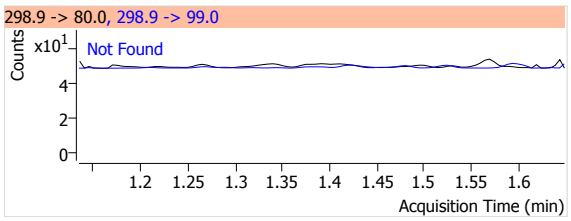

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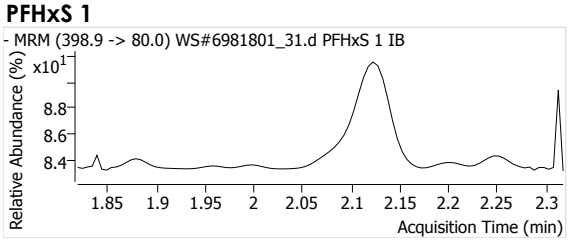

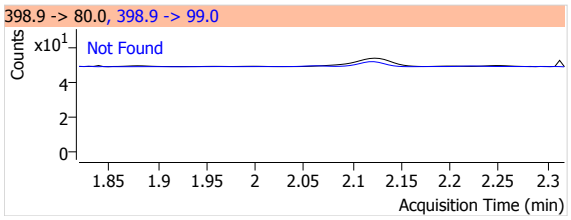

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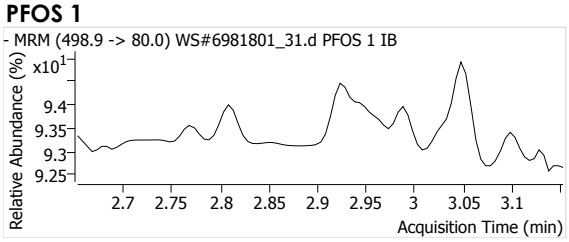

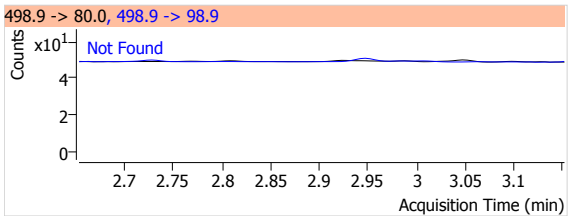

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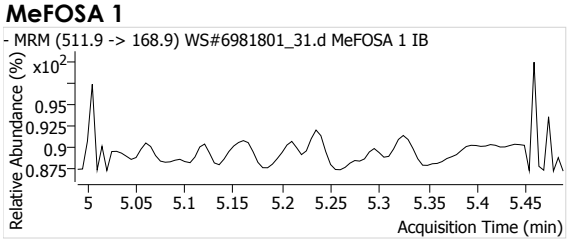

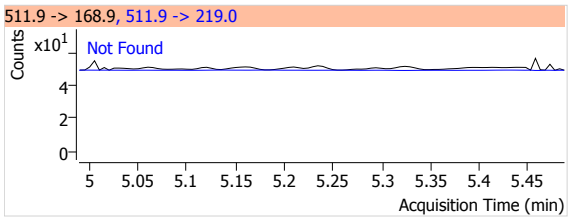

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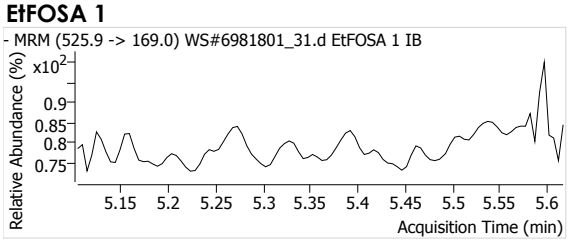
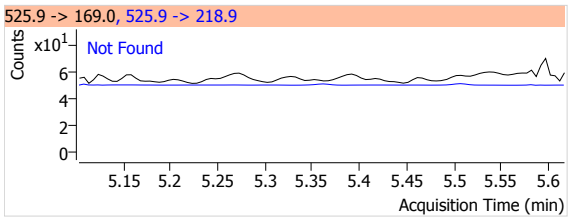
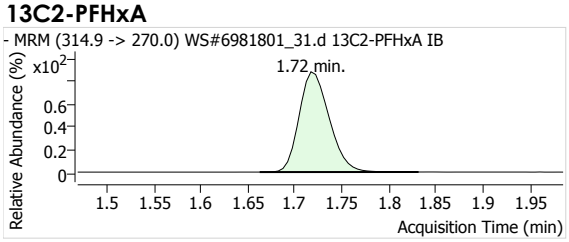
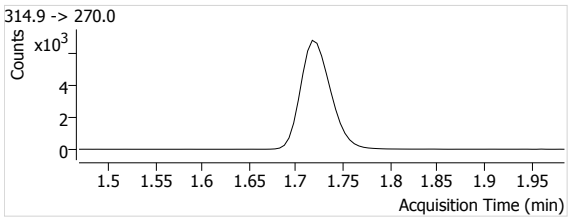




13C2-PFHxA





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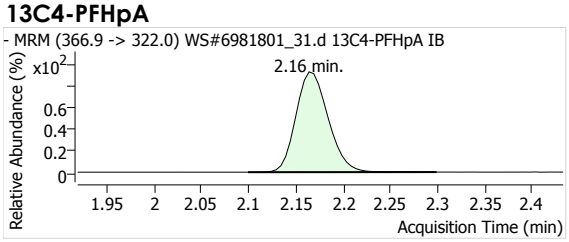

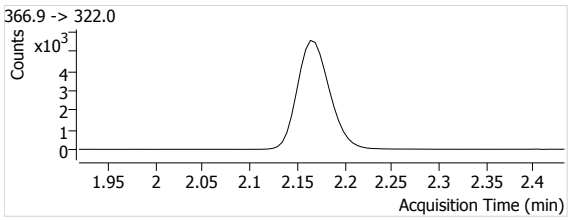

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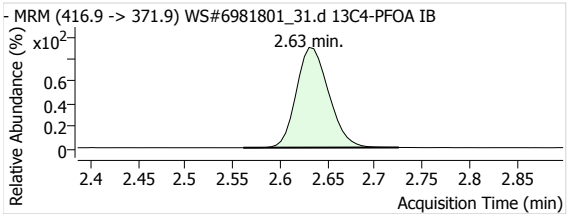

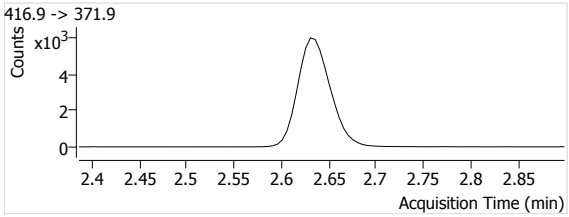

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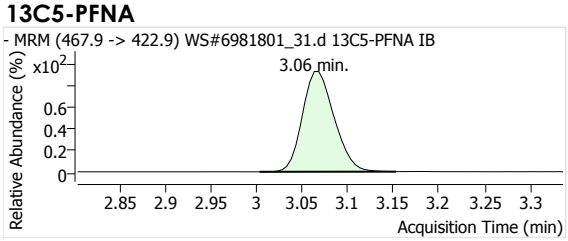

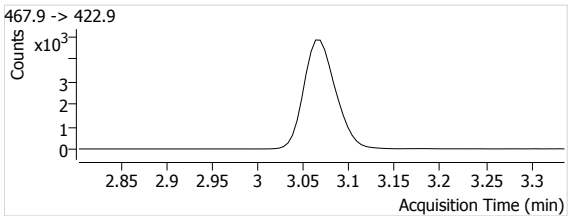

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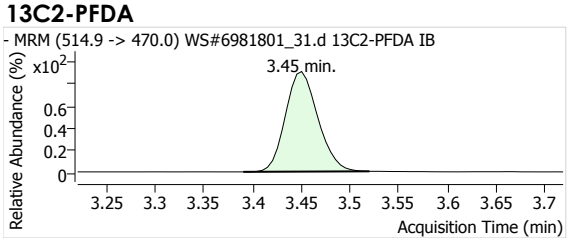

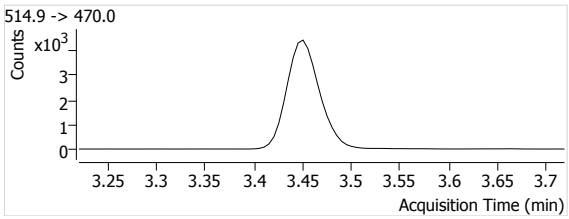

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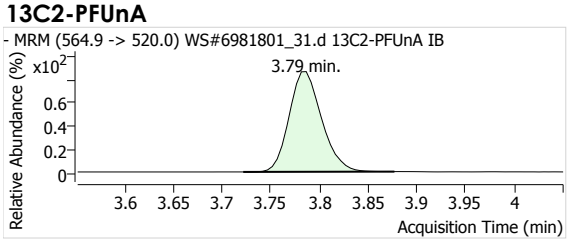

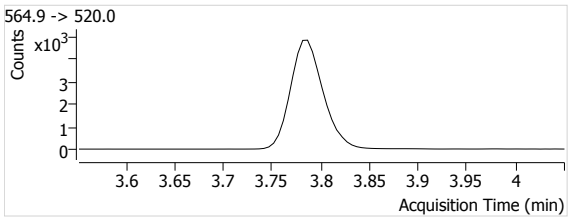

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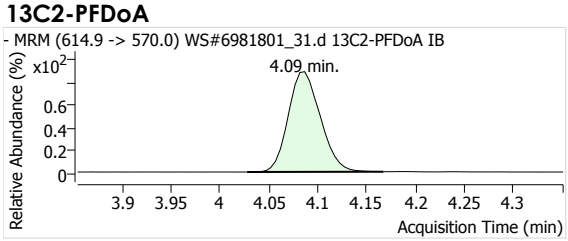

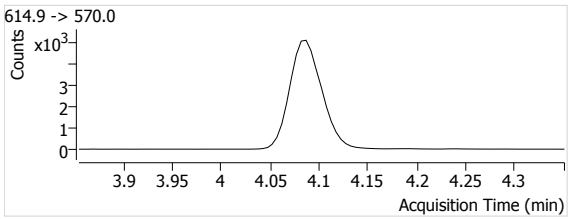

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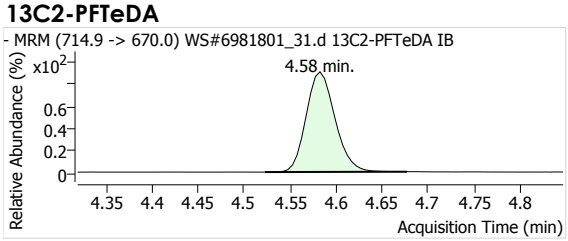

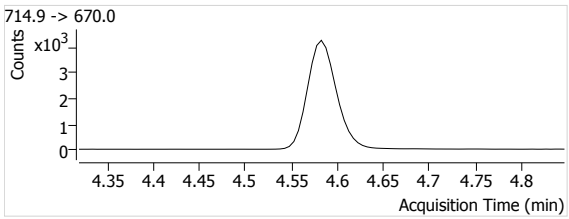

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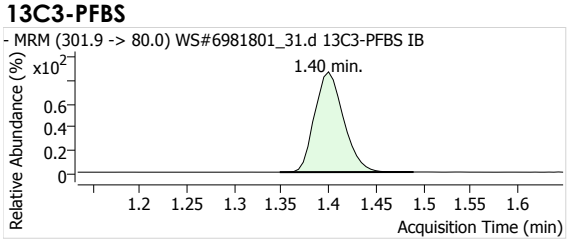
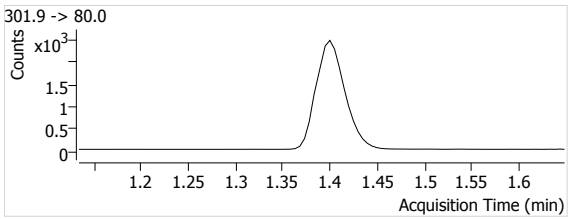
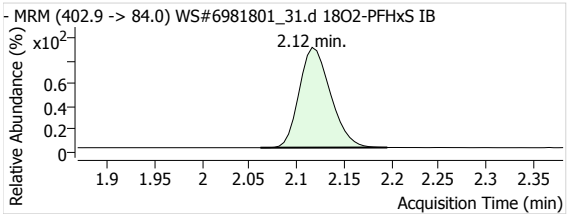
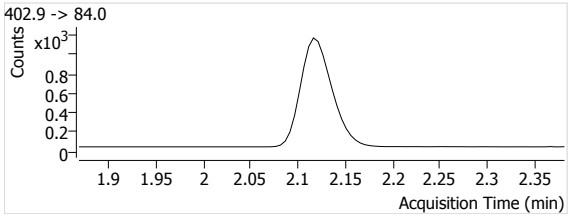




18O2-PFHxS





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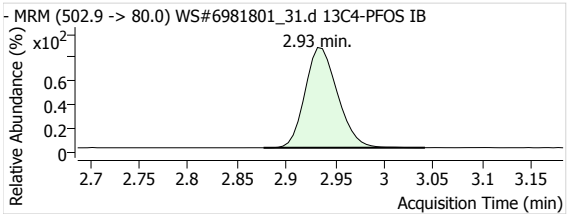
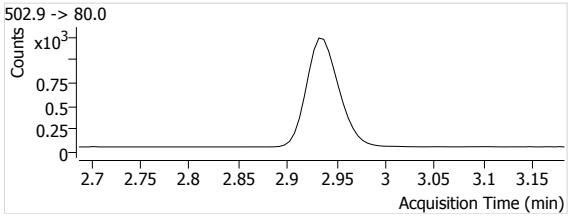
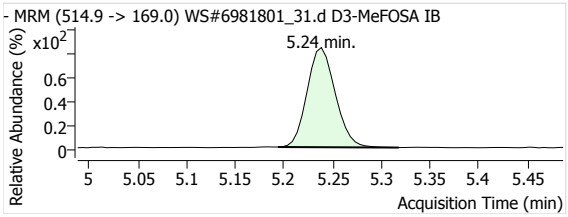
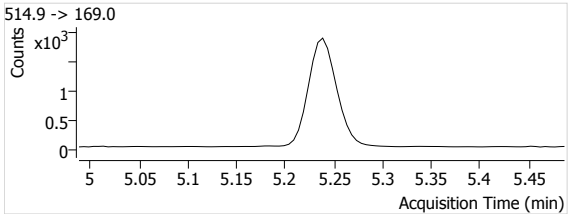


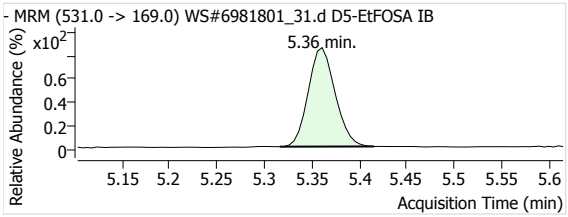


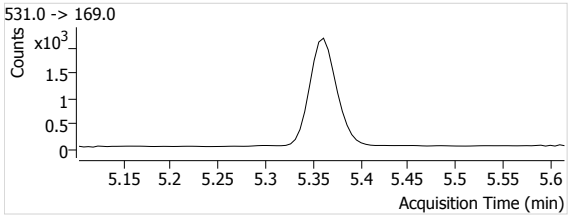
D3-MeFOSA





D5-EtFOSA





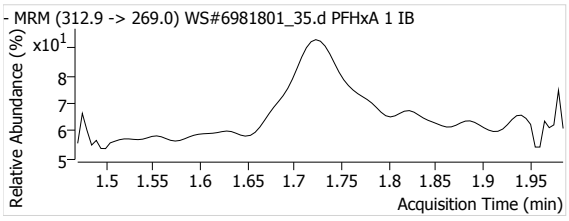
Quantitative Analysis Report

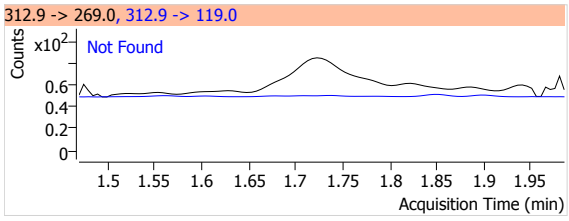
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981801_35.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A8
Acq. Date-Time	2020/10/05 4:41:25 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	177	4.09	4	0.0154	25	4.09	4	14.1
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	103.7690	--	15253	1.72	804		--	--	--	--
13C4-PFHpA	µg/L	--	102.6107	--	12813	2.16	730		--	--	--	--
13C4-PFOA	µg/L	--	102.1494	--	13925	2.64	693		--	--	--	--
13C5-PFNA	µg/L	--	103.4480	--	11461	3.07	1032		--	--	--	--
13C2-PFDA	µg/L	--	102.6554	--	10090	3.45	766		--	--	--	--
13C2-PFUnA	µg/L	--	105.0701	--	11170	3.78	546		--	--	--	--
13C2-PFDoA	µg/L	--	104.1376	--	11477	4.08	1253		--	--	--	--
13C2-PFTeDA	µg/L	--	100.7774	--	9074	4.58	627		--	--	--	--
13C3-PFBS	µg/L	--	100.4155	--	5075	1.40	756		--	--	--	--
18O2-PFHxS	µg/L	--	100.8655	--	2564	2.12	619		--	--	--	--
13C4-PFOS	µg/L	--	102.8069	--	2747	2.94	519		--	--	--	--
D3-MeFOSA	µg/L	--	101.0230	--	3555	5.24	132		--	--	--	--
D5-EtFOSA	µg/L	--	97.9655	--	4093	5.36	97		--	--	--	--

PFHxA 1





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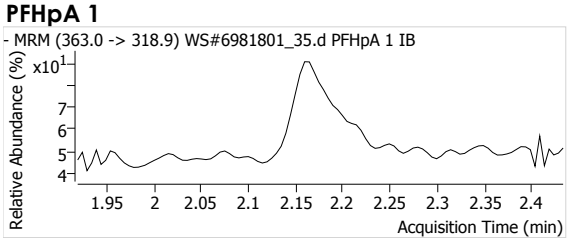

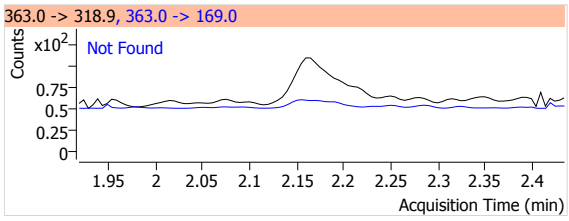

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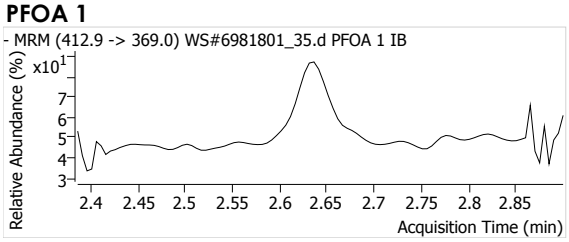

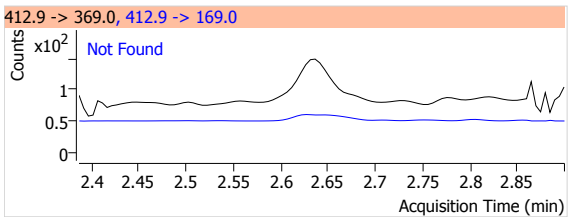

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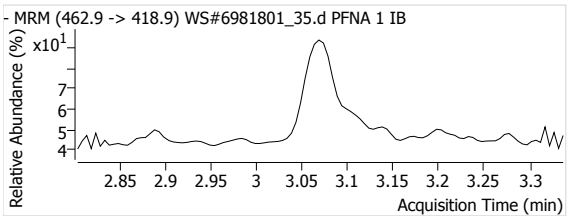

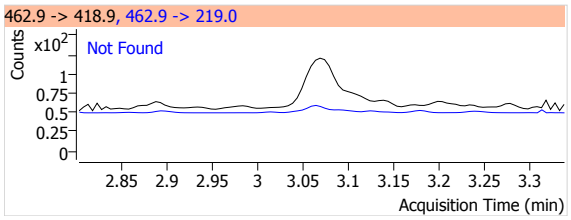

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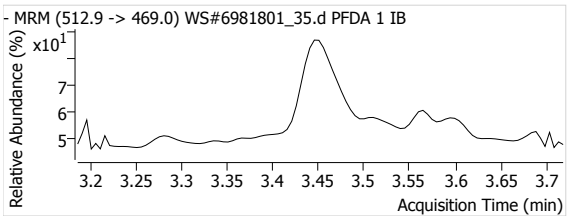

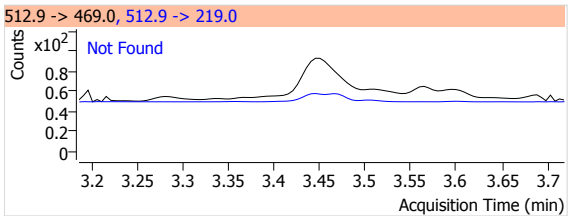

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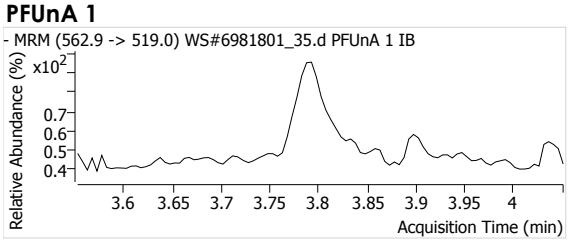

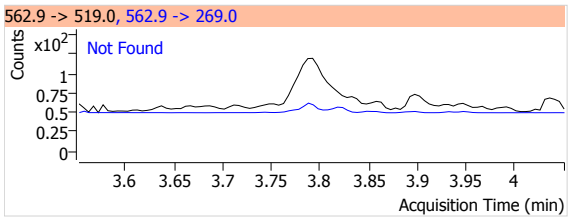

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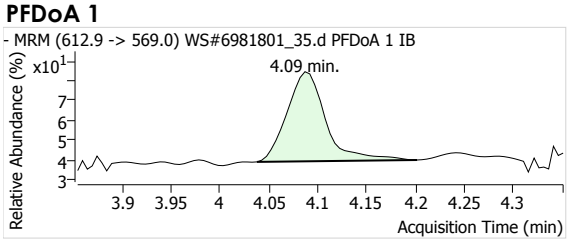

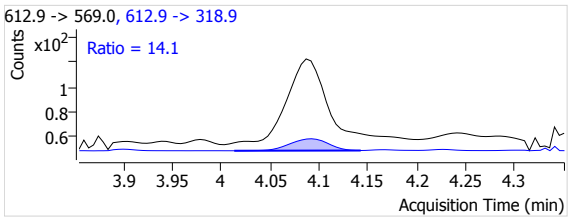

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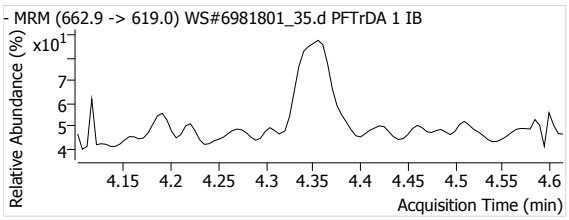

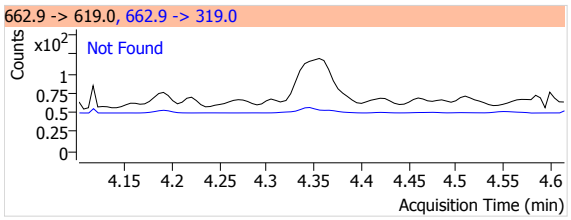

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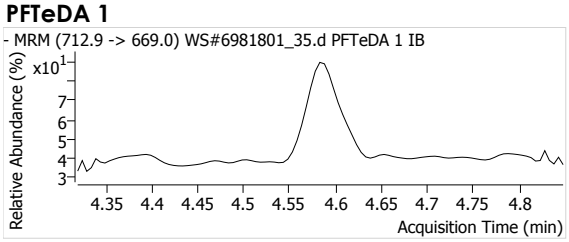

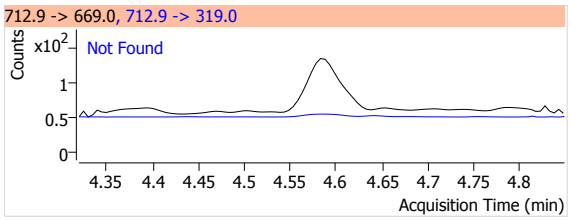

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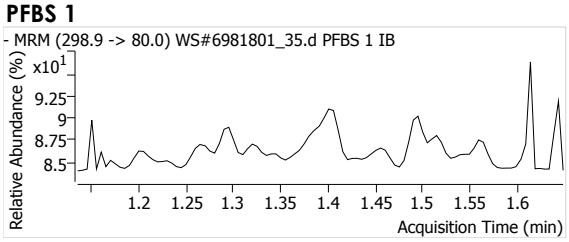

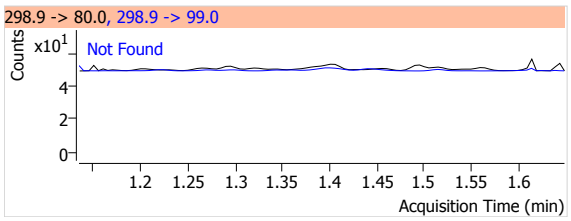

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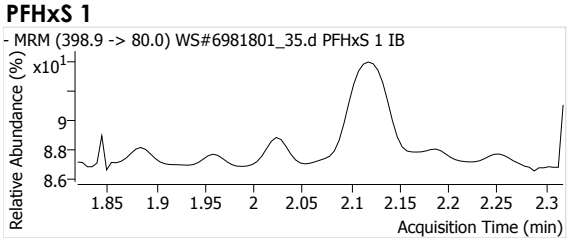
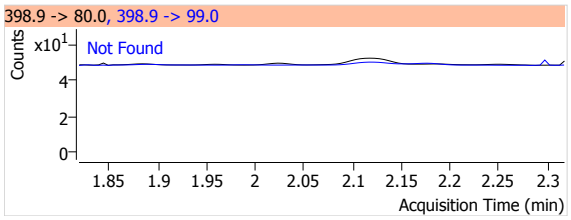
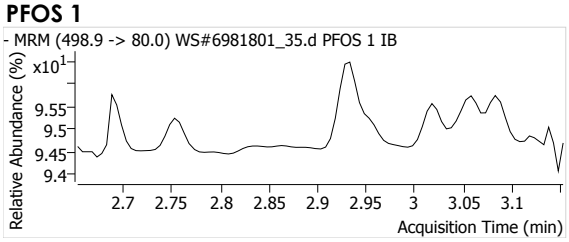
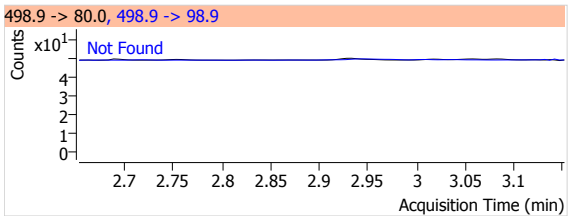




PFOS 1





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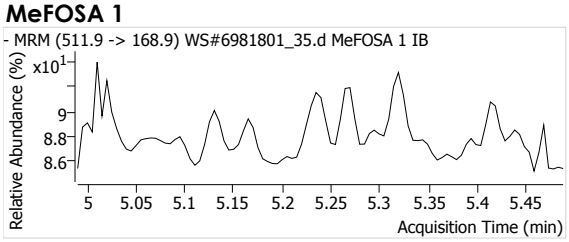

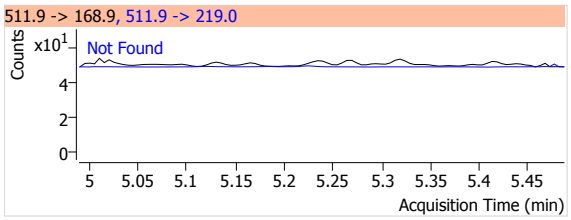

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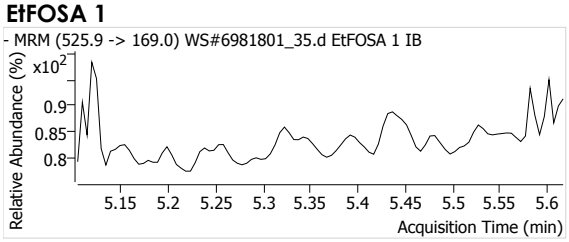
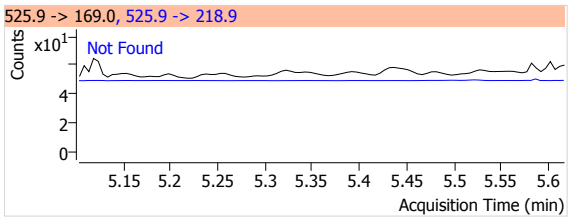
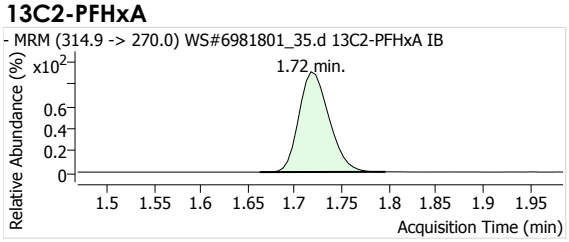
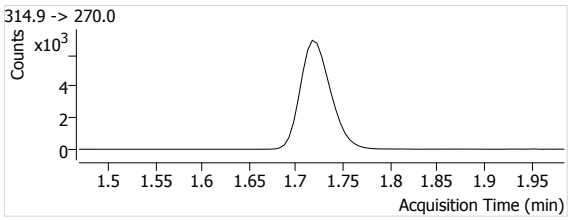




13C2-PFHxA





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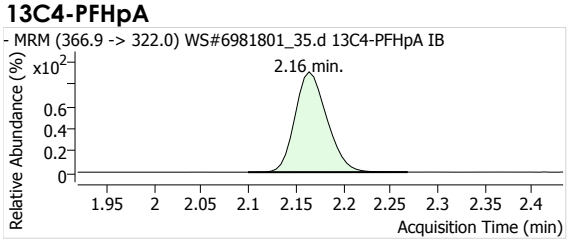

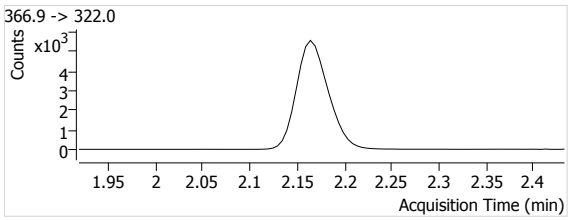

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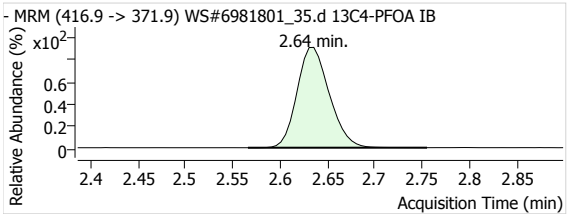
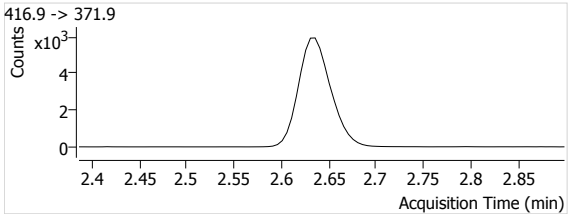
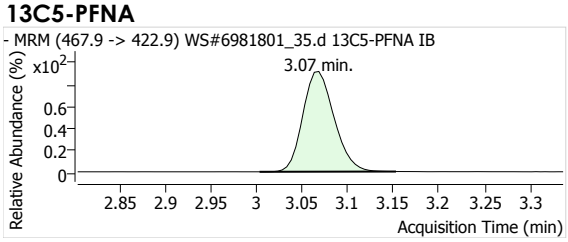
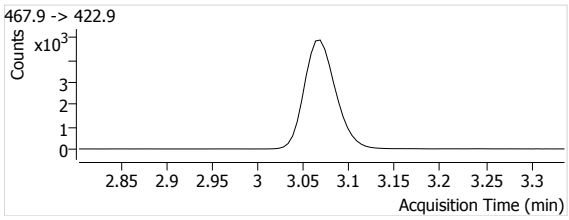




13C5-PFNA





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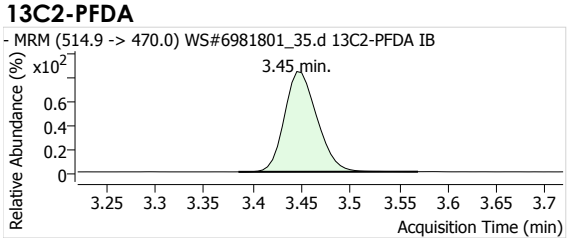

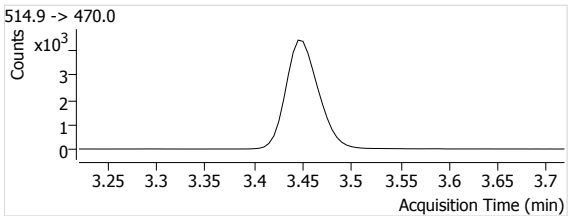

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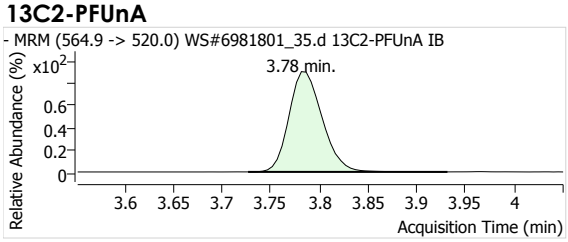

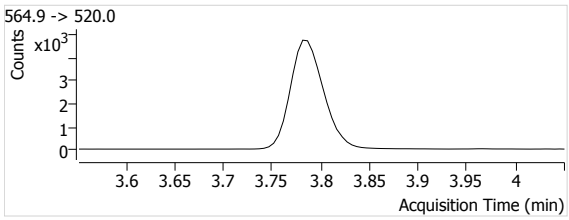

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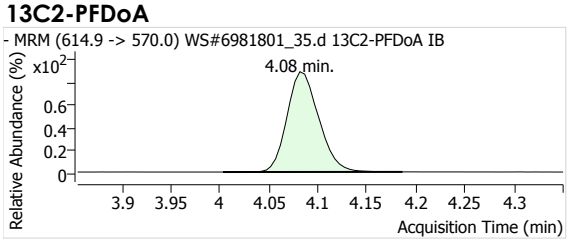

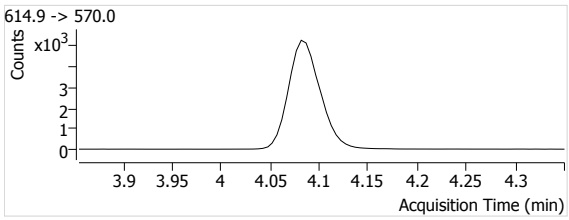

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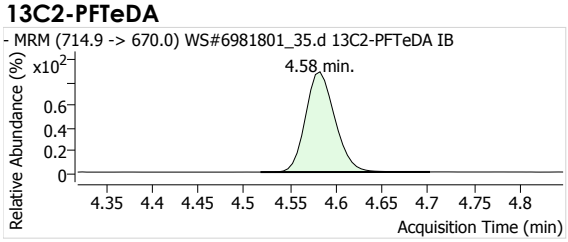

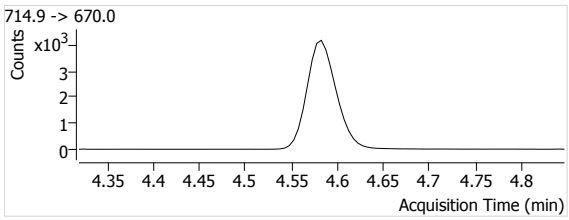

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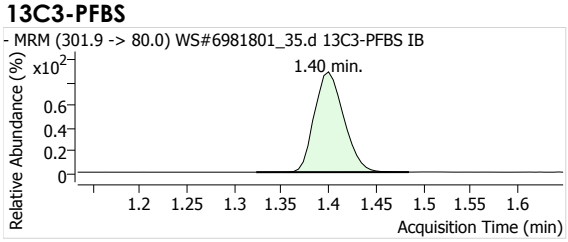

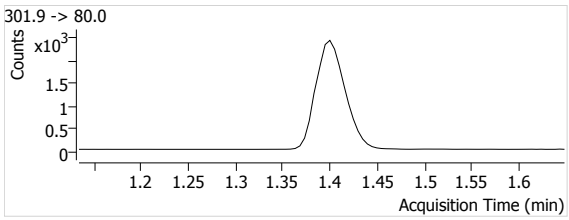

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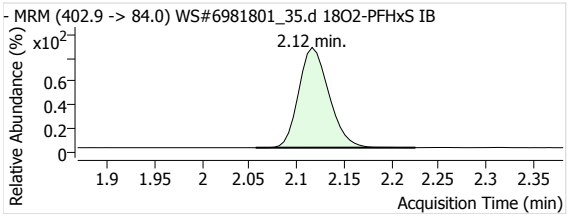

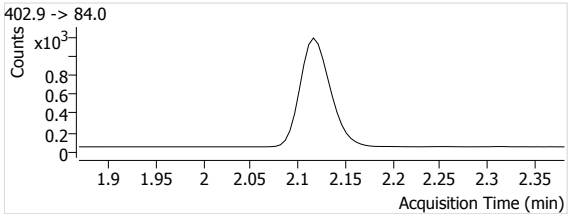

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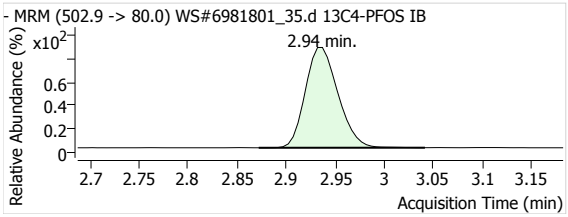
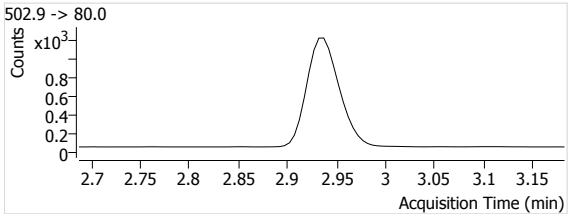
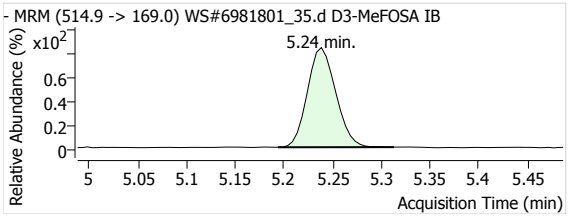
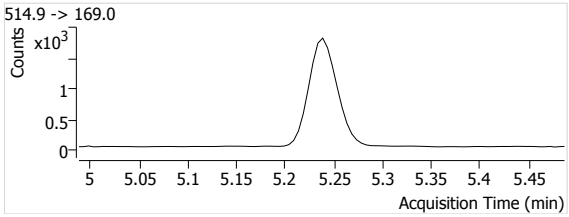




D3-MeFOSA





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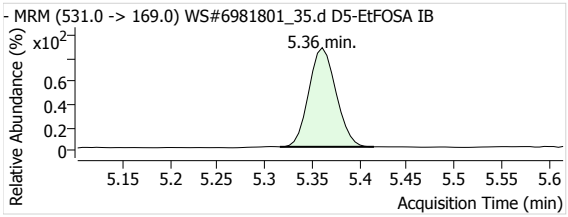
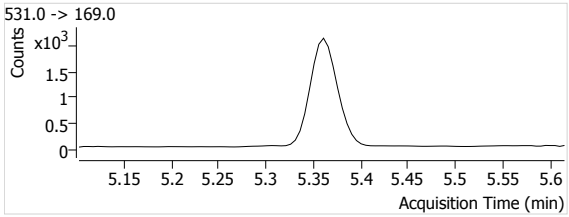




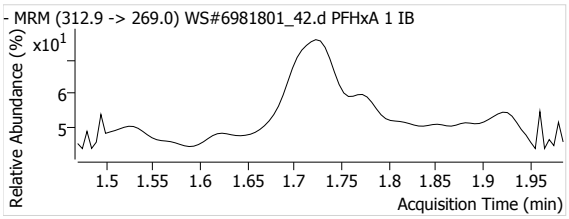
Quantitative Analysis Report

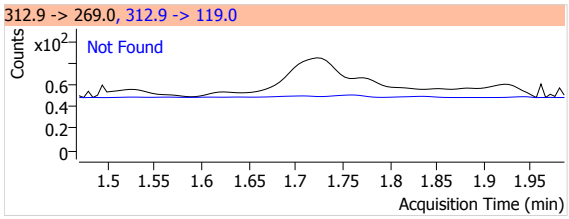
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981801_42.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A8
Acq. Date-Time	2020/10/05 5:30:18 PM	**Dil.**	0.0
Comment	-		
User Defined			

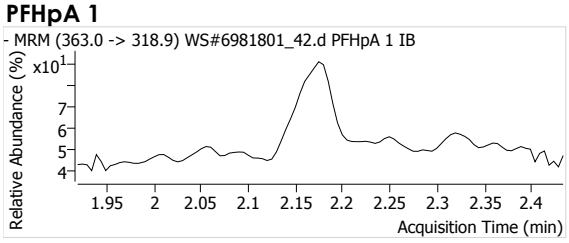
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	103.0002	--	15140	1.72	1966		--	--	--	--
13C4-PFHpA	µg/L	--	100.3043	--	12525	2.16	630		--	--	--	--
13C4-PFOA	µg/L	--	102.3474	--	13952	2.64	790		--	--	--	--
13C5-PFNA	µg/L	--	102.0670	--	11308	3.07	348		--	--	--	--
13C2-PFDA	µg/L	--	97.2022	--	9554	3.45	410		--	--	--	--
13C2-PFUnA	µg/L	--	101.2134	--	10760	3.78	624		--	--	--	--
13C2-PFDoA	µg/L	--	101.4971	--	11186	4.08	743		--	--	--	--
13C2-PFTeDA	µg/L	--	101.0662	--	9100	4.58	1280		--	--	--	--
13C3-PFBS	µg/L	--	103.7990	--	5246	1.40	673		--	--	--	--
18O2-PFHxS	µg/L	--	99.6853	--	2534	2.12	605		--	--	--	--
13C4-PFOS	µg/L	--	101.1228	--	2702	2.94	296		--	--	--	--
D3-MeFOSA	µg/L	--	104.1205	--	3664	5.24	163		--	--	--	--
D5-EtFOSA	µg/L	--	99.3059	--	4149	5.36	78		--	--	--	--

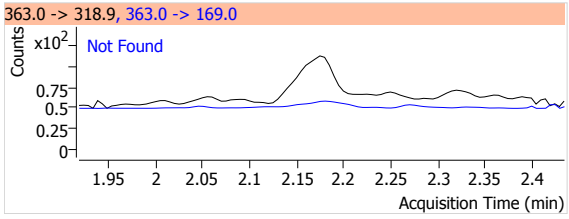
PFHxA 1





PFHpA 1





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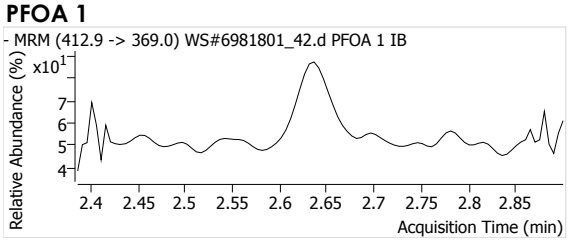

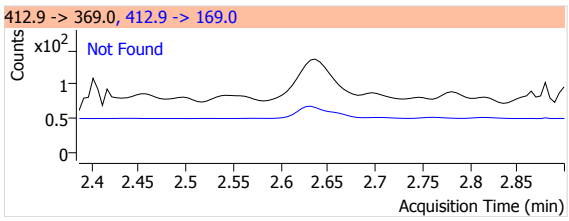

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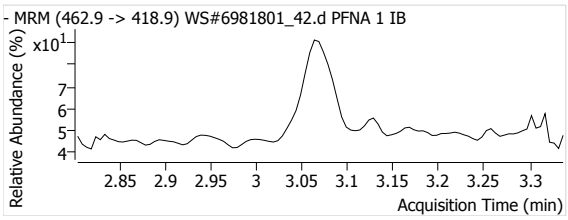

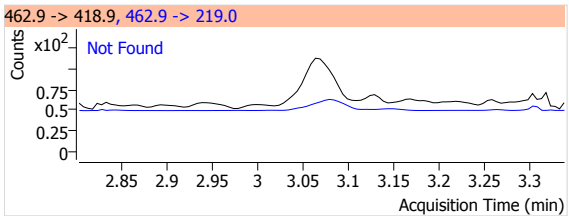

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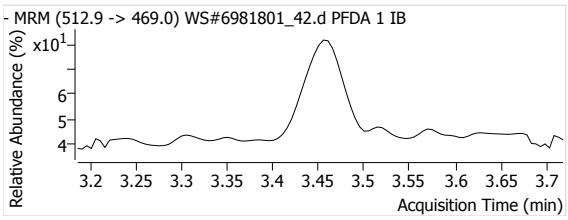

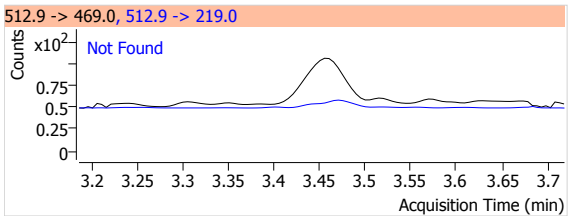

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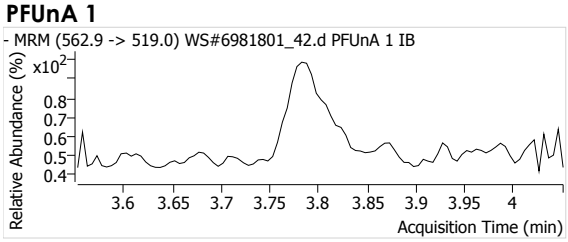

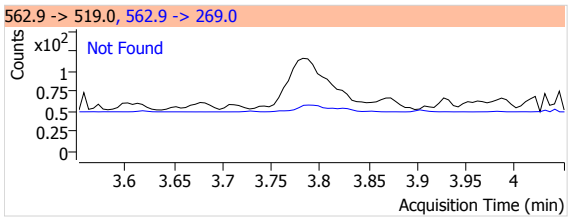

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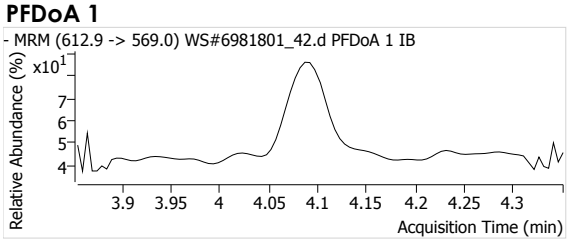

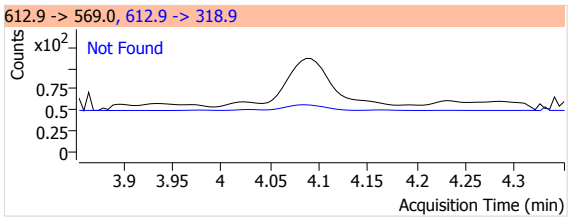

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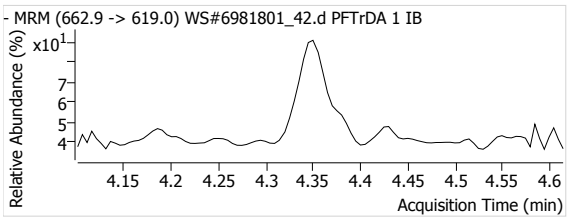

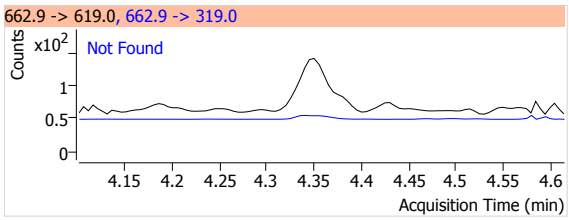

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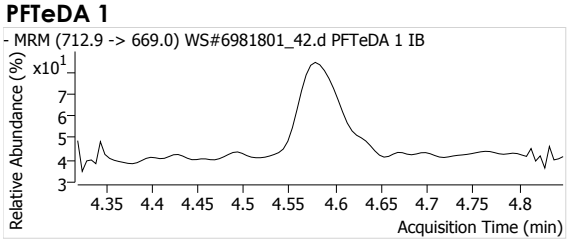

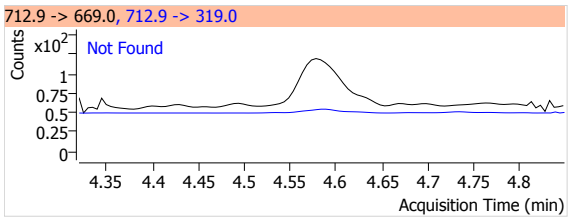

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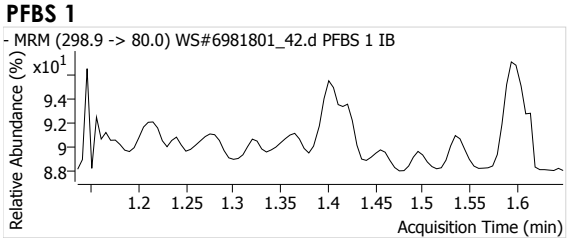

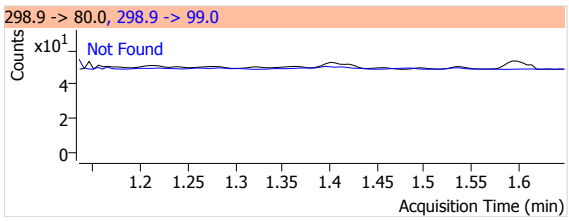

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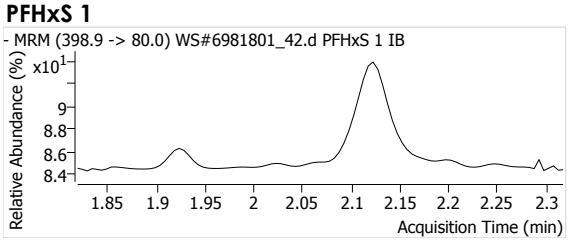

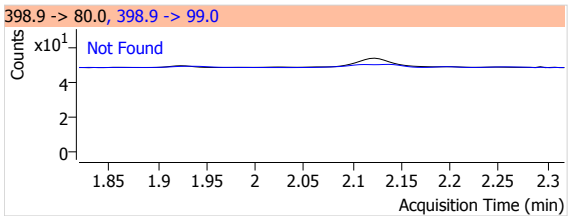

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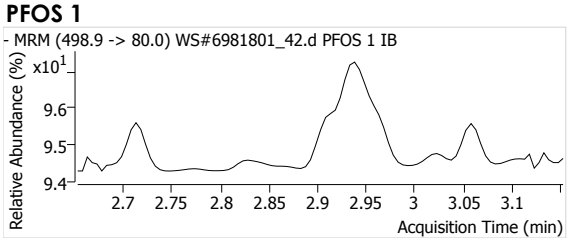

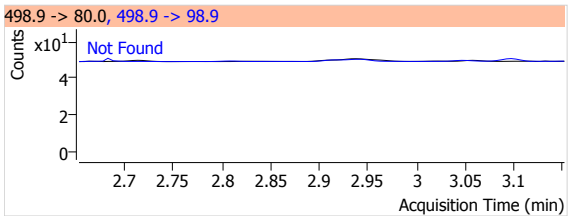

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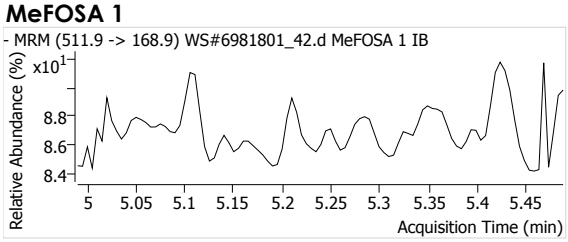

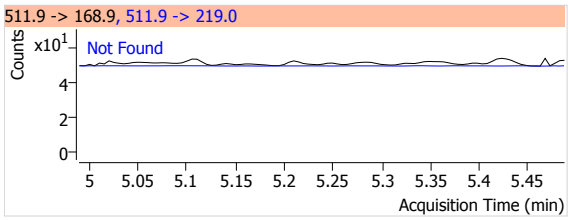

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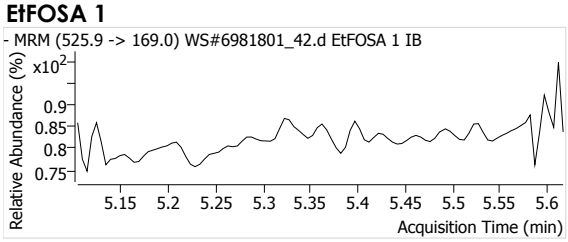

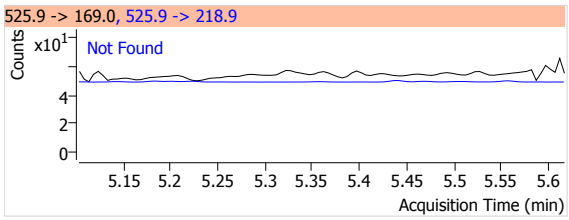

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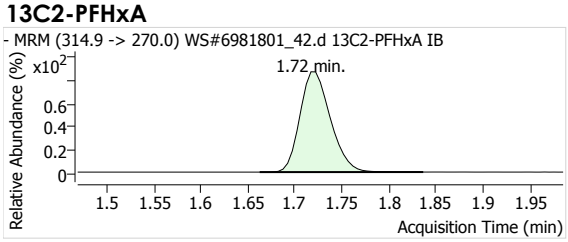

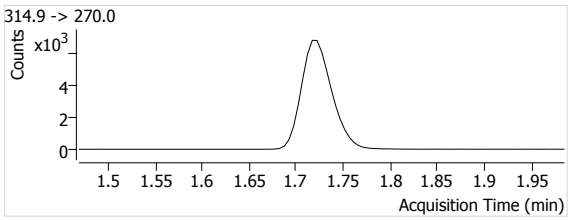

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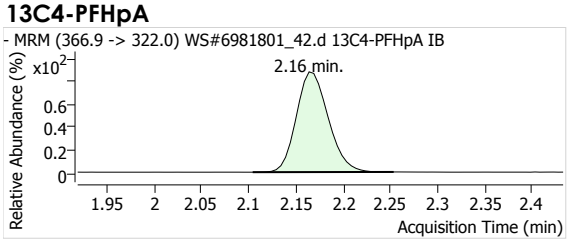

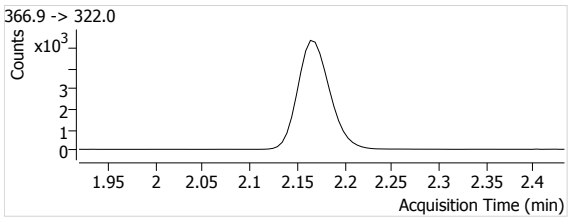

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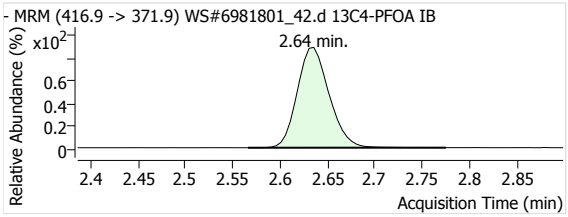

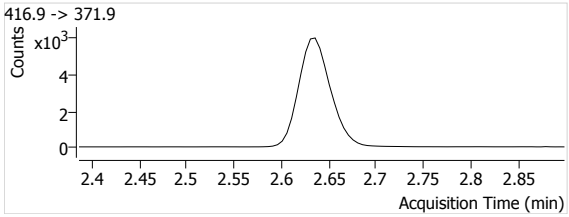

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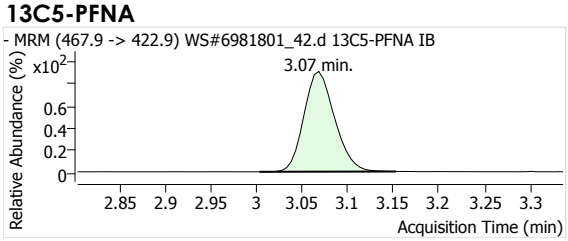

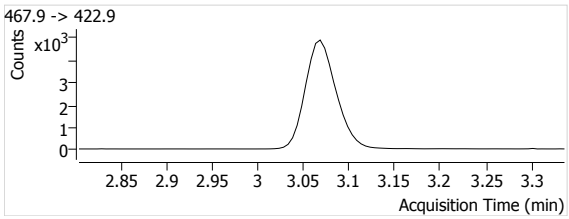

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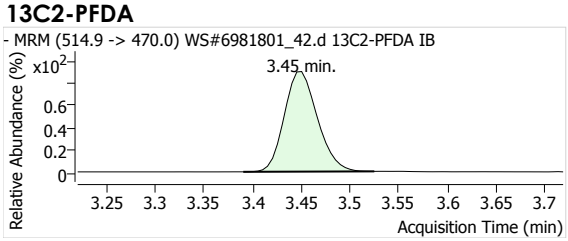

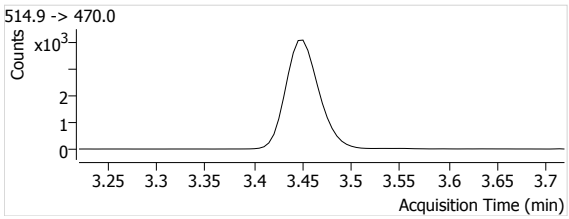

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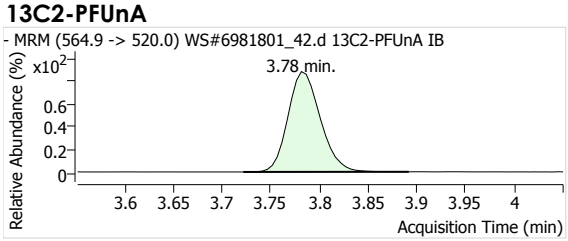

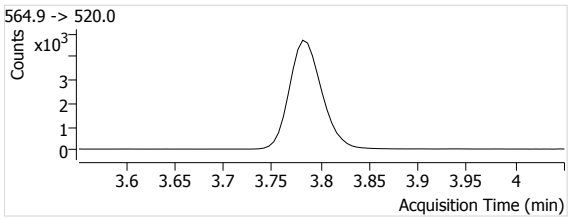

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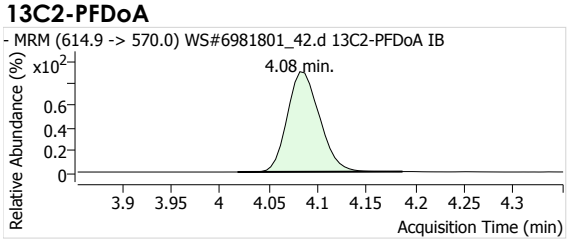

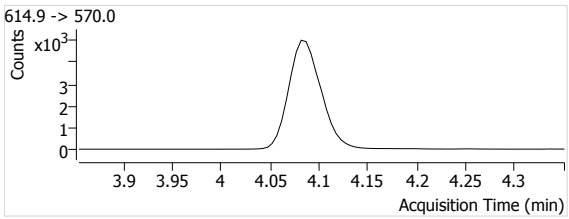

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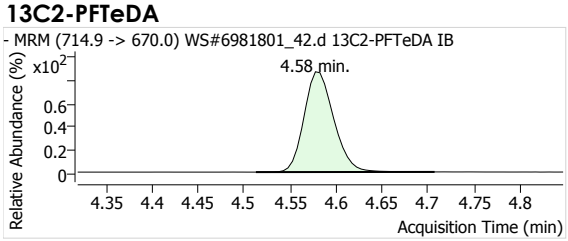

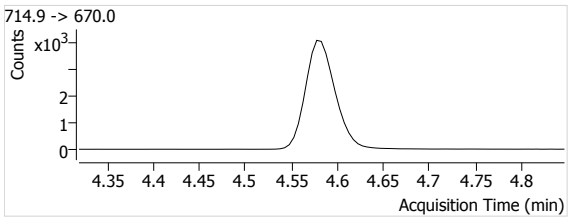

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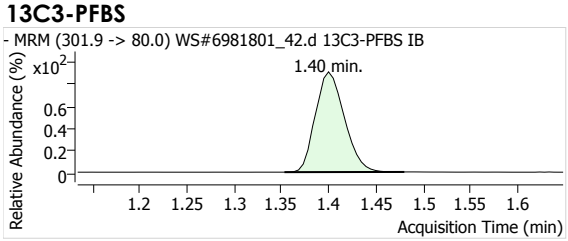

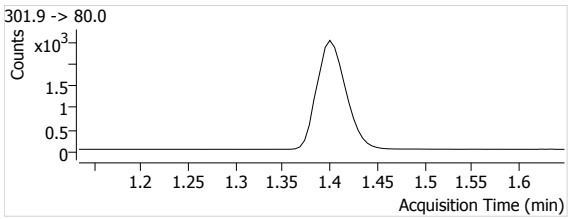

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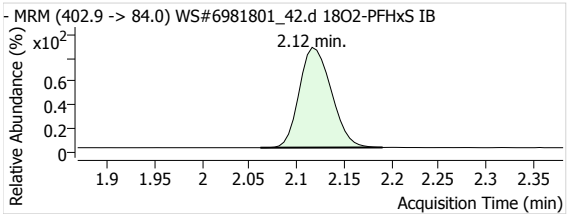

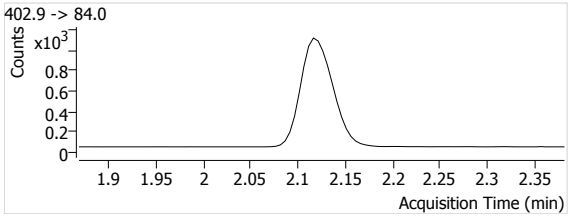

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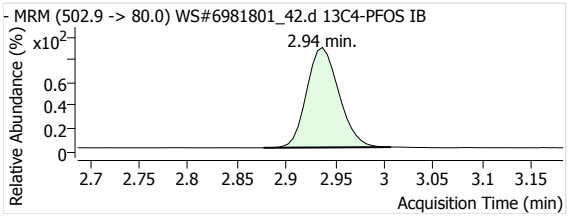
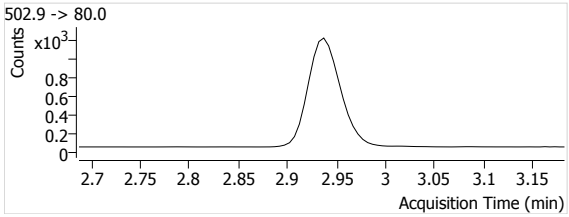
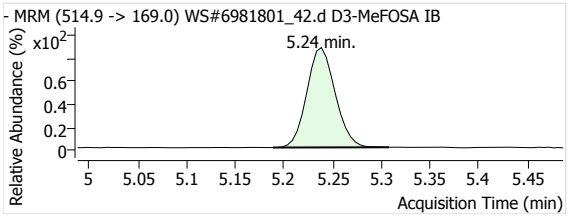
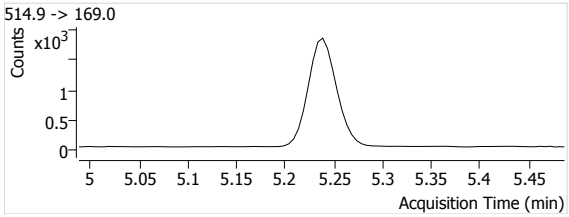




D3-MeFOSA





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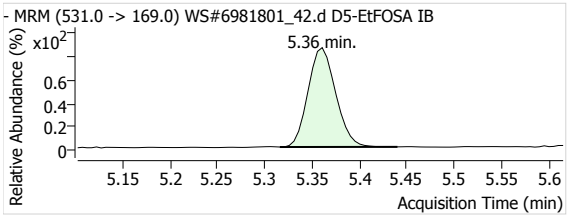
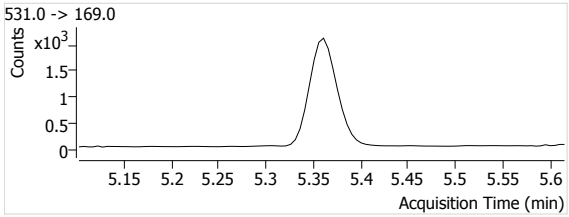




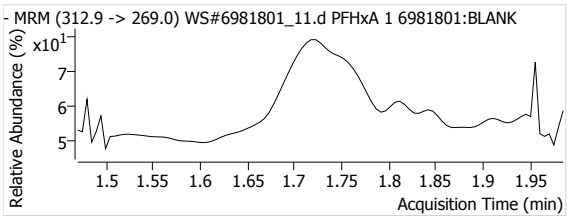
Quantitative Analysis Report

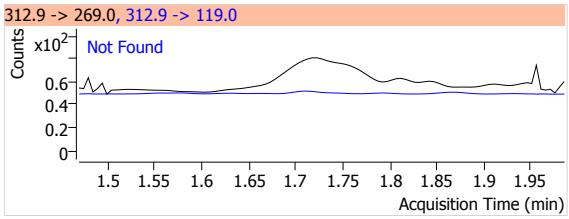
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:BLANK	**Data File**	WS#6981801_11.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B1
Acq. Date-Time	2020/10/05 1:53:35 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	92.5165	--	13599	1.72	1076		--	--	--	--
13C4-PFHpA	µg/L	--	94.2740	--	11772	2.16	1197		--	--	--	--
13C4-PFOA	µg/L	--	91.5713	--	12483	2.63	677		--	--	--	--
13C5-PFNA	µg/L	--	92.0390	--	10197	3.06	397		--	--	--	--
13C2-PFDA	µg/L	--	92.3186	--	9074	3.45	597		--	--	--	--
13C2-PFUnA	µg/L	--	87.0755	--	9257	3.78	896		--	--	--	--
13C2-PFDoA	µg/L	--	83.1413	--	9163	4.09	744		--	--	--	--
13C2-PFTeDA	µg/L	--	81.6082	--	7348	4.58	341		--	--	--	--
13C3-PFBS	µg/L	--	88.4052	--	4468	1.39	647		--	--	--	--
18O2-PFHxS	µg/L	--	89.0244	--	2263	2.12	922		--	--	--	--
13C4-PFOS	µg/L	--	91.3922	--	2442	2.93	408		--	--	--	--
D3-MeFOSA	µg/L	--	56.8059	--	1999	5.24	59		--	--	--	--
D5-EtFOSA	µg/L	--	54.9785	--	2297	5.36	57		--	--	--	--

PFHxA 1





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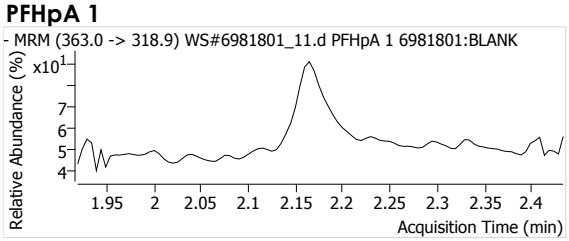

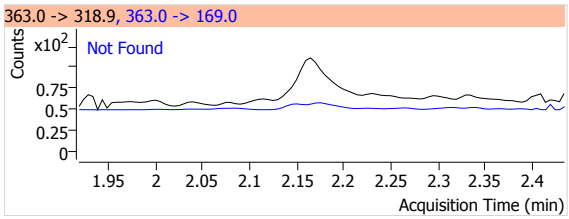

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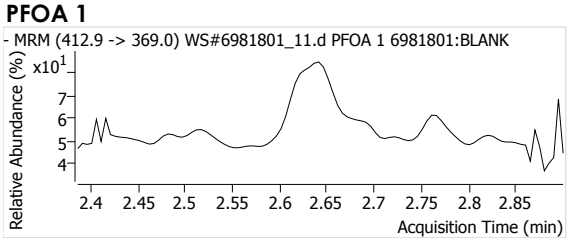

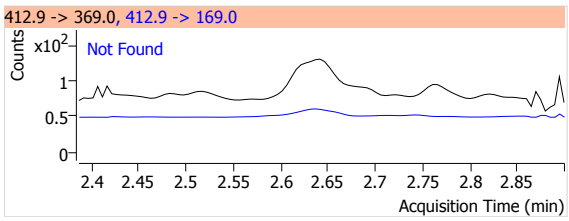

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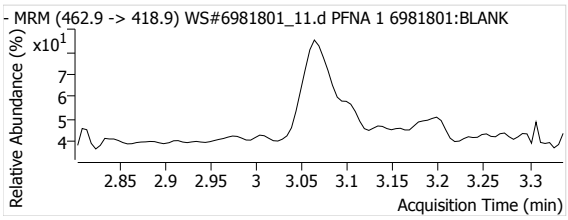

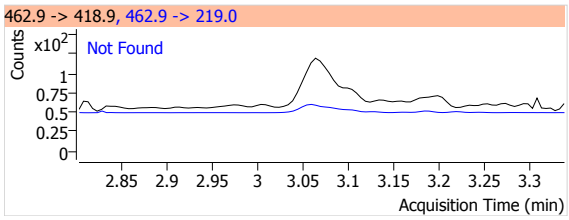

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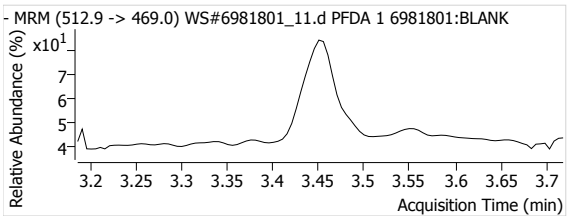

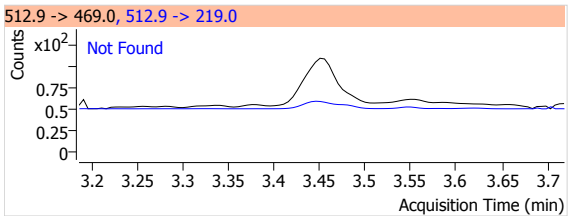

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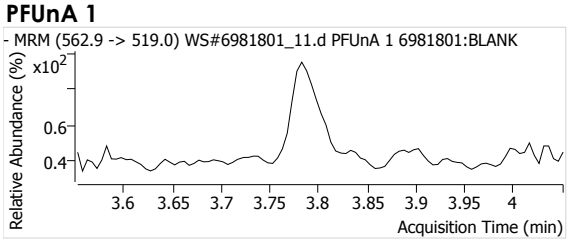

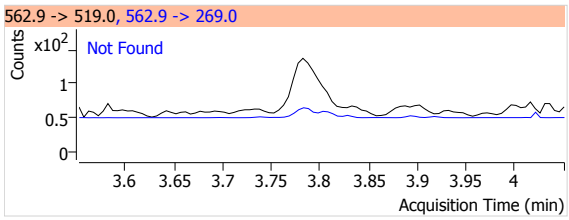

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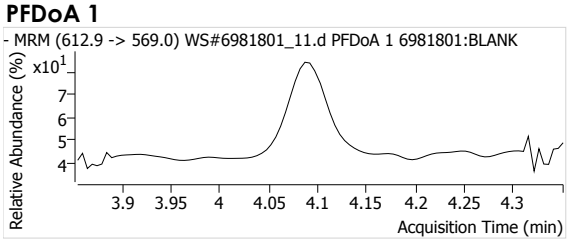

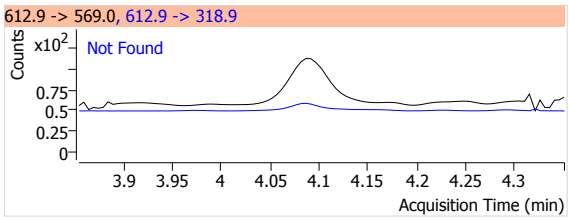

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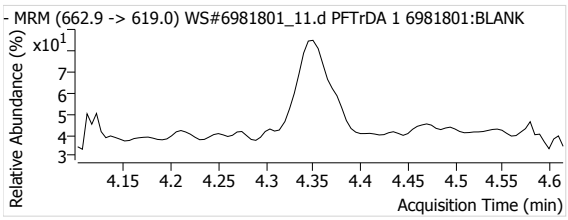

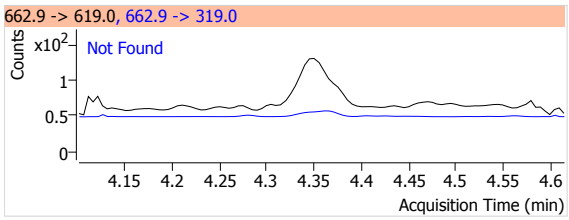

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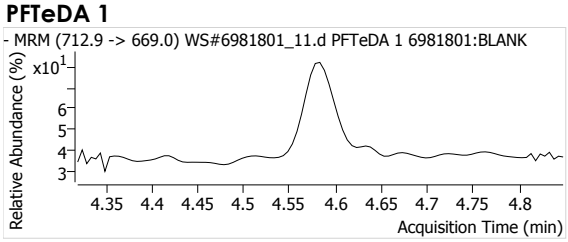

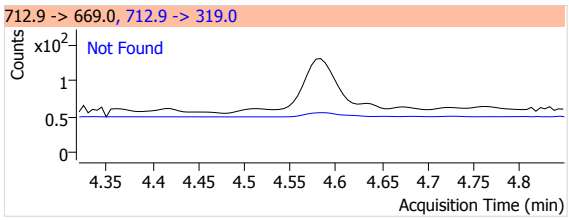

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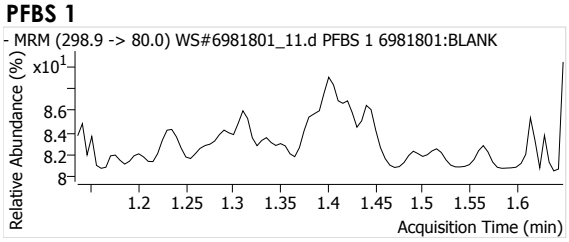

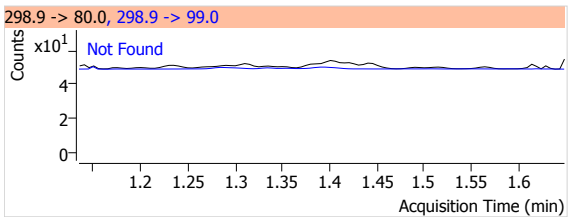

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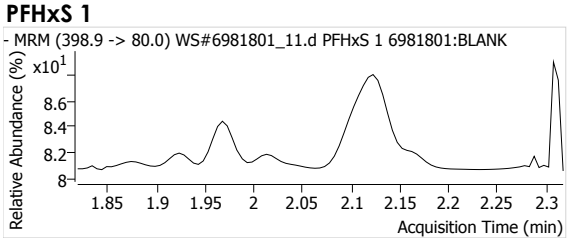
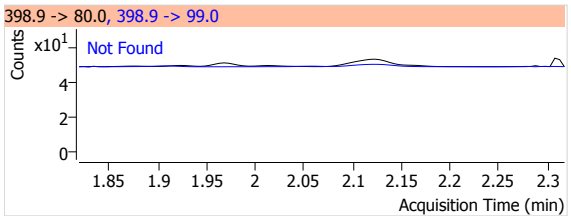
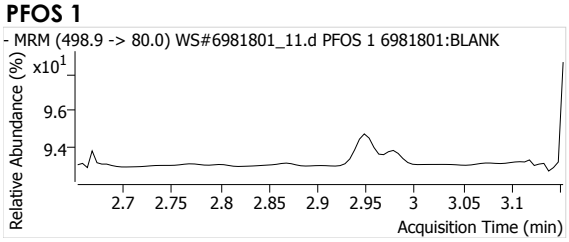
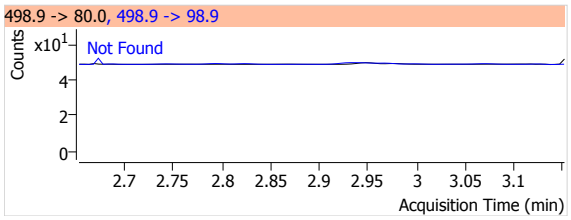




PFOS 1





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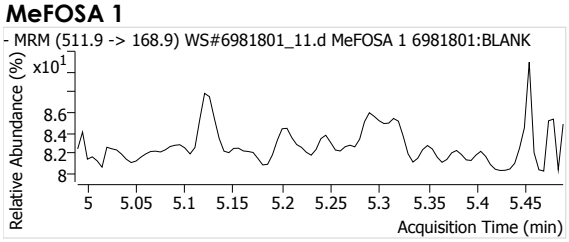

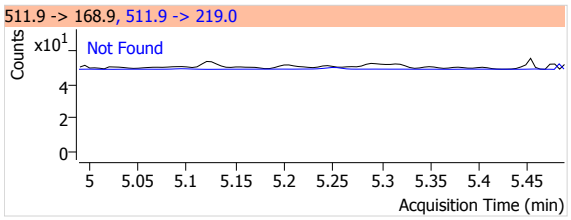

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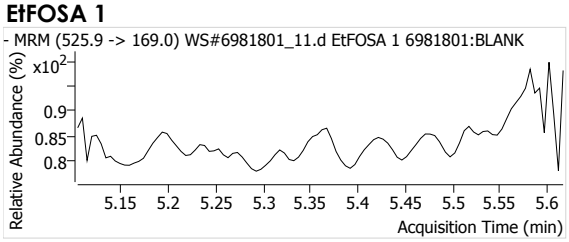

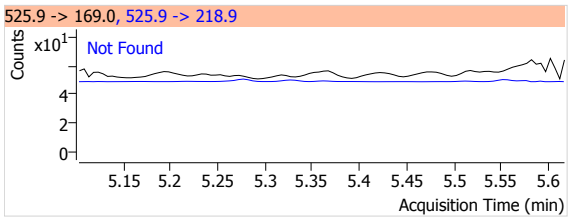

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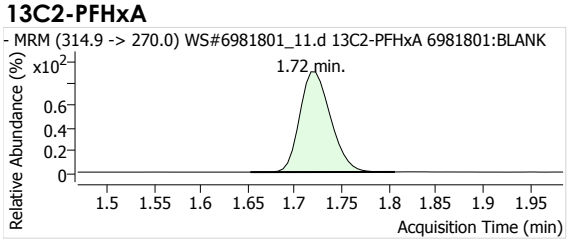

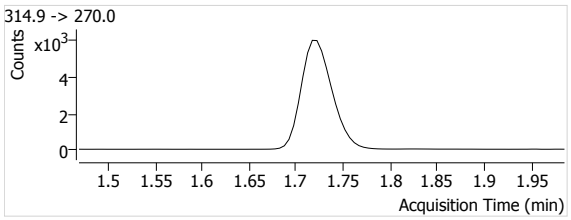

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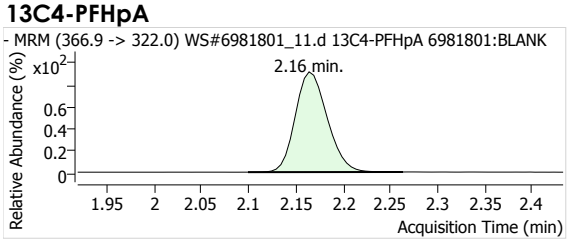

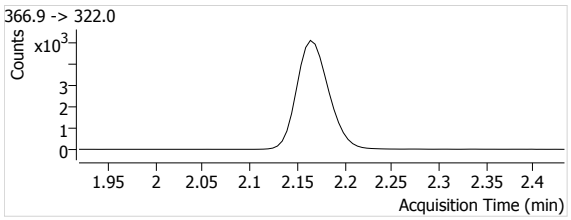

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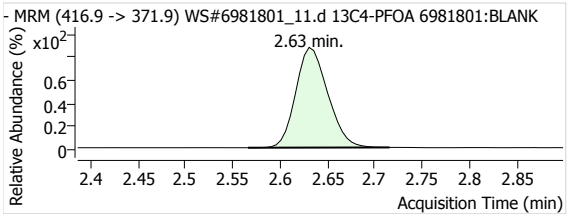

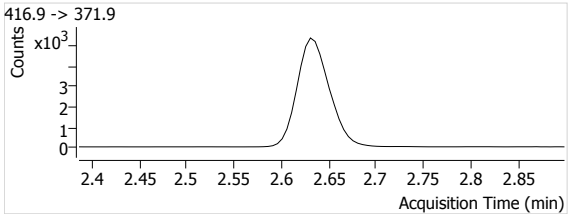

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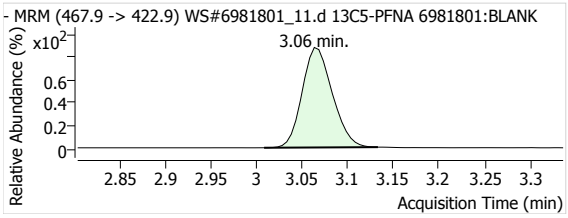

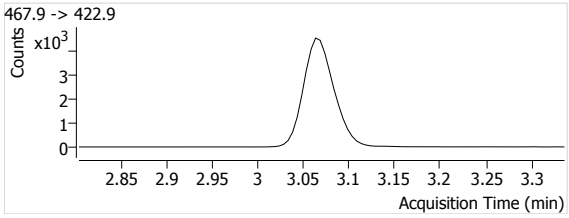

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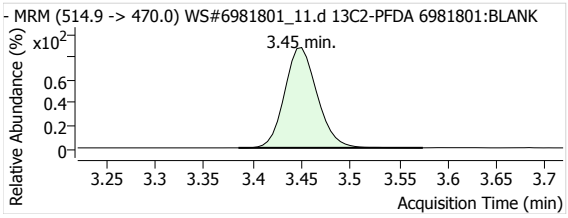

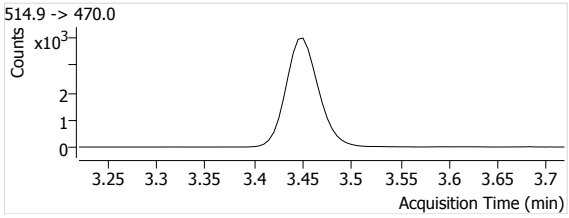

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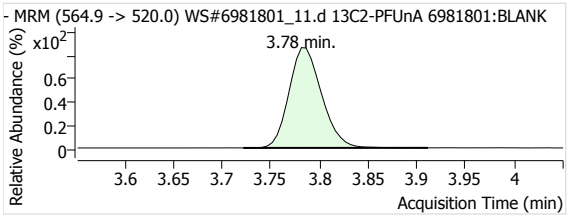

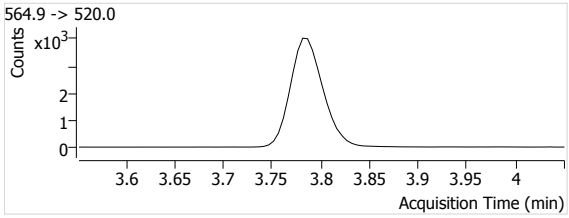

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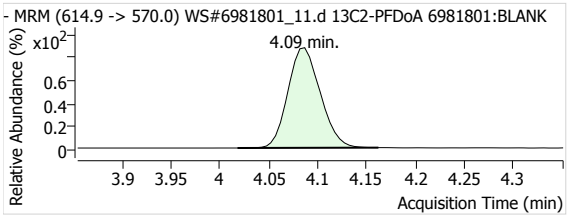

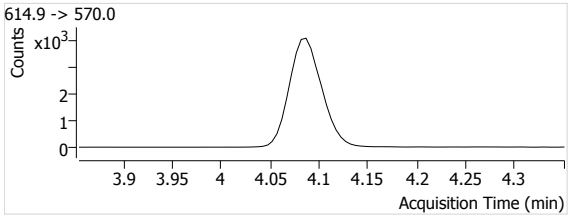

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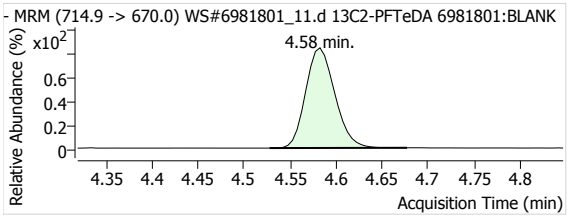

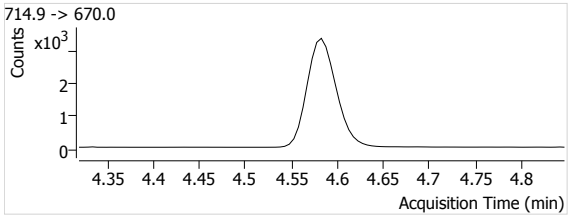

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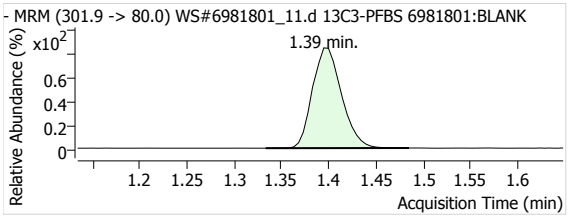

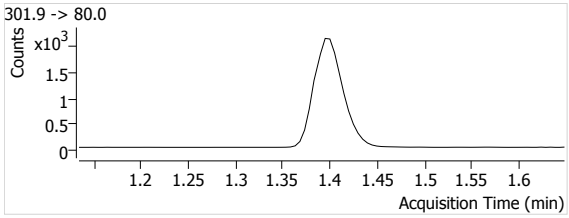

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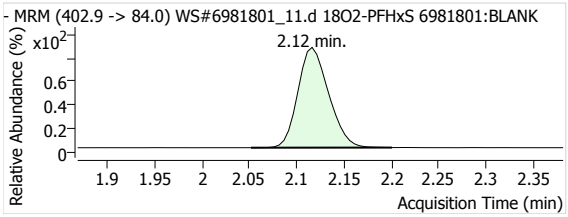

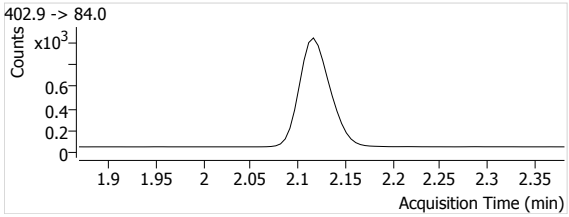

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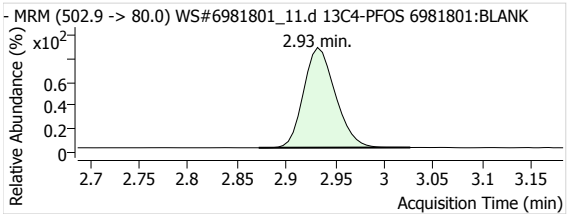
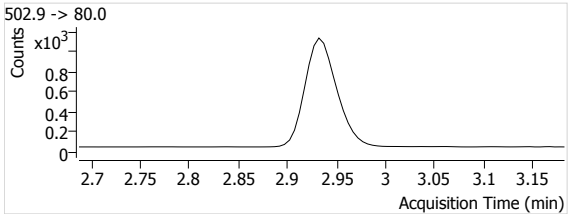
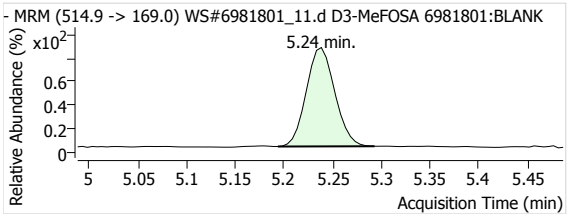
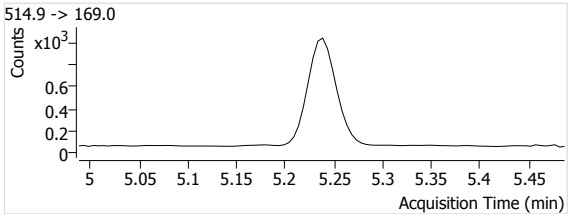




D3-MeFOSA





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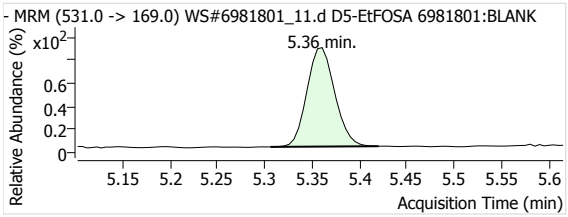
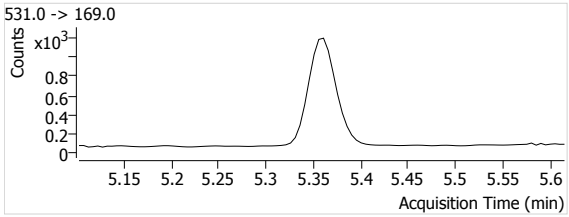




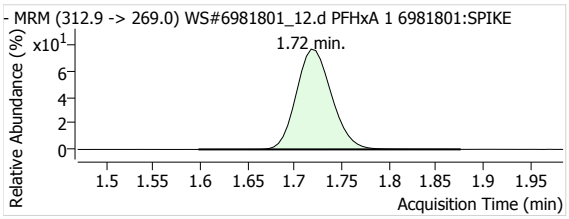
Quantitative Analysis Report

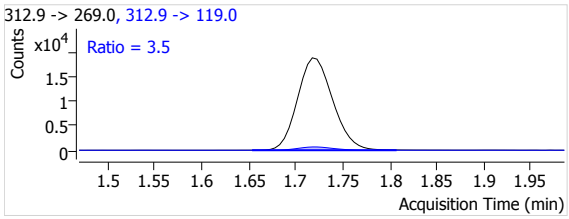
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:SPIKE	**Data File**	WS#6981801_12.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B2
Acq. Date-Time	2020/10/05 2:00:34 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.4986	103.9	49416	1.72	1078	3.5858	1753	1.72	359	3.5
PFHpA 1	µg/L	20.000	0.5119	106.6	58856	2.16	1077	4.9743	9728	2.17	900	16.5
PFOA 1	µg/L	20.000	0.5123	106.7	43150	2.63	654	3.3310	10399	2.63	369	24.1
PFNA 1	µg/L	20.000	0.4970	103.5	39717	3.06	920	3.7604	6445	3.06	909	16.2
PFDA 1	µg/L	20.000	0.5050	105.2	32663	3.45	955	3.6136	5663	3.45	975	17.3
PFUnA 1	µg/L	20.000	0.5043	105.1	35721	3.78	449	3.7051	5868	3.78	496	16.4
PFDoA 1	µg/L	20.000	0.4970	103.5	32296	4.08	577	3.4266	4689	4.08	331	14.5
PFTrDA 1	µg/L	20.000	0.5116	106.6	28168	4.35	554	3.8460	2775	4.35	521	9.9
PFTeDA 1	µg/L	20.000	0.5140	107.1	25226	4.58	685	3.4443	1795	4.58	366	7.1
PFBS 1	µg/L	20.000	0.5008	104.3	18962	1.40	994	4.0439	7581	1.40	534	40.0
PFHxS 1	µg/L	20.000	0.4930	102.7	10507	2.08	216	4.3743	4797	2.07	612	45.7
PFOS 1	µg/L	20.000	0.5145	107.2	9958	2.88	315	3.9977	4951	2.88	628	49.7
MeFOSA 1	µg/L	20.000	0.5329	111.0	4441	5.23	137	2.1279	3664	5.23	527	82.5
EtFOSA 1	µg/L	20.000	0.5362	111.7	4061	5.36	139	1.7452	4054	5.36	514	99.8
13C2-PFHxA	µg/L	100.000	93.7547	93.8	13781	1.72	956		--	--	--	--
13C4-PFHpA	µg/L	100.000	94.7545	94.8	11832	2.16	1682		--	--	--	--
13C4-PFOA	µg/L	100.000	95.0264	95.0	12954	2.63	708		--	--	--	--
13C5-PFNA	µg/L	100.000	95.3335	95.3	10562	3.06	1174		--	--	--	--
13C2-PFDA	µg/L	100.000	91.9626	92.0	9039	3.45	535		--	--	--	--
13C2-PFUnA	µg/L	100.000	90.6876	90.7	9641	3.78	972		--	--	--	--
13C2-PFDoA	µg/L	100.000	85.5186	85.5	9425	4.09	837		--	--	--	--
13C2-PFTeDA	µg/L	100.000	81.3416	81.3	7324	4.58	653		--	--	--	--
13C3-PFBS	µg/L	100.000	92.7780	92.8	4689	1.39	644		--	--	--	--
18O2-PFHxS	µg/L	100.000	94.4925	94.5	2402	2.12	438		--	--	--	--
13C4-PFOS	µg/L	100.000	93.2260	93.2	2491	2.93	410		--	--	--	--
D3-MeFOSA	µg/L	100.000	59.3066	59.3	2087	5.24	79		--	--	--	--
D5-EtFOSA	µg/L	100.000	55.6965	55.7	2327	5.36	50		--	--	--	--

PFHxA 1





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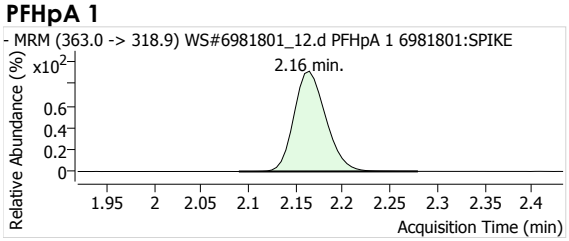

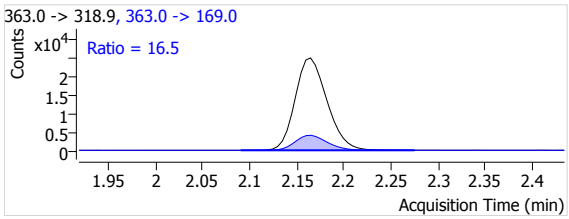

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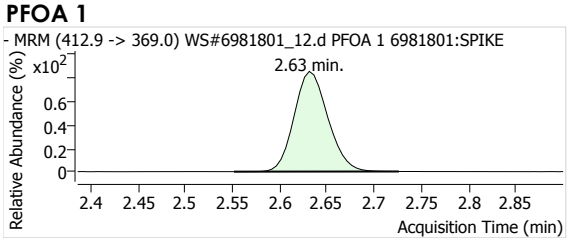

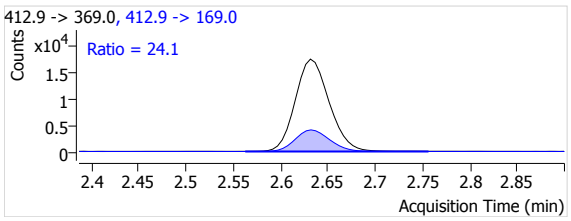

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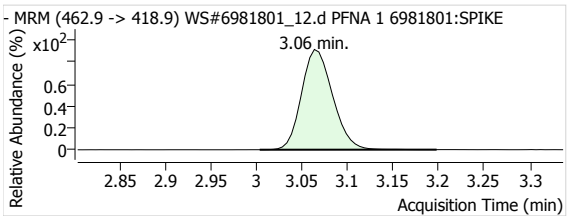

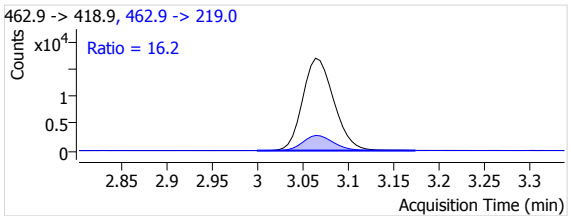

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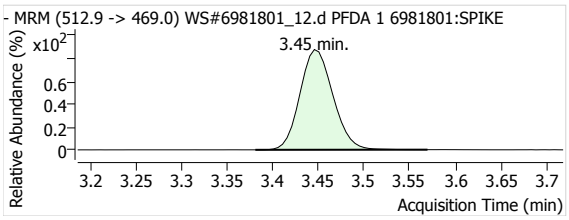

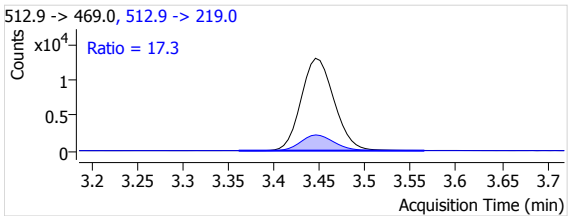

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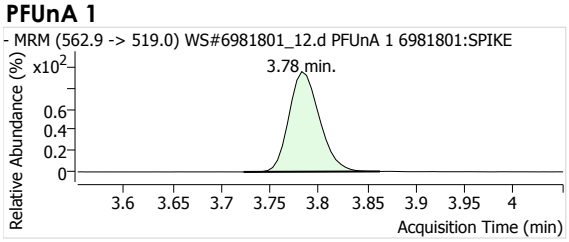

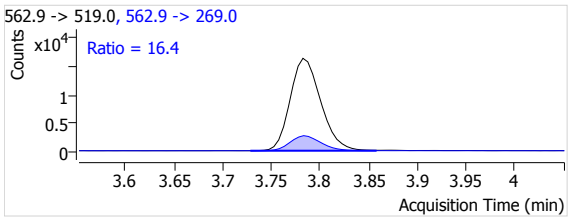

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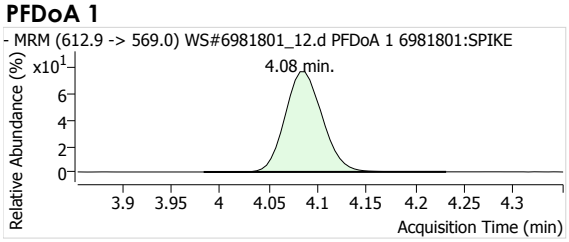

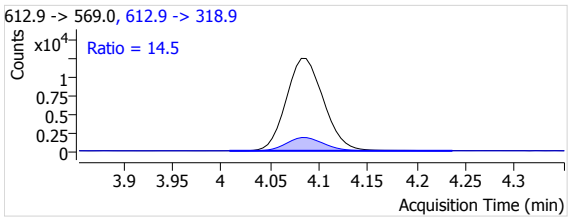

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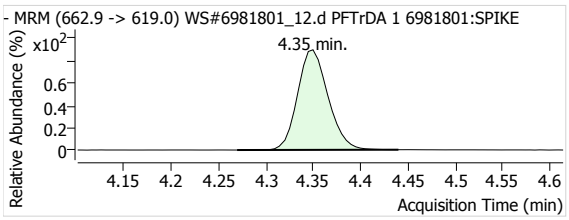

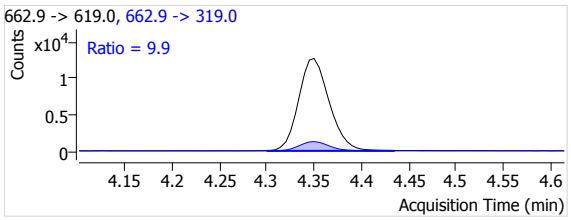

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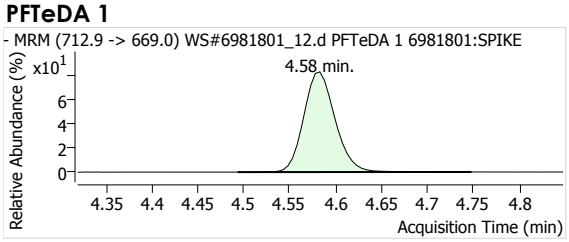

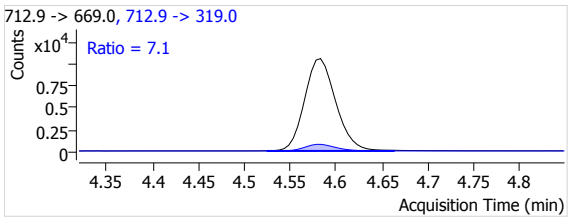

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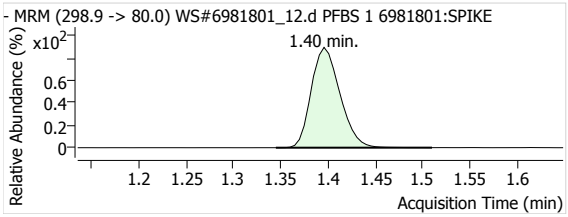

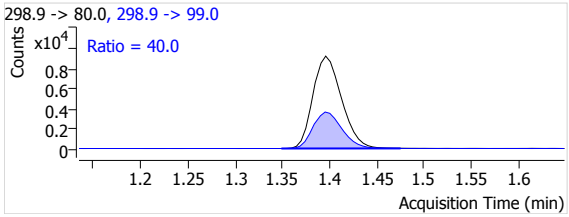

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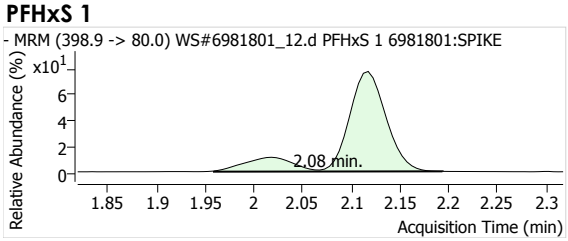

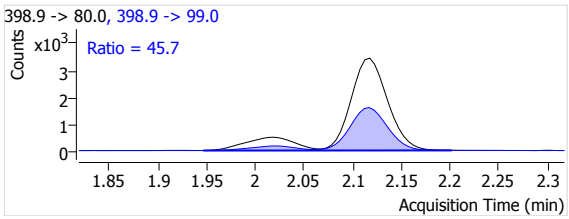

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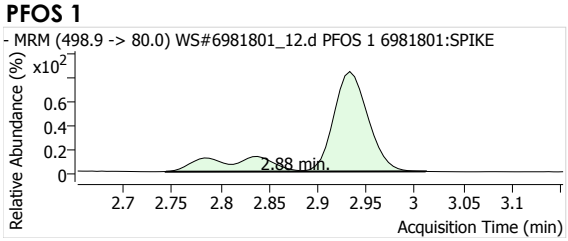

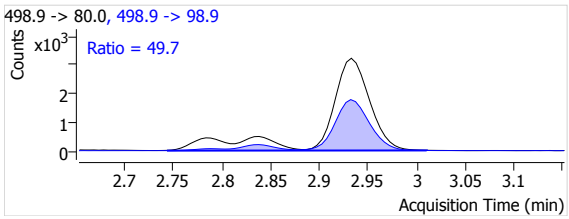

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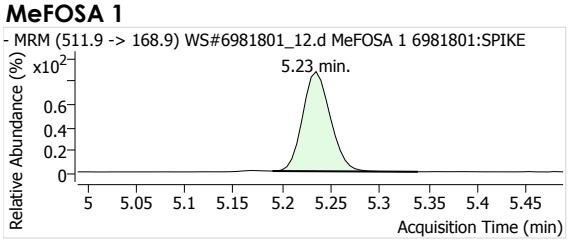

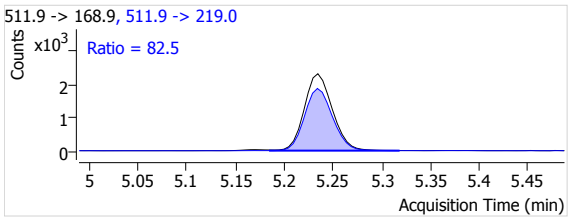

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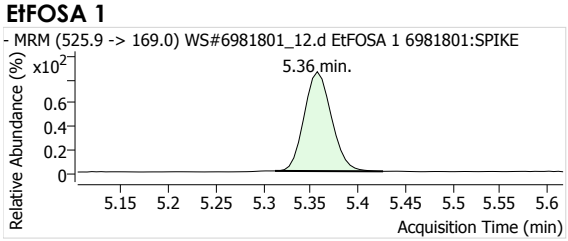

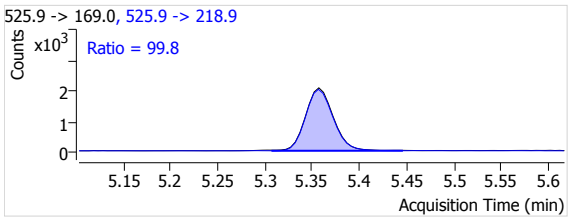

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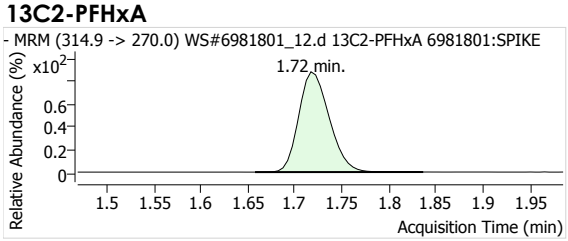

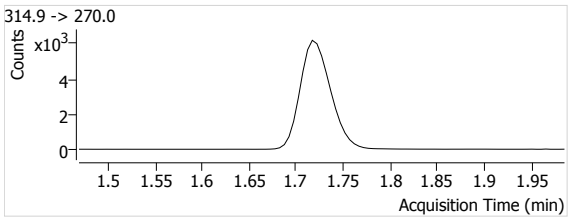

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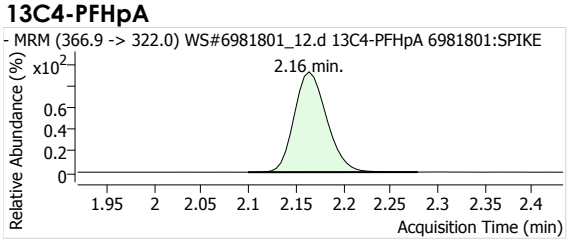

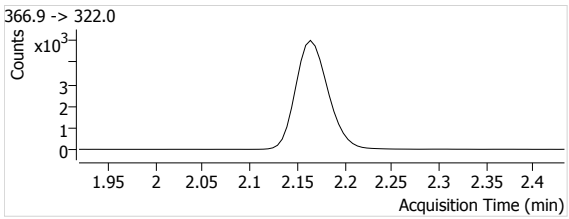

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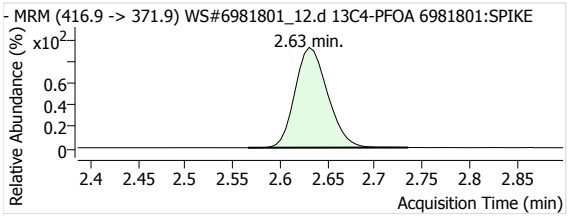

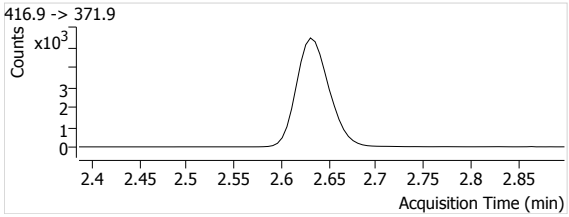

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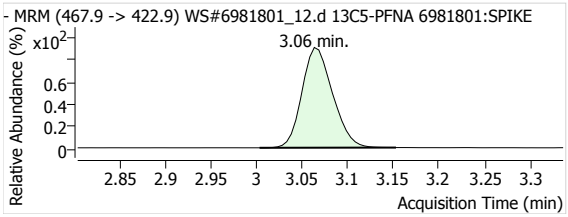

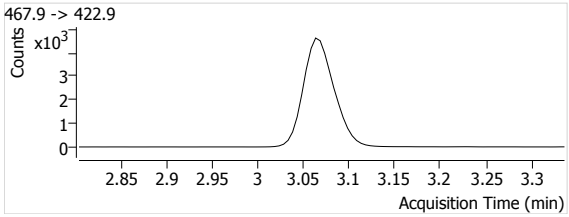

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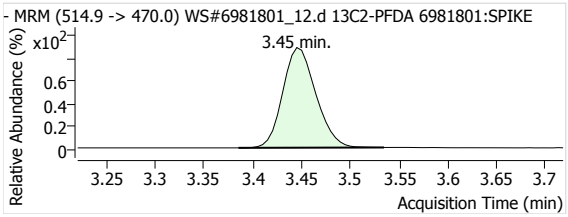

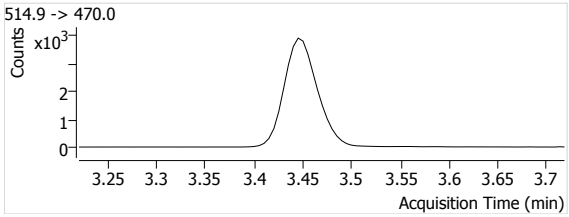

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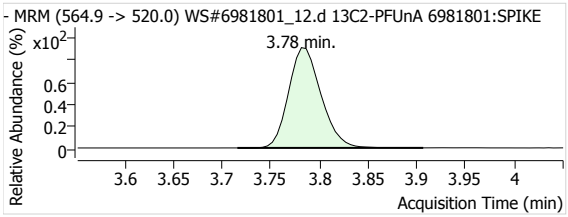

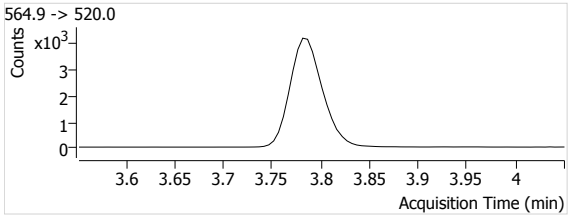

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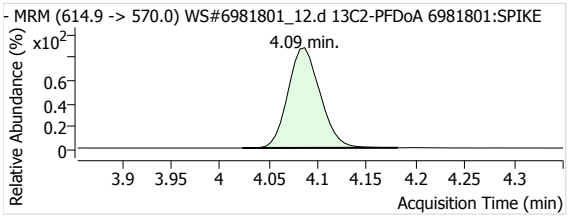

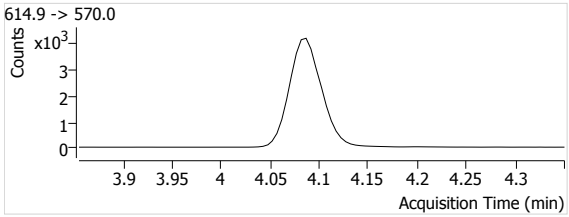

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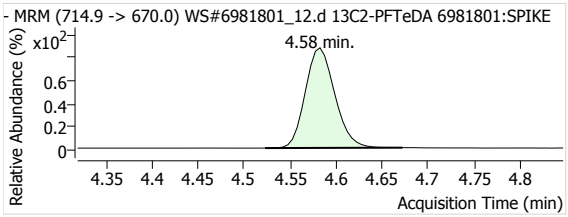

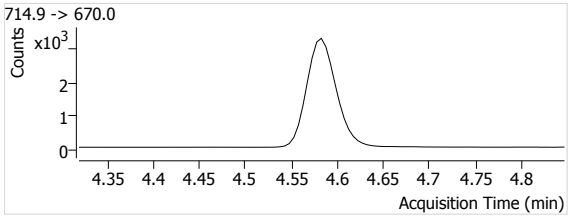

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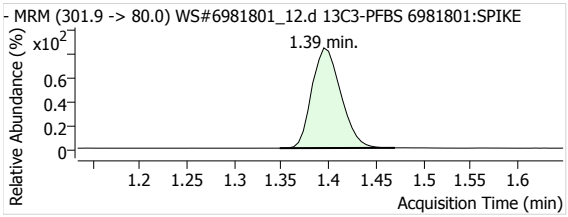

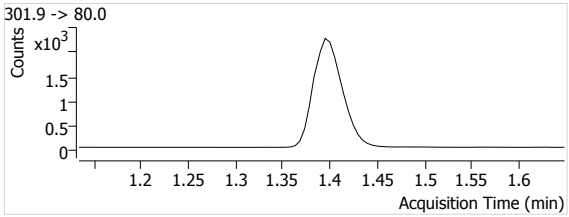

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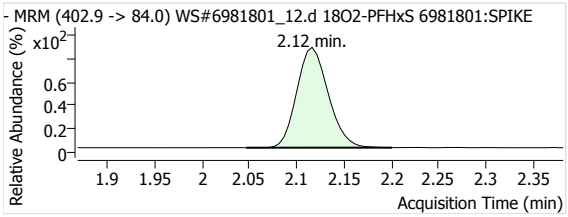

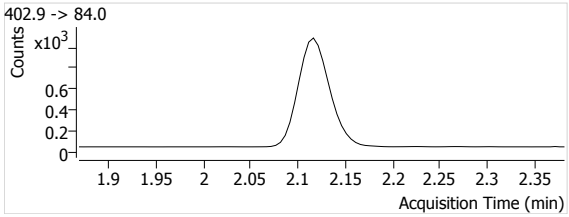

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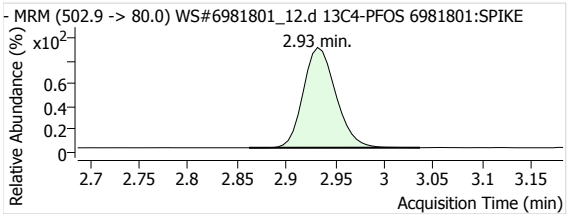
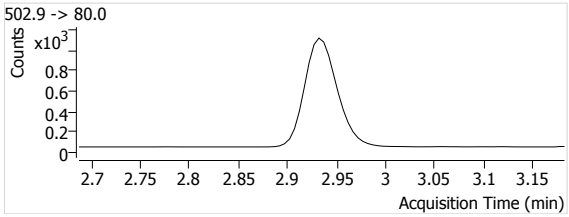
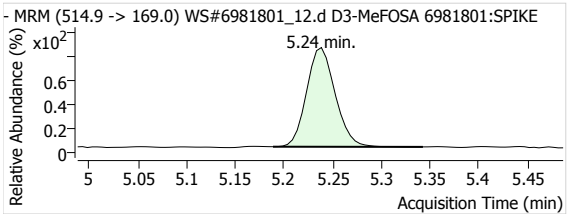
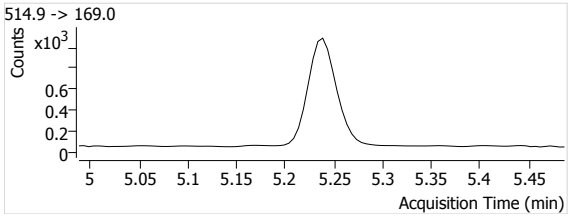




D3-MeFOSA





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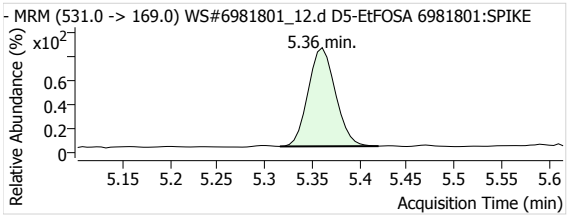
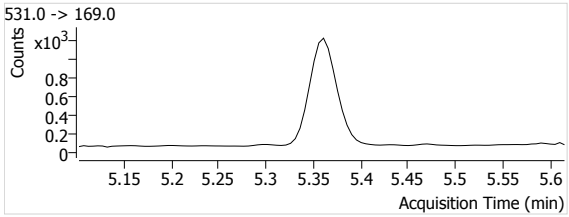




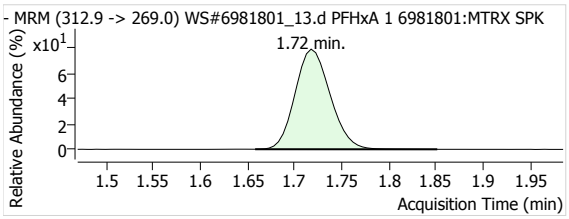
Quantitative Analysis Report

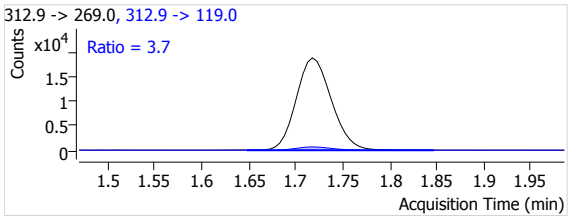
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	6981801:MTRX SPK	**Data File**	WS#6981801_13.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B3
Acq. Date-Time	2020/10/05 2:07:33 PM	**Dil.**	0.0
Comment	NTX313-01		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.5375	112.0	48590	1.72	621	3.8637	1781	1.72	115	3.7
PFHpA 1	µg/L	20.000	0.5369	111.9	56318	2.16	1015	5.2161	9467	2.16	515	16.8
PFOA 1	µg/L	20.000	0.5490	114.4	42730	2.63	714	3.5686	10358	2.63	973	24.2
PFNA 1	µg/L	20.000	0.5157	107.4	37291	3.06	945	3.9011	5894	3.06	438	15.8
PFDA 1	µg/L	20.000	0.4938	102.9	28937	3.45	724	3.5341	5049	3.45	473	17.4
PFUnA 1	µg/L	20.000	0.4820	100.4	30641	3.78	695	3.5419	4883	3.78	302	15.9
PFDoA 1	µg/L	20.000	0.4613	96.1	27141	4.09	564	3.1826	3905	4.09	504	14.4
PFTrDA 1	µg/L	20.000	0.4729	98.5	23891	4.35	454	3.5579	2253	4.35	322	9.4
PFTeDA 1	µg/L	20.000	0.4703	98.0	21183	4.58	509	3.1546	1492	4.58	270	7.0
PFBS 1	µg/L	20.000	0.5262	109.6	18219	1.40	807	4.2478	7294	1.40	470	40.0
PFHxS 1	µg/L	20.000	0.6582	137.1	12474	2.08	221	5.8345	5914	2.07	291	47.4
PFOS 1	µg/L	20.000	0.7166	149.3	12708	2.88	173	5.5592	6359	2.88	384	50.0
MeFOSA 1	µg/L	20.000	0.4264	88.8	3429	5.23	107	1.7051	2786	5.23	251	81.2
EtFOSA 1	µg/L	20.000	0.4086	85.1	3129	5.36	141	1.3321	3034	5.36	431	97.0
13C2-PFHxA	µg/L	100.000	85.5568	85.6	12576	1.72	733		--	--	--	--
13C4-PFHpA	µg/L	100.000	86.4659	86.5	10797	2.16	658		--	--	--	--
13C4-PFOA	µg/L	100.000	87.8374	87.8	11974	2.63	659		--	--	--	--
13C5-PFNA	µg/L	100.000	86.2804	86.3	9559	3.06	1199		--	--	--	--
13C2-PFDA	µg/L	100.000	83.3045	83.3	8188	3.45	437		--	--	--	--
13C2-PFUnA	µg/L	100.000	81.3752	81.4	8651	3.78	587		--	--	--	--
13C2-PFDoA	µg/L	100.000	77.3795	77.4	8528	4.09	299		--	--	--	--
13C2-PFTeDA	µg/L	100.000	74.5780	74.6	6715	4.58	303		--	--	--	--
13C3-PFBS	µg/L	100.000	84.8635	84.9	4289	1.39	305		--	--	--	--
18O2-PFHxS	µg/L	100.000	84.1070	84.1	2138	2.12	340		--	--	--	--
13C4-PFOS	µg/L	100.000	85.5539	85.6	2286	2.93	332		--	--	--	--
D3-MeFOSA	µg/L	100.000	57.1469	57.1	2011	5.24	72		--	--	--	--
D5-EtFOSA	µg/L	100.000	56.2231	56.2	2349	5.36	58		--	--	--	--

PFHxA 1





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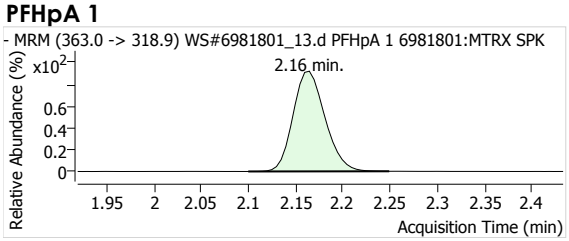

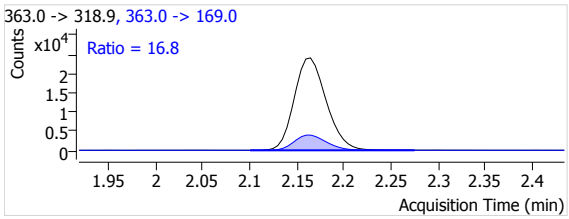

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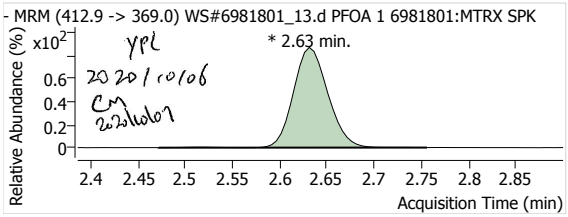

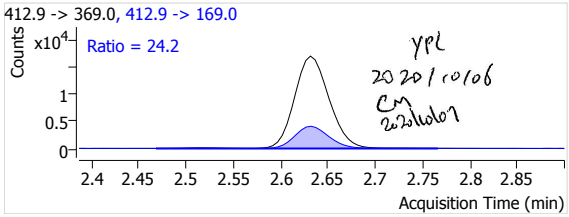

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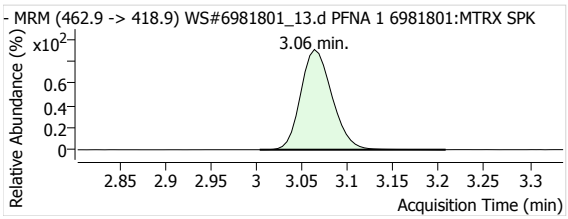

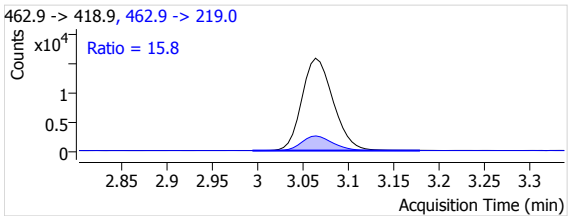

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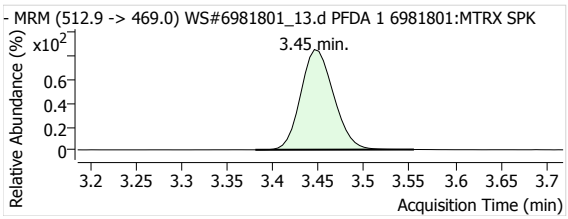
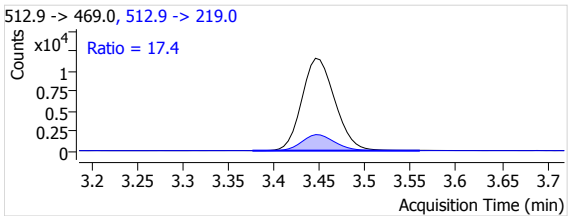
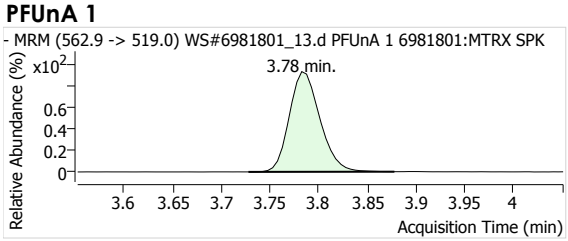
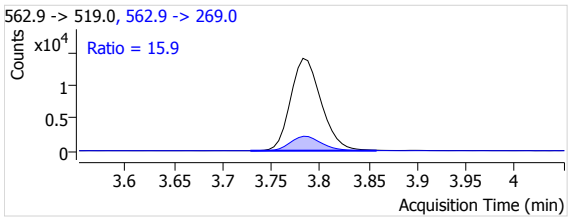




PFUnA 1





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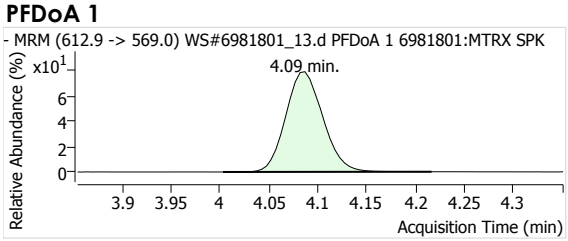

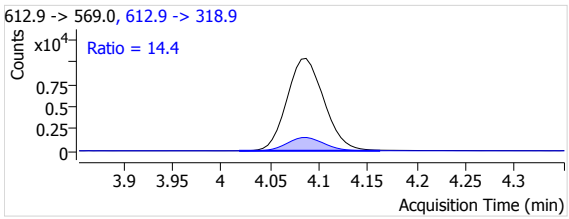

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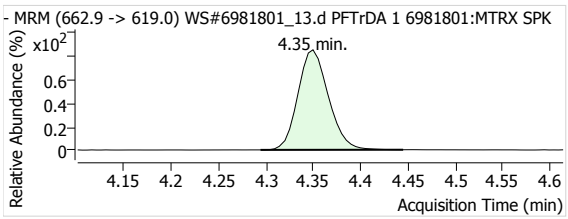

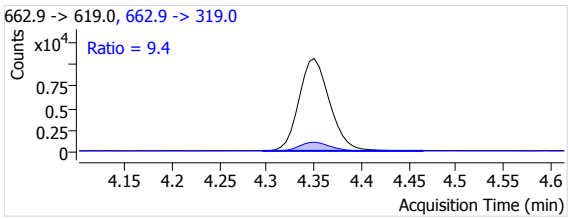

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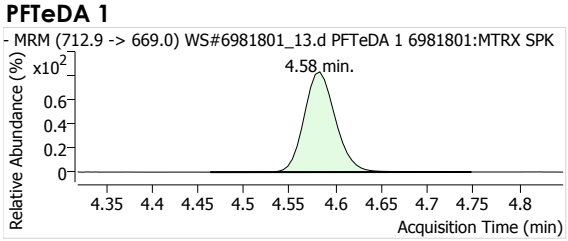

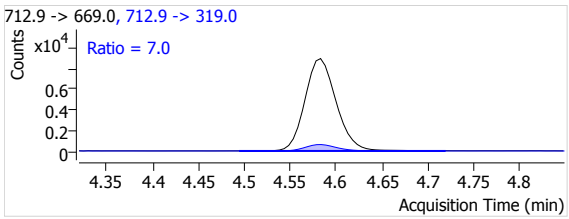

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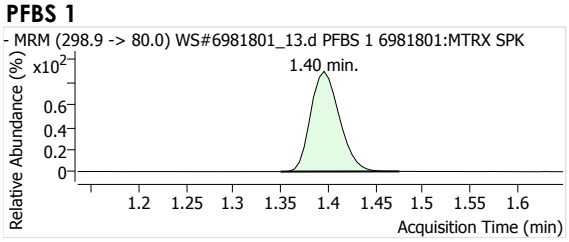

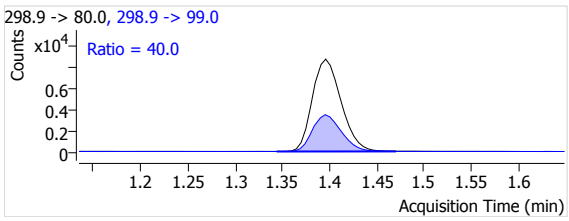

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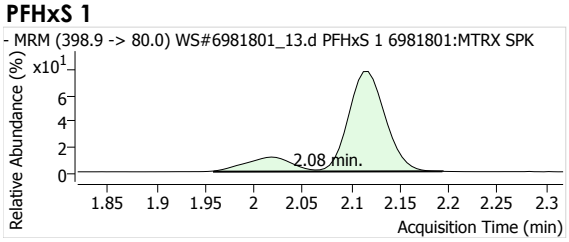
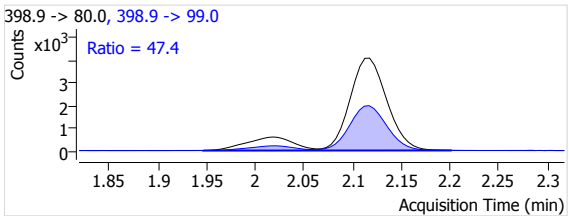
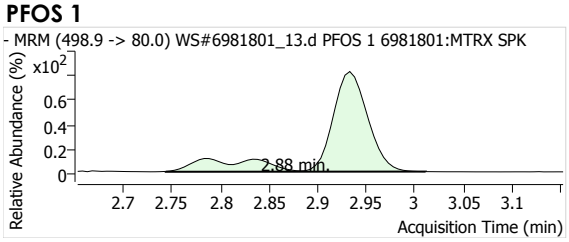
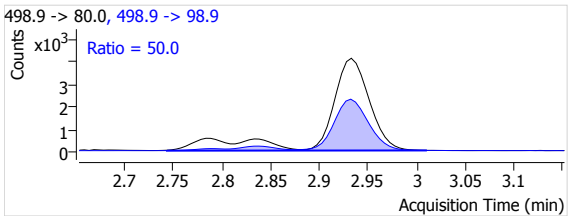




PFOS 1





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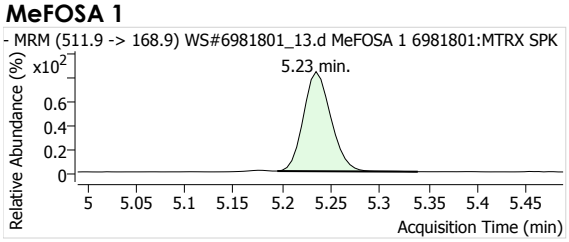

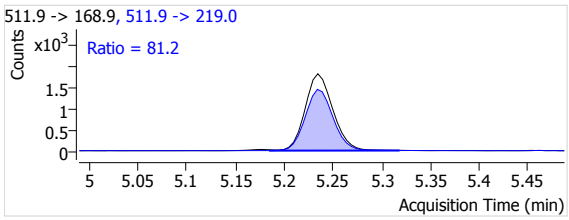

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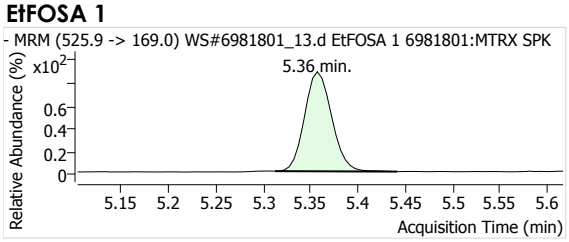

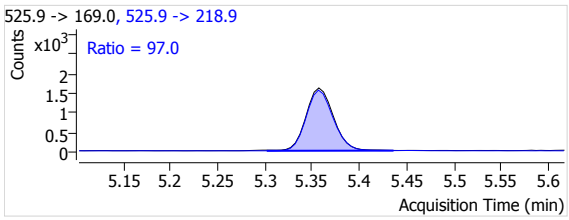

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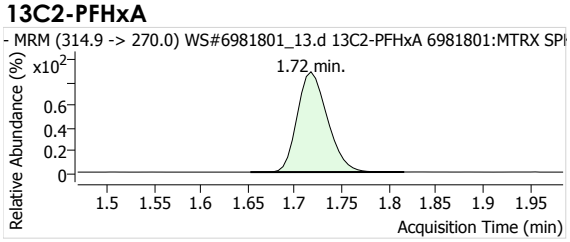

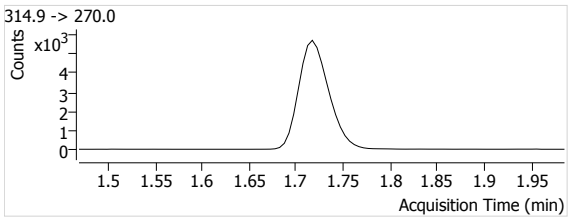

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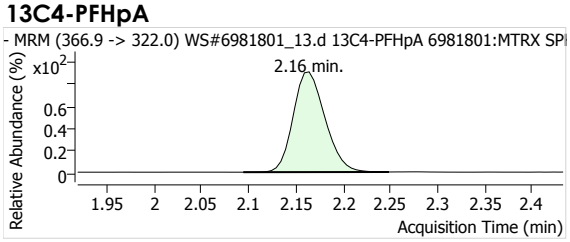

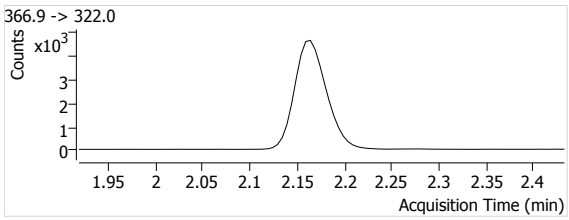

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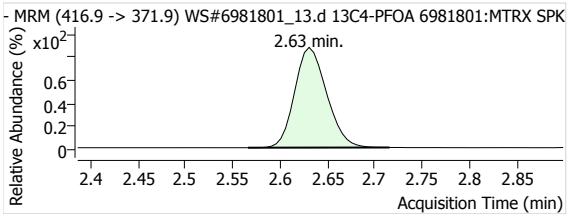

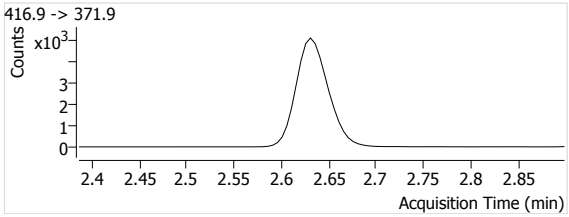

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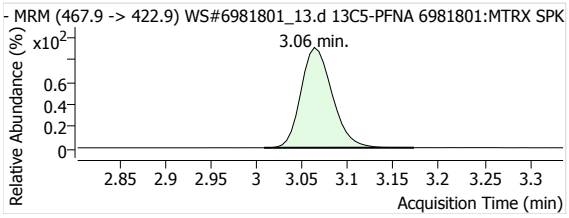

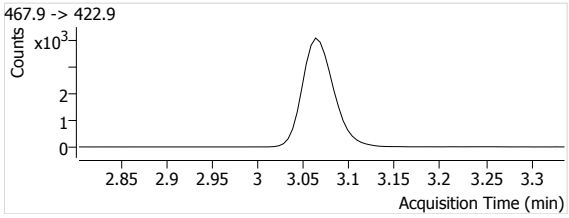

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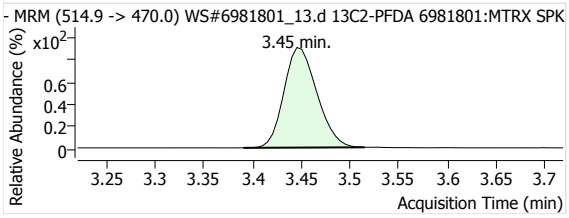

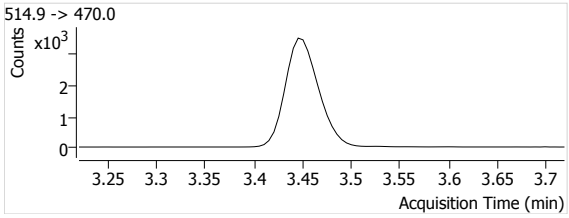

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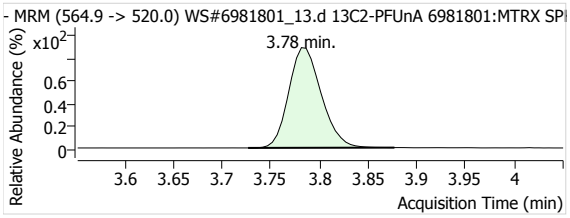

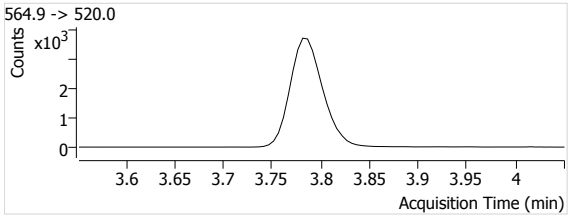

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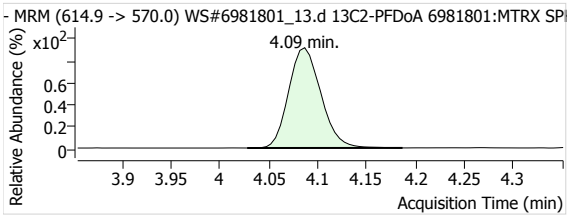

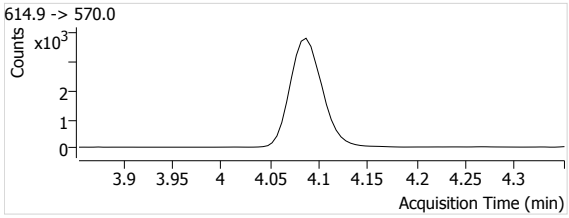

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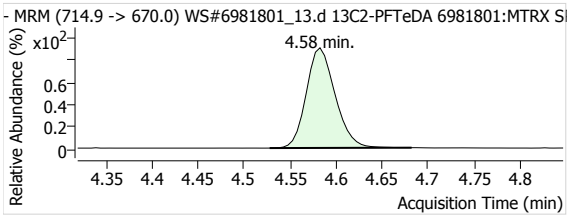

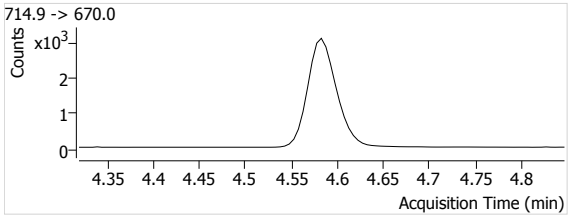

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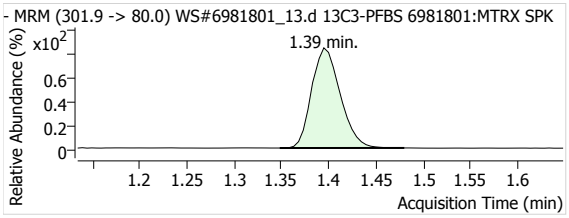
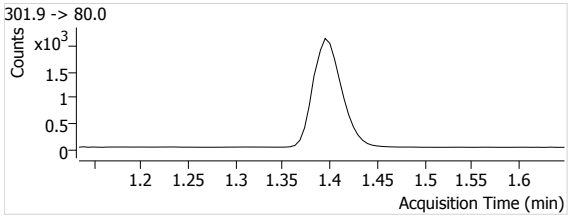
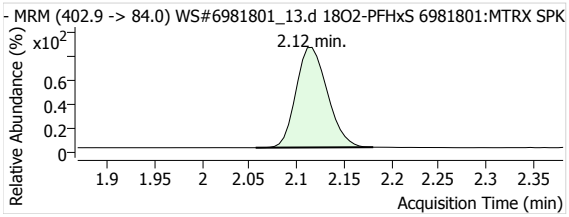
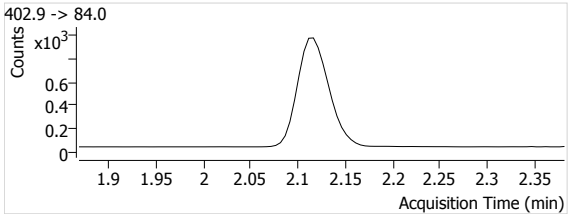




18O2-PFHxS





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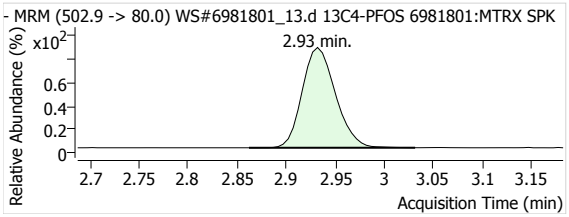
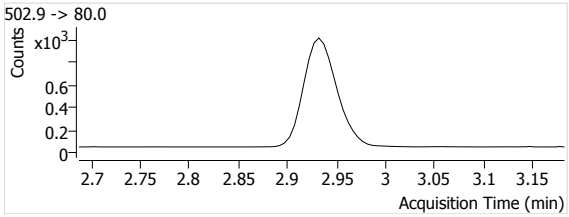
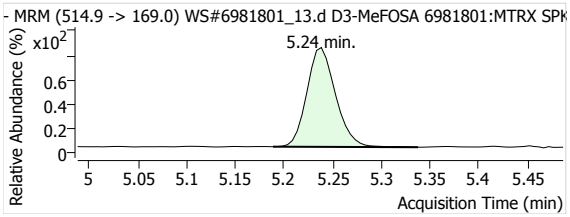
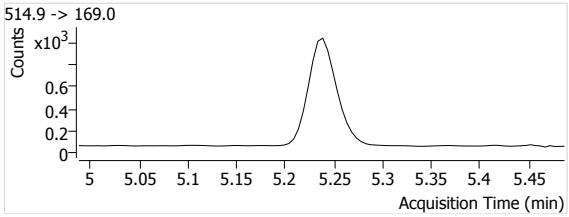




D3-MeFOSA





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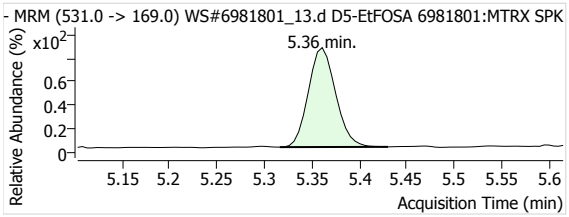
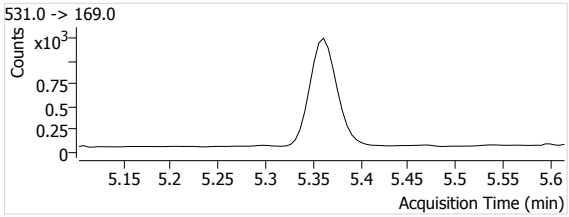




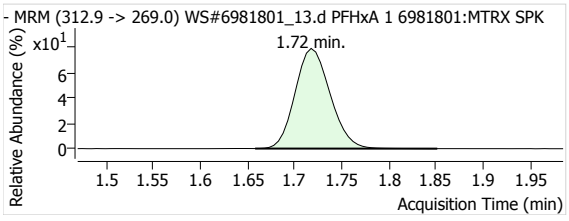
Quantitative Analysis Report

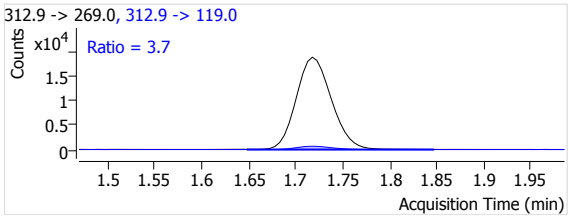
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:MTRX SPK	**Data File**	WS#6981801_13.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B3
Acq. Date-Time	2020/10/05 2:07:33 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.5375	112.0	48590	1.72	621	3.8637	1781	1.72	115	3.7
PFHpA 1	µg/L	20.000	0.5369	111.9	56318	2.16	1015	5.2161	9467	2.16	515	16.8
PFOA 1	µg/L	20.000	0.5462	113.8	42513	2.63	291	3.5504	10228	2.63	141	24.1
PFNA 1	µg/L	20.000	0.5157	107.4	37291	3.06	945	3.9011	5894	3.06	438	15.8
PFDA 1	µg/L	20.000	0.4938	102.9	28937	3.45	724	3.5341	5049	3.45	473	17.4
PFUnA 1	µg/L	20.000	0.4820	100.4	30641	3.78	695	3.5419	4883	3.78	302	15.9
PFDoA 1	µg/L	20.000	0.4613	96.1	27141	4.09	564	3.1826	3905	4.09	504	14.4
PFTrDA 1	µg/L	20.000	0.4729	98.5	23891	4.35	454	3.5579	2253	4.35	322	9.4
PFTeDA 1	µg/L	20.000	0.4703	98.0	21183	4.58	509	3.1546	1492	4.58	270	7.0
PFBS 1	µg/L	20.000	0.5262	109.6	18219	1.40	807	4.2478	7294	1.40	470	40.0
PFHxS 1	µg/L	20.000	0.6582	137.1	12474	2.08	221	5.8345	5914	2.07	291	47.4
PFOS 1	µg/L	20.000	0.7166	149.3	12708	2.88	173	5.5592	6359	2.88	384	50.0
MeFOSA 1	µg/L	20.000	0.4264	88.8	3429	5.23	107	1.7051	2786	5.23	251	81.2
EtFOSA 1	µg/L	20.000	0.4086	85.1	3129	5.36	141	1.3321	3034	5.36	431	97.0
13C2-PFHxA	µg/L	100.000	85.5568	85.6	12576	1.72	733		--	--	--	--
13C4-PFHpA	µg/L	100.000	86.4659	86.5	10797	2.16	658		--	--	--	--
13C4-PFOA	µg/L	100.000	87.8374	87.8	11974	2.63	659		--	--	--	--
13C5-PFNA	µg/L	100.000	86.2804	86.3	9559	3.06	1199		--	--	--	--
13C2-PFDA	µg/L	100.000	83.3045	83.3	8188	3.45	437		--	--	--	--
13C2-PFUnA	µg/L	100.000	81.3752	81.4	8651	3.78	587		--	--	--	--
13C2-PFDoA	µg/L	100.000	77.3795	77.4	8528	4.09	299		--	--	--	--
13C2-PFTeDA	µg/L	100.000	74.5780	74.6	6715	4.58	303		--	--	--	--
13C3-PFBS	µg/L	100.000	84.8635	84.9	4289	1.39	305		--	--	--	--
18O2-PFHxS	µg/L	100.000	84.1070	84.1	2138	2.12	340		--	--	--	--
13C4-PFOS	µg/L	100.000	85.5539	85.6	2286	2.93	332		--	--	--	--
D3-MeFOSA	µg/L	100.000	57.1469	57.1	2011	5.24	72		--	--	--	--
D5-EtFOSA	µg/L	100.000	56.2231	56.2	2349	5.36	58		--	--	--	--

PFHxA 1





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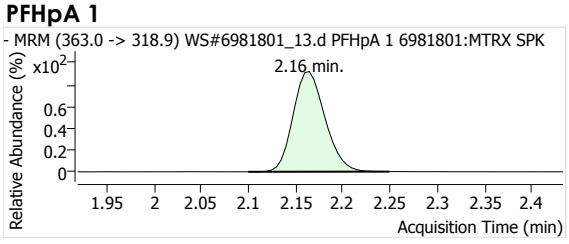

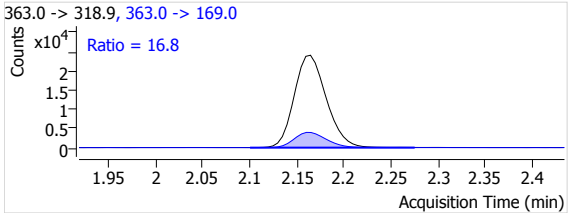

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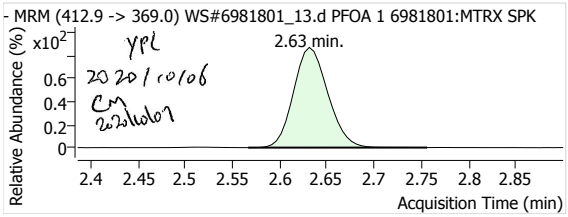

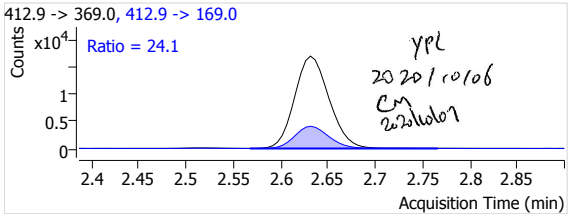

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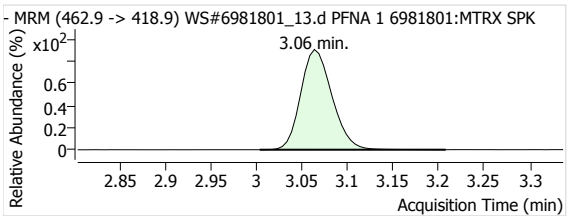

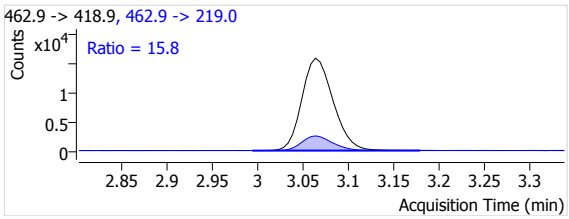

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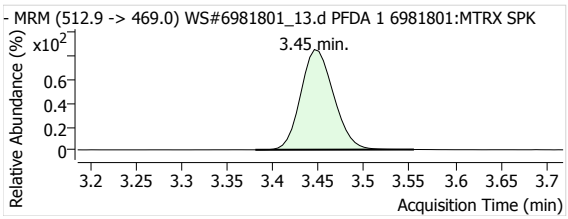

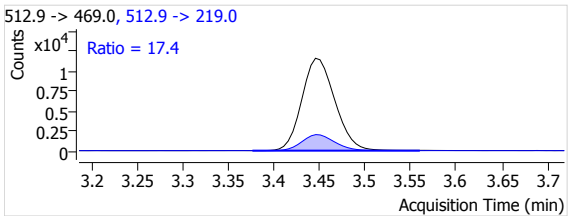

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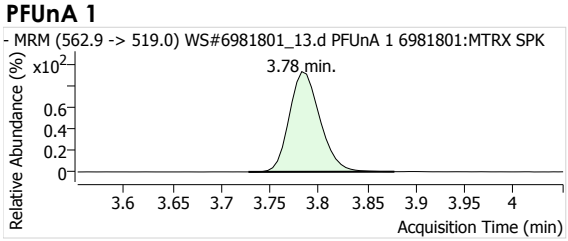

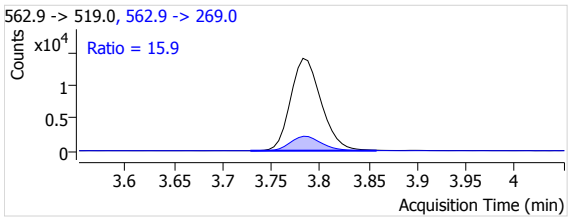

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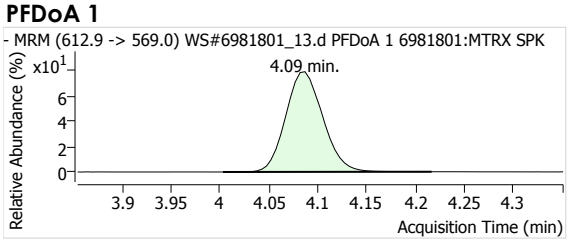

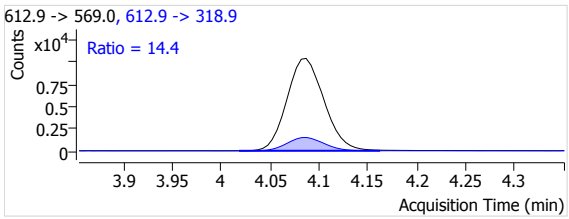

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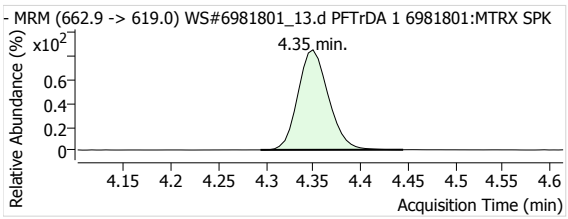

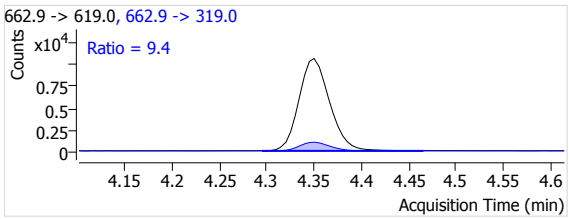

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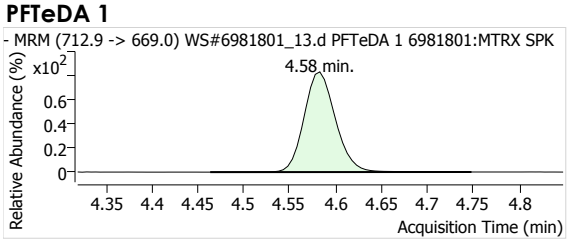

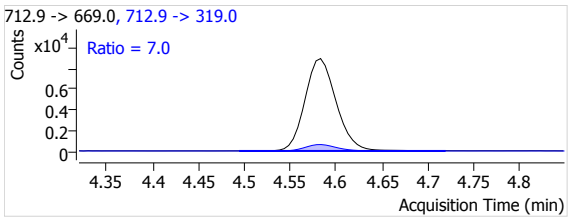

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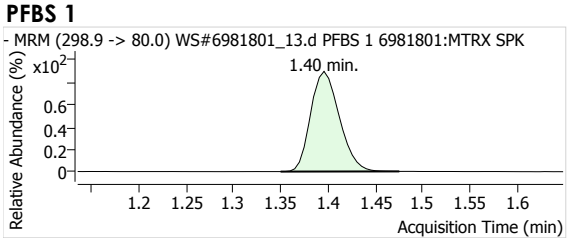

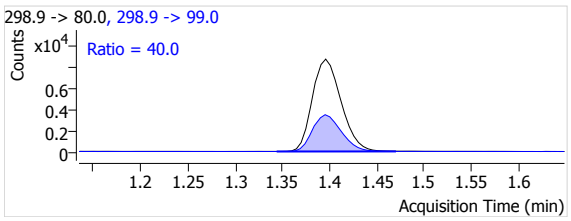

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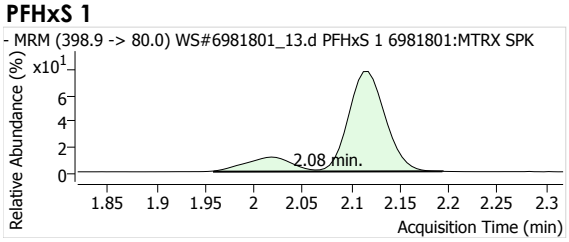

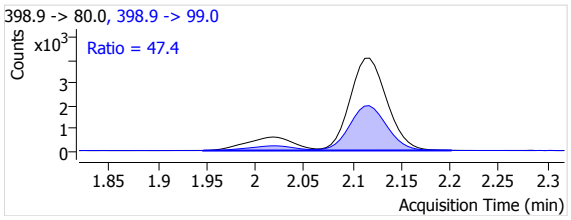

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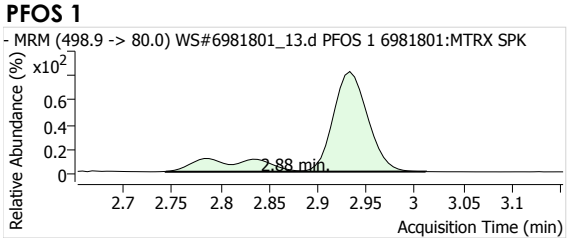

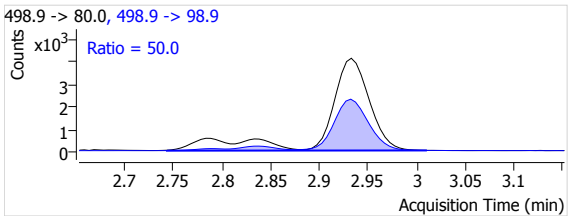

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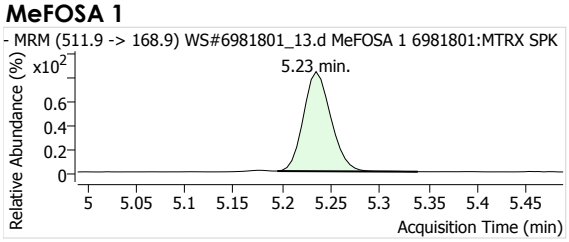

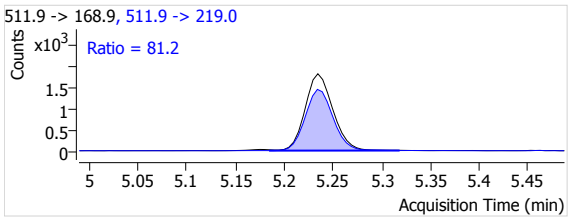

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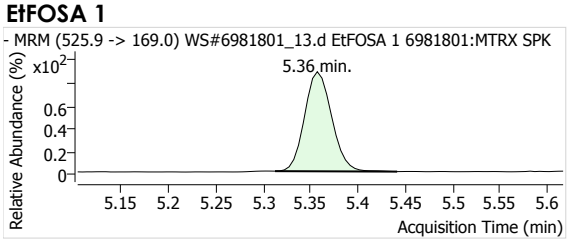

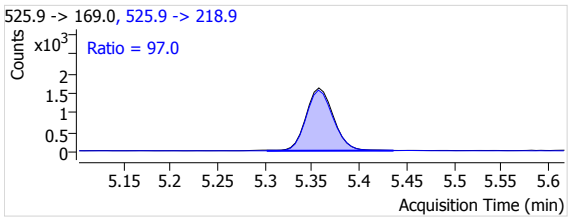

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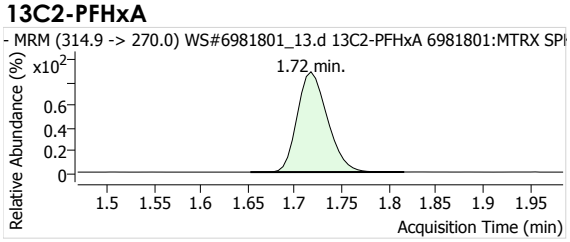

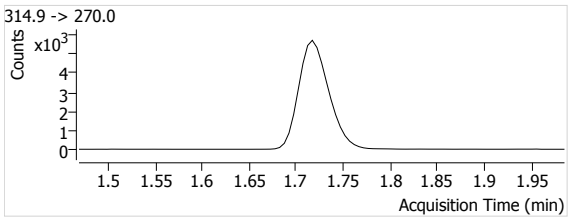

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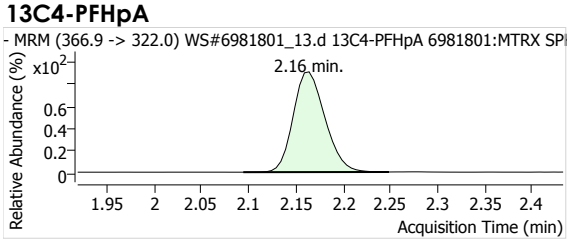

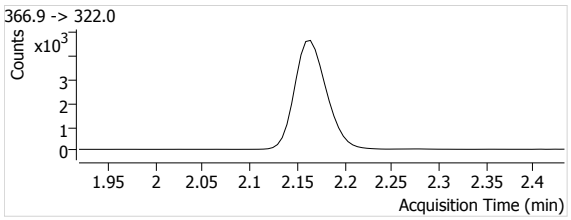

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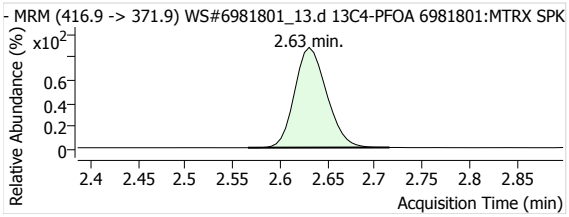

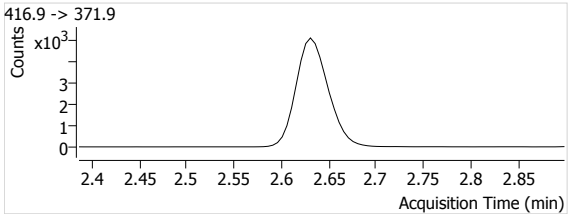

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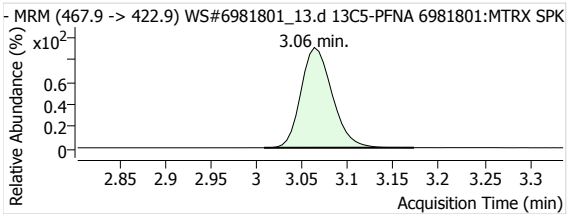

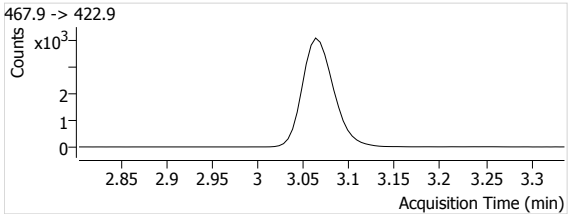

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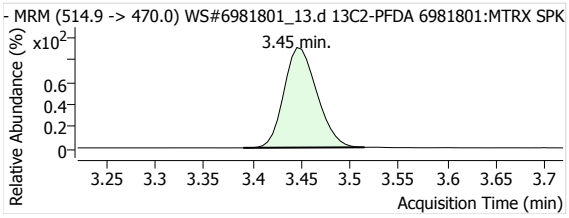

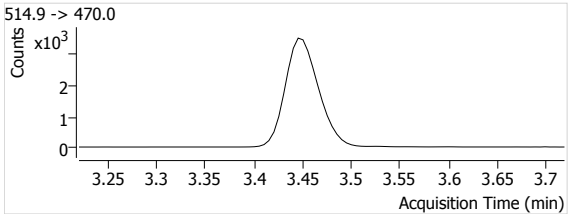

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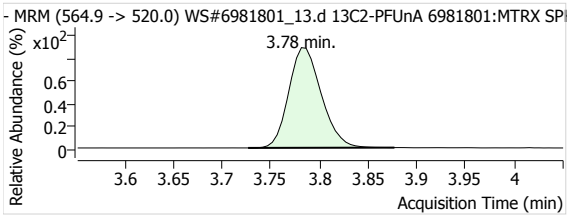

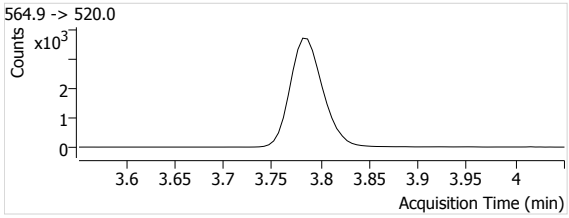

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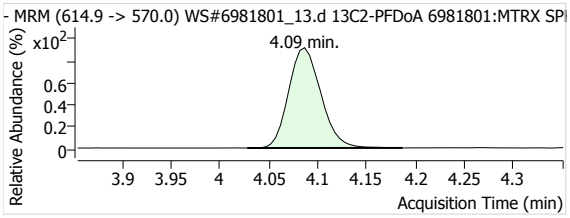

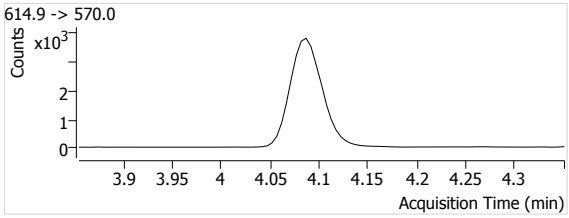

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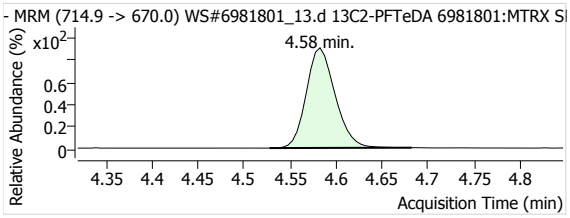

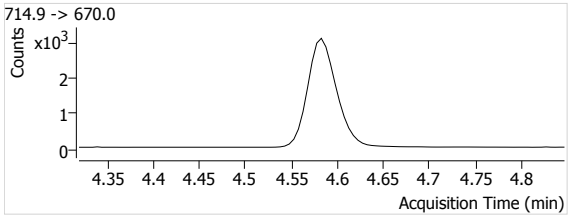

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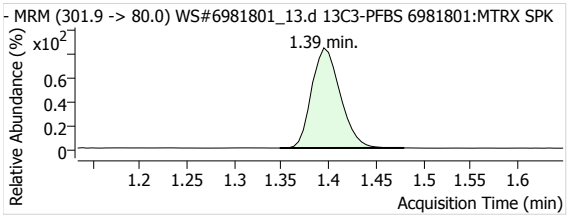

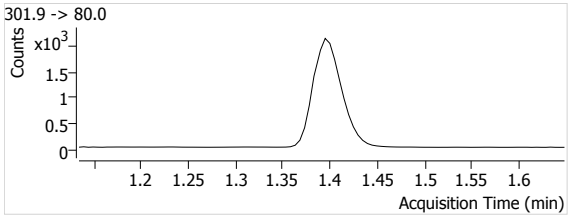

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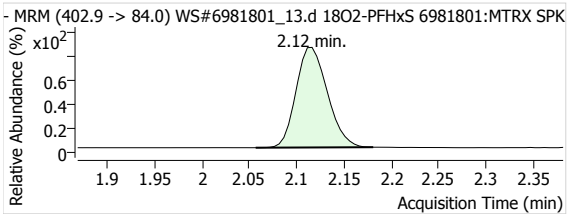

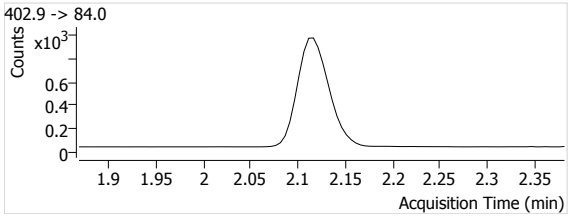

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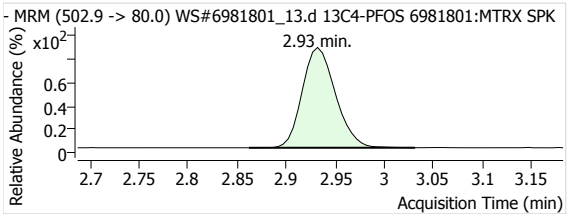
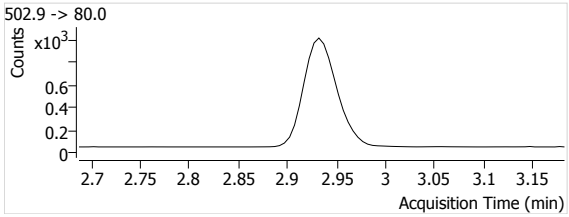
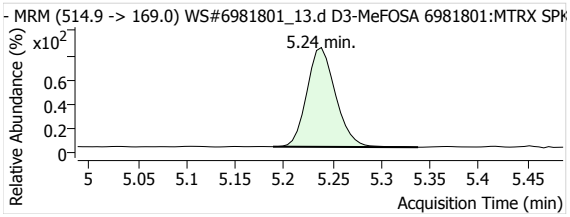
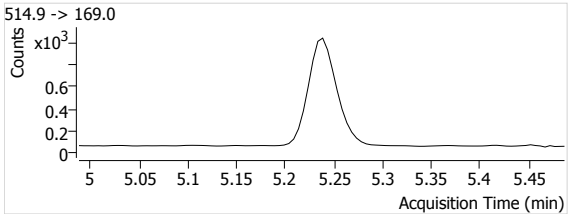




D3-MeFOSA





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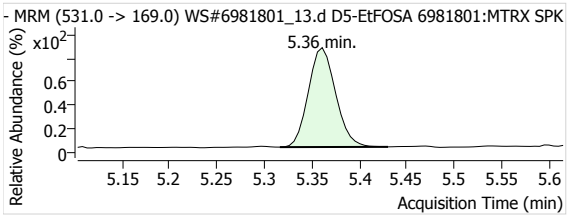

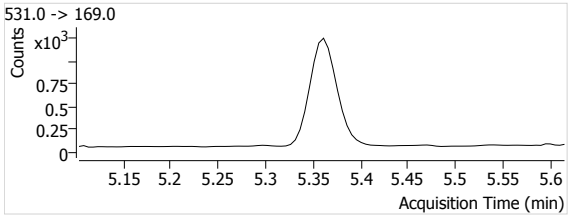

Quantitative Analysis Report

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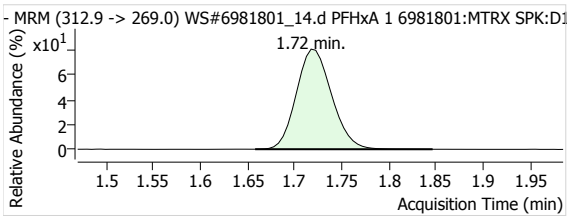
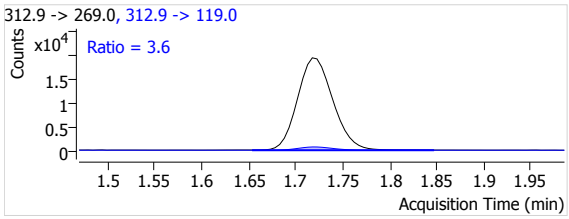
Sample Name	6981801:MTRX SPK:D1	**Data File**	WS#6981801_14.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B4
Acq. Date-Time	2020/10/05 2:14:34 PM	**Dil.**	0.0
Comment	NTX313-01		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.5211	108.6	50424	1.72	446	3.7465	1795	1.72	917	3.6
PFHpA 1	µg/L	20.000	0.5180	107.9	57909	2.16	673	5.0334	9552	2.17	431	16.5
PFOA 1	µg/L	20.000	0.5443	113.4	43982	2.63	434	3.5375	10649	2.63	1198	24.2
PFNA 1	µg/L	20.000	0.5006	104.3	38657	3.06	644	3.7873	6024	3.06	428	15.6
PFDA 1	µg/L	20.000	0.5054	105.3	31422	3.45	578	3.6167	5355	3.45	393	17.0
PFUnA 1	µg/L	20.000	0.5083	105.9	33985	3.78	382	3.7338	5495	3.78	418	16.2
PFDoA 1	µg/L	20.000	0.5130	106.9	32617	4.09	698	3.5365	4603	4.09	444	14.1
PFTrDA 1	µg/L	20.000	0.5358	111.6	28616	4.35	767	4.0259	2749	4.35	324	9.6
PFTeDA 1	µg/L	20.000	0.5248	109.3	24991	4.58	612	3.5159	1875	4.58	485	7.5
PFBS 1	µg/L	20.000	0.5345	111.4	19078	1.40	859	4.3153	7437	1.40	724	39.0
PFHxS 1	µg/L	20.000	0.6465	134.7	13083	2.08	263	5.7305	6026	2.07	511	46.1
PFOS 1	µg/L	20.000	0.7029	146.4	13263	2.88	235	5.4536	6611	2.88	606	49.8
MeFOSA 1	µg/L	20.000	0.6027	125.6	4627	5.23	154	2.4049	3670	5.23	310	79.3
EtFOSA 1	µg/L	20.000	0.5660	117.9	4203	5.36	168	1.8418	4245	5.36	484	101.0
13C2-PFHxA	µg/L	100.000	91.5641	91.6	13459	1.72	538		--	--	--	--
13C4-PFHpA	µg/L	100.000	92.1358	92.1	11505	2.16	2169		--	--	--	--
13C4-PFOA	µg/L	100.000	91.2045	91.2	12433	2.63	1398		--	--	--	--
13C5-PFNA	µg/L	100.000	92.1293	92.1	10207	3.06	713		--	--	--	--
13C2-PFDA	µg/L	100.000	88.3915	88.4	8688	3.45	543		--	--	--	--
13C2-PFUnA	µg/L	100.000	85.6175	85.6	9102	3.78	547		--	--	--	--
13C2-PFDoA	µg/L	100.000	83.6857	83.7	9223	4.09	641		--	--	--	--
13C2-PFTeDA	µg/L	100.000	78.9427	78.9	7108	4.58	822		--	--	--	--
13C3-PFBS	µg/L	100.000	87.4753	87.5	4421	1.39	308		--	--	--	--
18O2-PFHxS	µg/L	100.000	89.8112	89.8	2283	2.12	456		--	--	--	--
13C4-PFOS	µg/L	100.000	91.0180	91.0	2432	2.93	423		--	--	--	--
D3-MeFOSA	µg/L	100.000	54.6746	54.7	1924	5.24	70		--	--	--	--
D5-EtFOSA	µg/L	100.000	54.6194	54.6	2282	5.36	65		--	--	--	--

PFHxA 1





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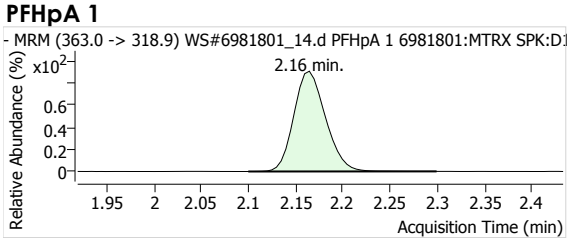

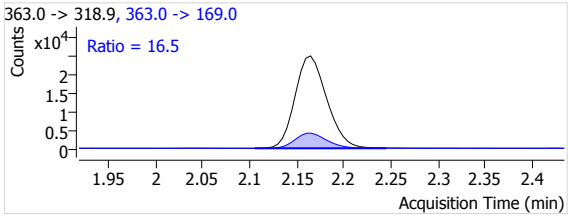

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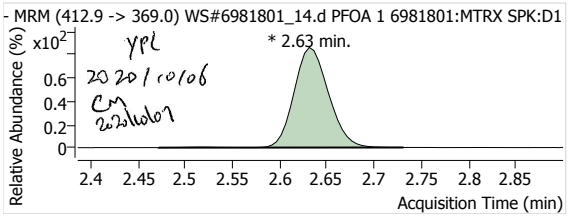

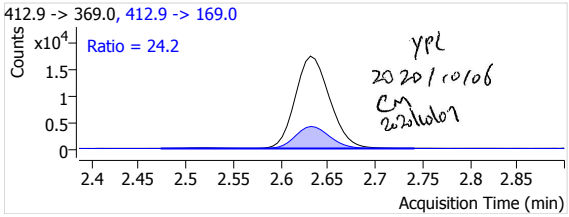

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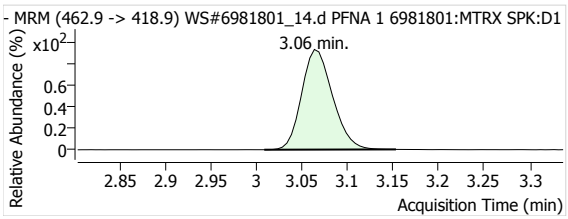

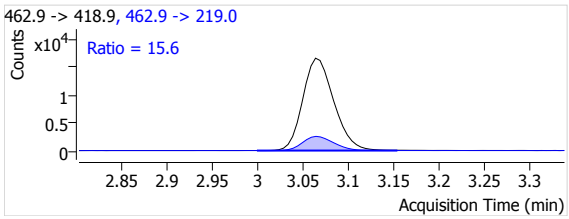

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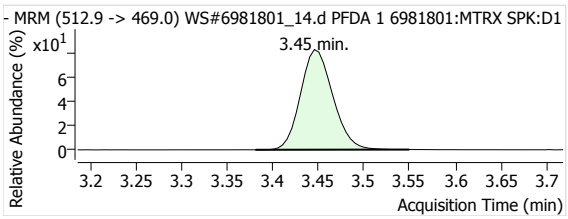

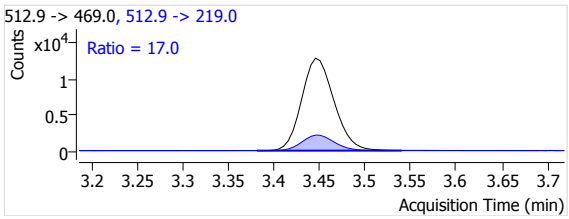

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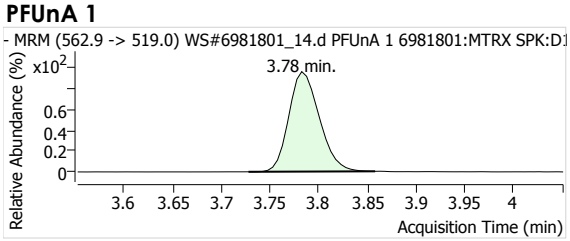

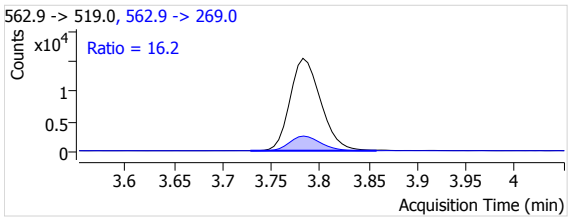

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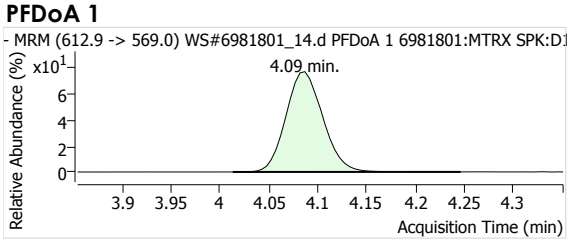

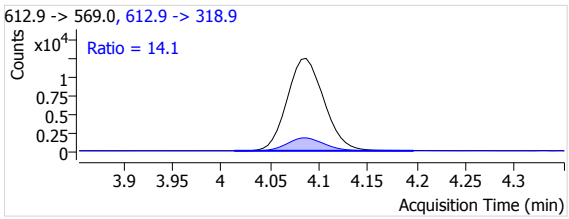

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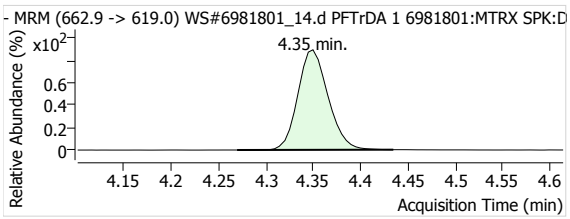

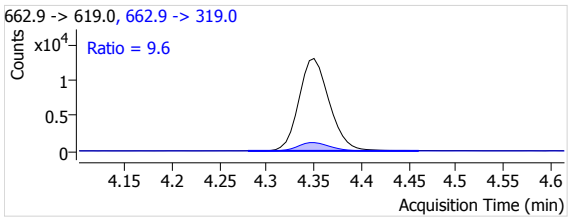

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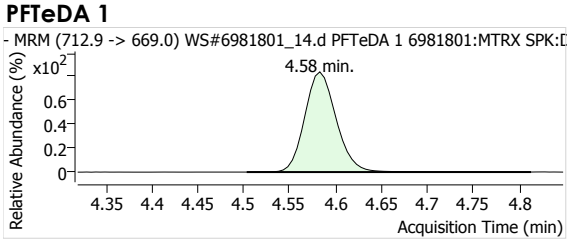

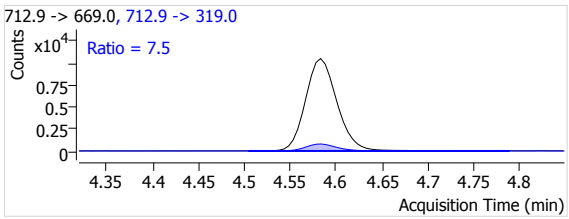

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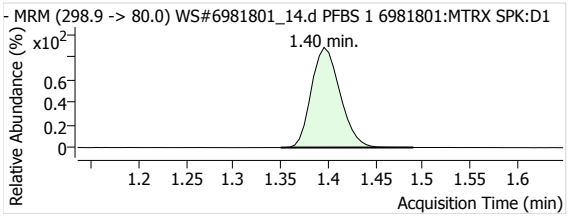

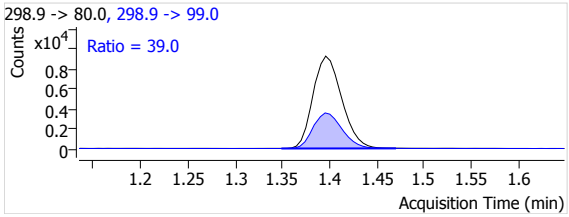

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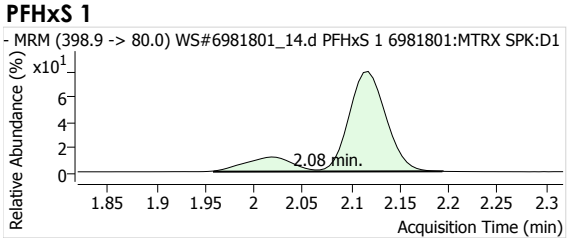
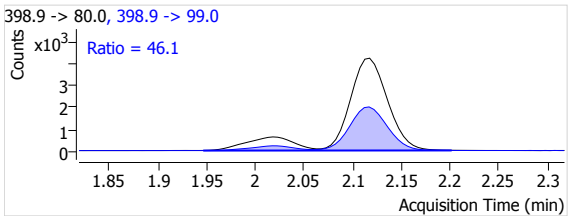
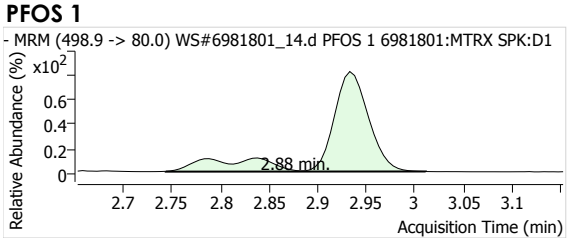
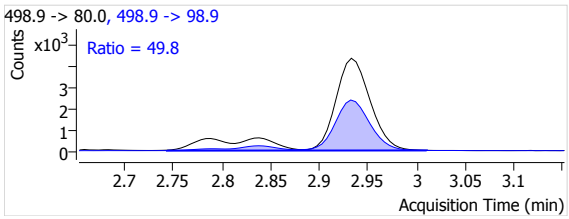




PFOS 1





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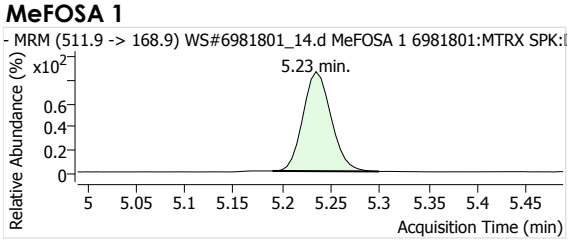

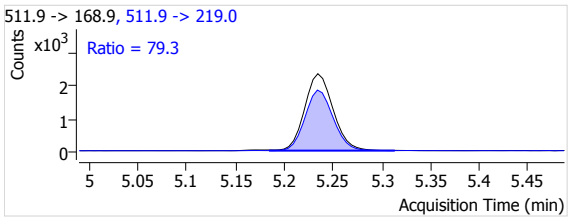

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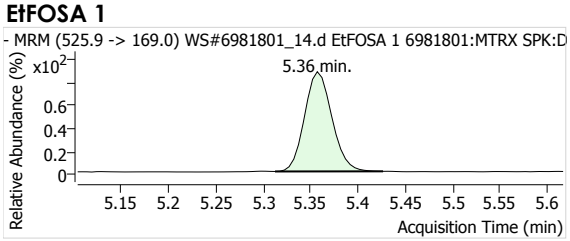
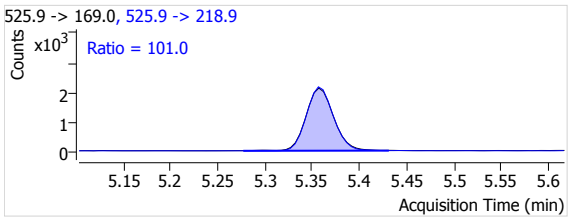
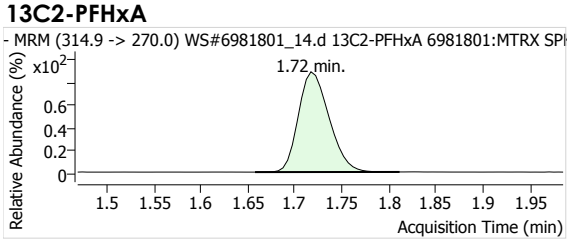
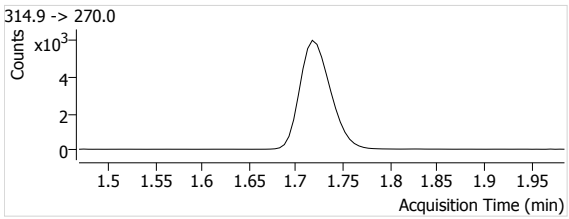




13C2-PFHxA





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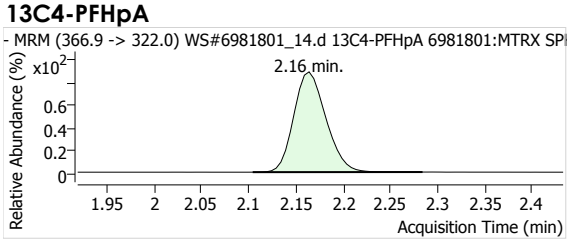

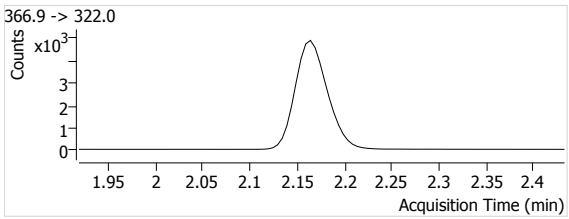

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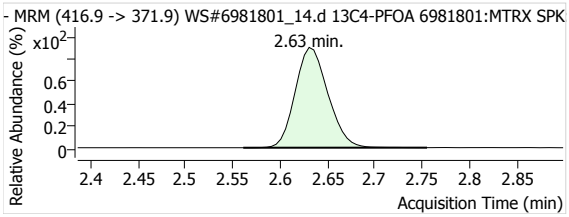
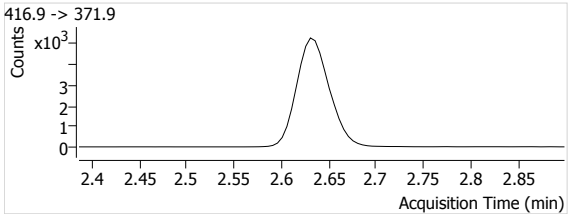
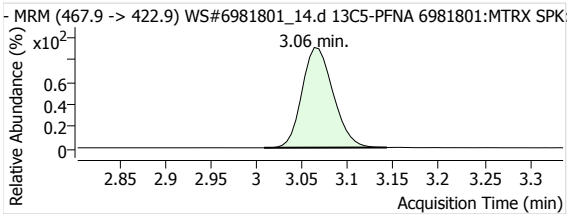
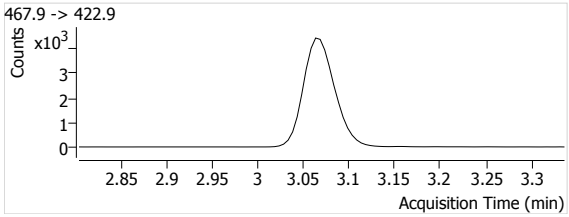




13C5-PFNA





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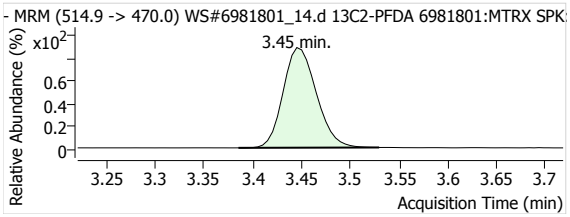

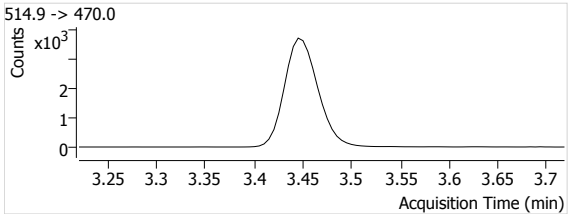

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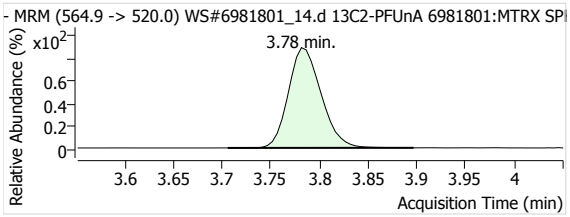

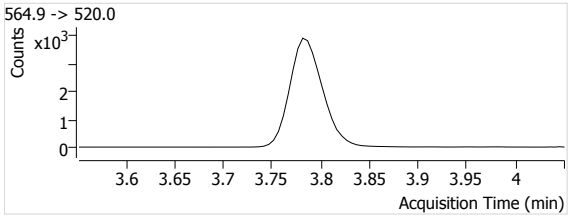

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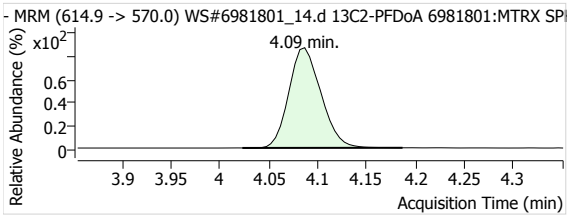

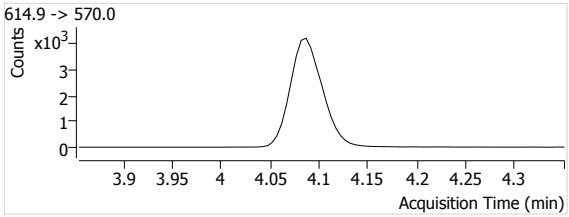

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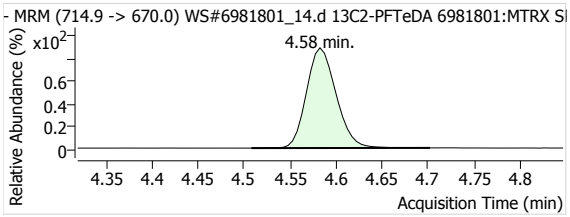
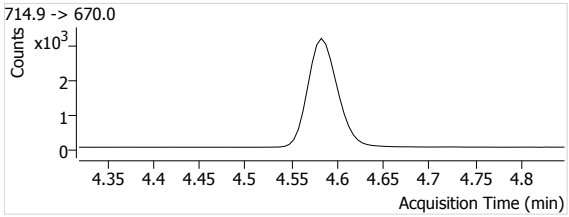
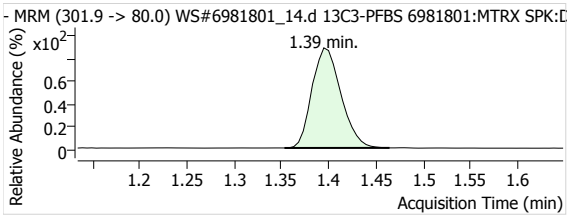
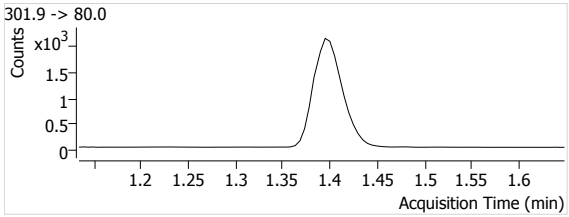


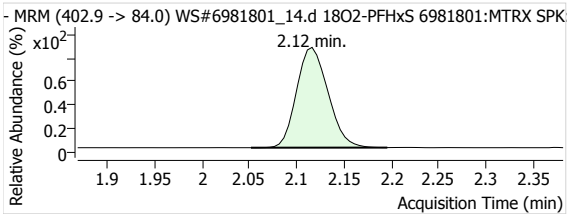


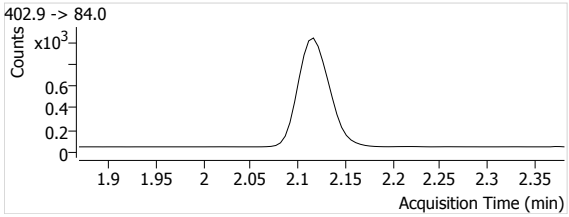
13C3-PFBS



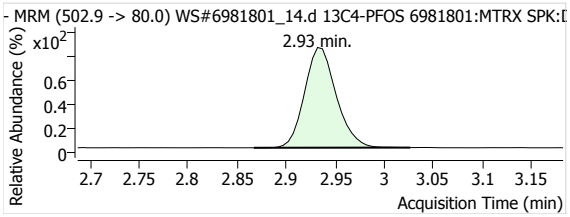


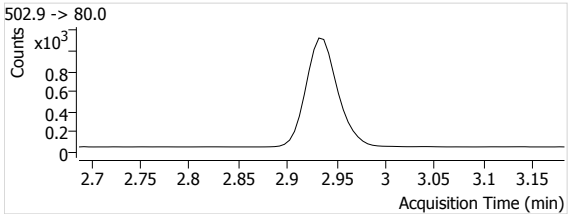
18O2-PFHxS





13C4-PFOS





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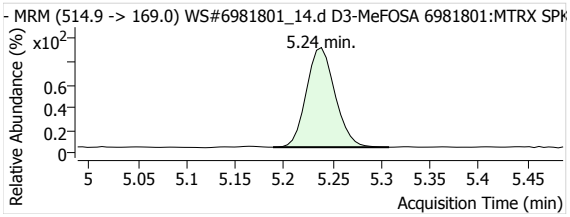

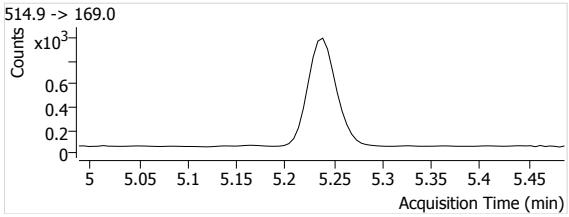

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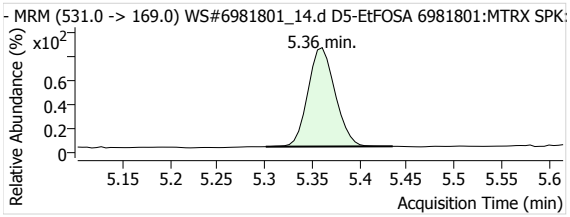
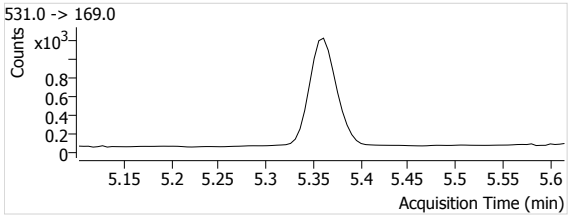




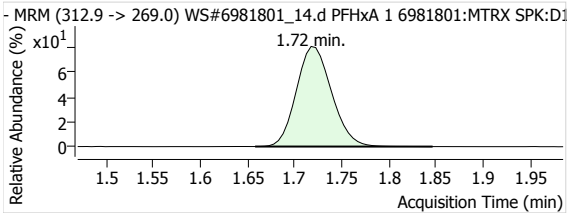
Quantitative Analysis Report

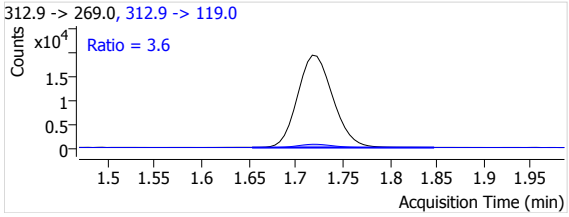
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801.batch.bin

Sample Name	6981801:MTRX SPK:D1	**Data File**	WS#6981801_14.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-B4
Acq. Date-Time	2020/10/05 2:14:34 PM	**Dil.**	0.0
Comment	-		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.5211	108.6	50424	1.72	446	3.7465	1795	1.72	917	3.6
PFHpA 1	µg/L	20.000	0.5180	107.9	57909	2.16	673	5.0334	9552	2.17	431	16.5
PFOA 1	µg/L	20.000	0.5416	112.8	43769	2.63	229	3.5204	10542	2.63	146	24.1
PFNA 1	µg/L	20.000	0.5006	104.3	38657	3.06	644	3.7873	6024	3.06	428	15.6
PFDA 1	µg/L	20.000	0.5054	105.3	31422	3.45	578	3.6167	5355	3.45	393	17.0
PFUnA 1	µg/L	20.000	0.5083	105.9	33985	3.78	382	3.7338	5495	3.78	418	16.2
PFDoA 1	µg/L	20.000	0.5130	106.9	32617	4.09	698	3.5365	4603	4.09	444	14.1
PFTrDA 1	µg/L	20.000	0.5358	111.6	28616	4.35	767	4.0259	2749	4.35	324	9.6
PFTeDA 1	µg/L	20.000	0.5248	109.3	24991	4.58	612	3.5159	1875	4.58	485	7.5
PFBS 1	µg/L	20.000	0.5345	111.4	19078	1.40	859	4.3153	7437	1.40	724	39.0
PFHxS 1	µg/L	20.000	0.6465	134.7	13083	2.08	263	5.7305	6026	2.07	511	46.1
PFOS 1	µg/L	20.000	0.7029	146.4	13263	2.88	235	5.4536	6611	2.88	606	49.8
MeFOSA 1	µg/L	20.000	0.6027	125.6	4627	5.23	154	2.4049	3670	5.23	310	79.3
EtFOSA 1	µg/L	20.000	0.5660	117.9	4203	5.36	168	1.8418	4245	5.36	484	101.0
13C2-PFHxA	µg/L	100.000	91.5641	91.6	13459	1.72	538		--	--	--	--
13C4-PFHpA	µg/L	100.000	92.1358	92.1	11505	2.16	2169		--	--	--	--
13C4-PFOA	µg/L	100.000	91.2045	91.2	12433	2.63	1398		--	--	--	--
13C5-PFNA	µg/L	100.000	92.1293	92.1	10207	3.06	713		--	--	--	--
13C2-PFDA	µg/L	100.000	88.3915	88.4	8688	3.45	543		--	--	--	--
13C2-PFUnA	µg/L	100.000	85.6175	85.6	9102	3.78	547		--	--	--	--
13C2-PFDoA	µg/L	100.000	83.6857	83.7	9223	4.09	641		--	--	--	--
13C2-PFTeDA	µg/L	100.000	78.9427	78.9	7108	4.58	822		--	--	--	--
13C3-PFBS	µg/L	100.000	87.4753	87.5	4421	1.39	308		--	--	--	--
18O2-PFHxS	µg/L	100.000	89.8112	89.8	2283	2.12	456		--	--	--	--
13C4-PFOS	µg/L	100.000	91.0180	91.0	2432	2.93	423		--	--	--	--
D3-MeFOSA	µg/L	100.000	54.6746	54.7	1924	5.24	70		--	--	--	--
D5-EtFOSA	µg/L	100.000	54.6194	54.6	2282	5.36	65		--	--	--	--

PFHxA 1





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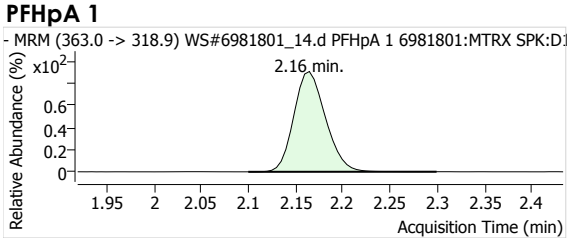

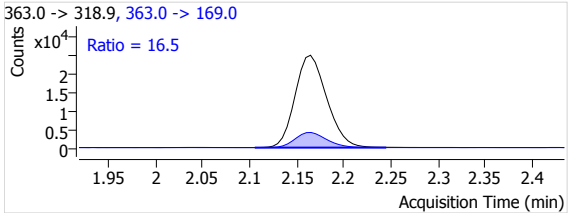

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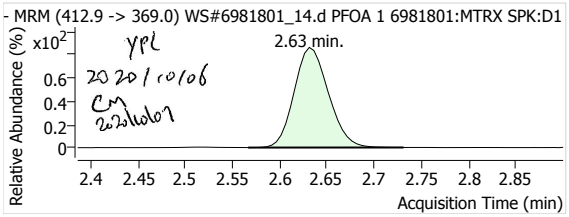

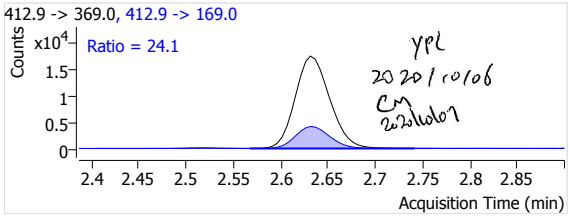

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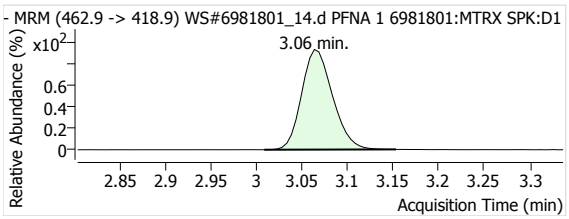

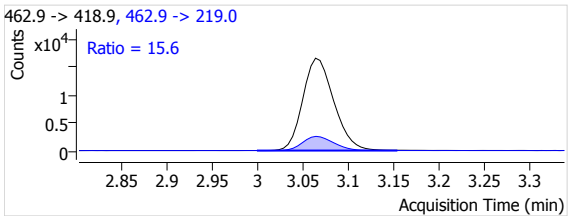

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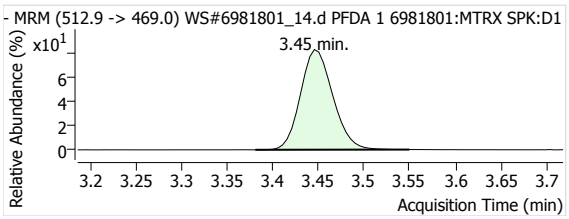

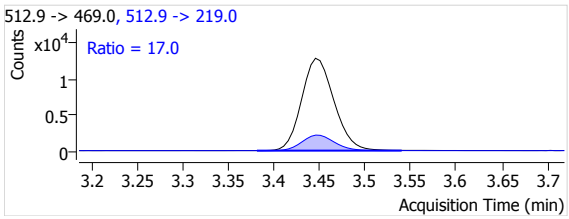

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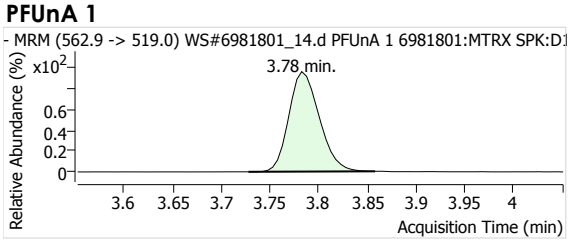

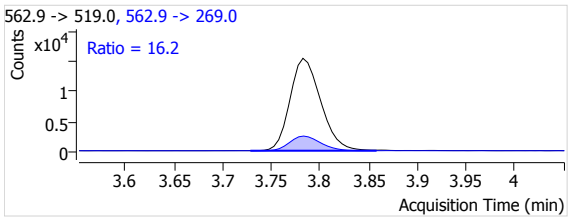

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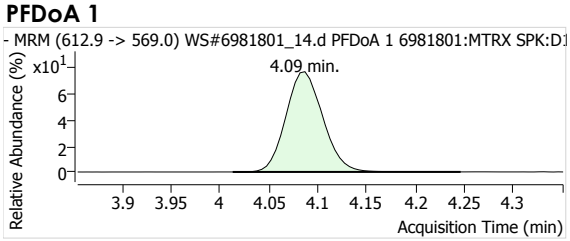

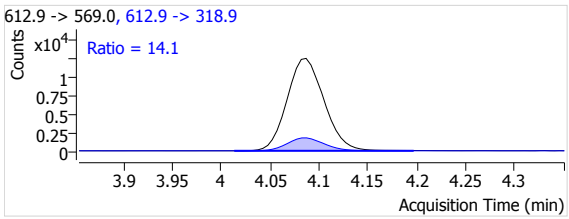

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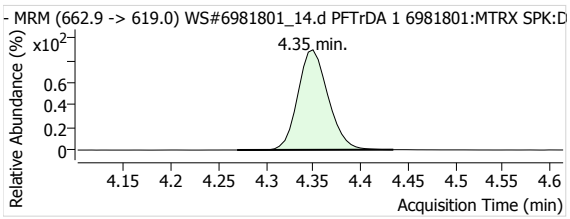

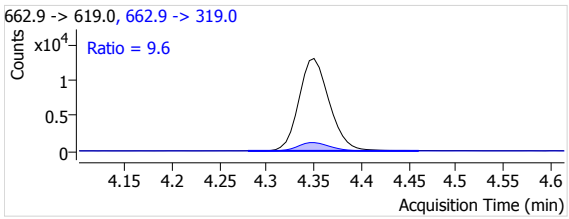

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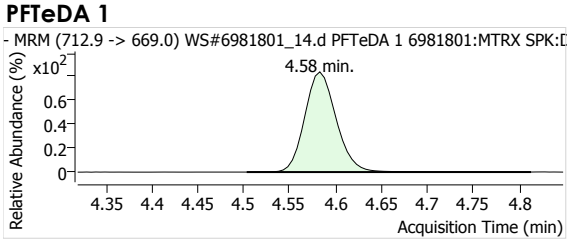

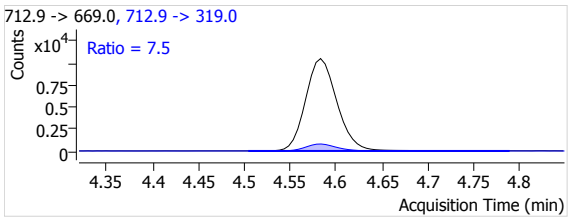

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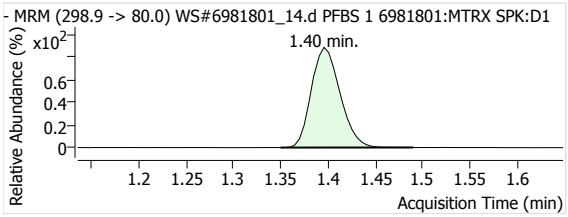

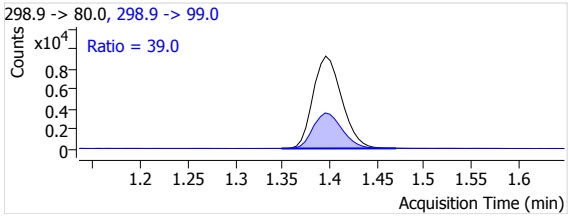

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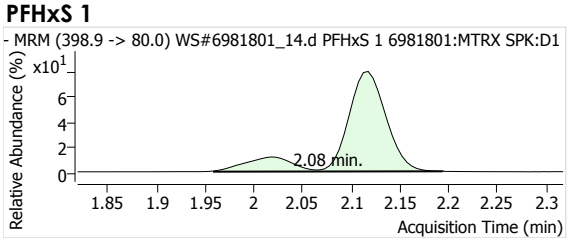

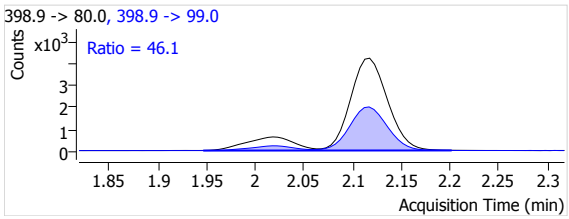

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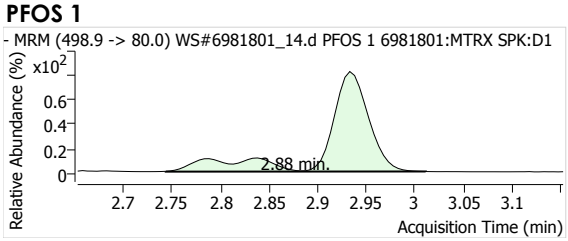

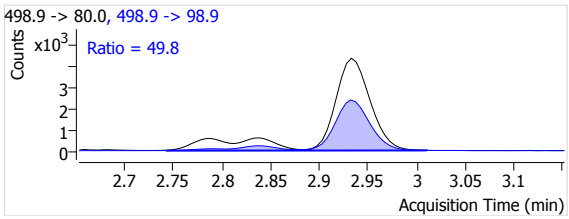

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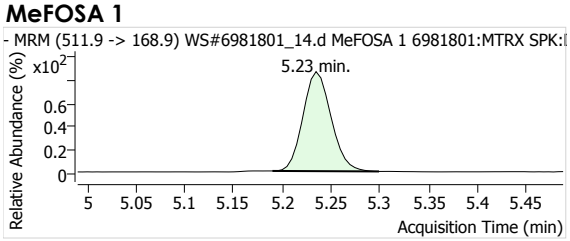

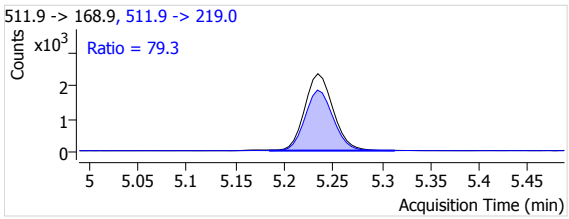

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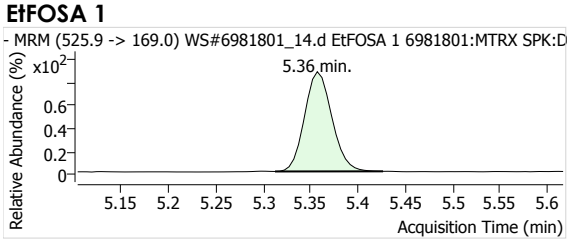

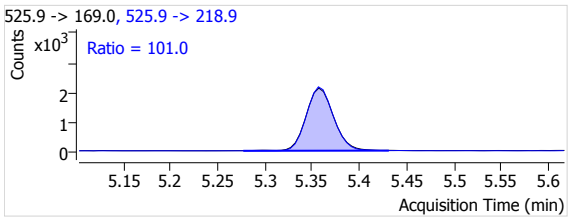

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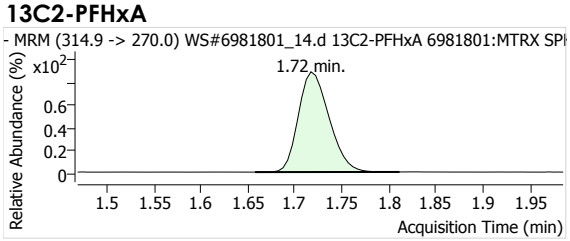

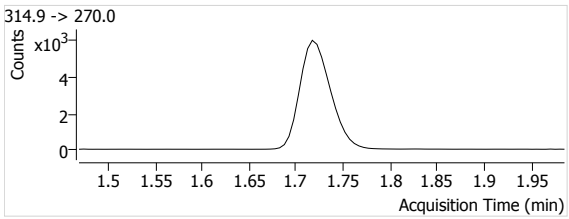

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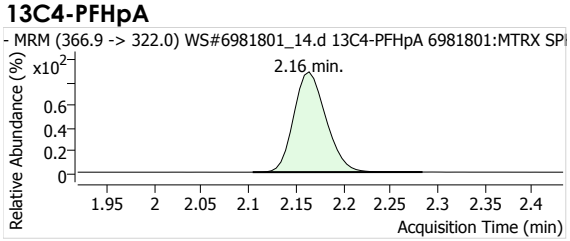

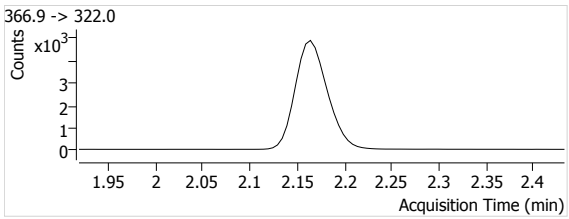

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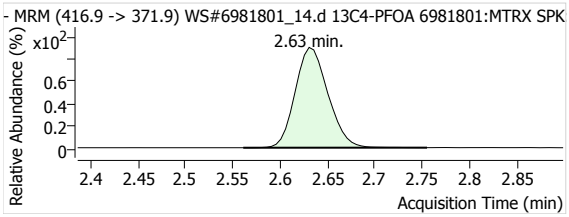

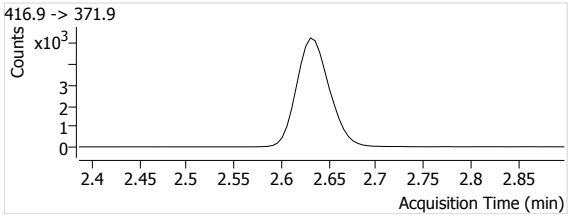

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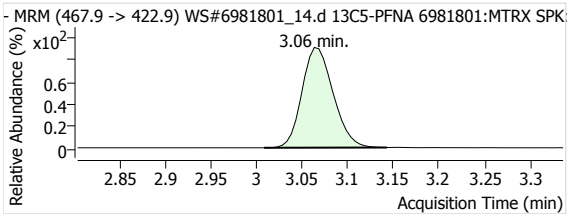

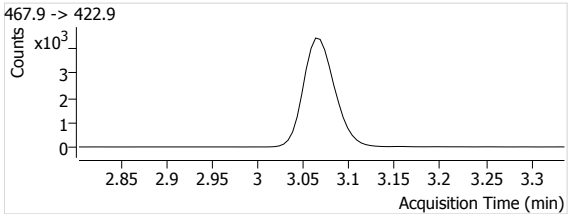

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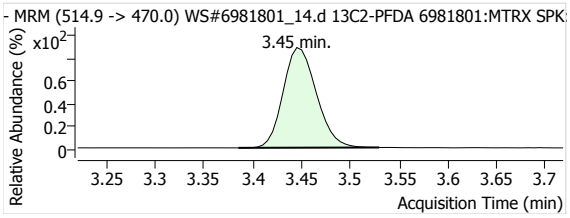

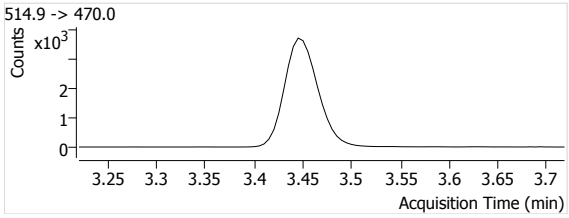

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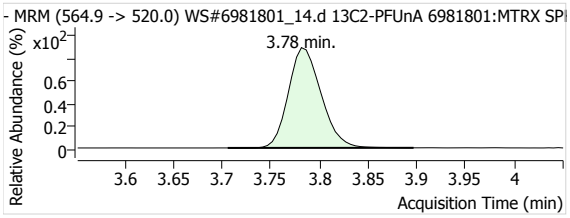

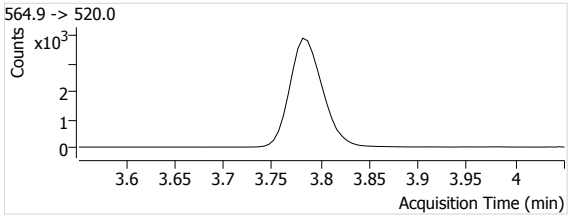

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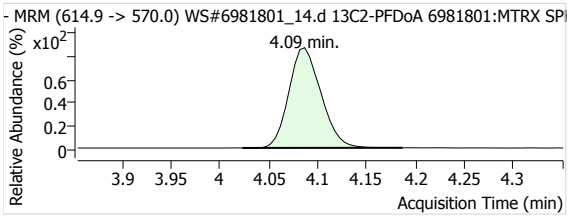

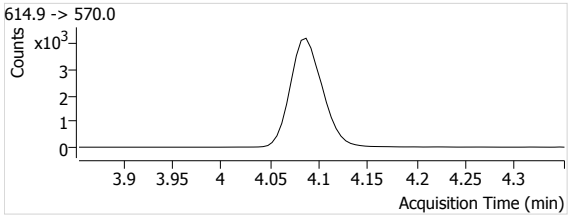

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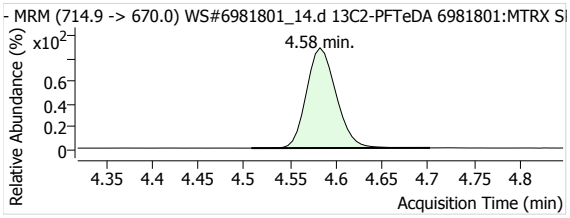

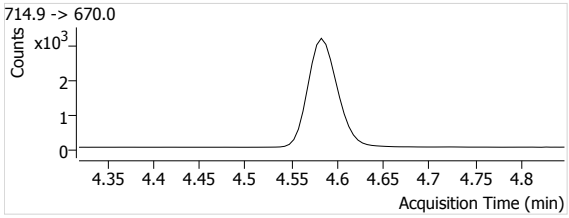

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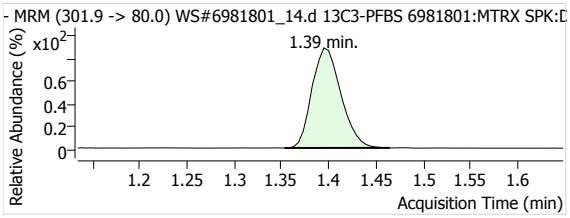

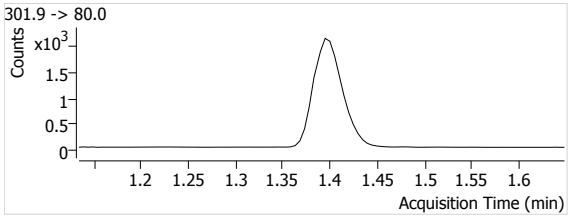

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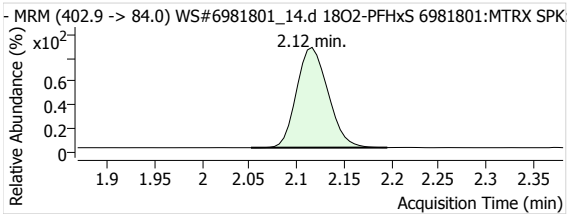

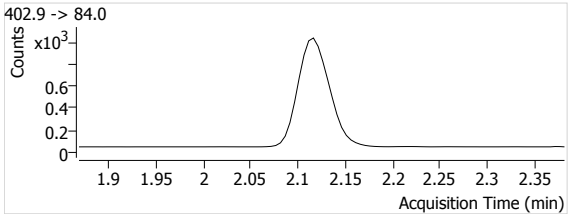

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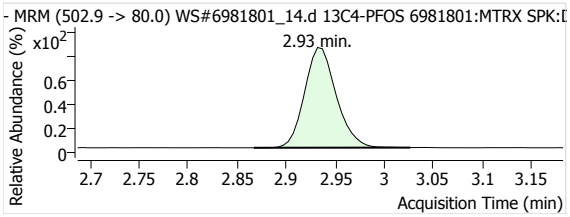

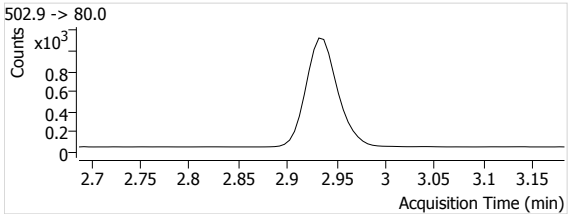

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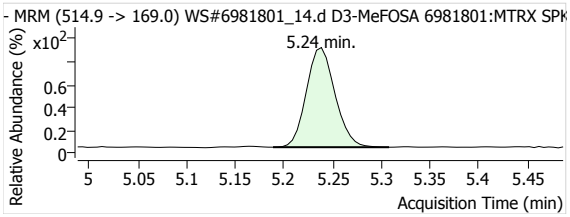

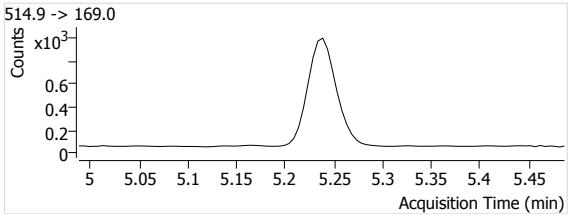

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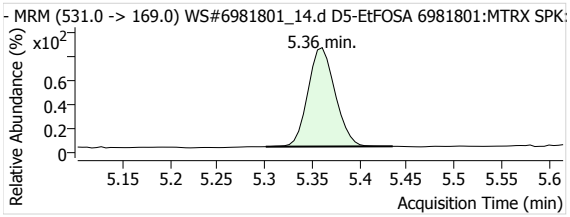
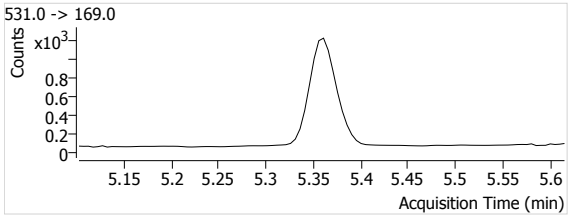




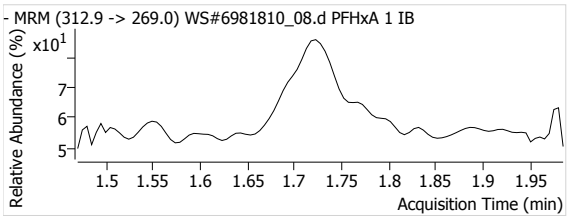
Quantitative Analysis Report

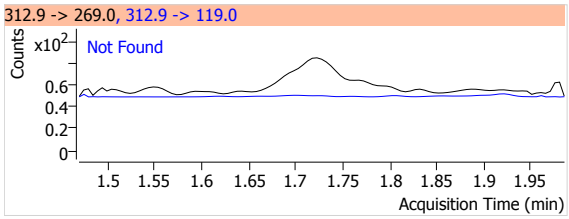
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981810_08.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A8
Acq. Date-Time	2020/10/05 8:10:42 AM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	163	4.10	3	0.0164	23	4.09	7	14.1
PFTrDA 1	µg/L	--	0.0003	--	194	4.36	3	0.0244	23	4.36	5	11.9
PFTeDA 1	µg/L	--	0.0000	--	212	4.58	5	0.0267	15	4.59	10	7.1
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	108.1309	--	13445	1.72	892		--	--	--	--
13C4-PFHpA	µg/L	--	109.6119	--	11381	2.17	644		--	--	--	--
13C4-PFOA	µg/L	--	105.3108	--	11878	2.64	920		--	--	--	--
13C5-PFNA	µg/L	--	110.8624	--	9808	3.07	892		--	--	--	--
13C2-PFDA	µg/L	--	107.6864	--	8392	3.45	351		--	--	--	--
13C2-PFUnA	µg/L	--	110.0977	--	9355	3.79	417		--	--	--	--
13C2-PFDoA	µg/L	--	109.3764	--	9927	4.09	511		--	--	--	--
13C2-PFTeDA	µg/L	--	110.6217	--	7936	4.58	925		--	--	--	--
13C3-PFBS	µg/L	--	105.8644	--	4513	1.40	804		--	--	--	--
18O2-PFHxS	µg/L	--	104.1302	--	2143	2.12	613		--	--	--	--
13C4-PFOS	µg/L	--	108.9142	--	2297	2.94	652		--	--	--	--
D3-MeFOSA	µg/L	--	109.9569	--	3059	5.24	122		--	--	--	--
D5-EtFOSA	µg/L	--	110.0090	--	3660	5.36	96		--	--	--	--

PFHxA 1





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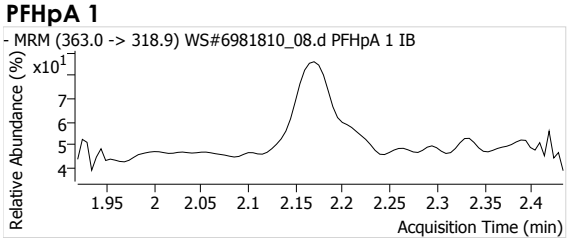

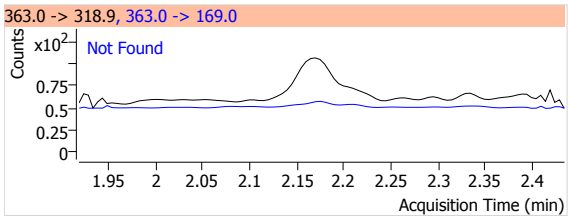

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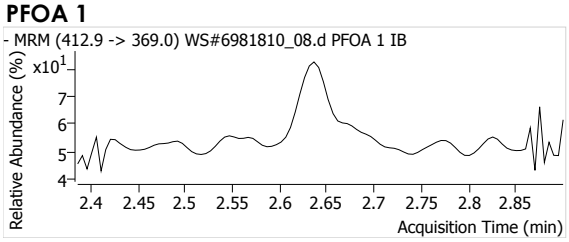

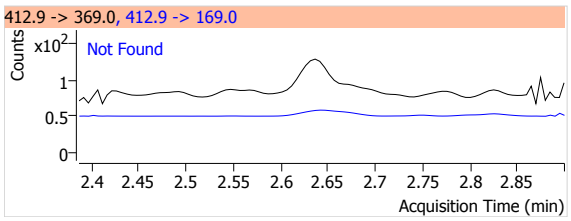

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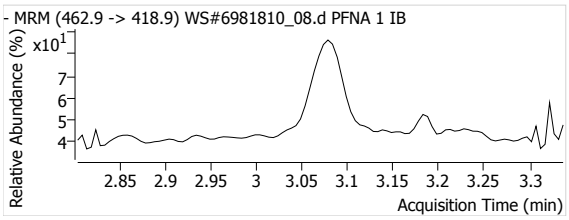

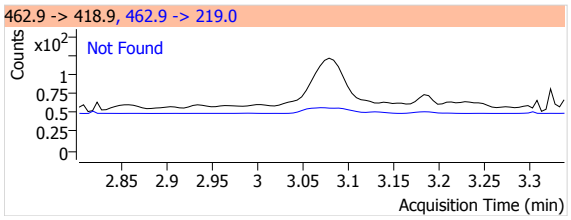

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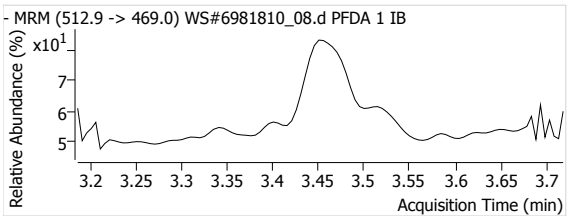

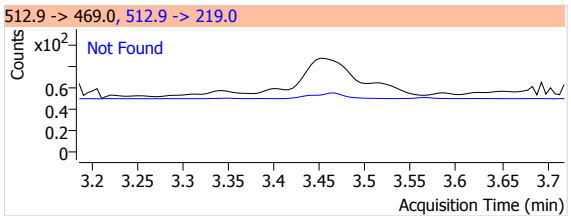

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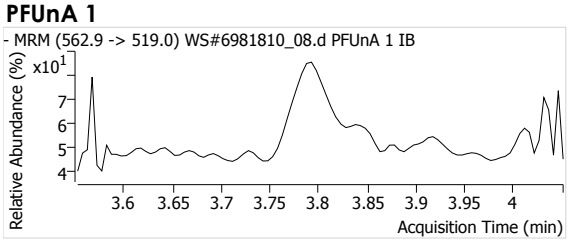

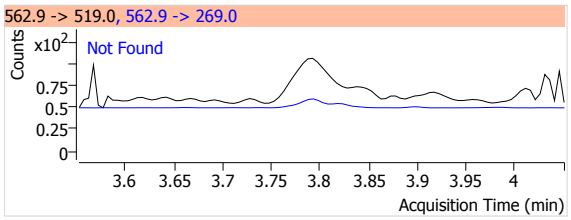

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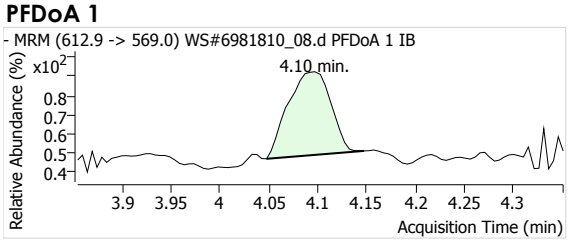

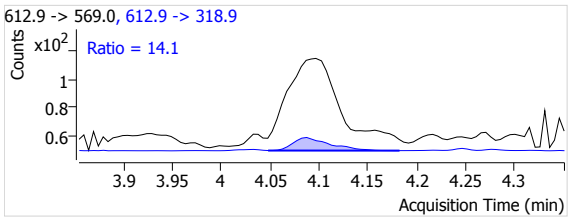

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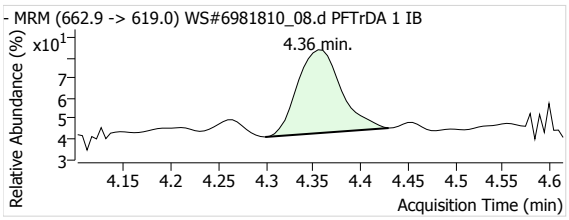

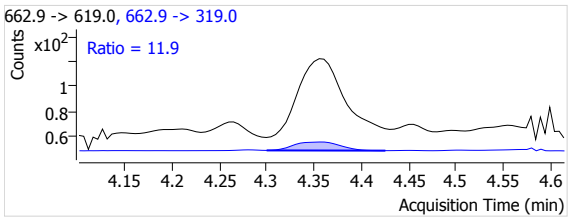

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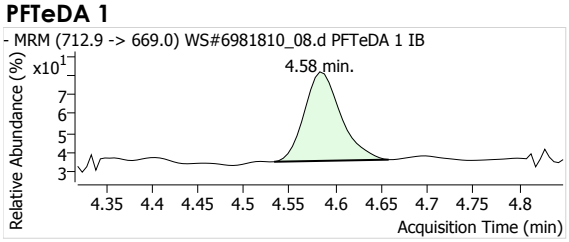

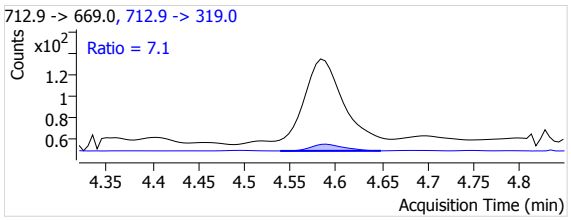

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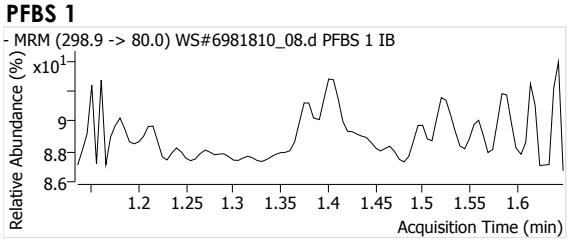

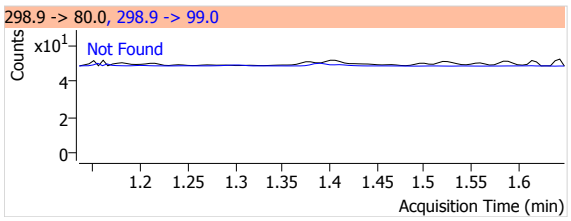

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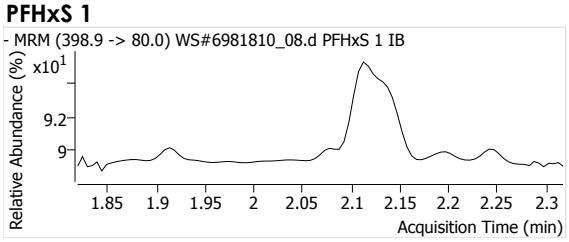

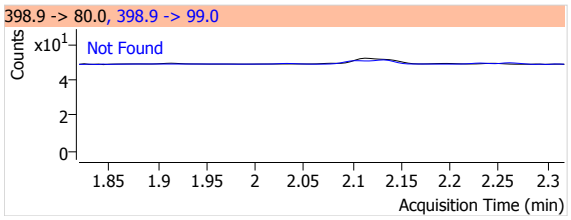

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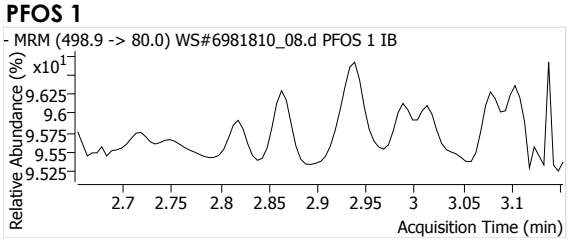

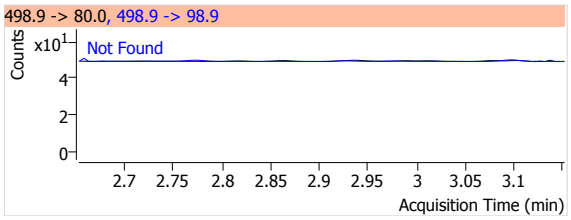

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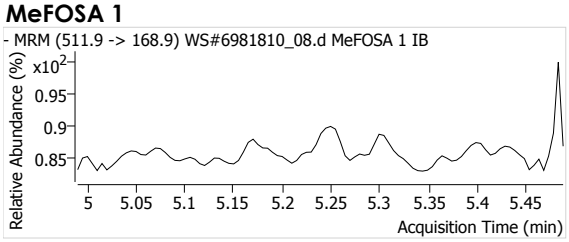

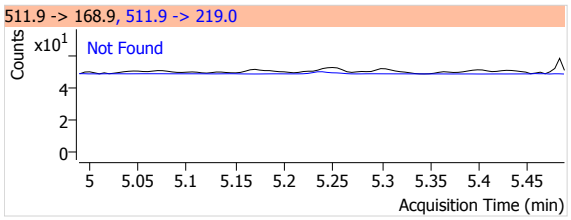

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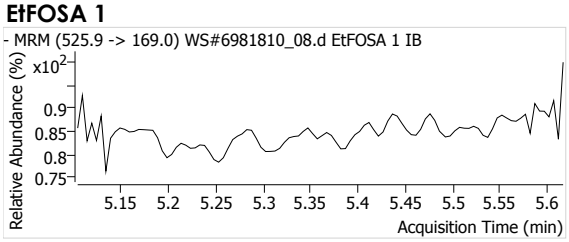

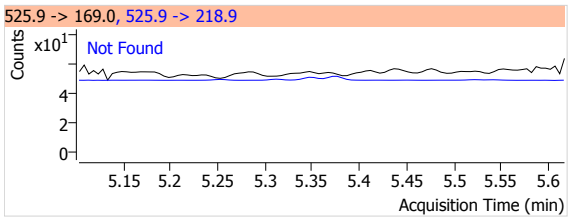

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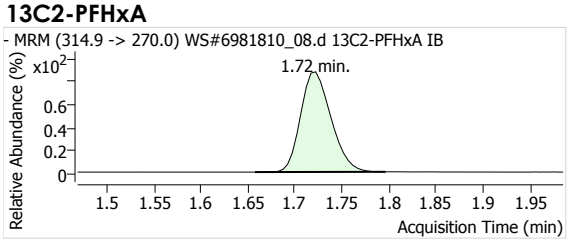

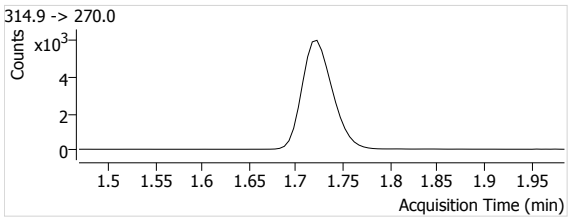

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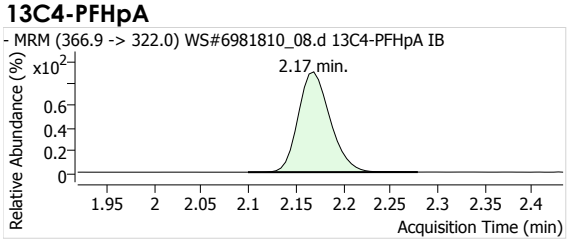

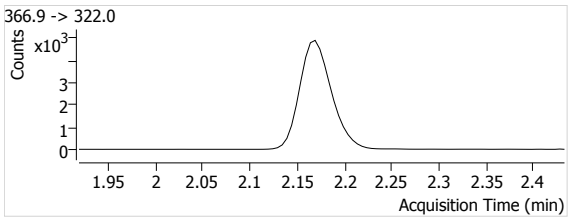

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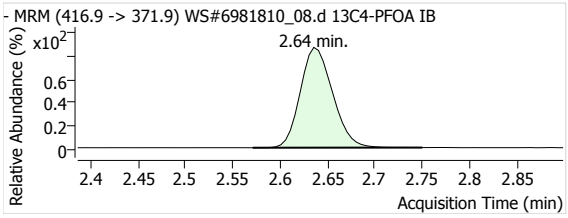
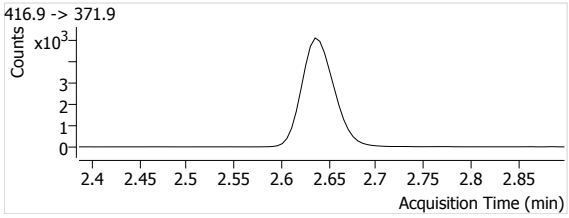
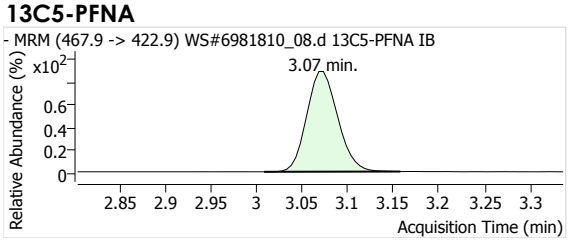
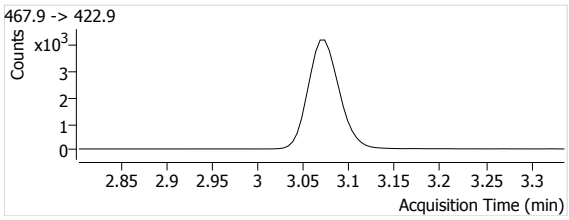


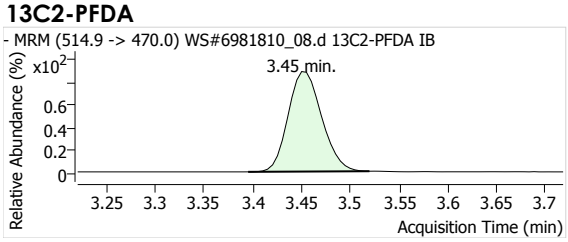


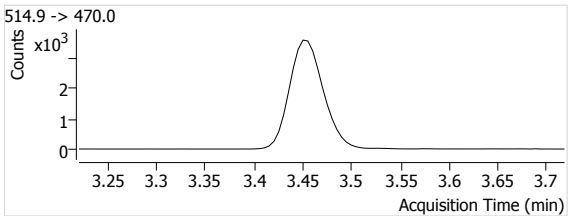
13C5-PFNA



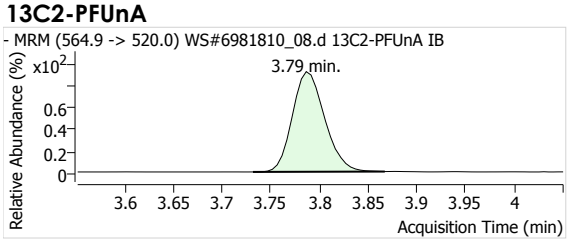


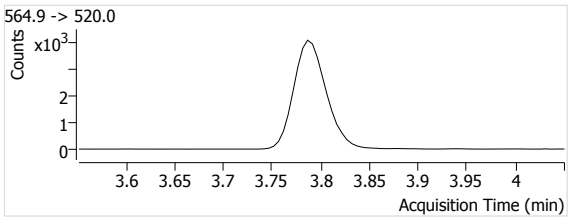
13C2-PFDA





13C2-PFUnA





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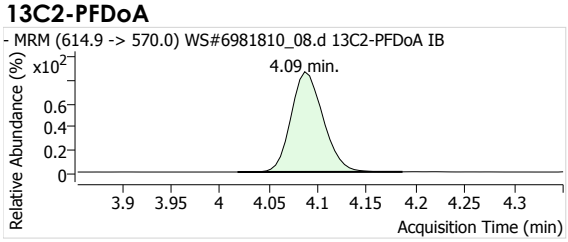

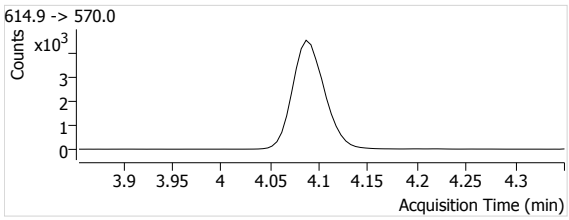

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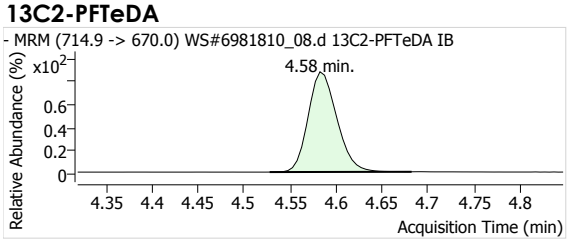

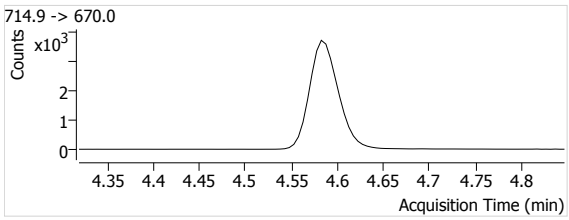

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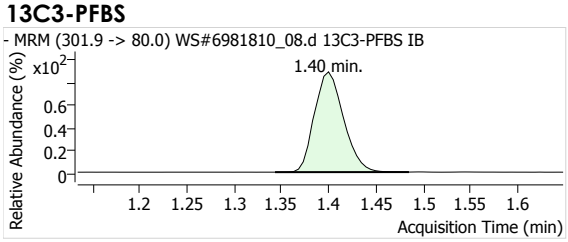
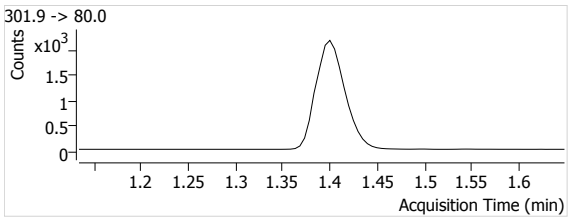
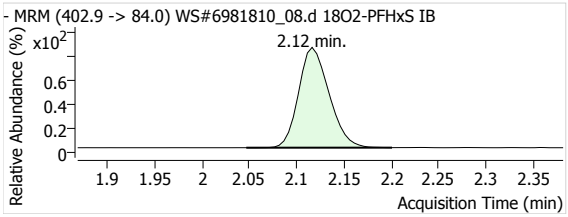
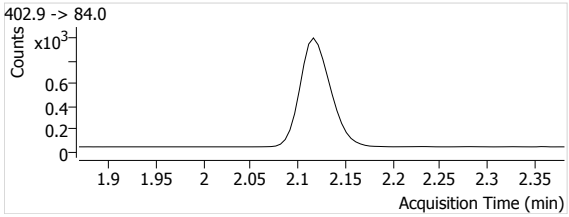




18O2-PFHxS





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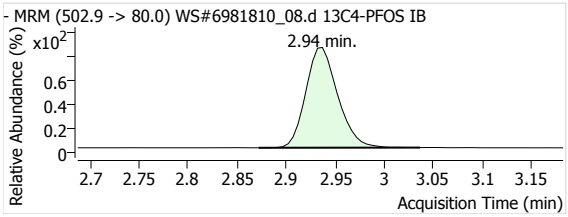
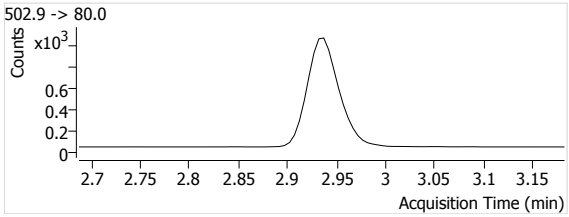
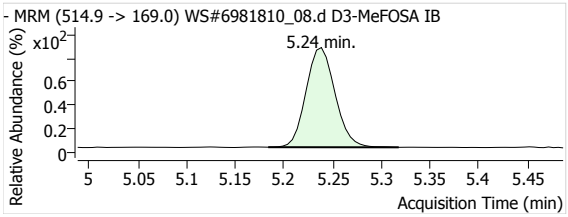
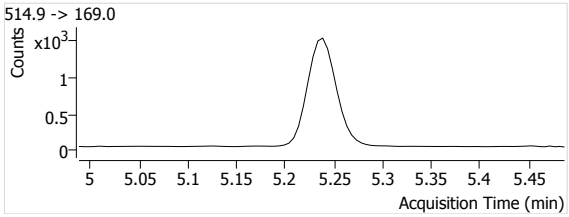


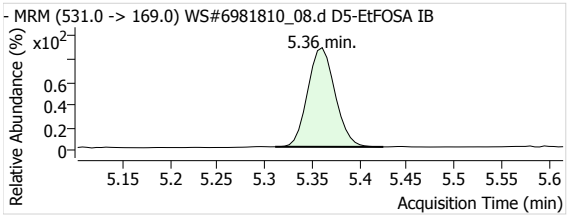


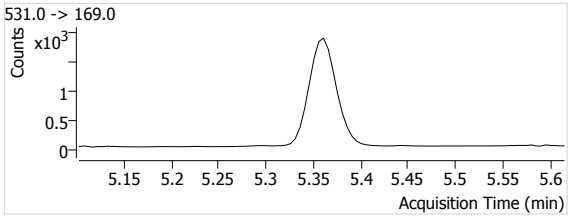
D3-MeFOSA





D5-EtFOSA





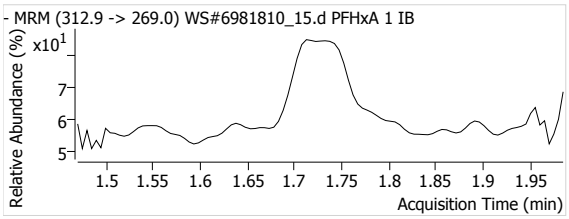
Quantitative Analysis Report

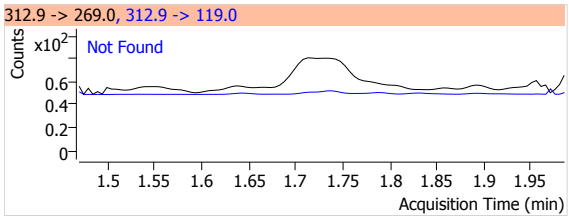
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981810_15.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A8
Acq. Date-Time	2020/10/05 8:59:38 AM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	168	4.36	2	0.0197	21	4.35	3	12.5
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	115.1118	--	14313	1.72	1960		--	--	--	--
13C4-PFHpA	µg/L	--	114.7356	--	11913	2.16	1060		--	--	--	--
13C4-PFOA	µg/L	--	114.6290	--	12929	2.63	1068		--	--	--	--
13C5-PFNA	µg/L	--	118.4582	--	10480	3.07	924		--	--	--	--
13C2-PFDA	µg/L	--	115.0263	--	8964	3.45	703		--	--	--	--
13C2-PFUnA	µg/L	--	118.2064	--	10044	3.79	1004		--	--	--	--
13C2-PFDoA	µg/L	--	115.1829	--	10454	4.09	436		--	--	--	--
13C2-PFTeDA	µg/L	--	119.0828	--	8543	4.58	710		--	--	--	--
13C3-PFBS	µg/L	--	109.3831	--	4663	1.40	476		--	--	--	--
18O2-PFHxS	µg/L	--	113.3625	--	2333	2.12	459		--	--	--	--
13C4-PFOS	µg/L	--	118.7767	--	2505	2.93	486		--	--	--	--
D3-MeFOSA	µg/L	--	117.4335	--	3267	5.24	139		--	--	--	--
D5-EtFOSA	µg/L	--	112.2032	--	3733	5.36	74		--	--	--	--

PFHxA 1





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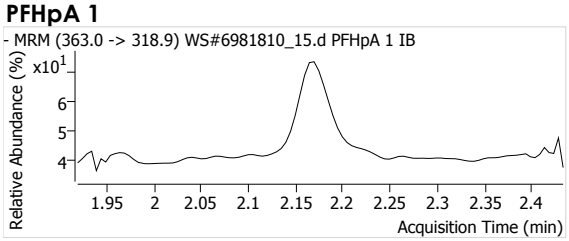

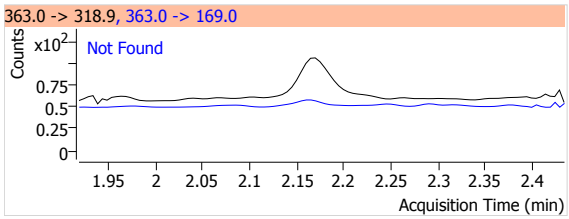

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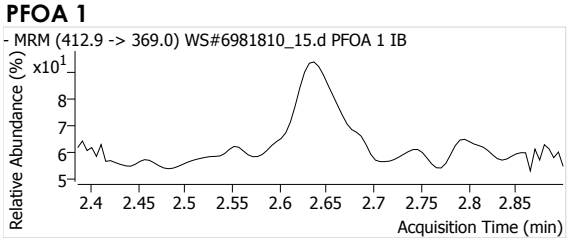

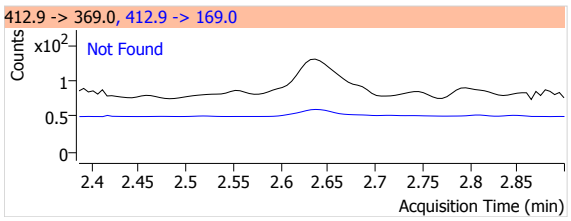

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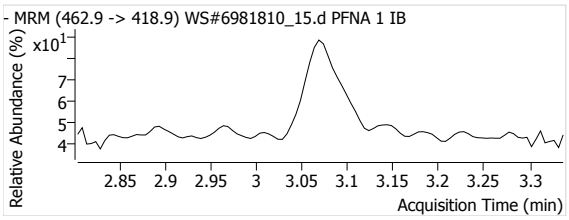

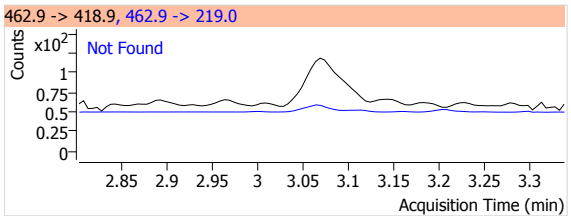

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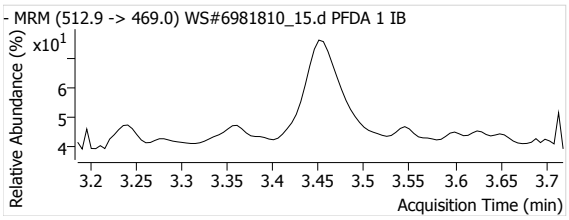

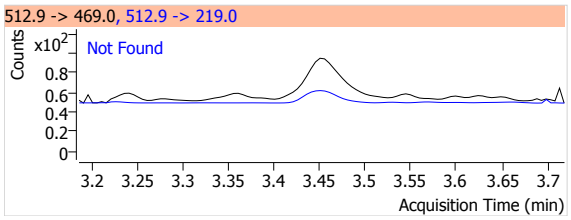

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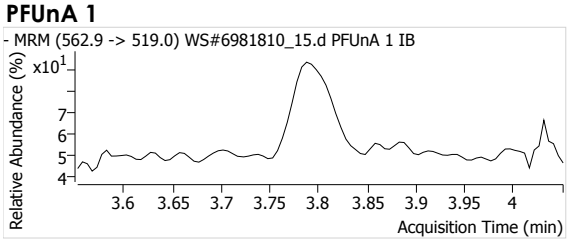

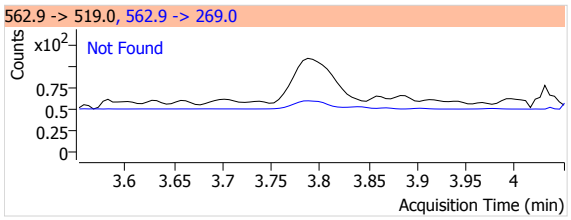

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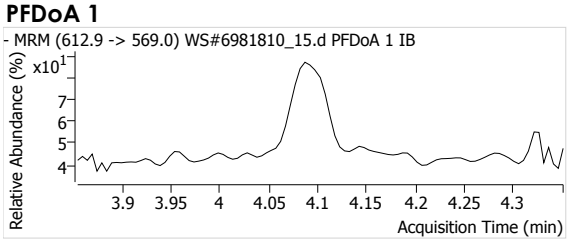

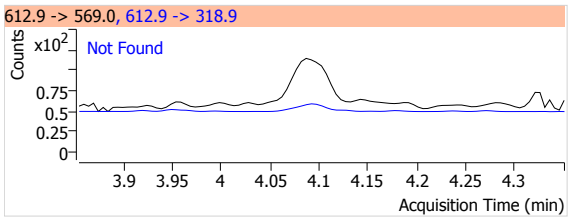

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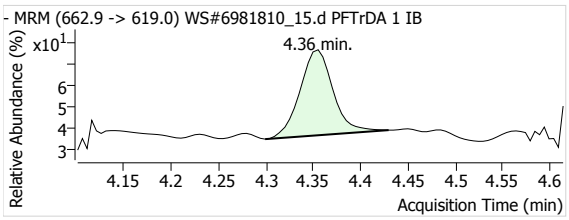

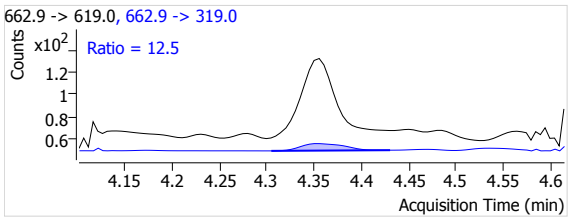

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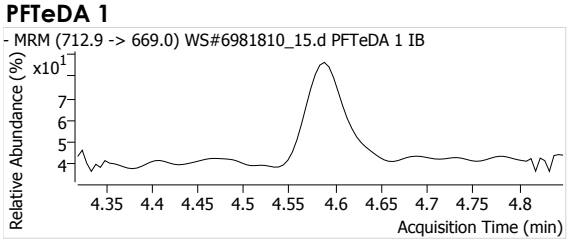

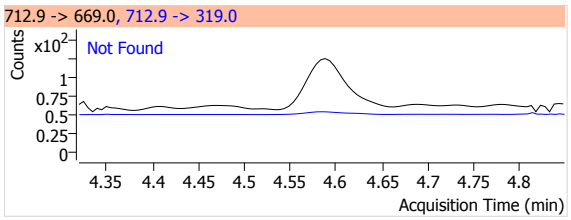

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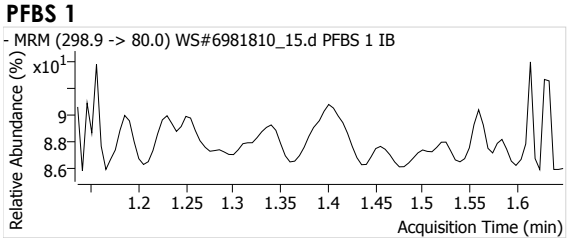
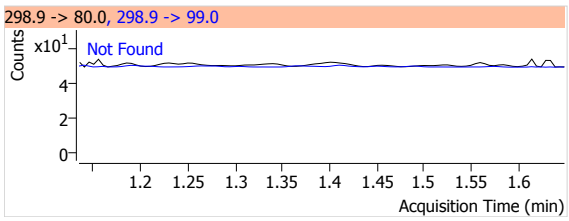
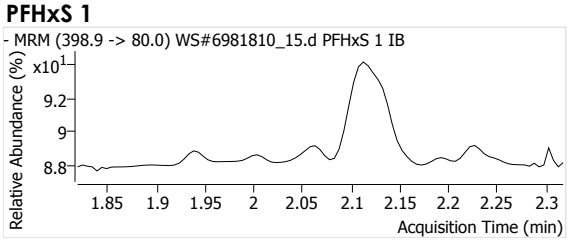
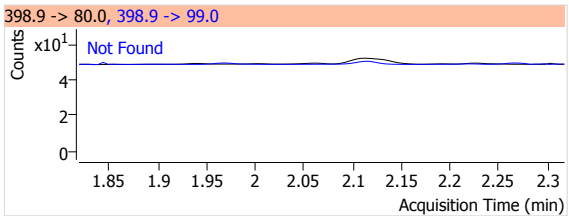


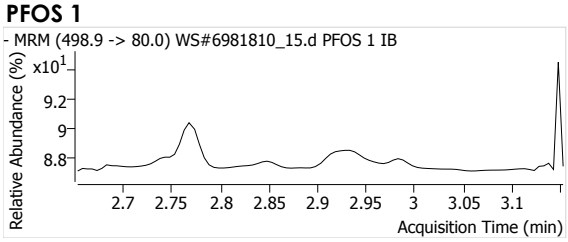


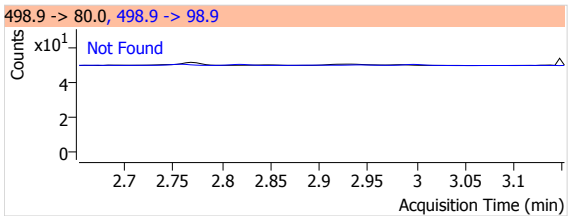
PFHxS 1





PFOS 1





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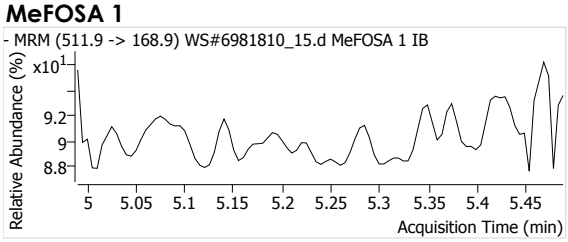

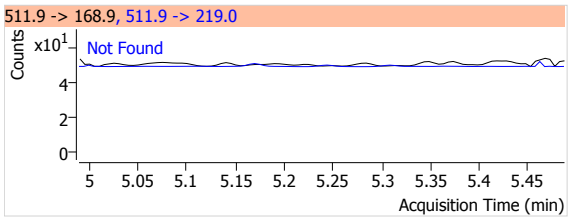

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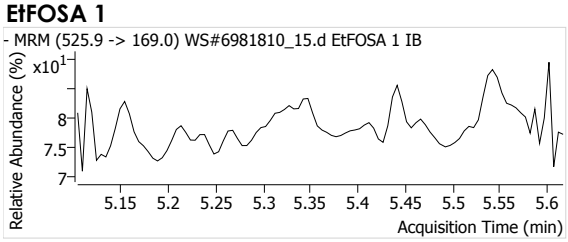
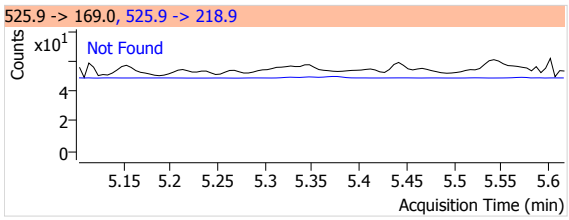
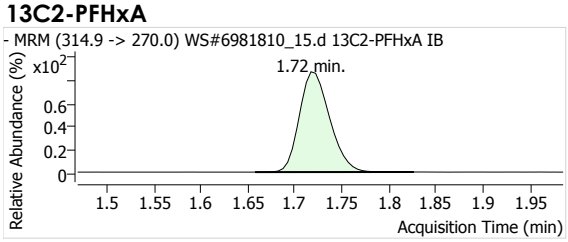
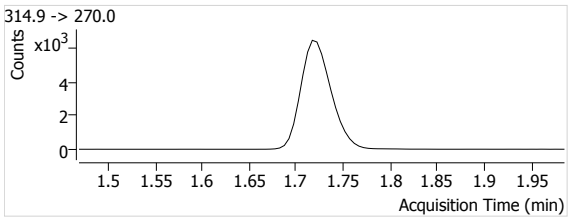




13C2-PFHxA





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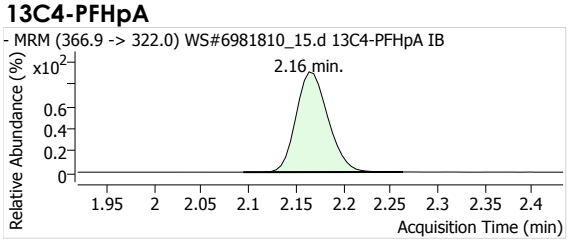

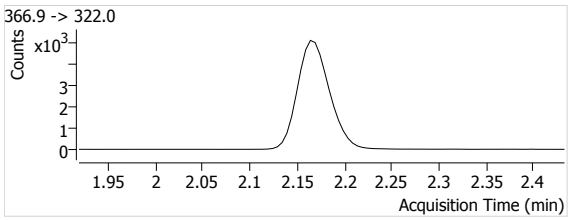

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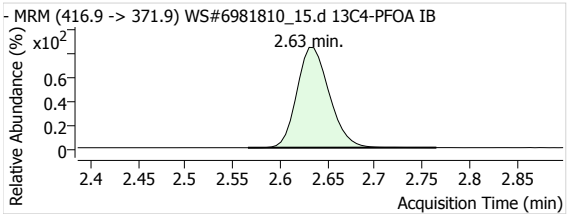

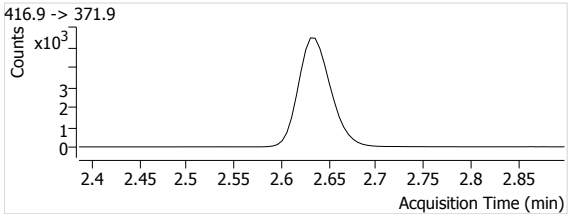

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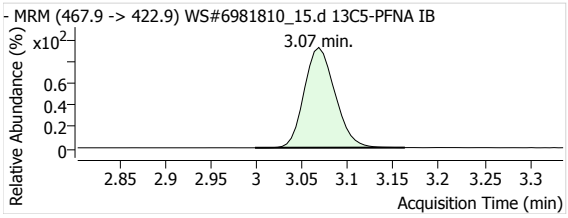

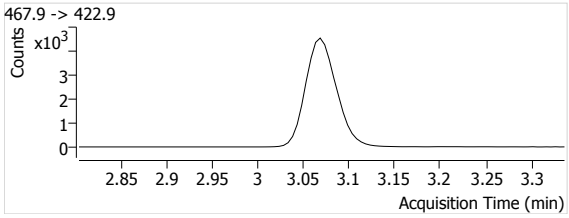

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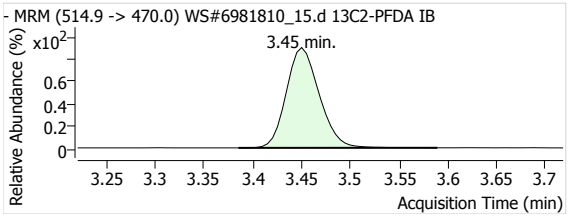

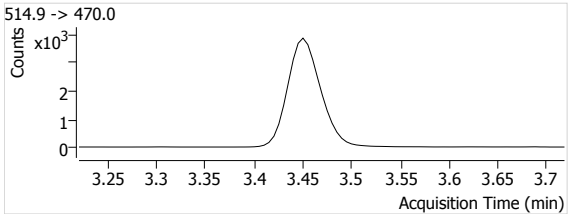

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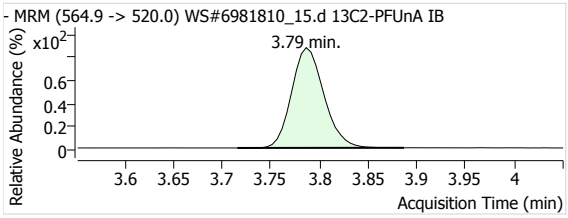

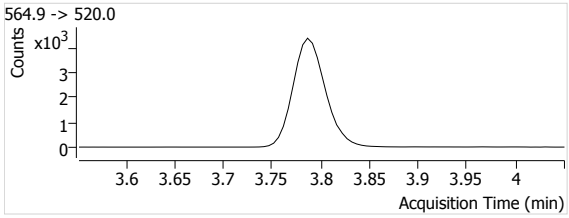

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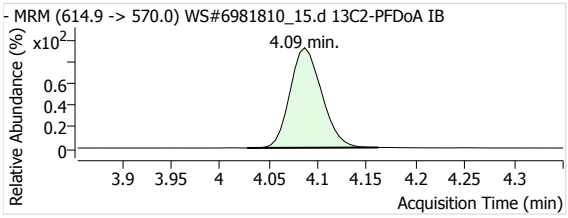

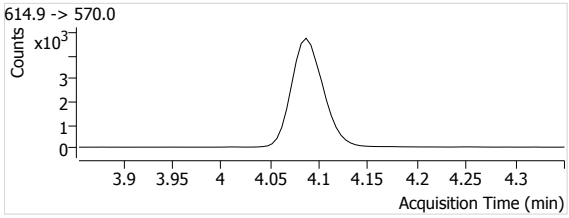

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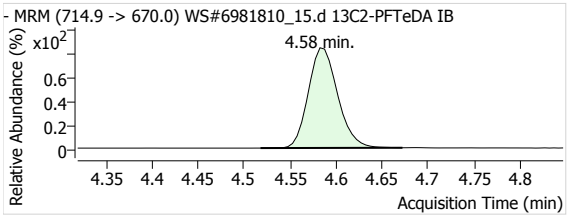

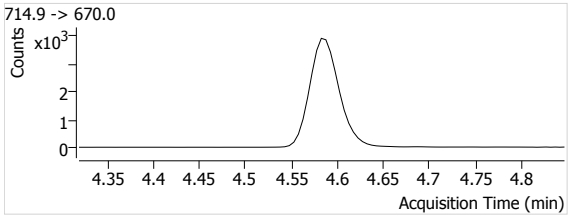

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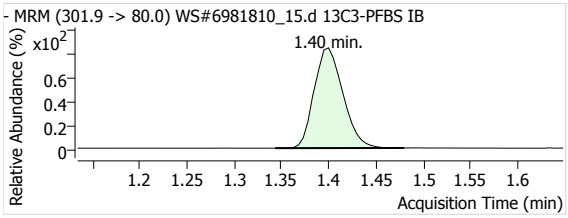

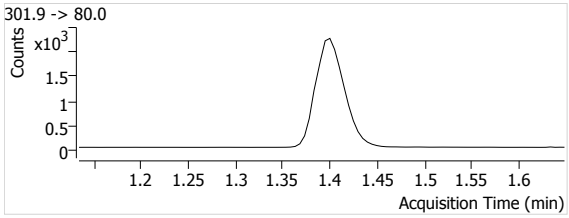

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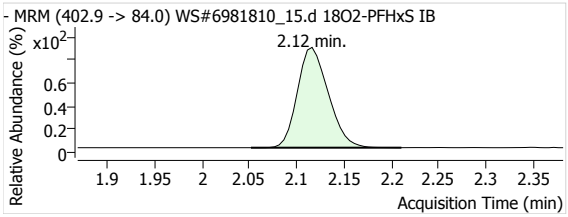

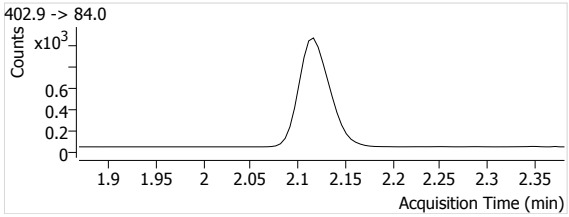

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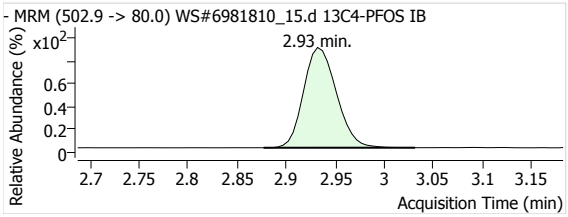
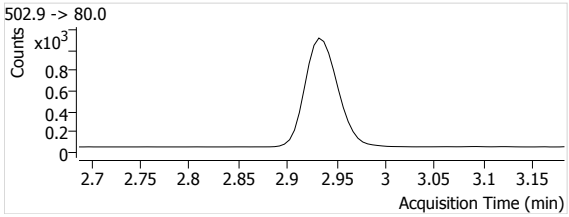
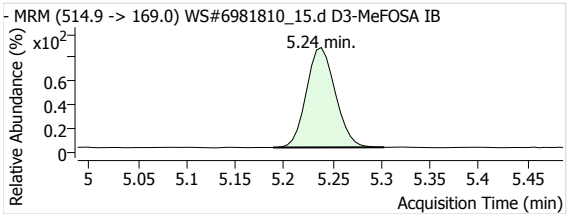
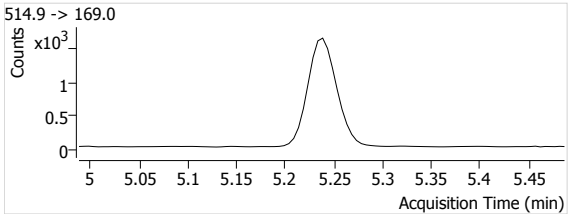




D3-MeFOSA





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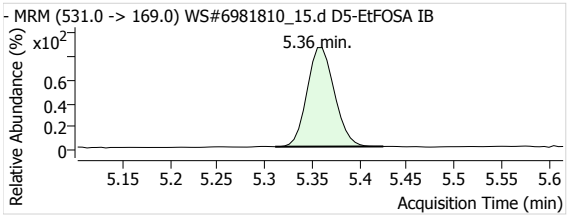
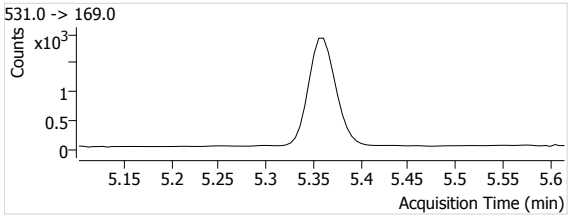




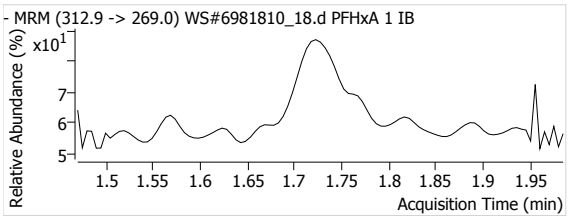
Quantitative Analysis Report

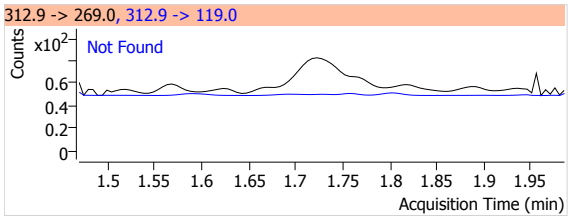
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981810_18.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A8
Acq. Date-Time	2020/10/05 9:20:36 AM	**Dil.**	0.0
Comment	-		
User Defined			

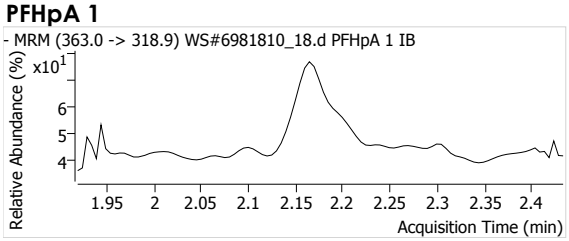
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	108.3802	--	13476	1.72	1717		--	--	--	--
13C4-PFHpA	µg/L	--	110.9217	--	11517	2.16	995		--	--	--	--
13C4-PFOA	µg/L	--	107.9617	--	12177	2.63	770		--	--	--	--
13C5-PFNA	µg/L	--	112.3884	--	9943	3.07	1226		--	--	--	--
13C2-PFDA	µg/L	--	111.8055	--	8713	3.45	772		--	--	--	--
13C2-PFUnA	µg/L	--	112.2985	--	9542	3.79	325		--	--	--	--
13C2-PFDoA	µg/L	--	111.0952	--	10083	4.09	1041		--	--	--	--
13C2-PFTeDA	µg/L	--	112.7683	--	8090	4.58	762		--	--	--	--
13C3-PFBS	µg/L	--	108.1163	--	4609	1.40	603		--	--	--	--
18O2-PFHxS	µg/L	--	109.0865	--	2245	2.12	909		--	--	--	--
13C4-PFOS	µg/L	--	116.4059	--	2455	2.93	326		--	--	--	--
D3-MeFOSA	µg/L	--	115.3846	--	3210	5.24	90		--	--	--	--
D5-EtFOSA	µg/L	--	116.5314	--	3877	5.36	115		--	--	--	--

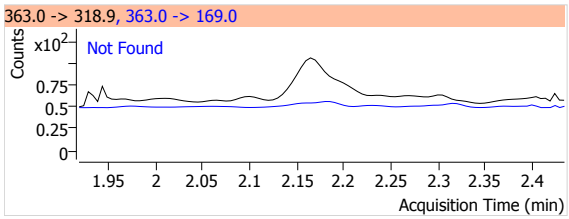
PFHxA 1





PFHpA 1





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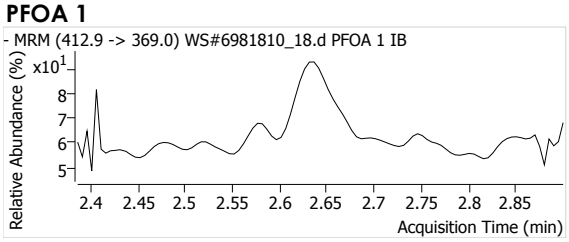

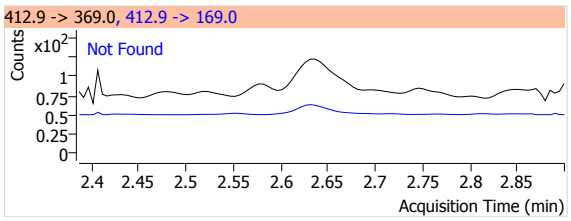

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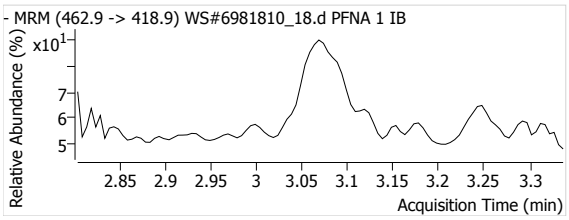
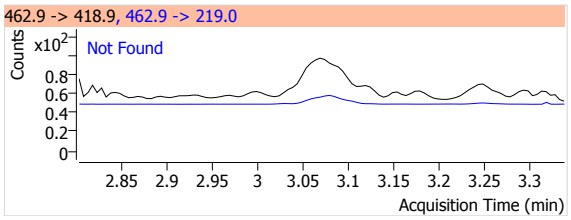
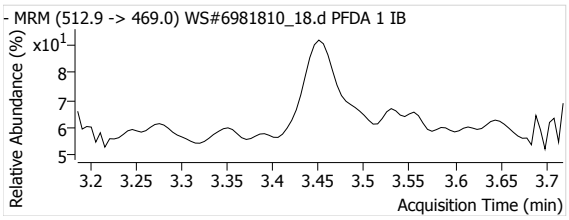
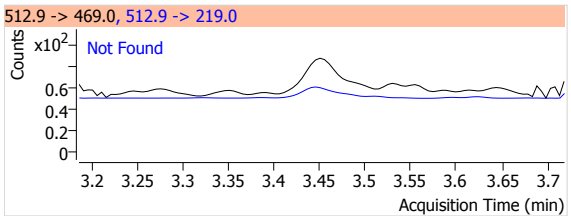




PFDA 1





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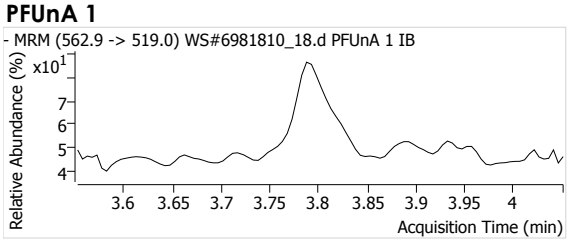

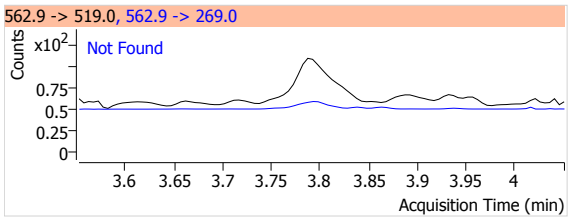

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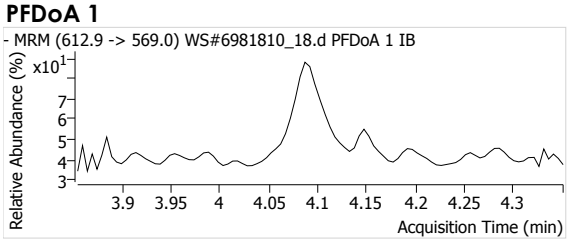

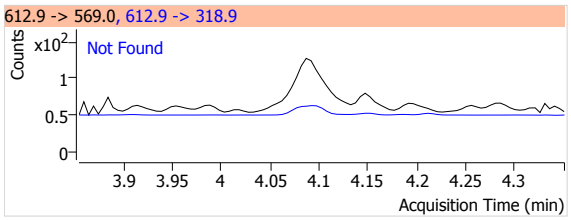

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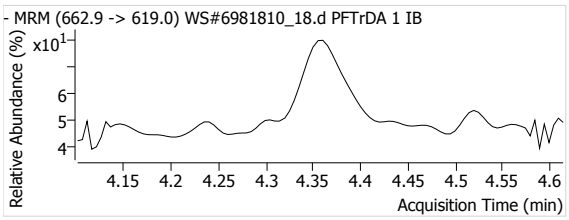

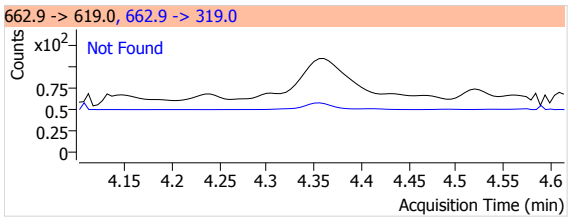

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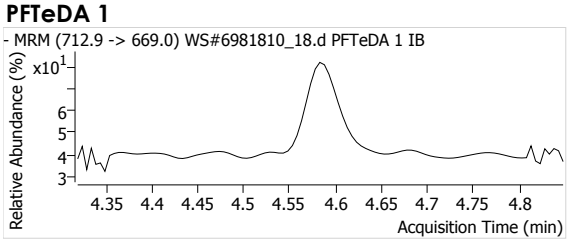

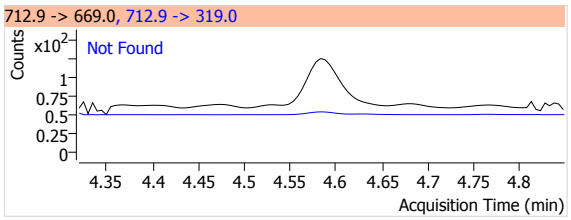

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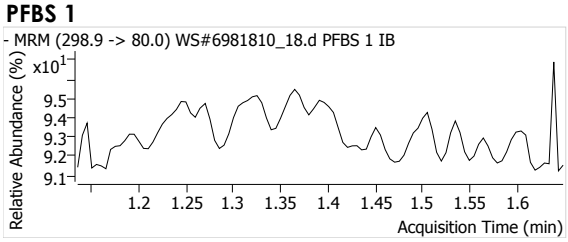

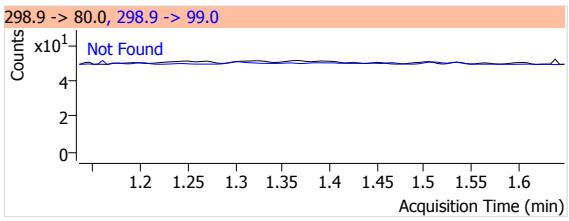

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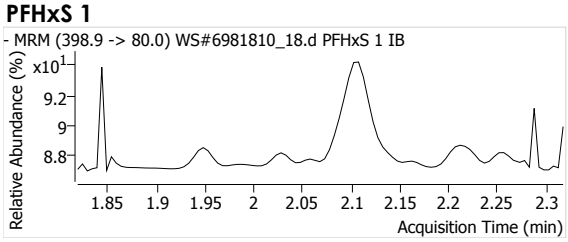
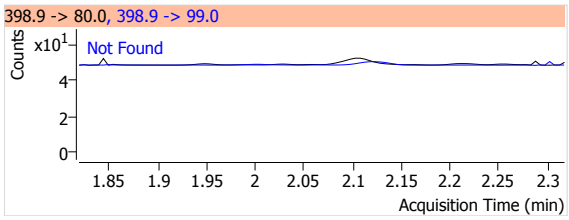
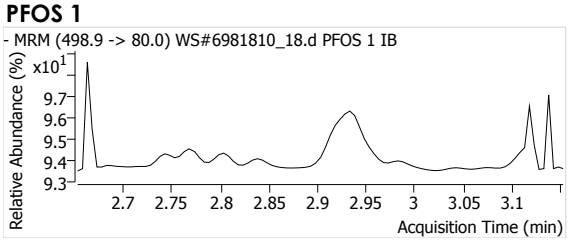
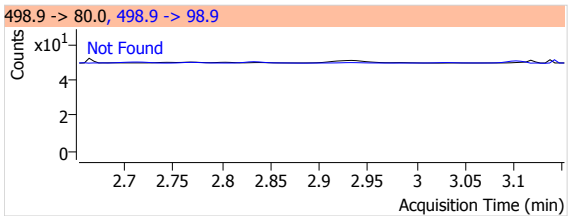




PFOS 1





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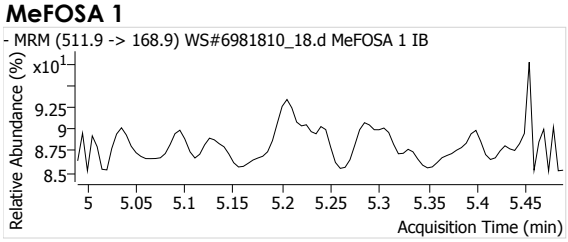

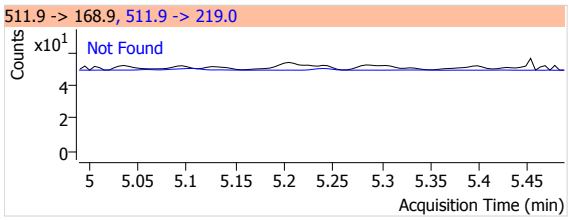

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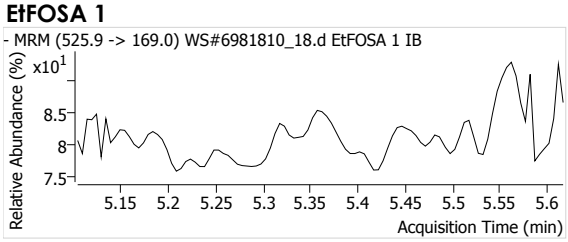

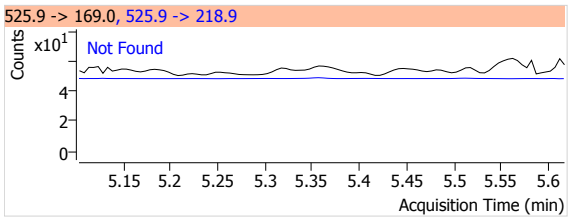

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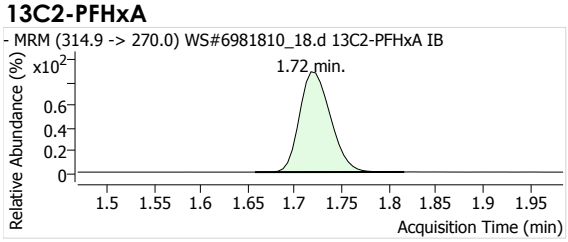

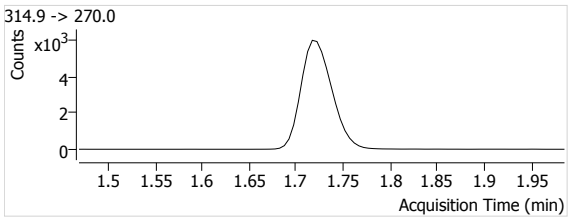

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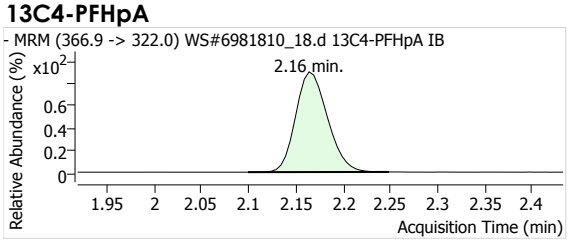

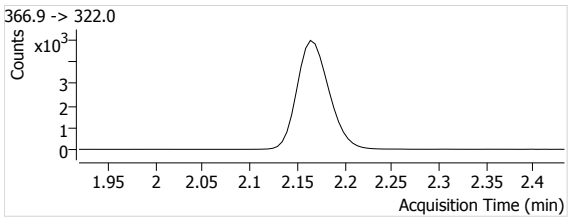

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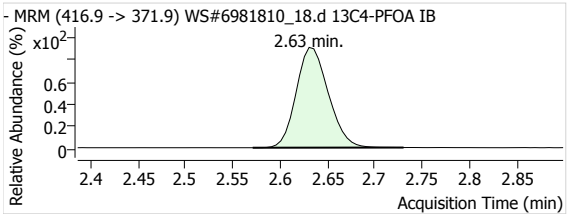

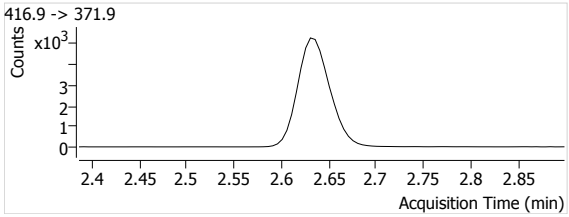

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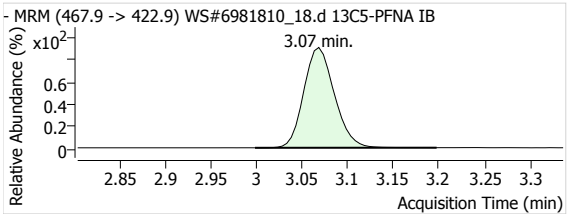

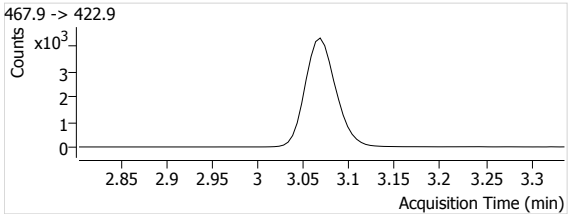

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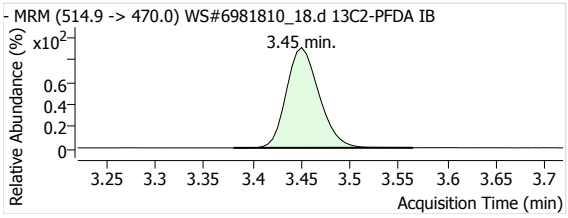

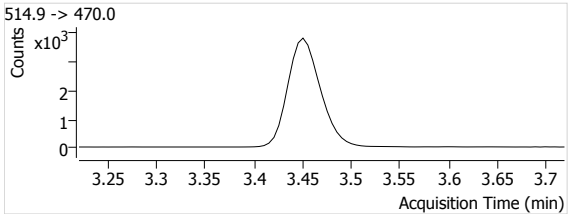

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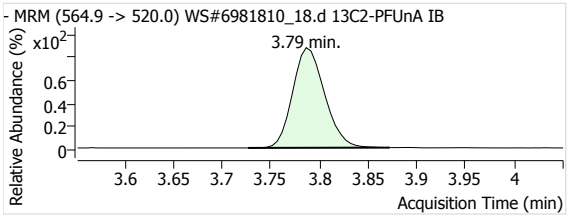

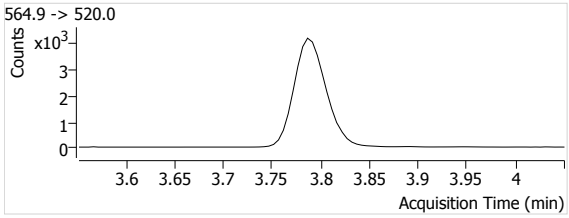

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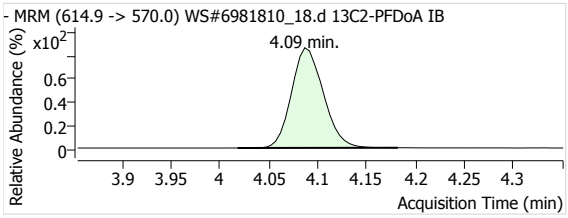

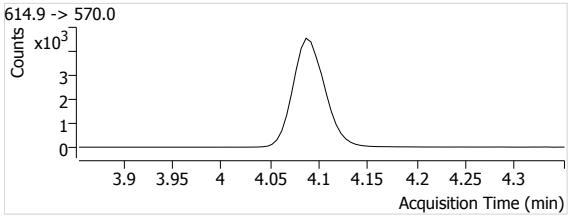

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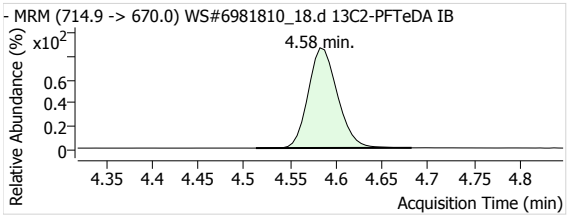

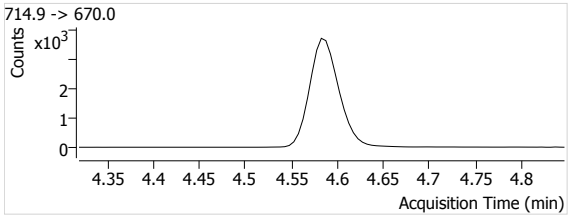

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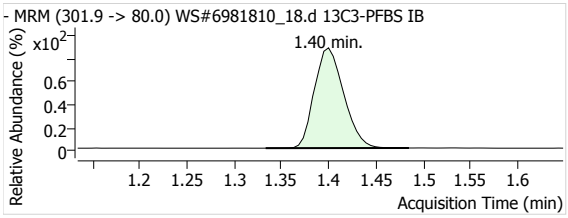

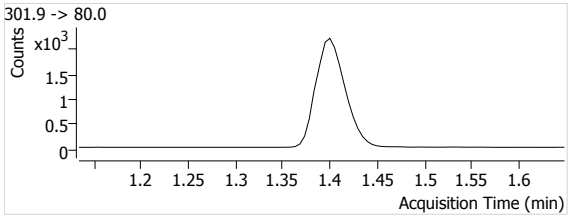

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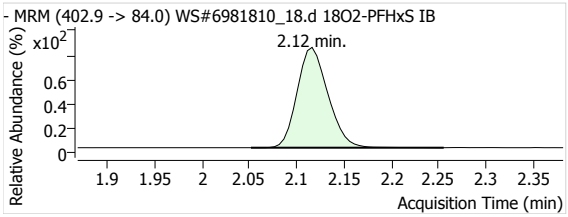

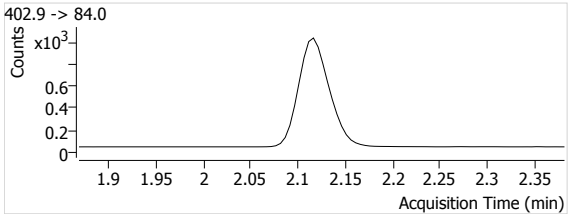

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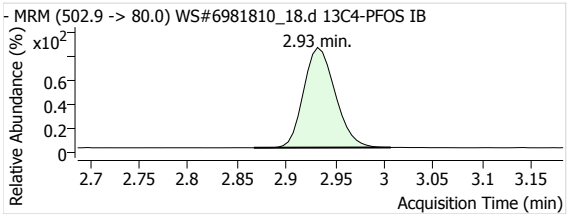

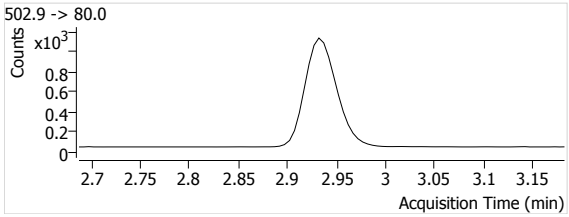

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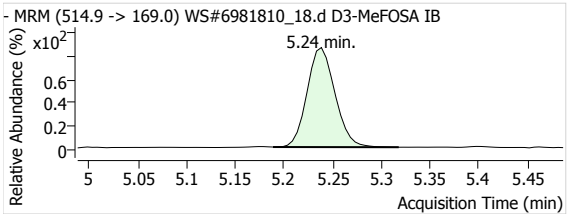

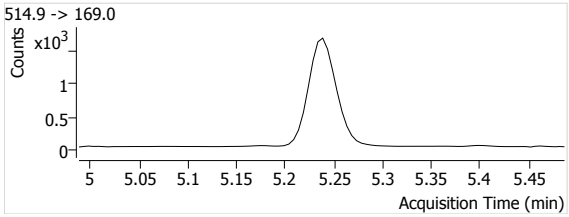

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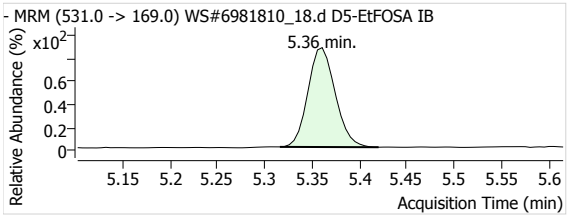
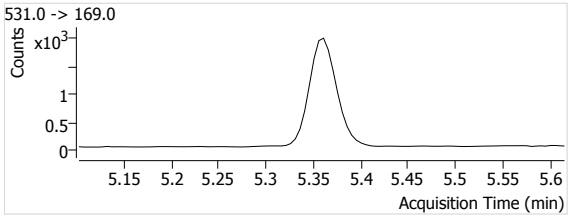




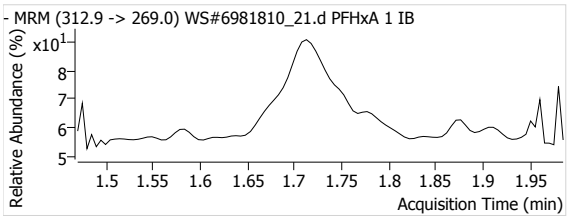
Quantitative Analysis Report

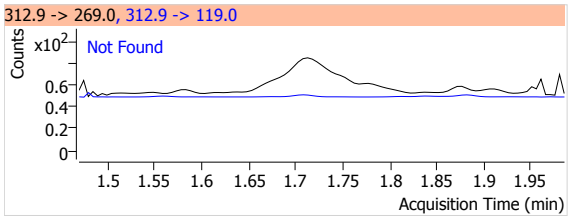
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981810_21.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A8
Acq. Date-Time	2020/10/05 9:41:35 AM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	108.7422	--	13521	1.72	779		--	--	--	--
13C4-PFHpA	µg/L	--	113.9073	--	11827	2.16	1384		--	--	--	--
13C4-PFOA	µg/L	--	108.8217	--	12274	2.63	1606		--	--	--	--
13C5-PFNA	µg/L	--	113.9482	--	10081	3.07	942		--	--	--	--
13C2-PFDA	µg/L	--	112.2418	--	8747	3.45	427		--	--	--	--
13C2-PFUnA	µg/L	--	114.3933	--	9720	3.79	346		--	--	--	--
13C2-PFDoA	µg/L	--	109.4755	--	9936	4.09	547		--	--	--	--
13C2-PFTeDA	µg/L	--	112.5314	--	8073	4.58	636		--	--	--	--
13C3-PFBS	µg/L	--	107.5299	--	4584	1.40	411		--	--	--	--
18O2-PFHxS	µg/L	--	109.1837	--	2247	2.12	569		--	--	--	--
13C4-PFOS	µg/L	--	114.7463	--	2420	2.93	350		--	--	--	--
D3-MeFOSA	µg/L	--	118.0446	--	3284	5.24	115		--	--	--	--
D5-EtFOSA	µg/L	--	109.8888	--	3656	5.36	57		--	--	--	--

PFHxA 1





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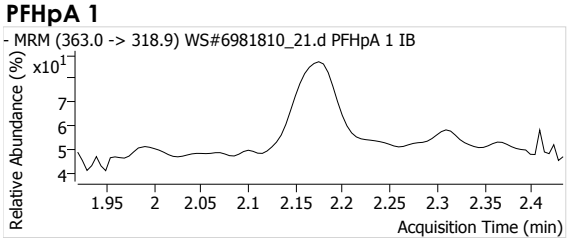
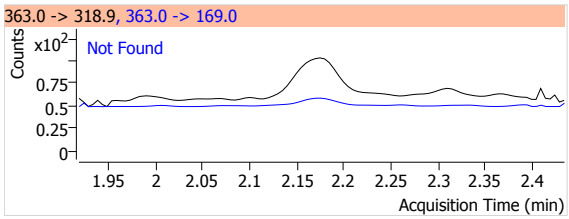
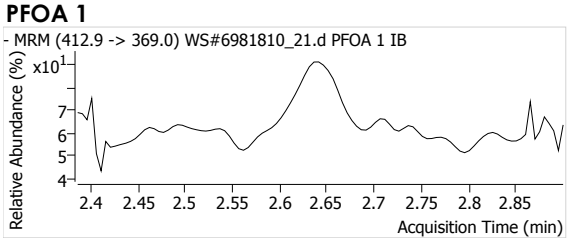
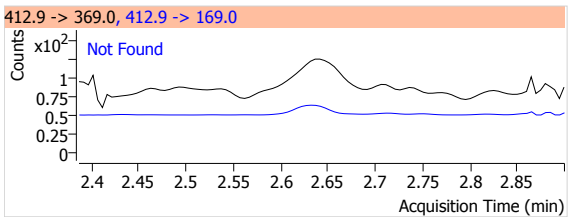




PFOA 1





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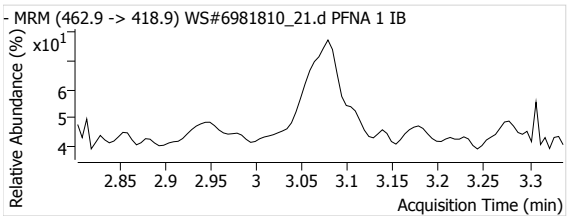

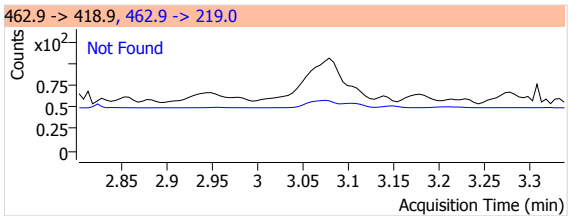

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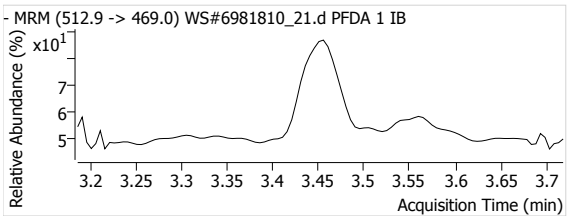

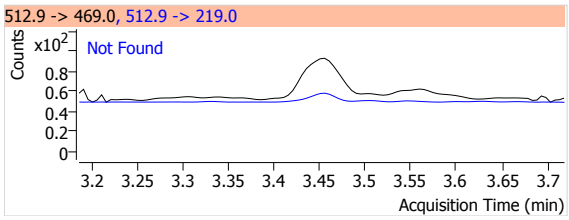

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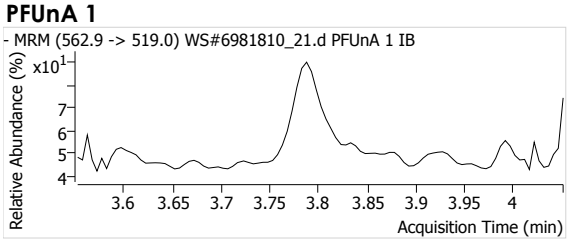

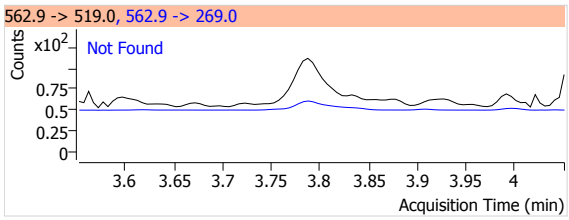

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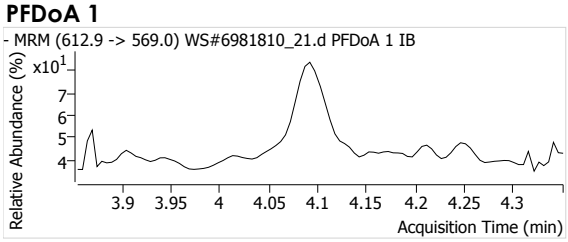

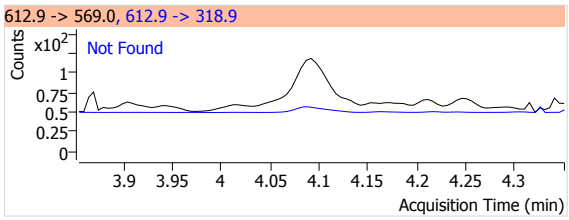

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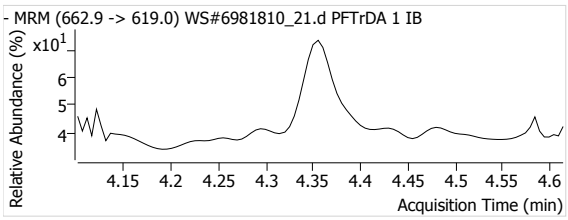

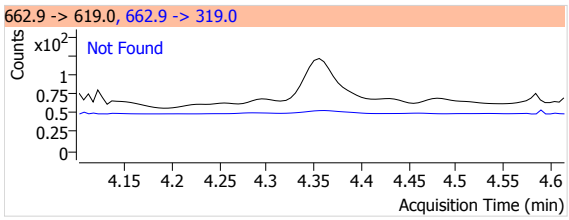

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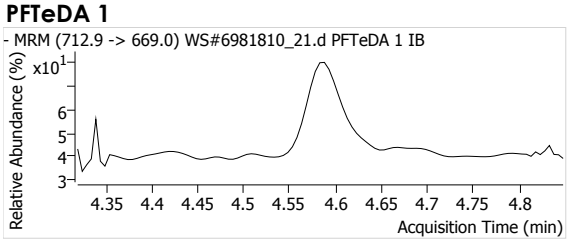

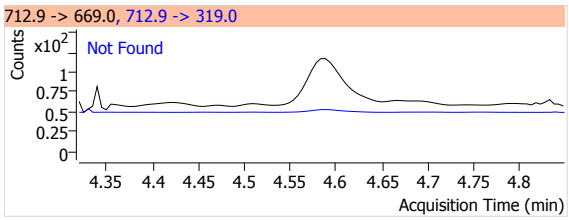

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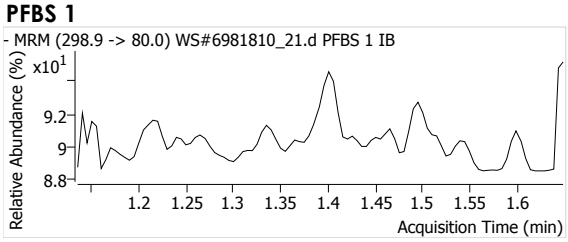

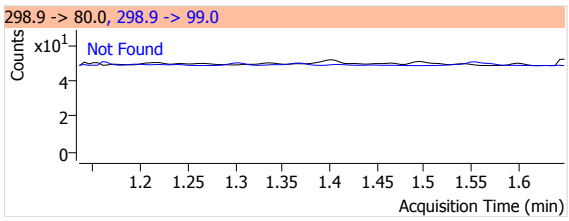

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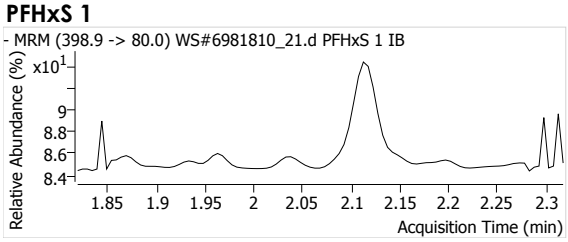

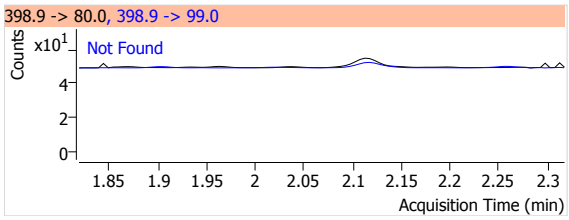

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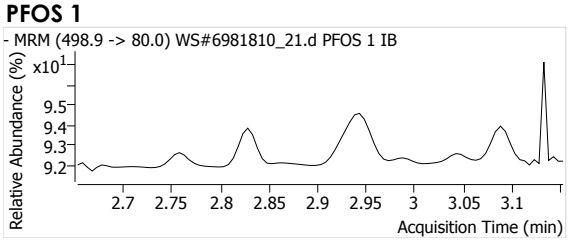

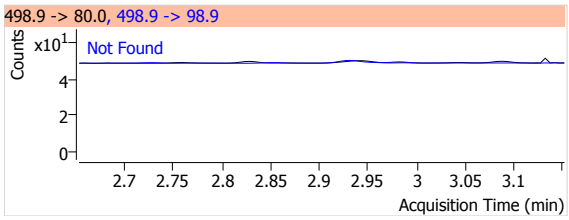

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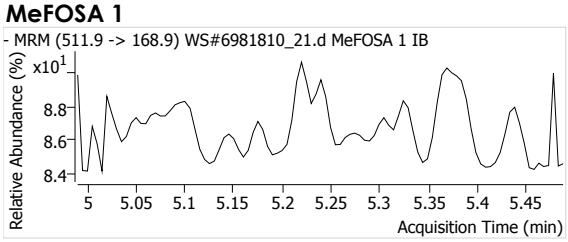

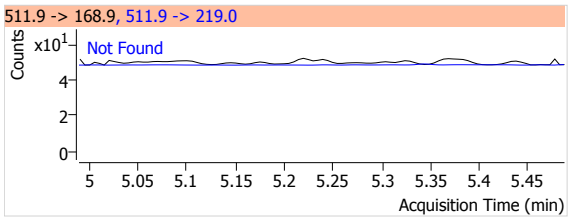

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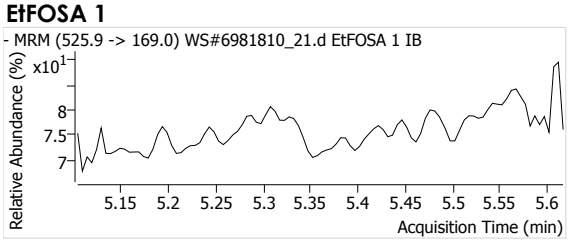

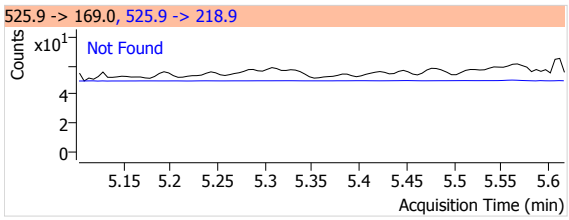

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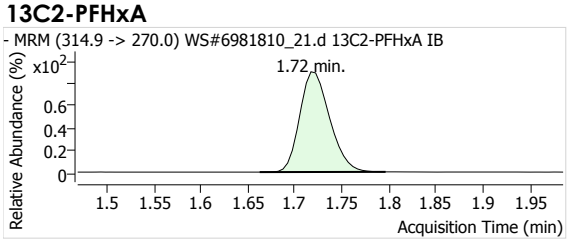

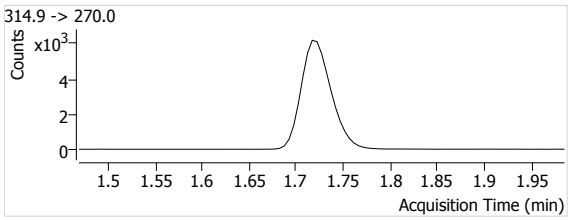

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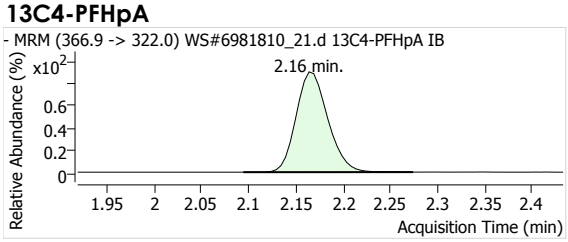

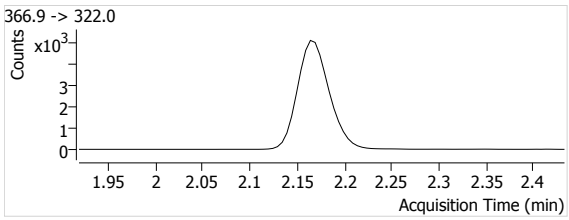

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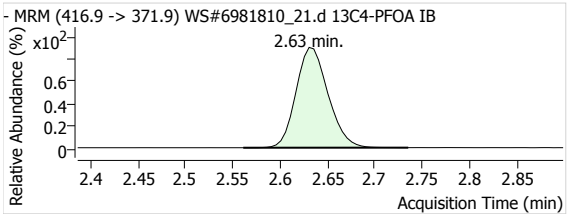

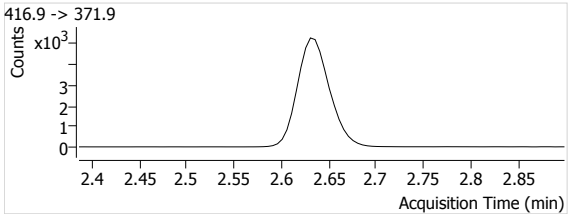

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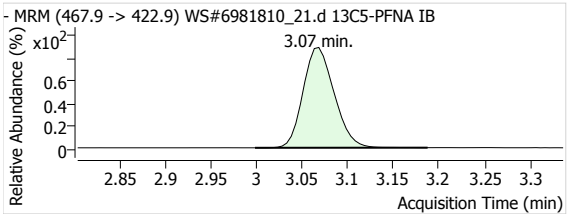

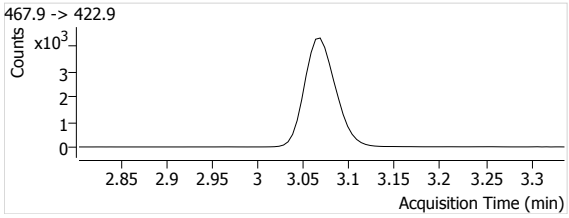

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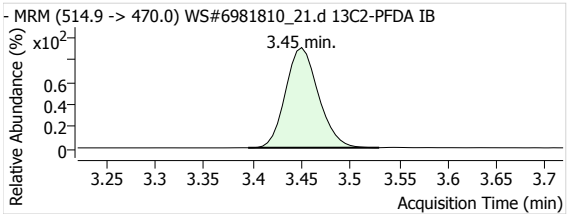

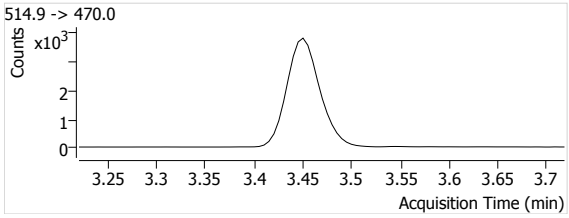

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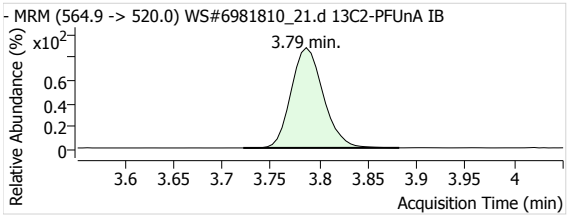

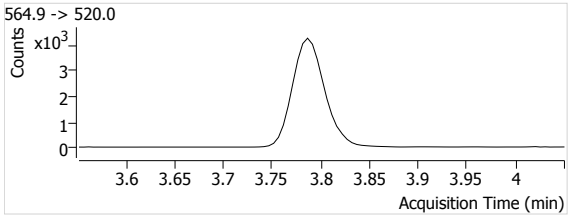

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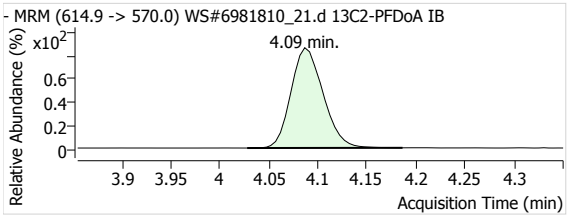

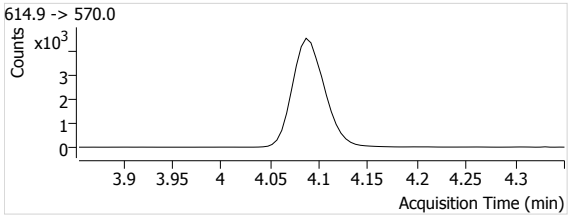

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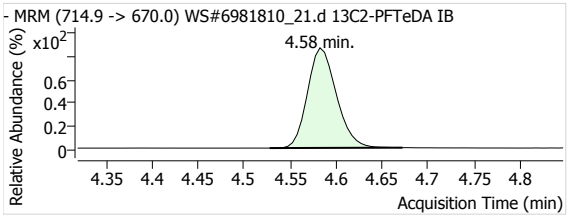

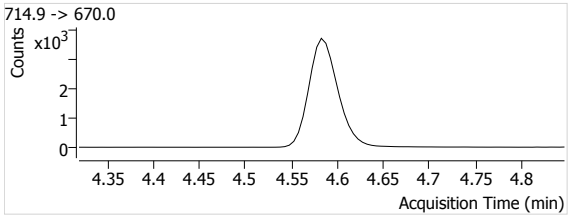

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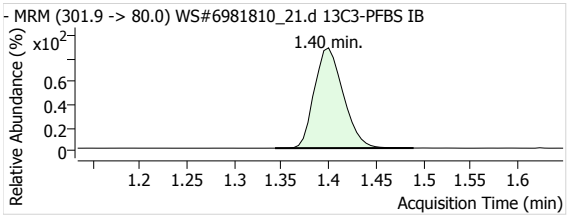

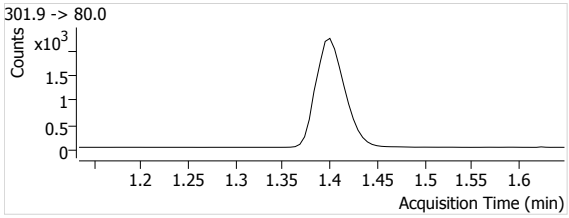

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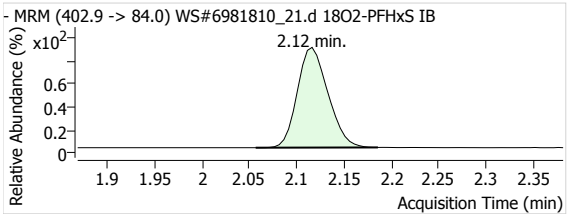

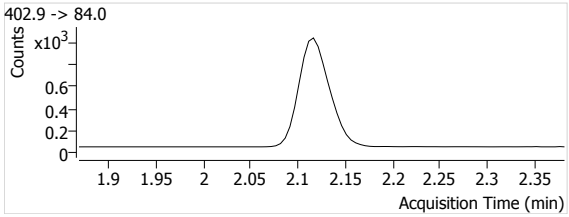

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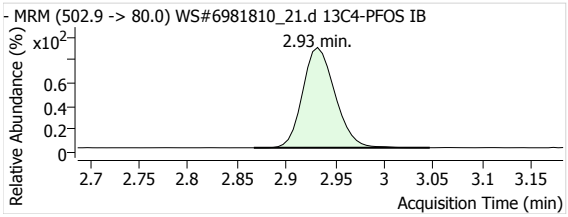

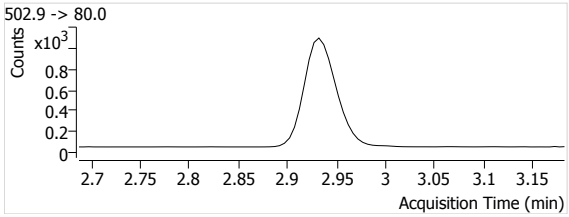

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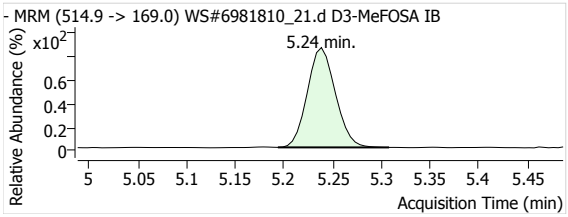

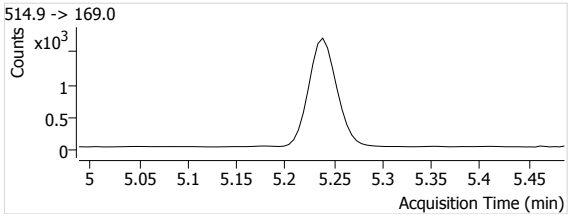

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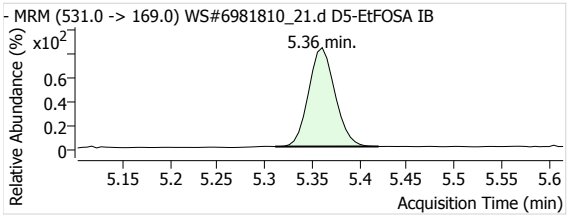
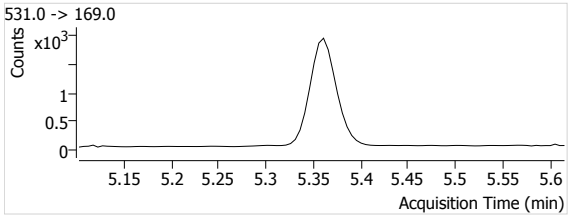




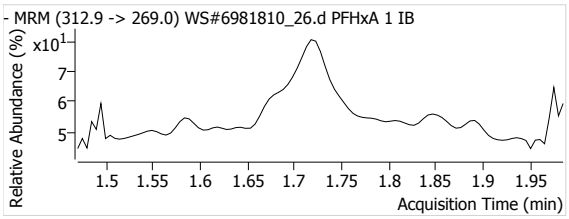
Quantitative Analysis Report

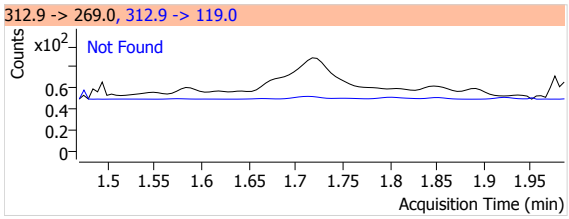
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981810_26.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A8
Acq. Date-Time	2020/10/05 10:16:31 AM	**Dil.**	0.0
Comment	-		
User Defined			

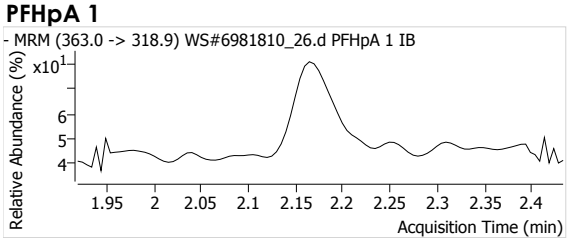
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	170	4.10	3	0.0165	21	4.09	18	12.4
PFTrDA 1	µg/L	--	0.0000	--	168	4.35	3	0.0202	9	4.35	3	5.4
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	110.9619	--	13797	1.72	1146		--	--	--	--
13C4-PFHpA	µg/L	--	110.0549	--	11427	2.16	695		--	--	--	--
13C4-PFOA	µg/L	--	112.0578	--	12639	2.63	772		--	--	--	--
13C5-PFNA	µg/L	--	118.3226	--	10468	3.06	1092		--	--	--	--
13C2-PFDA	µg/L	--	114.1922	--	8899	3.45	535		--	--	--	--
13C2-PFUnA	µg/L	--	117.6298	--	9995	3.79	1300		--	--	--	--
13C2-PFDoA	µg/L	--	113.3649	--	10289	4.09	535		--	--	--	--
13C2-PFTeDA	µg/L	--	115.9744	--	8320	4.58	1195		--	--	--	--
13C3-PFBS	µg/L	--	110.4621	--	4709	1.40	730		--	--	--	--
18O2-PFHxS	µg/L	--	109.3780	--	2251	2.11	606		--	--	--	--
13C4-PFOS	µg/L	--	114.3196	--	2411	2.93	267		--	--	--	--
D3-MeFOSA	µg/L	--	117.5773	--	3271	5.24	97		--	--	--	--
D5-EtFOSA	µg/L	--	117.3730	--	3905	5.36	87		--	--	--	--

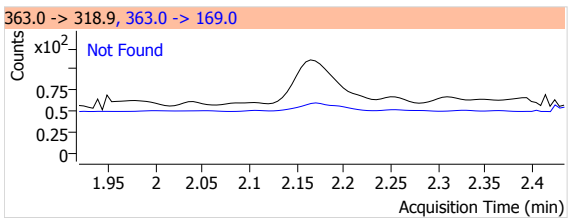
PFHxA 1



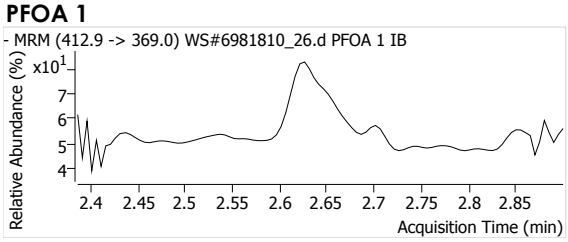


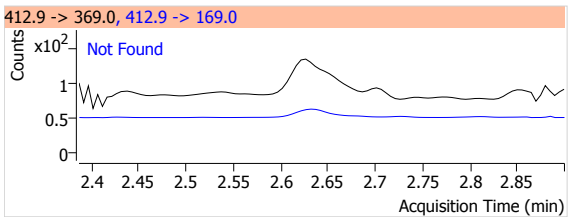
PFHpA 1





PFOA 1





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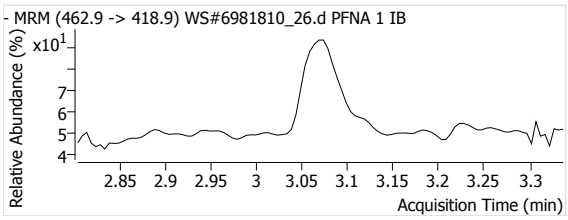

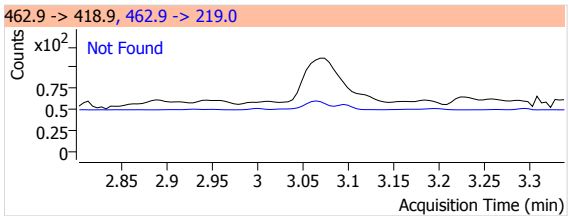

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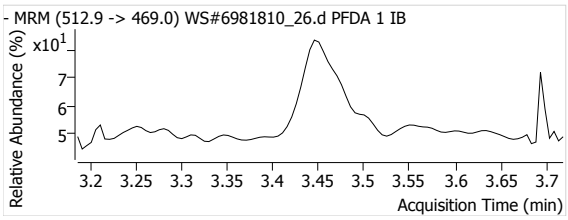
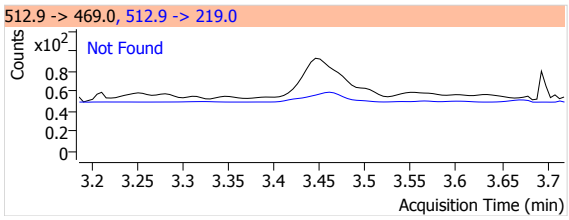
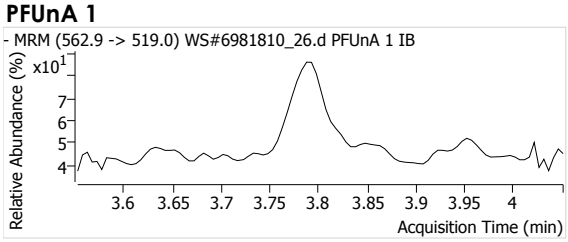
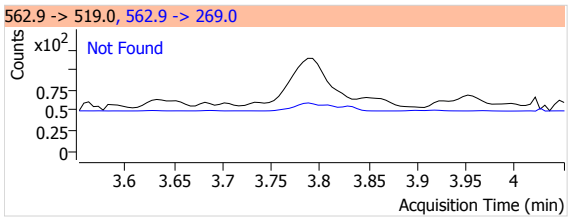




PFUnA 1





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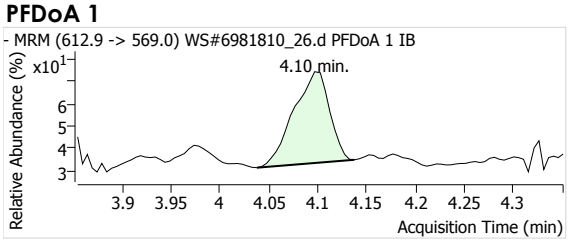

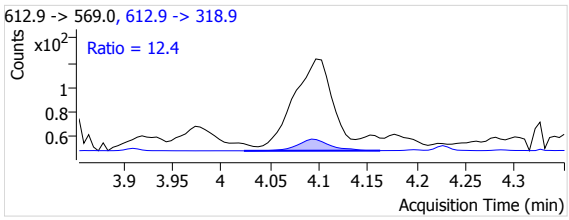

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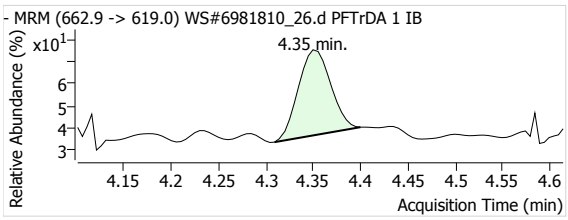

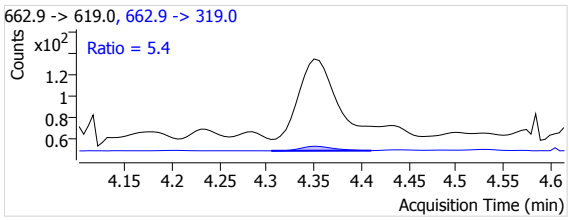

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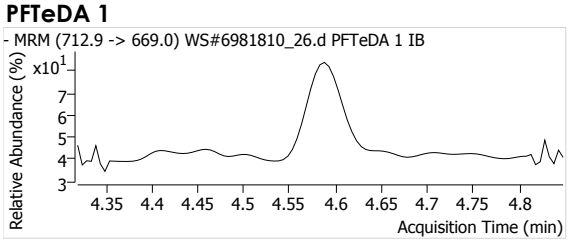

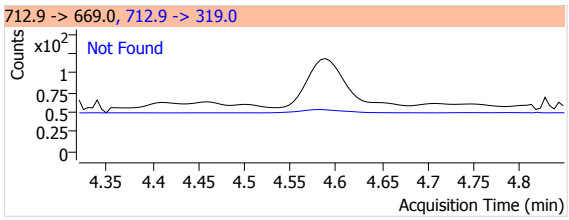

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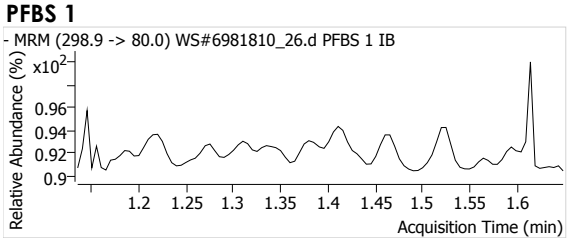

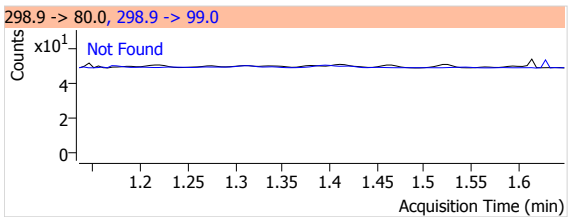

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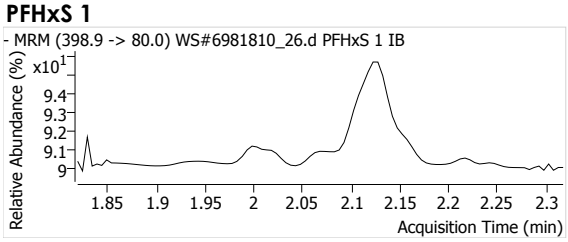

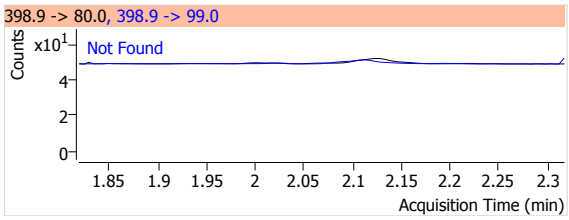

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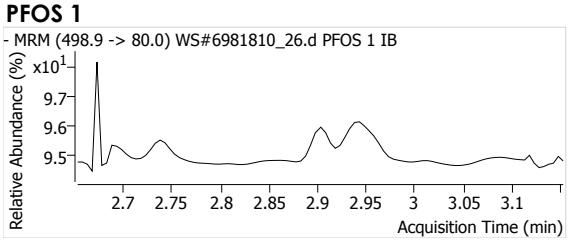

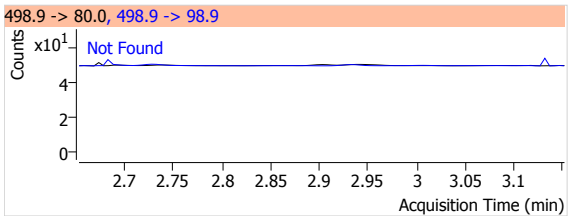

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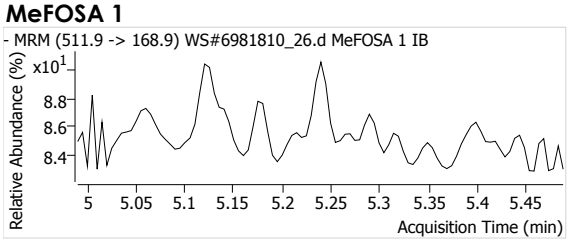

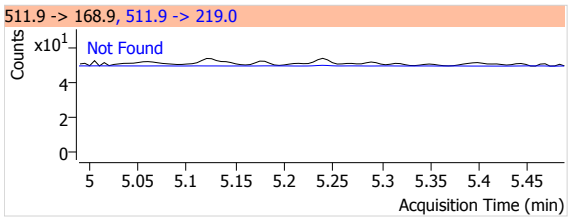

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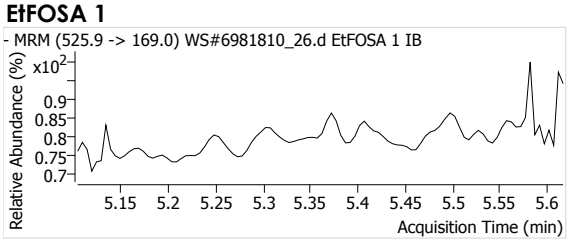

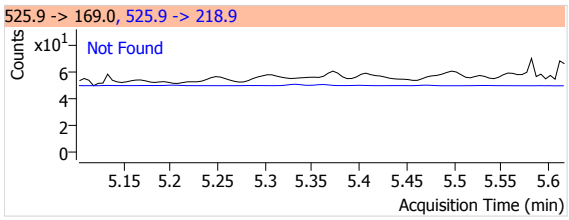

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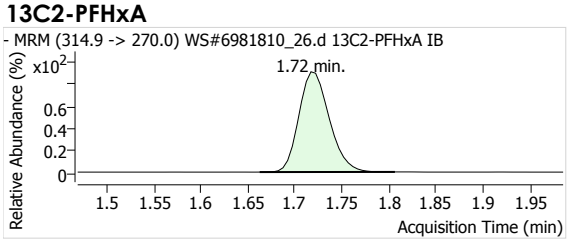

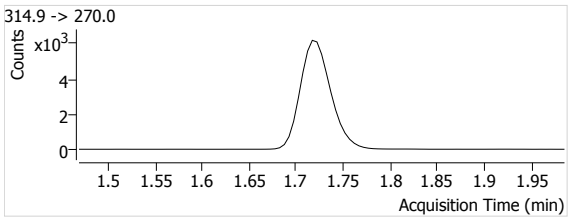

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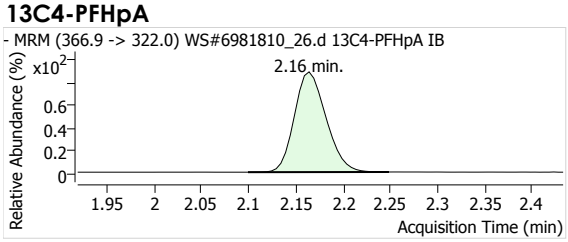

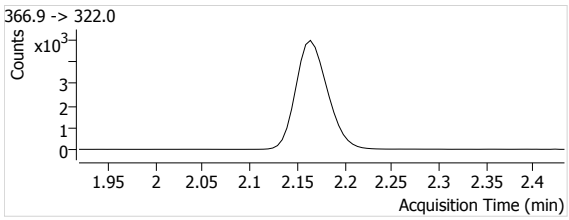

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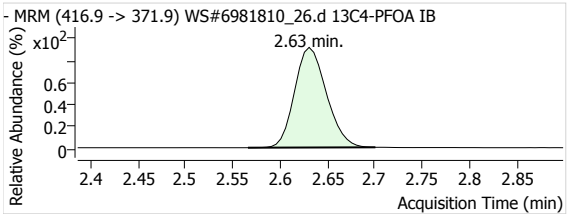

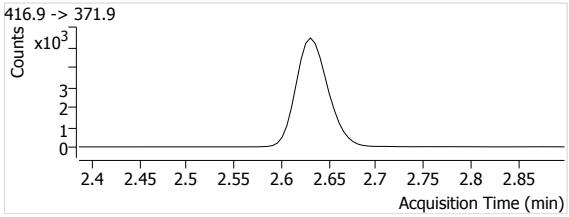

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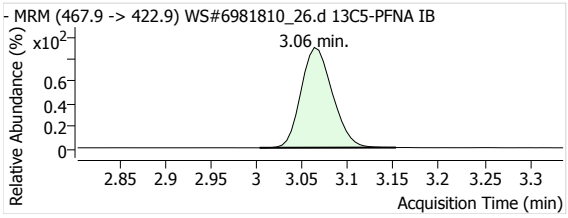

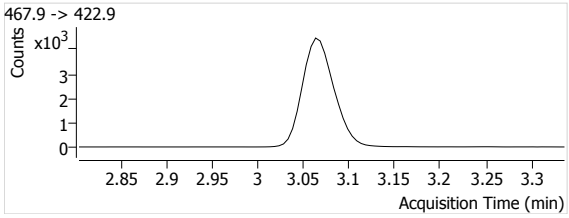

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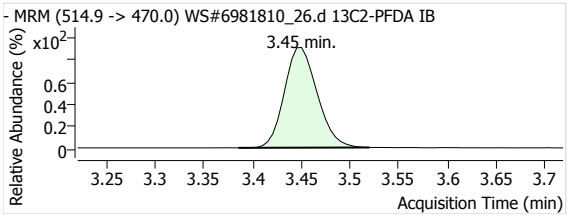

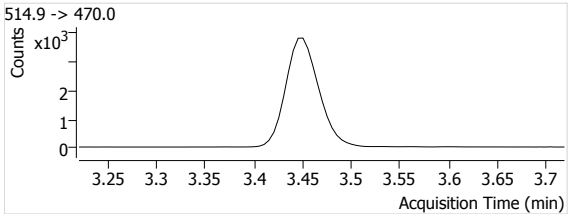

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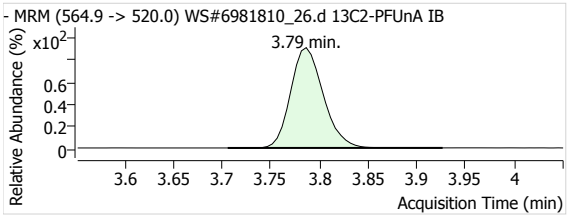

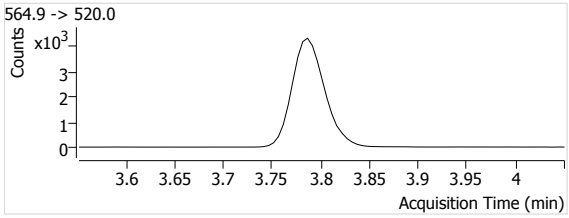

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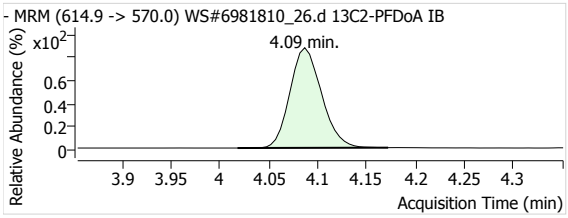

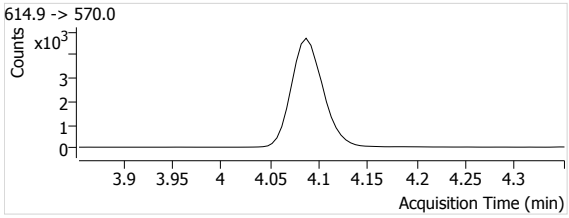

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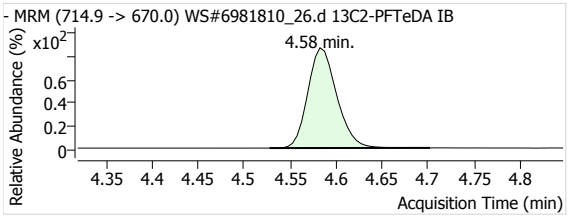

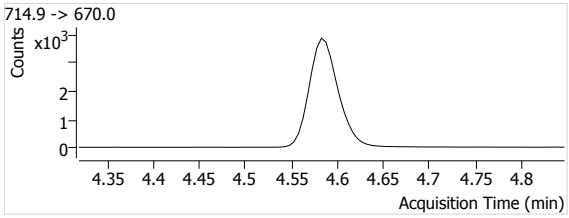

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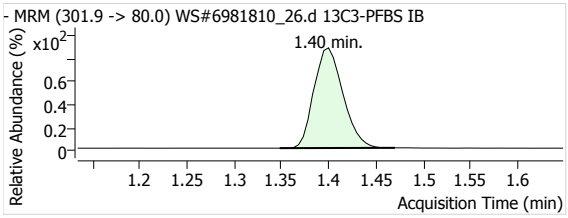

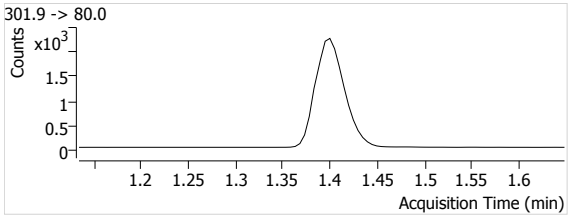

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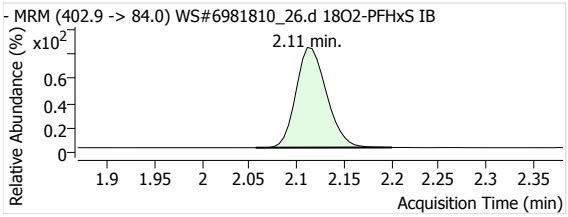

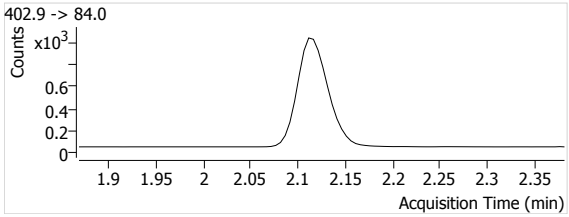

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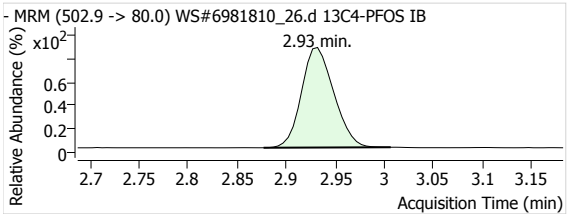
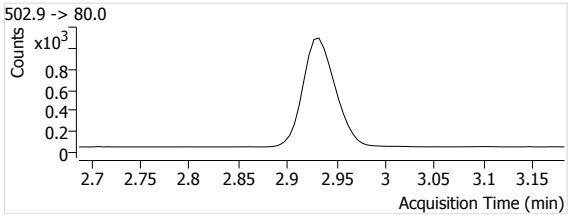
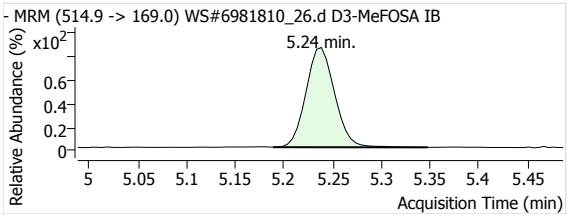
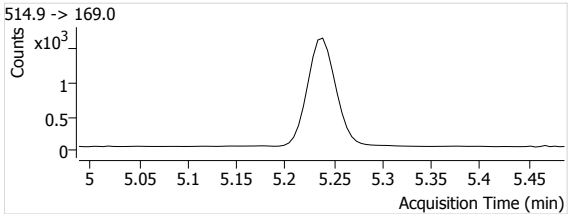




D3-MeFOSA





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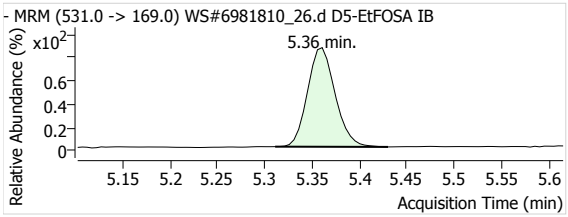
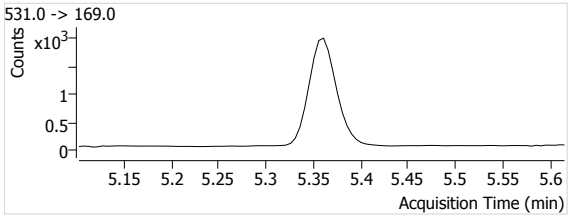




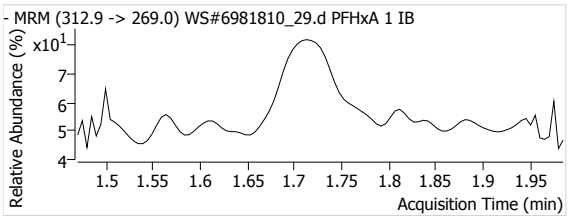
Quantitative Analysis Report

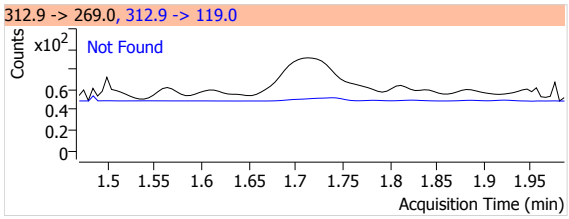
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981810_29.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A8
Acq. Date-Time	2020/10/05 10:37:29 AM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	113.6641	--	14133	1.72	1732		--	--	--	--
13C4-PFHpA	µg/L	--	111.7596	--	11604	2.16	577		--	--	--	--
13C4-PFOA	µg/L	--	114.0349	--	12862	2.63	953		--	--	--	--
13C5-PFNA	µg/L	--	114.4795	--	10128	3.06	597		--	--	--	--
13C2-PFDA	µg/L	--	116.0785	--	9046	3.45	733		--	--	--	--
13C2-PFUnA	µg/L	--	117.4885	--	9983	3.79	520		--	--	--	--
13C2-PFDoA	µg/L	--	114.2464	--	10369	4.09	534		--	--	--	--
13C2-PFTeDA	µg/L	--	119.4173	--	8567	4.58	1163		--	--	--	--
13C3-PFBS	µg/L	--	108.2806	--	4616	1.40	413		--	--	--	--
18O2-PFHxS	µg/L	--	111.7104	--	2299	2.12	503		--	--	--	--
13C4-PFOS	µg/L	--	116.4059	--	2455	2.93	347		--	--	--	--
D3-MeFOSA	µg/L	--	113.2279	--	3150	5.24	110		--	--	--	--
D5-EtFOSA	µg/L	--	112.1130	--	3730	5.36	95		--	--	--	--

PFHxA 1





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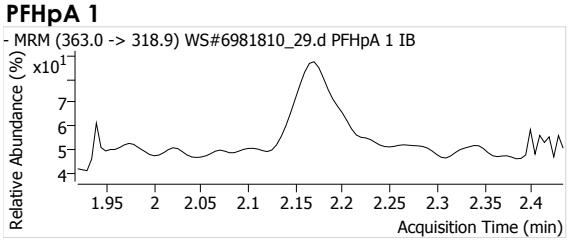
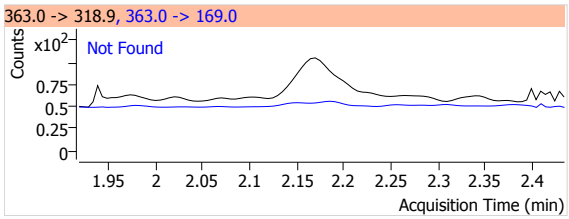
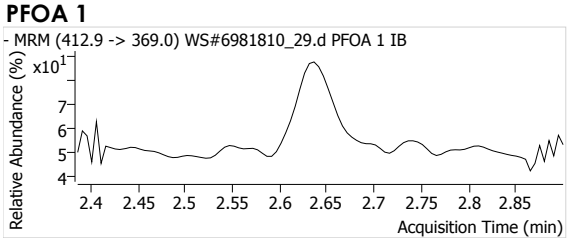
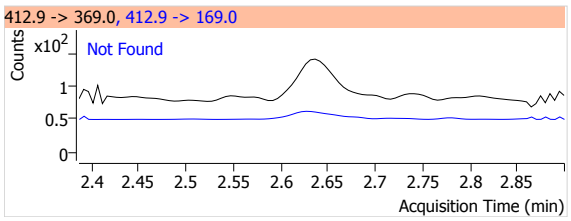




PFOA 1





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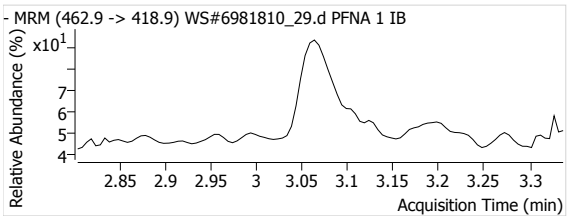

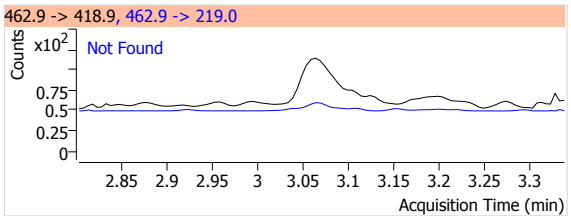

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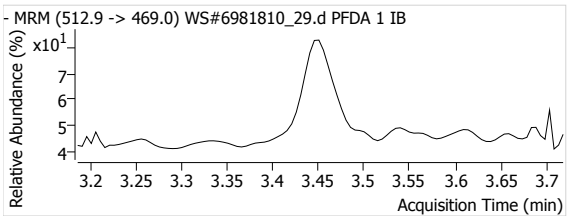

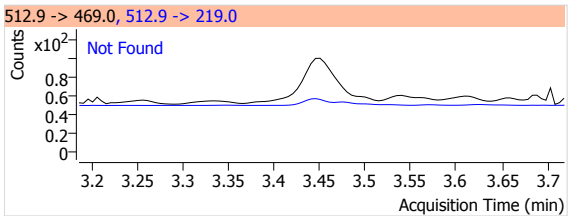

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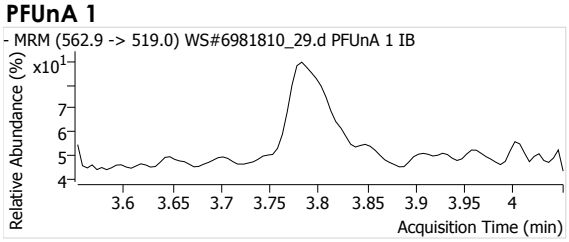

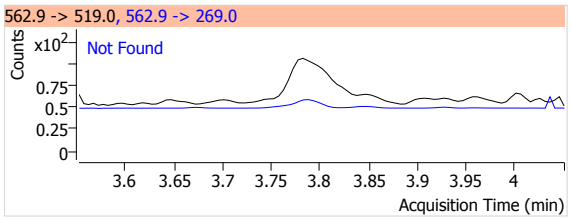

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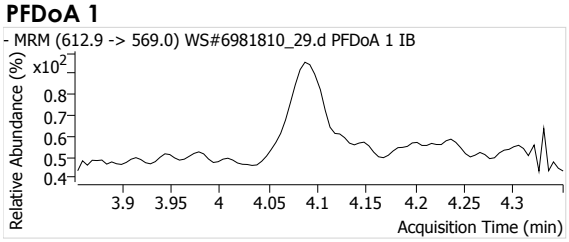

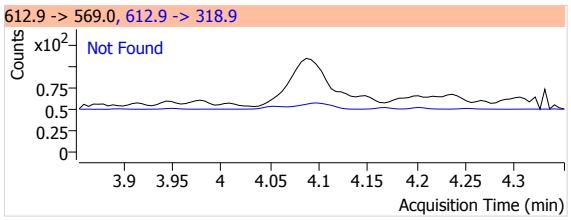

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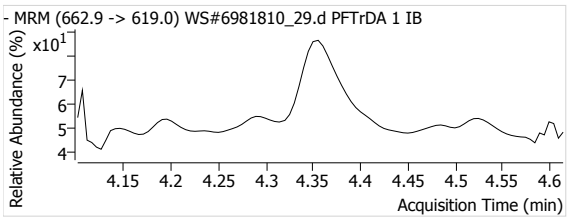

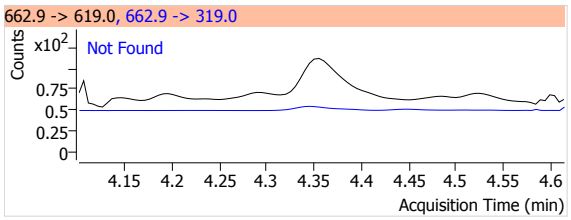

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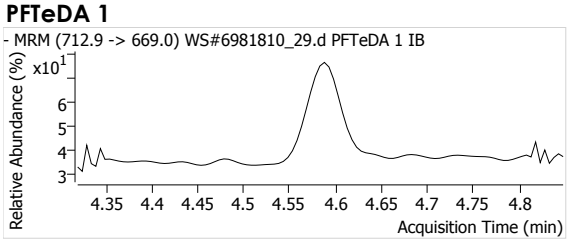

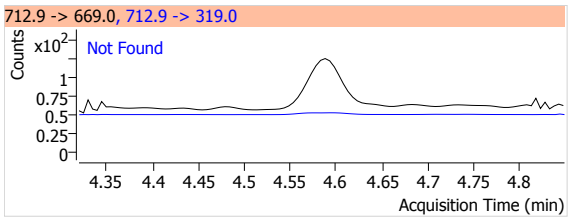

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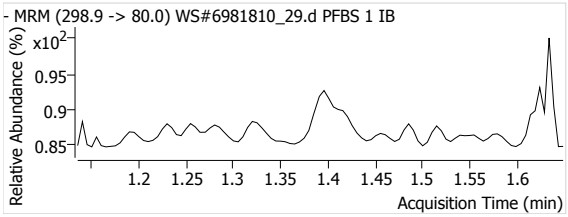

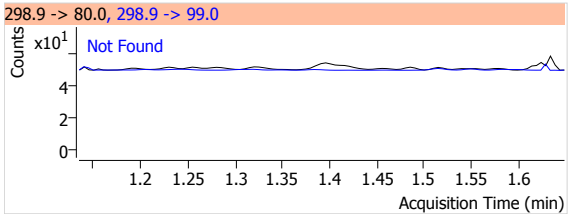

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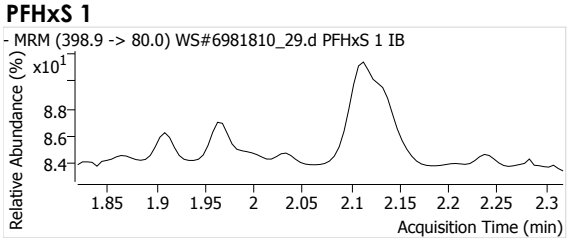
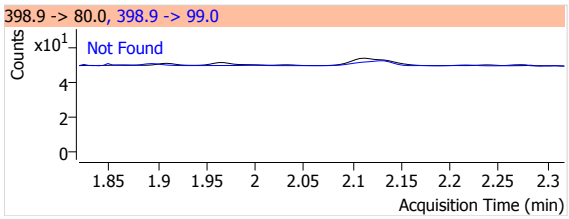
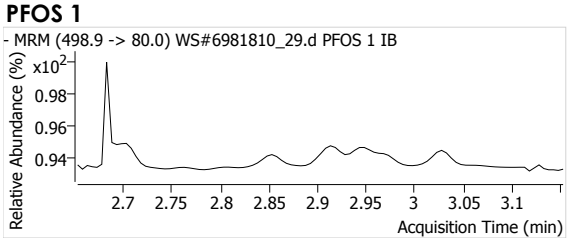
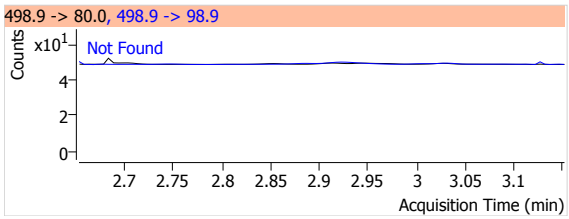




PFOS 1





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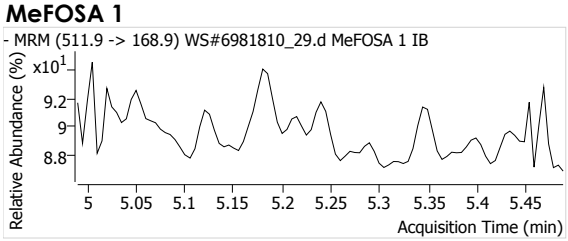

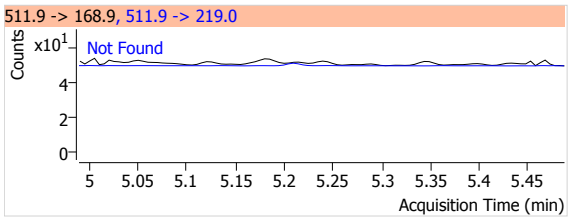

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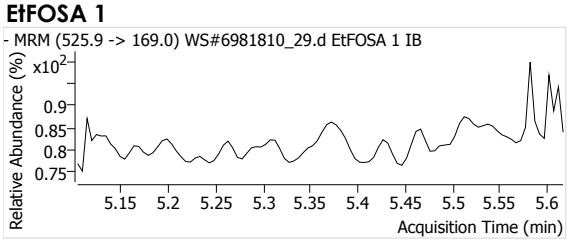

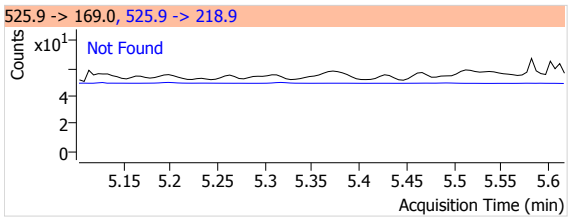

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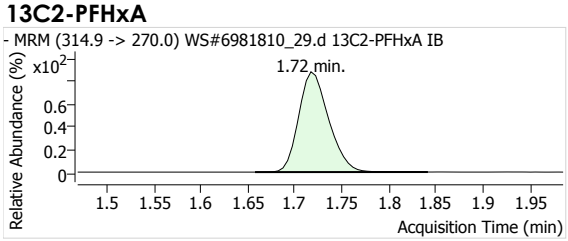

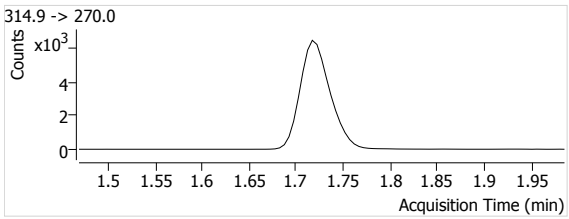

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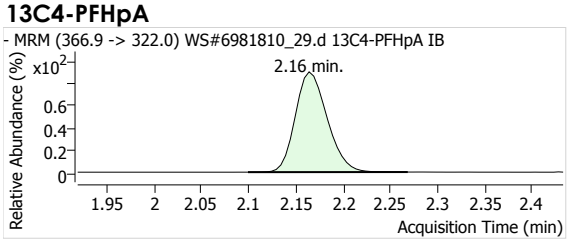

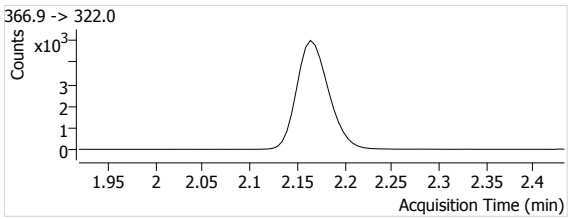

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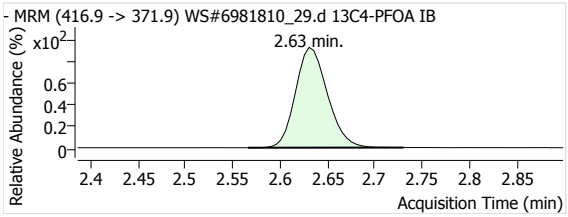

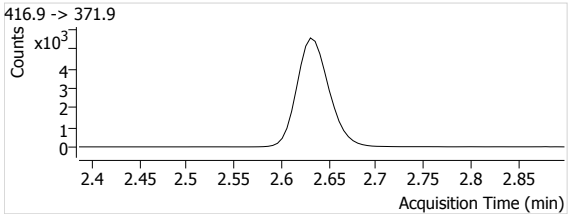

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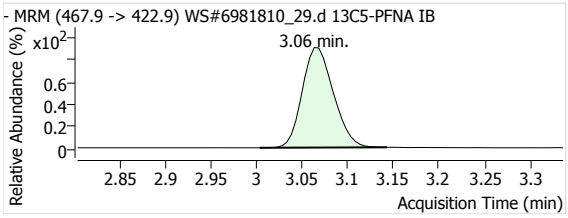

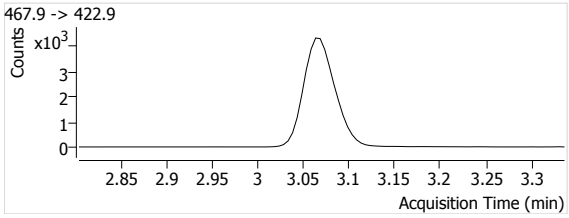

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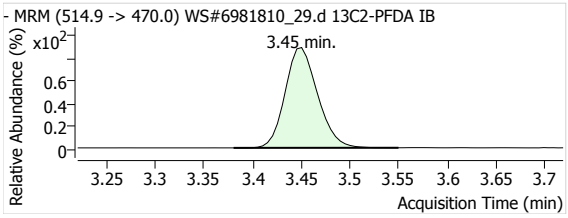

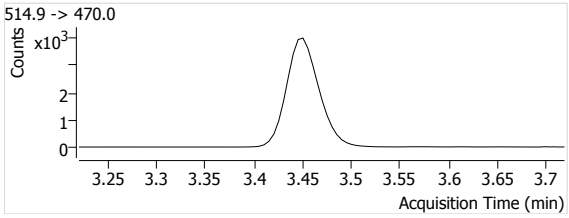

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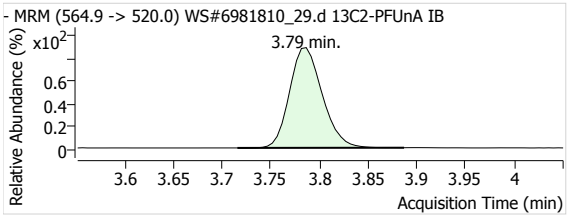

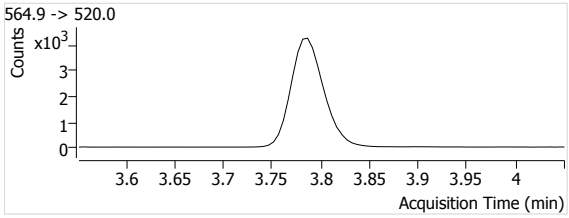

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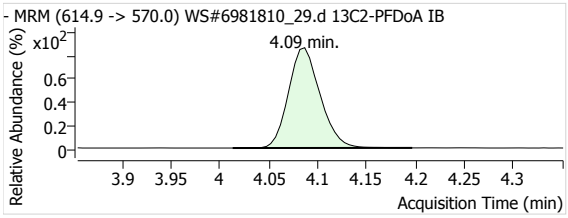

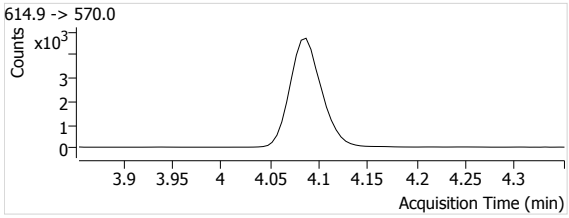

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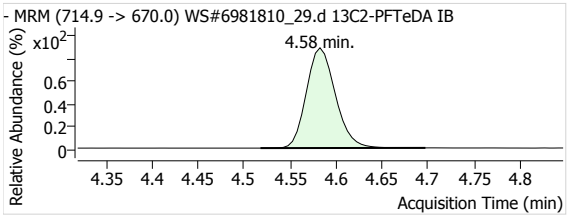

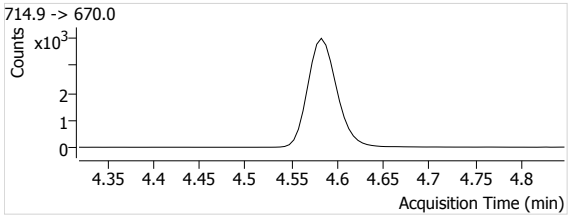

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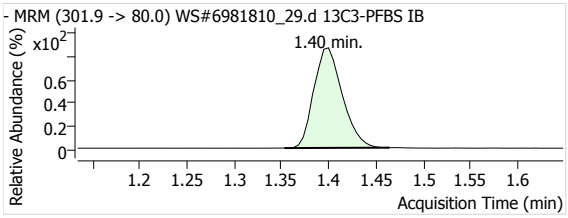

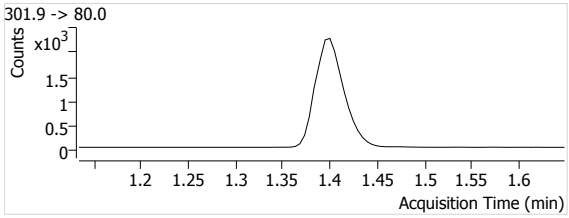

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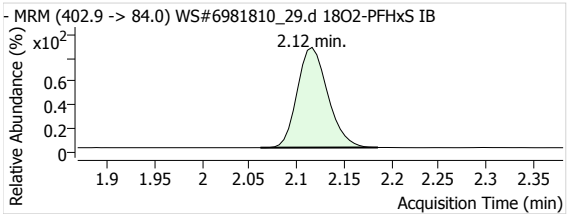

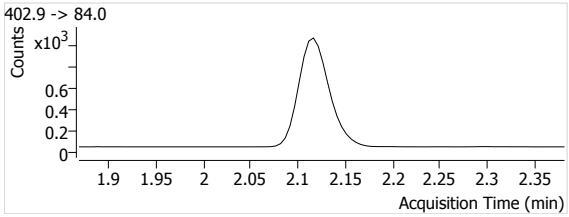

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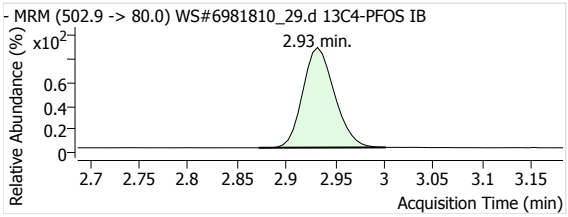
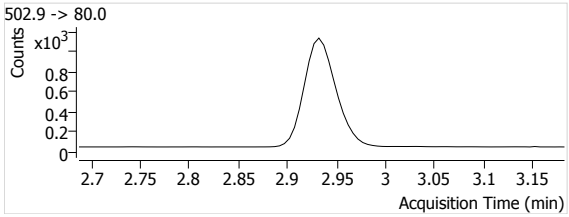
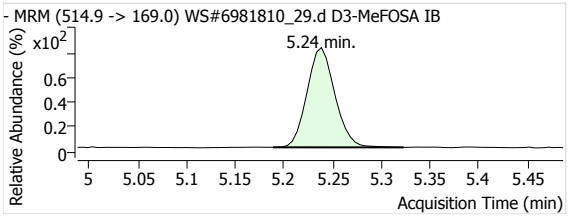
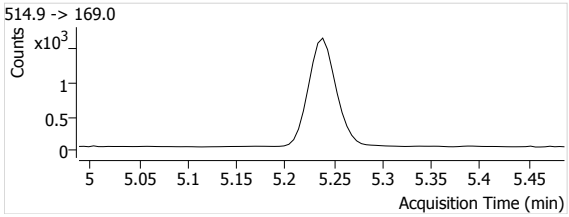




D3-MeFOSA





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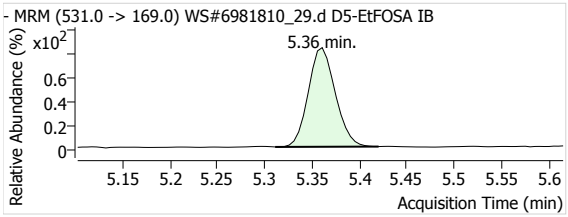
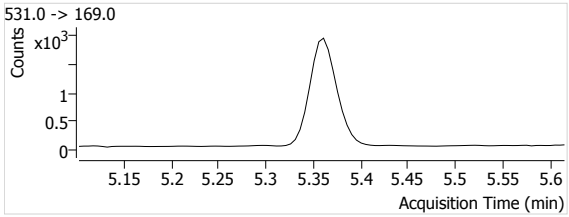




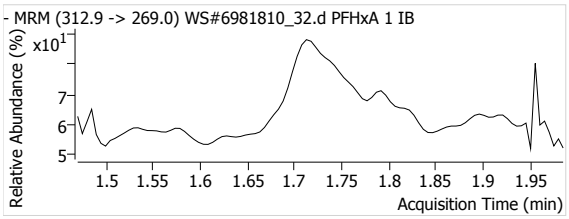
Quantitative Analysis Report

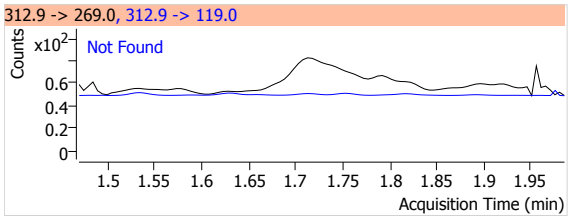
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981810_32.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A8
Acq. Date-Time	2020/10/05 10:58:29 AM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0000	--	173	4.36	4	0.0207	18	4.35	24	10.4
PFTeDA 1	µg/L	--	0.0000	--	201	4.59	4	0.0241	10	4.60	10	5.0
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	108.6698	--	13512	1.72	2739		--	--	--	--
13C4-PFHpA	µg/L	--	111.5285	--	11580	2.16	1990		--	--	--	--
13C4-PFOA	µg/L	--	112.0401	--	12637	2.63	1006		--	--	--	--
13C5-PFNA	µg/L	--	114.6377	--	10142	3.06	885		--	--	--	--
13C2-PFDA	µg/L	--	114.2179	--	8901	3.45	662		--	--	--	--
13C2-PFUnA	µg/L	--	114.8170	--	9756	3.79	524		--	--	--	--
13C2-PFDoA	µg/L	--	112.1529	--	10179	4.09	405		--	--	--	--
13C2-PFTeDA	µg/L	--	116.3089	--	8344	4.58	642		--	--	--	--
13C3-PFBS	µg/L	--	109.8053	--	4681	1.40	831		--	--	--	--
18O2-PFHxS	µg/L	--	109.0379	--	2244	2.12	371		--	--	--	--
13C4-PFOS	µg/L	--	114.3670	--	2412	2.93	589		--	--	--	--
D3-MeFOSA	µg/L	--	119.7699	--	3332	5.24	146		--	--	--	--
D5-EtFOSA	µg/L	--	111.5419	--	3711	5.36	131		--	--	--	--

PFHxA 1





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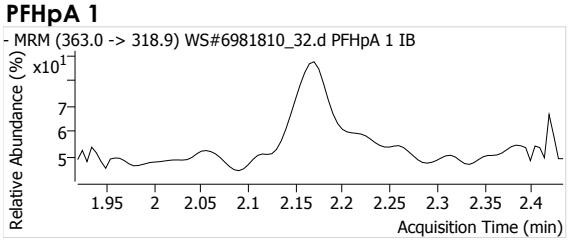

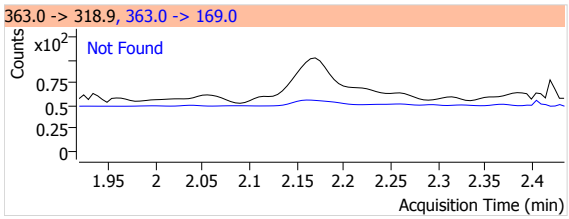

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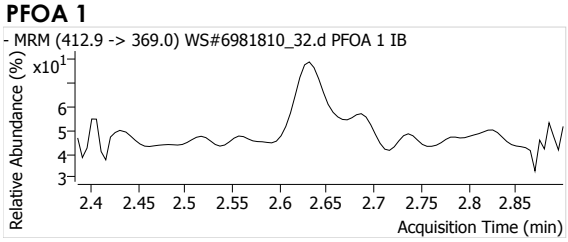

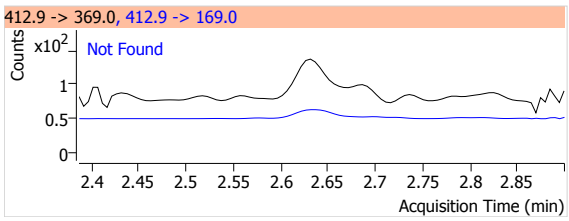

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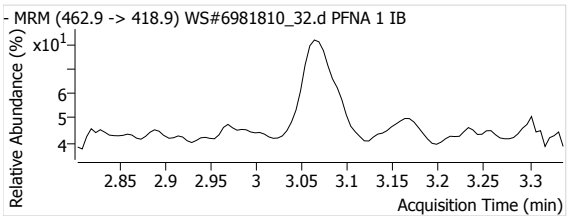

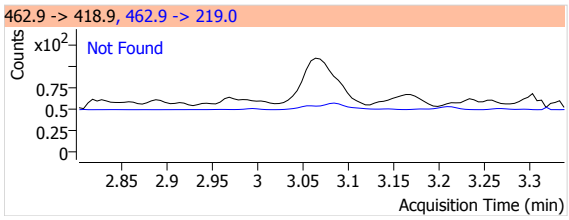

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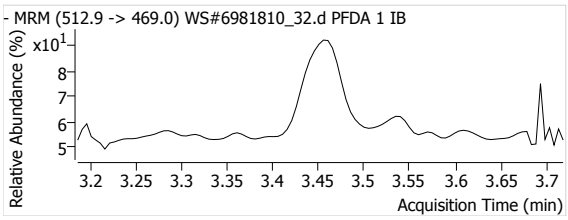

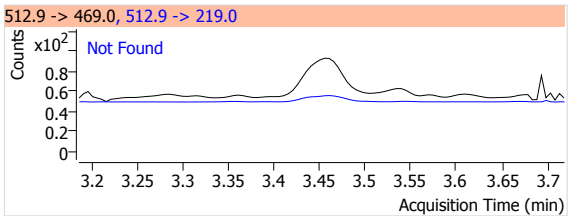

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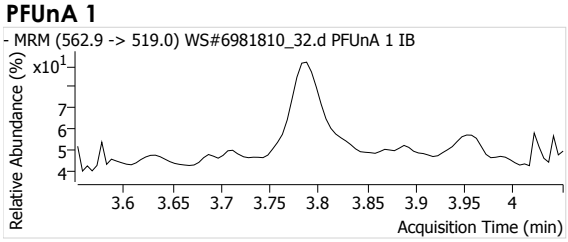

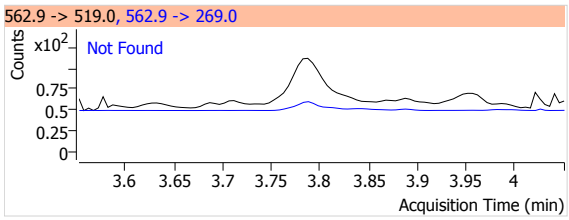

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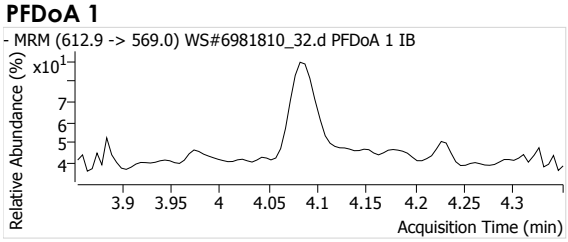

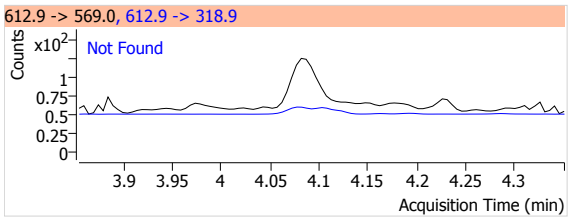

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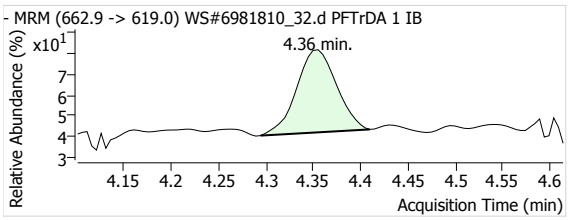

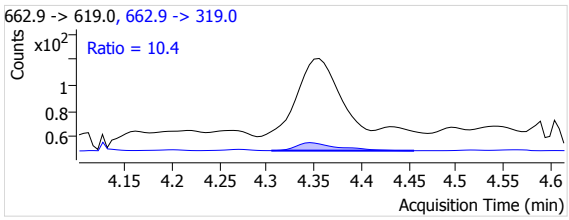

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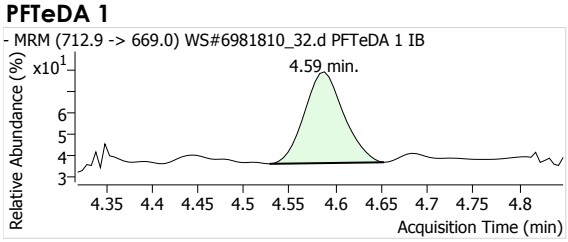

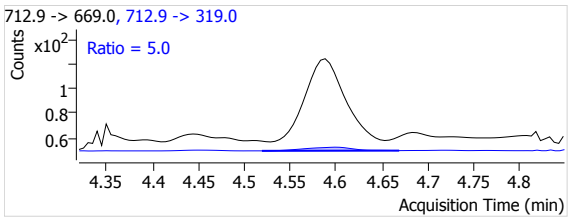

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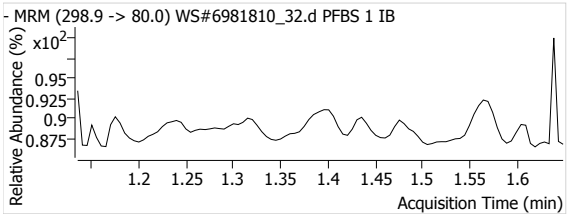

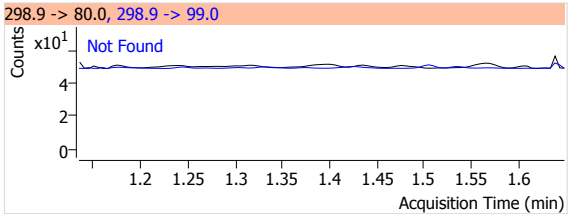

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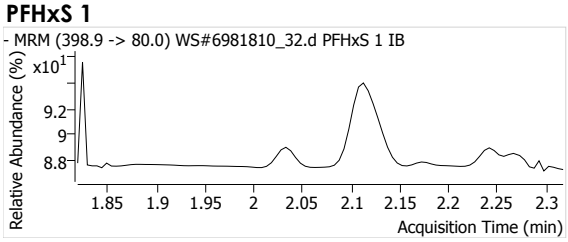

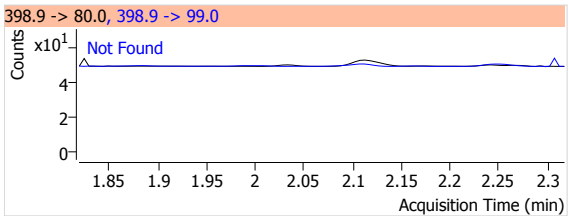

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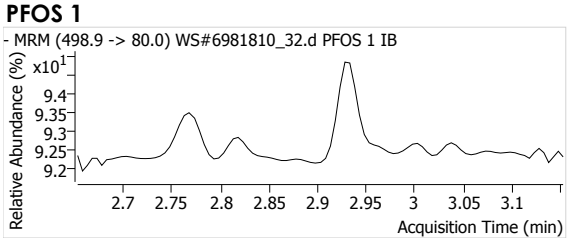

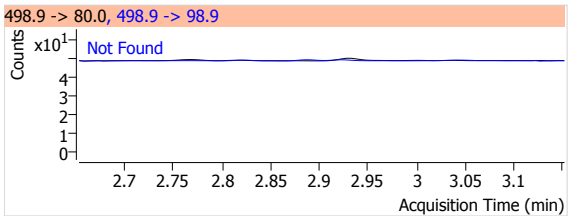

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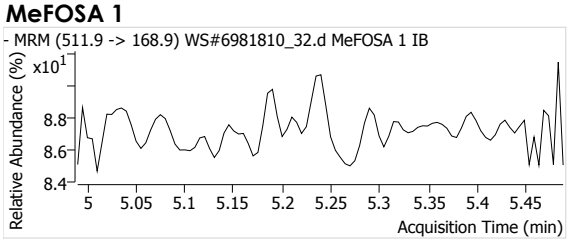

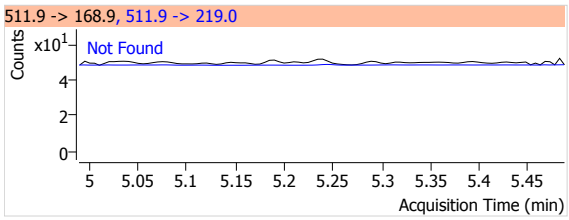

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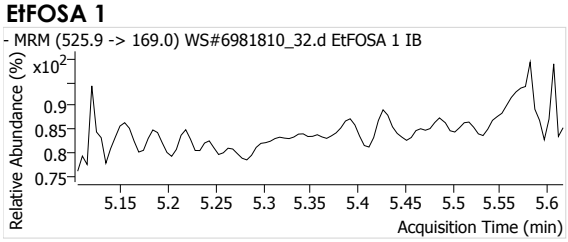

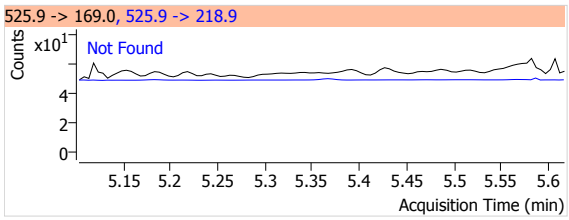

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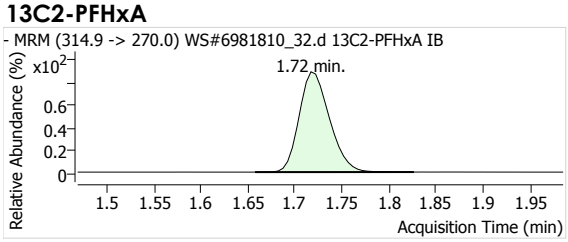

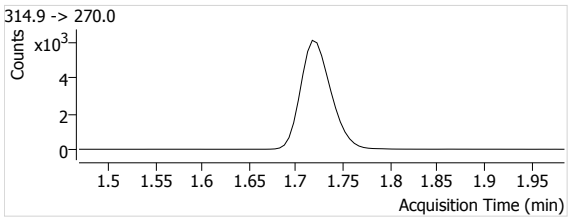

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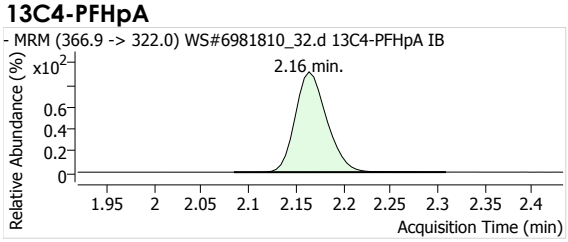

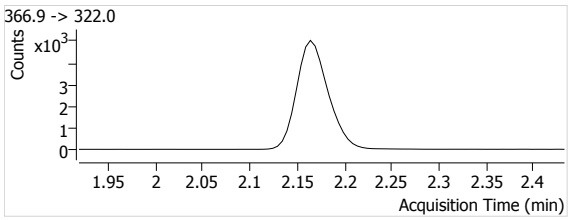

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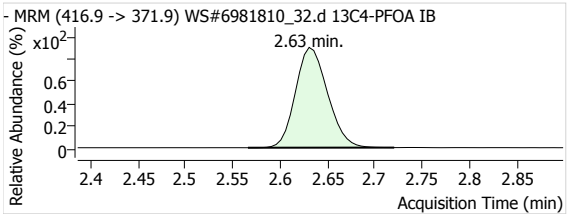

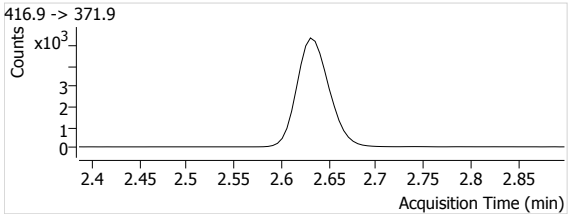

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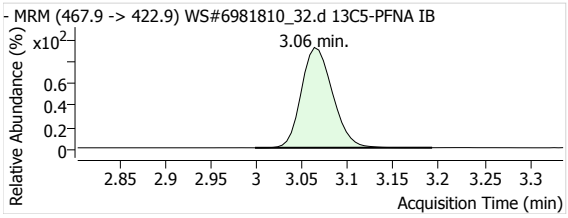

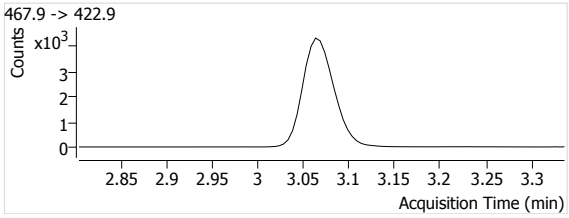

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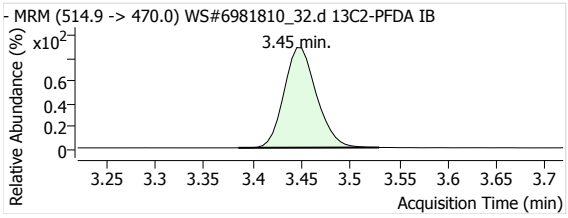

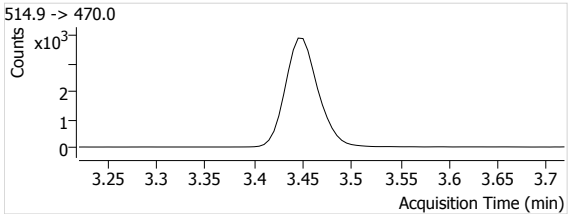

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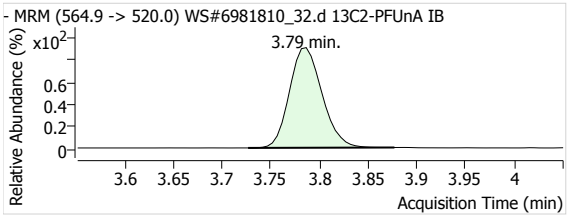

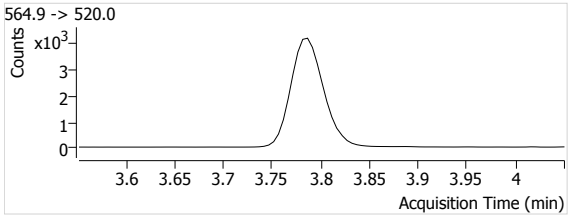

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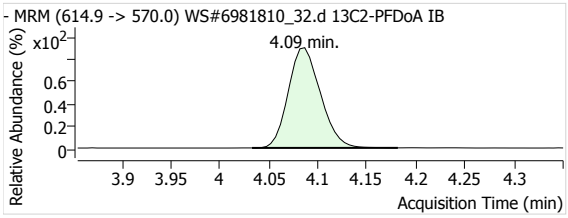

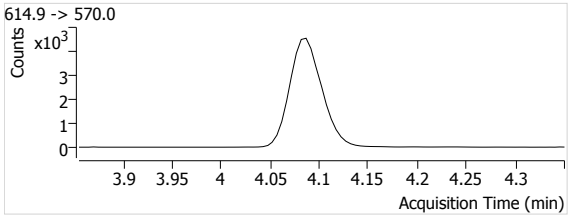

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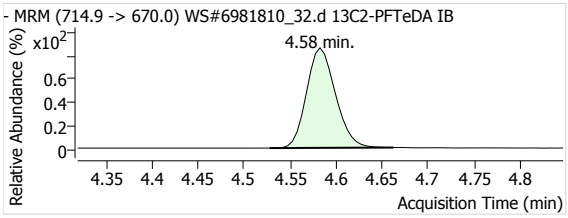

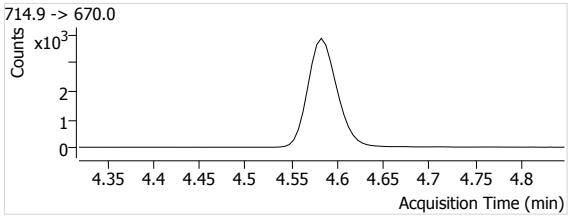

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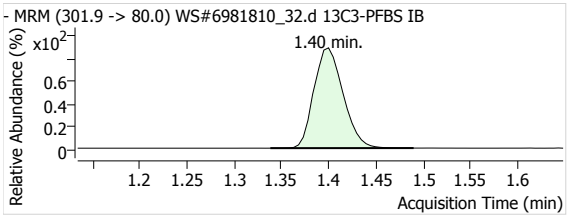

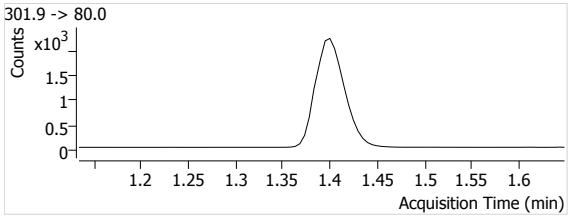

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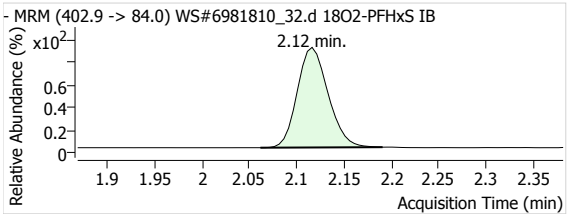

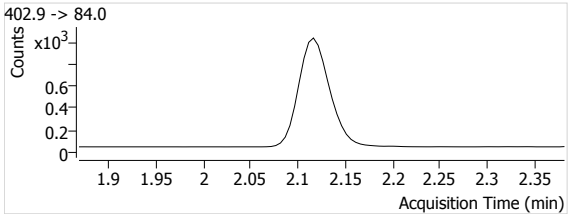

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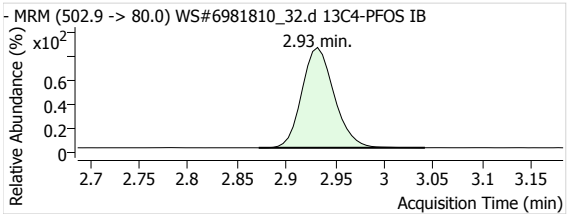

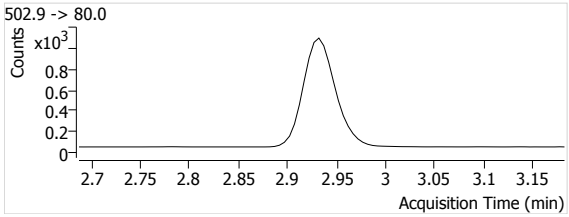

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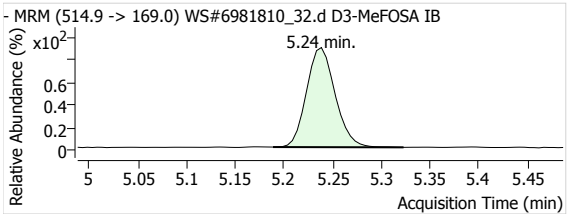

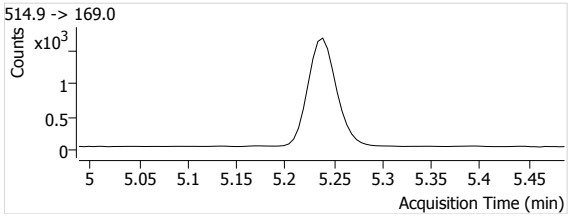

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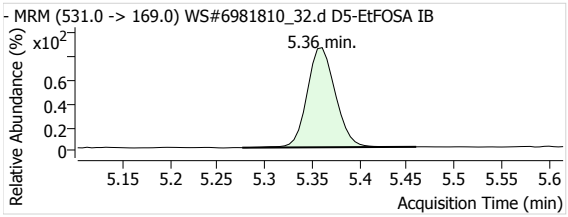
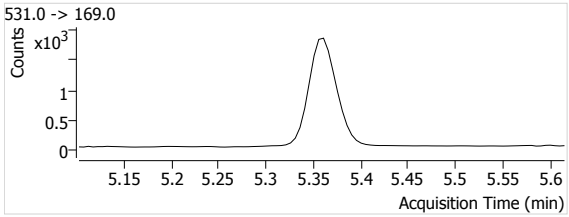




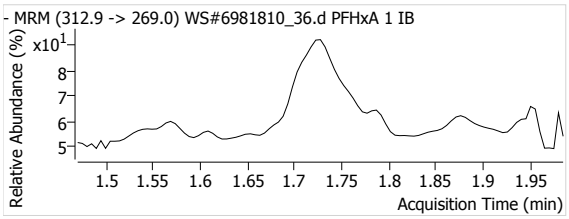
Quantitative Analysis Report

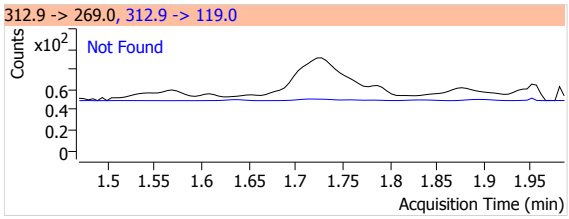
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981810_36.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A8
Acq. Date-Time	2020/10/05 11:26:26 AM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	0.0005	--	183	3.79	3	0.0183	14	3.79	19	7.7
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	112.3211	--	13966	1.72	921		--	--	--	--
13C4-PFHpA	µg/L	--	111.9041	--	11619	2.17	1205		--	--	--	--
13C4-PFOA	µg/L	--	113.6094	--	12814	2.64	1288		--	--	--	--
13C5-PFNA	µg/L	--	116.8193	--	10335	3.07	876		--	--	--	--
13C2-PFDA	µg/L	--	114.3334	--	8910	3.45	550		--	--	--	--
13C2-PFUnA	µg/L	--	117.5121	--	9985	3.79	620		--	--	--	--
13C2-PFDoA	µg/L	--	112.7479	--	10233	4.09	791		--	--	--	--
13C2-PFTeDA	µg/L	--	115.5422	--	8289	4.58	800		--	--	--	--
13C3-PFBS	µg/L	--	112.6202	--	4801	1.40	976		--	--	--	--
18O2-PFHxS	µg/L	--	107.4344	--	2211	2.12	1147		--	--	--	--
13C4-PFOS	µg/L	--	117.5913	--	2480	2.93	241		--	--	--	--
D3-MeFOSA	µg/L	--	118.2962	--	3291	5.24	120		--	--	--	--
D5-EtFOSA	µg/L	--	111.5419	--	3711	5.36	99		--	--	--	--

PFHxA 1





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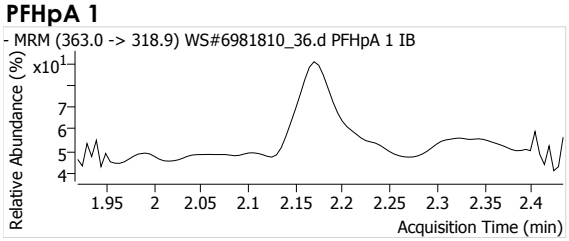

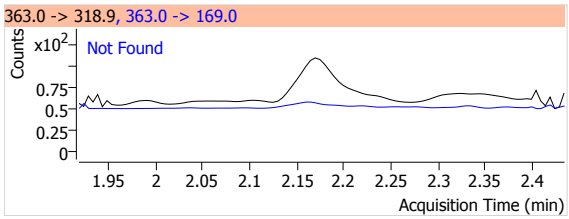

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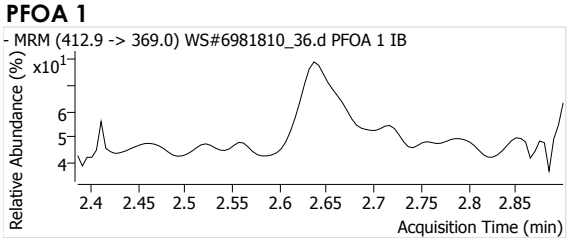

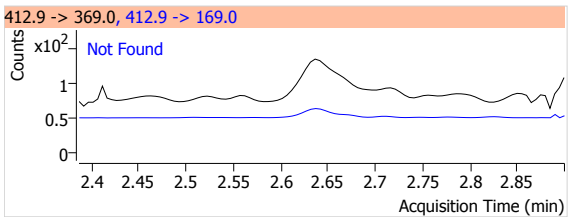

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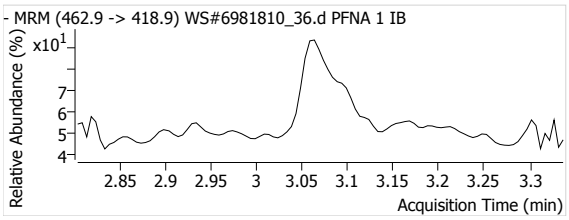

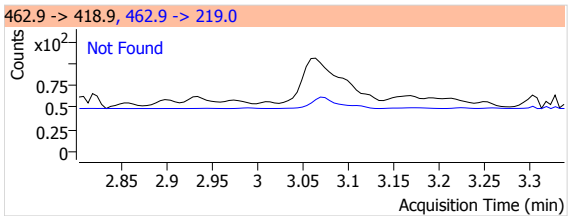

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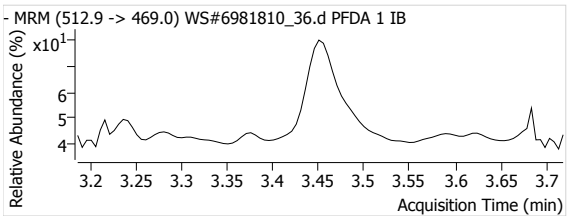

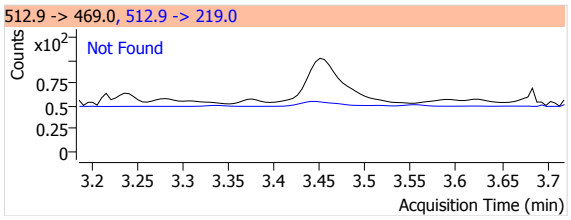

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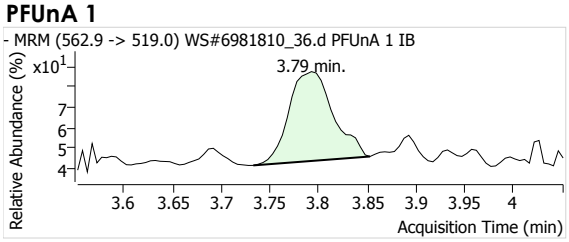

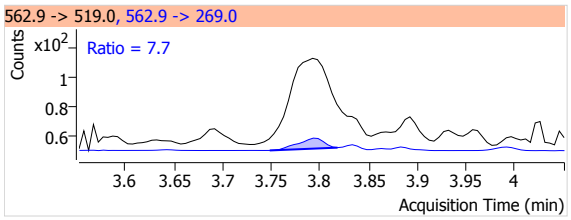

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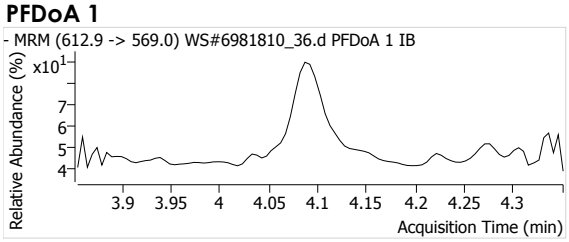

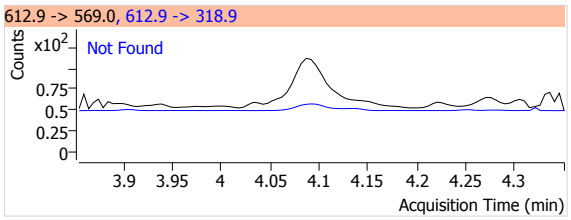

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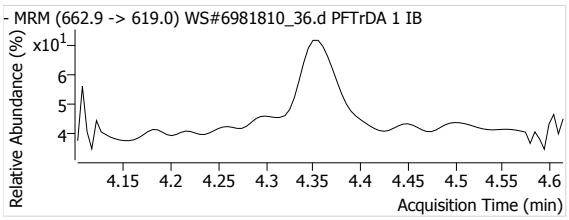

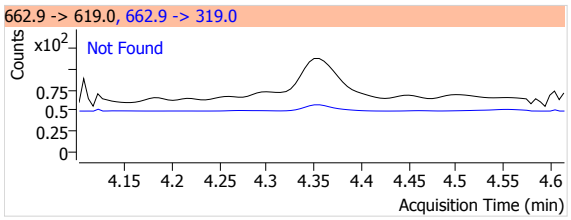

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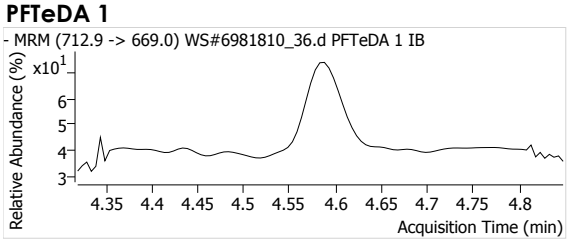

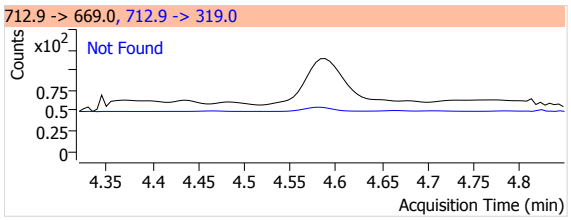

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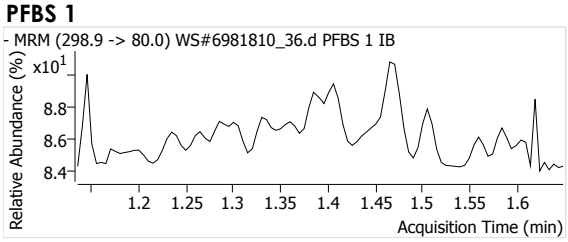

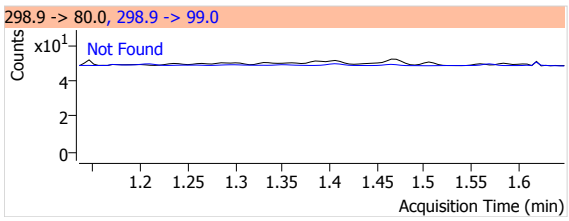

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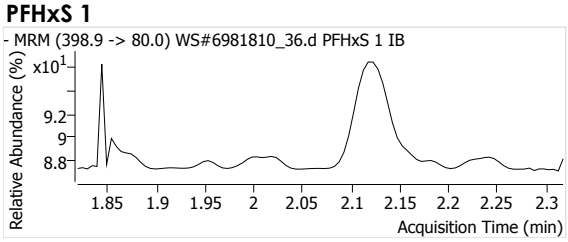

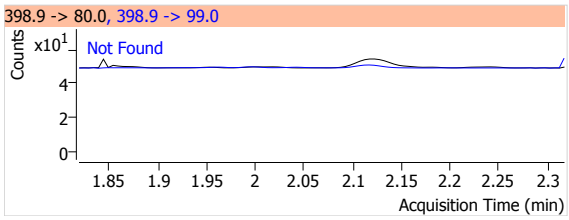

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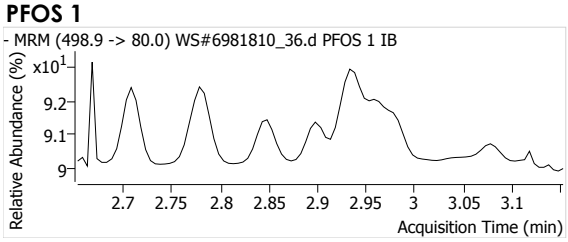
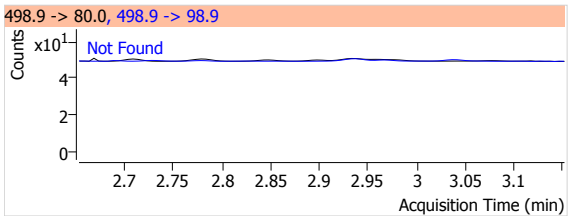
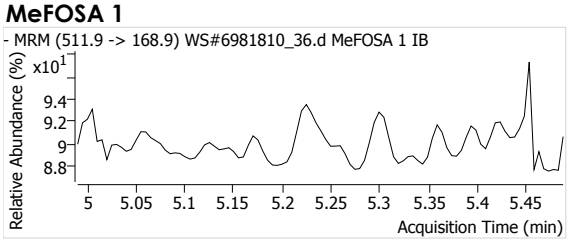
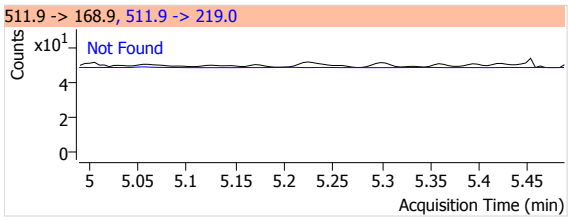




MeFOSA 1





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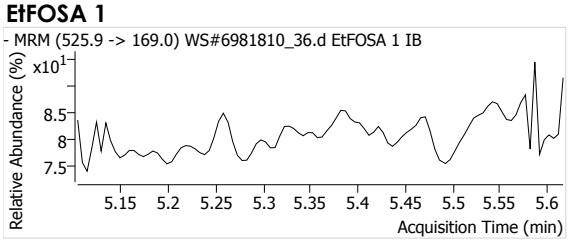

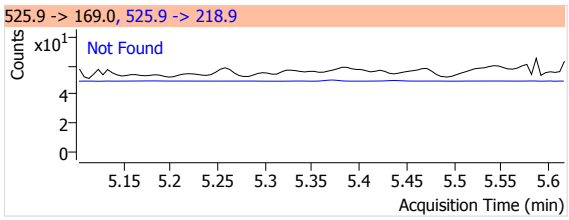

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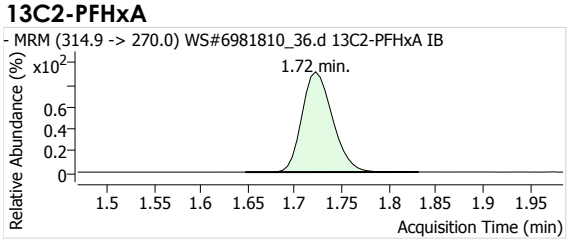

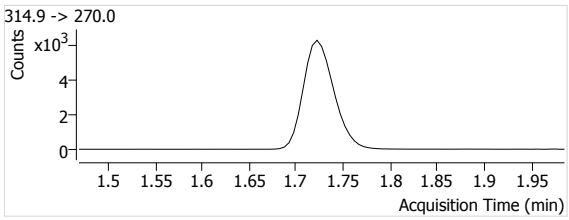

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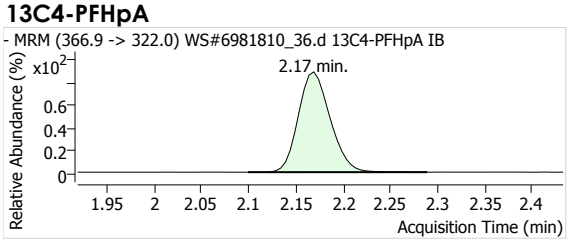

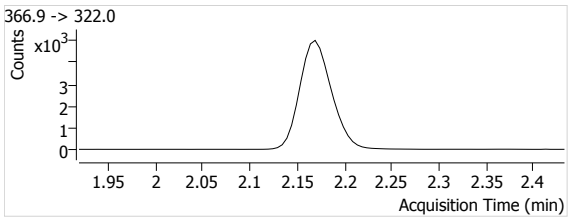

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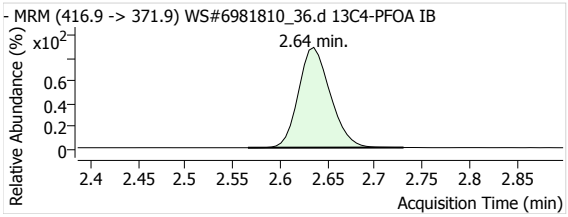

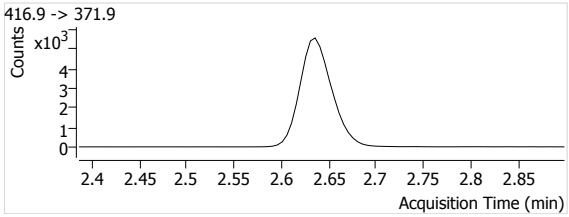

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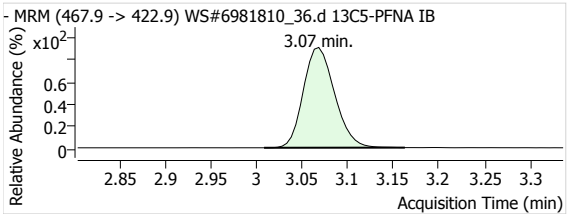

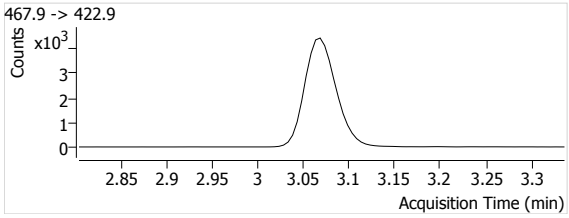

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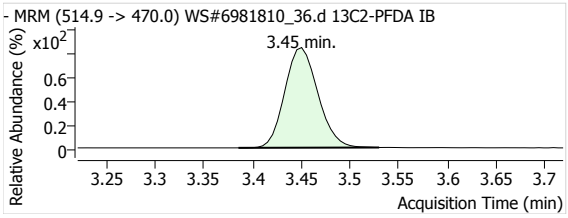

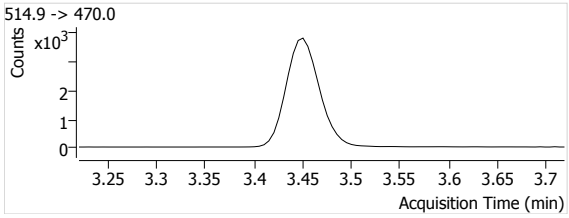

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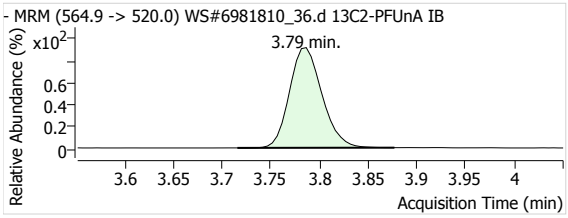

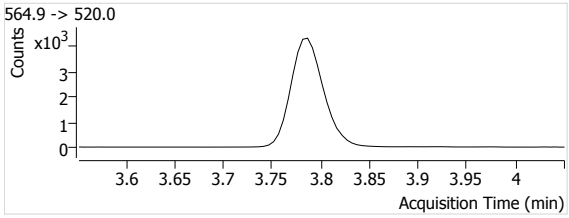

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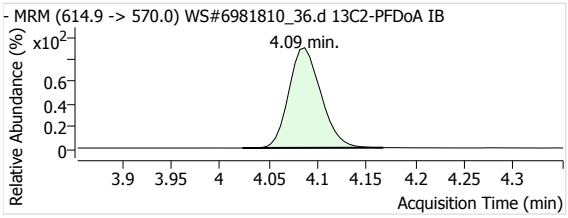

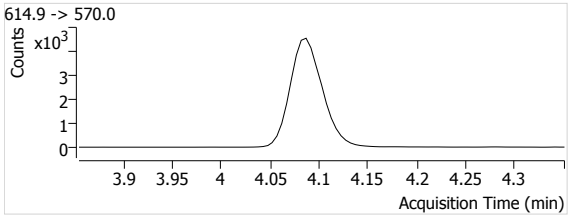

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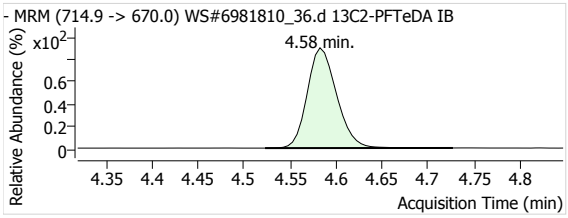

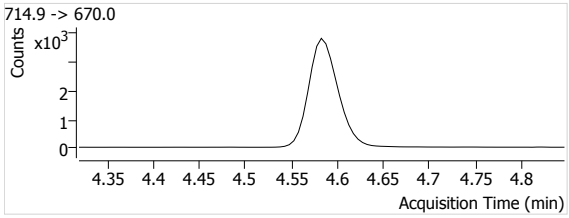

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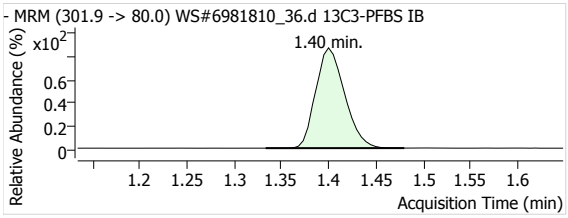

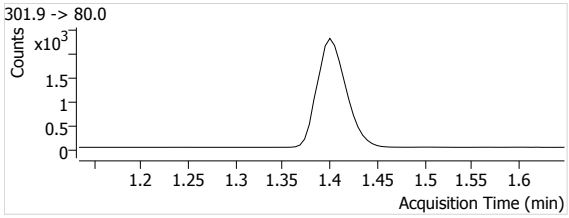

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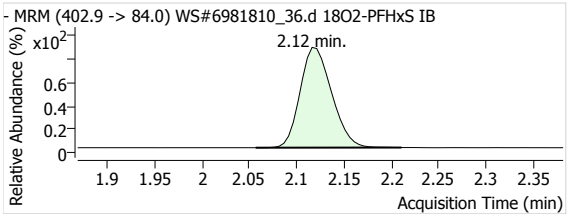

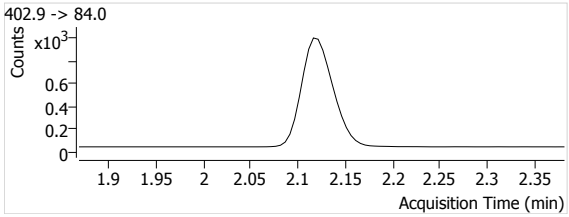

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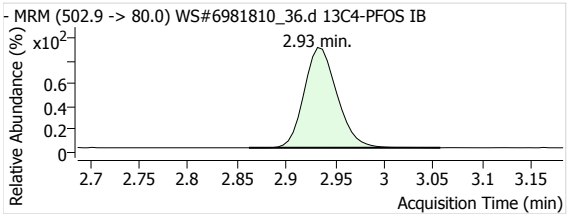
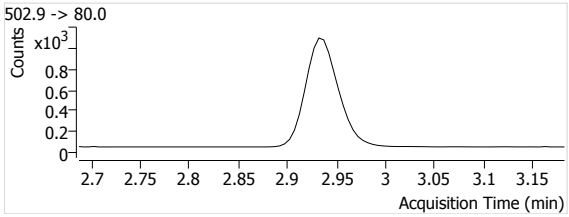
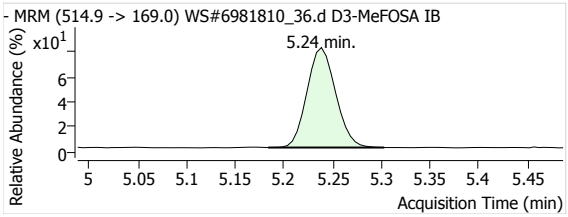
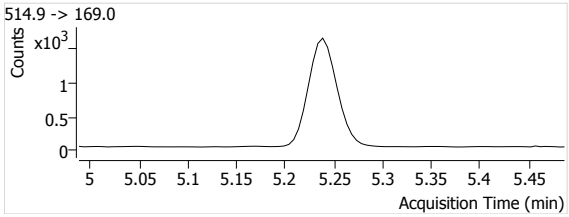




D3-MeFOSA





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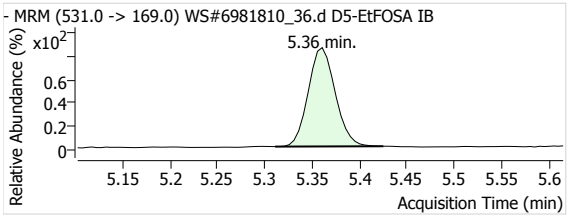
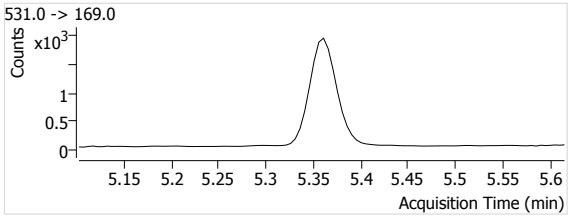




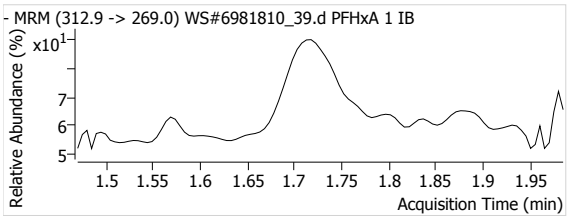
Quantitative Analysis Report

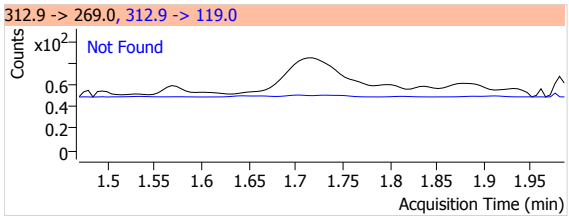
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981810_39.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A8
Acq. Date-Time	2020/10/05 11:47:23 AM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0004	--	215	4.35	4	0.0251	21	4.35	3	9.8
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	111.7903	--	13900	1.72	1255		--	--	--	--
13C4-PFHpA	µg/L	--	115.7662	--	12020	2.16	1599		--	--	--	--
13C4-PFOA	µg/L	--	112.5809	--	12698	2.64	949		--	--	--	--
13C5-PFNA	µg/L	--	117.4522	--	10391	3.07	594		--	--	--	--
13C2-PFDA	µg/L	--	116.1812	--	9054	3.45	741		--	--	--	--
13C2-PFUnA	µg/L	--	117.6886	--	10000	3.79	810		--	--	--	--
13C2-PFDoA	µg/L	--	115.2710	--	10462	4.09	510		--	--	--	--
13C2-PFTeDA	µg/L	--	119.1804	--	8550	4.58	925		--	--	--	--
13C3-PFBS	µg/L	--	111.4943	--	4753	1.40	450		--	--	--	--
18O2-PFHxS	µg/L	--	110.4470	--	2273	2.12	1177		--	--	--	--
13C4-PFOS	µg/L	--	115.3627	--	2433	2.94	192		--	--	--	--
D3-MeFOSA	µg/L	--	119.7340	--	3331	5.24	133		--	--	--	--
D5-EtFOSA	µg/L	--	108.3559	--	3605	5.36	77		--	--	--	--

PFHxA 1





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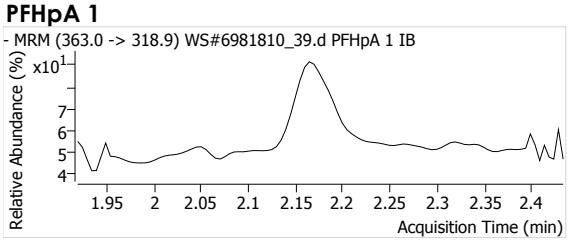

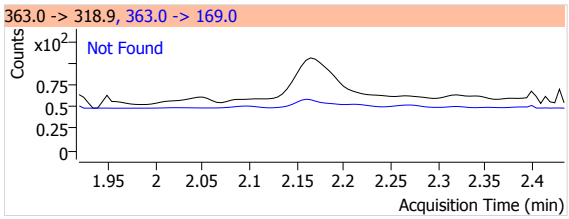

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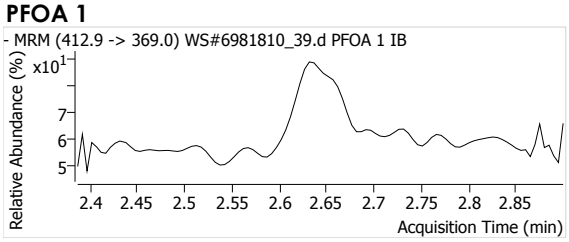

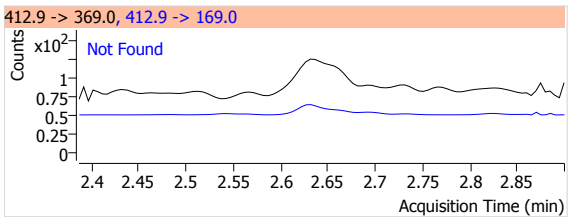

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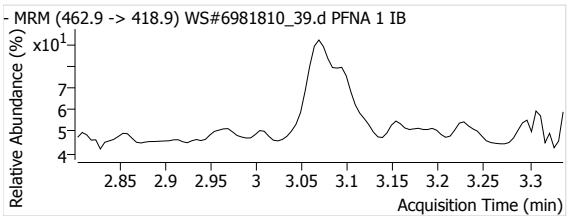

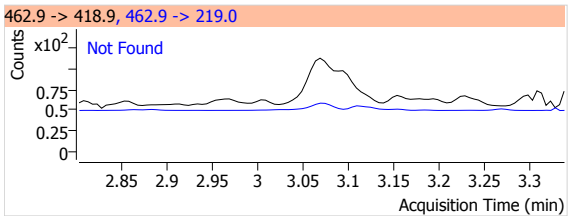

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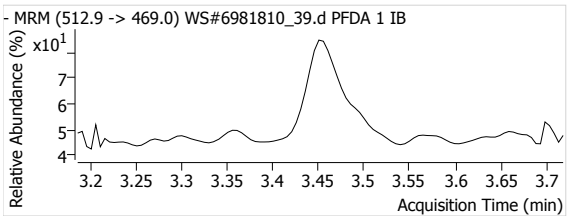

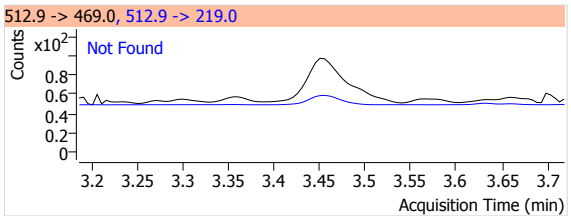

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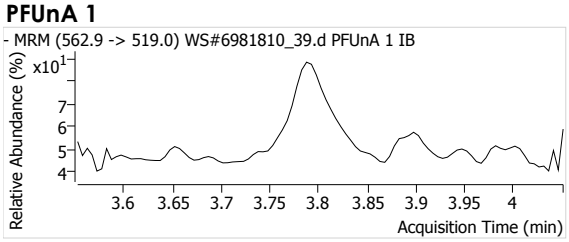

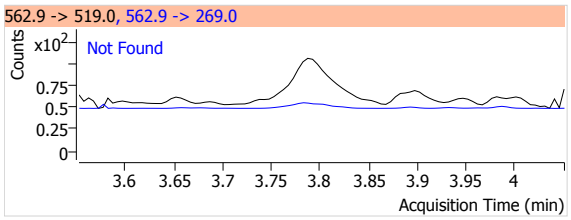

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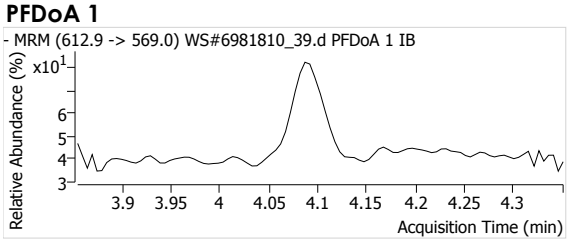

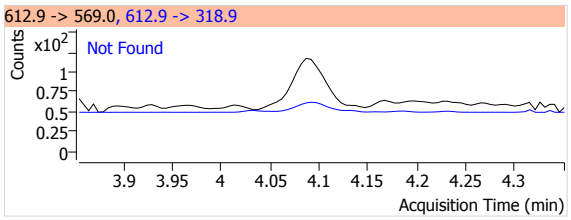

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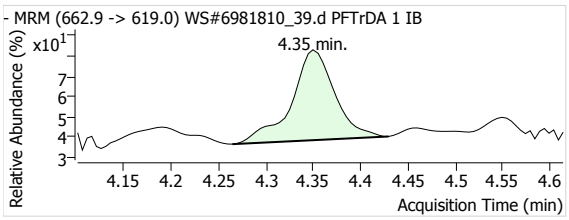

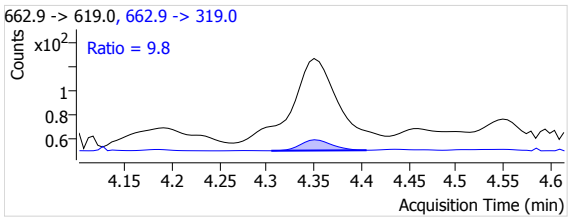

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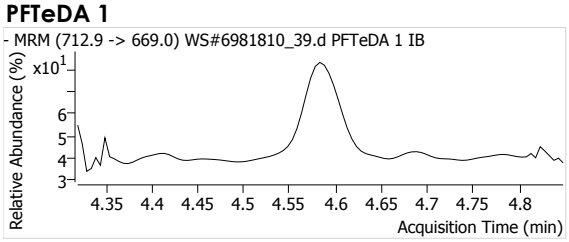

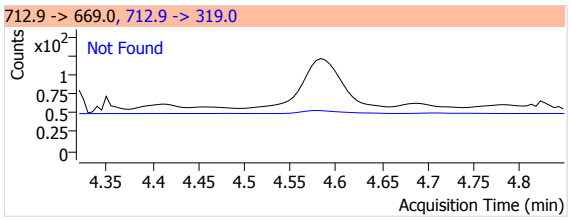

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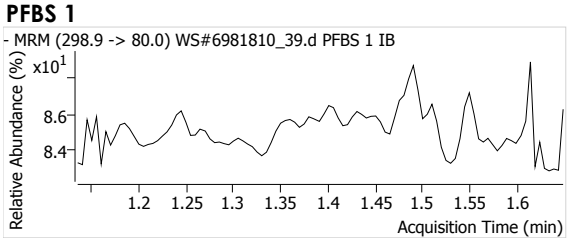

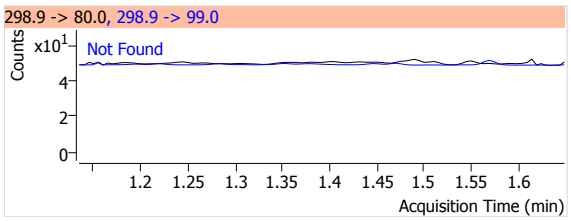

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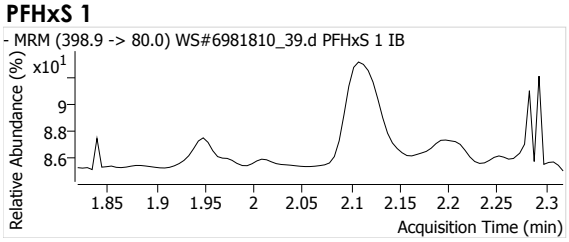

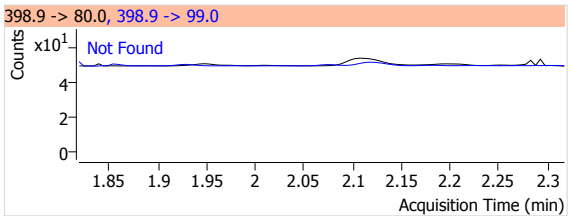

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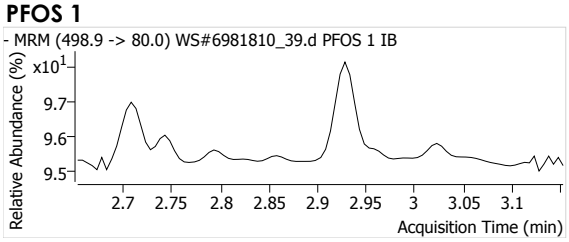

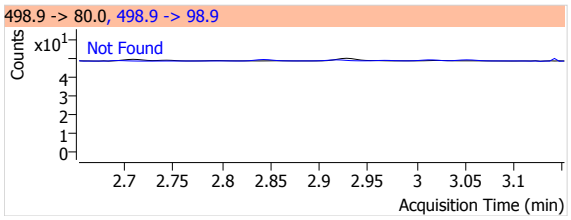

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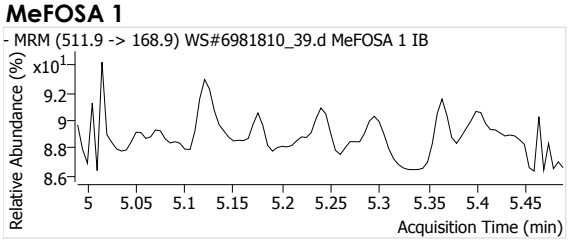

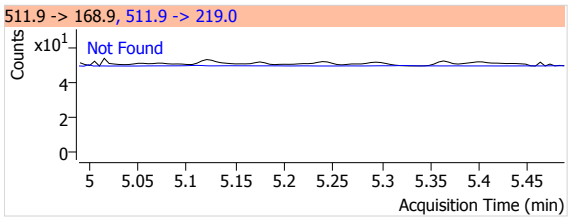

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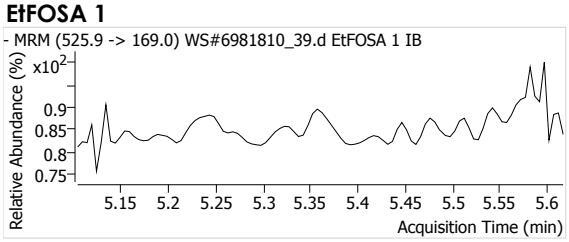

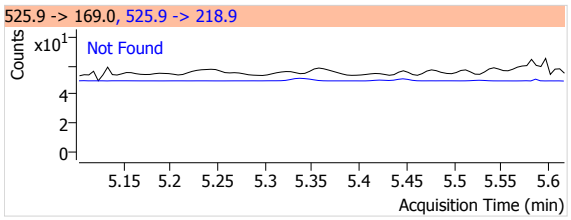

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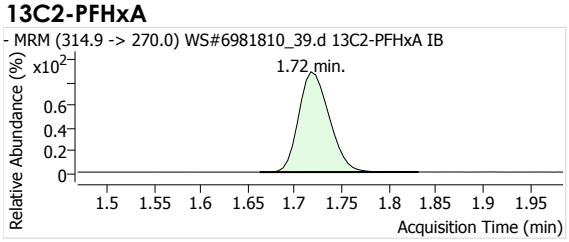

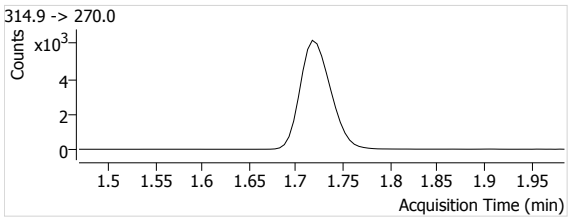

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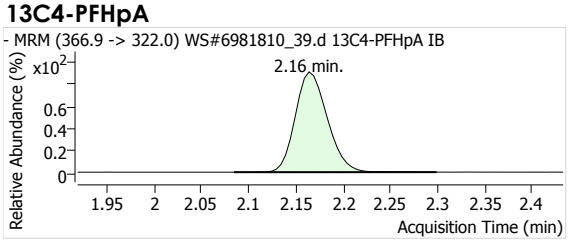

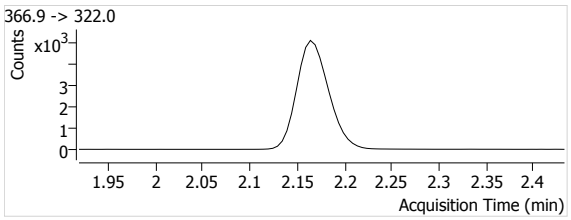

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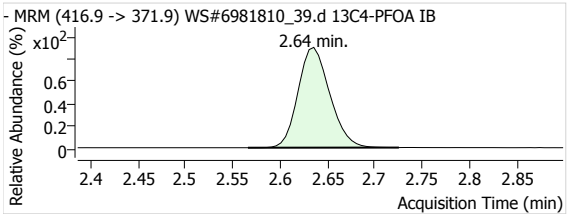

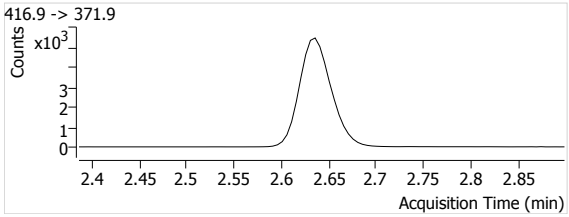

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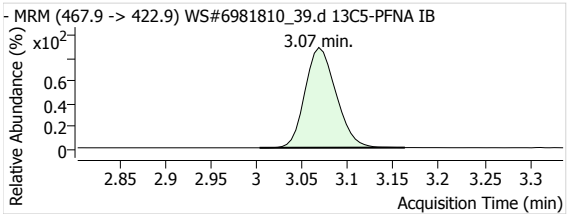

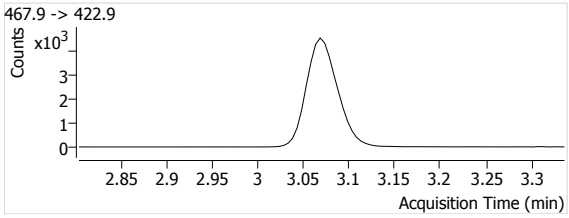

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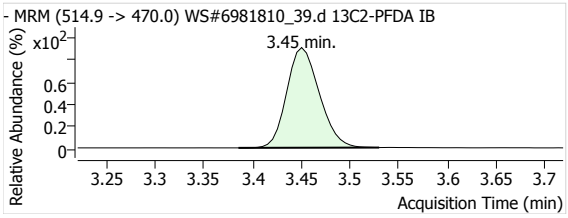

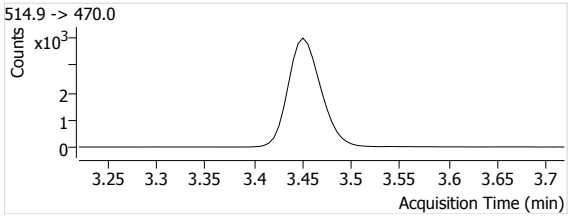

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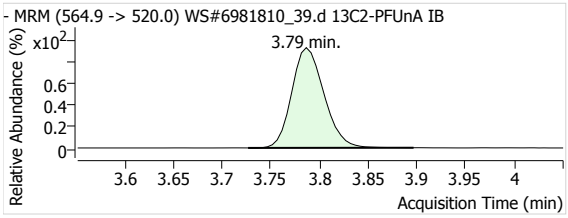

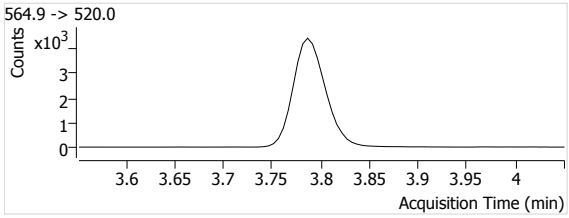

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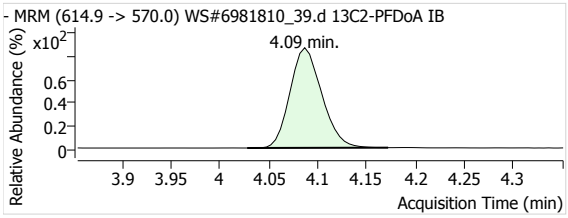

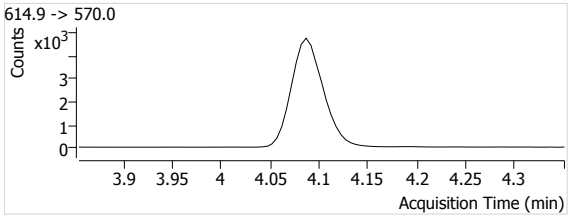

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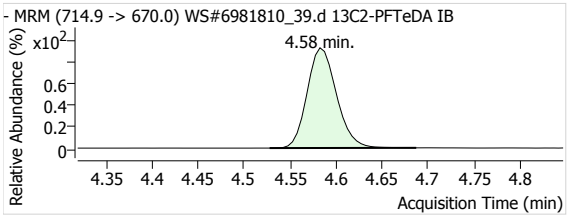

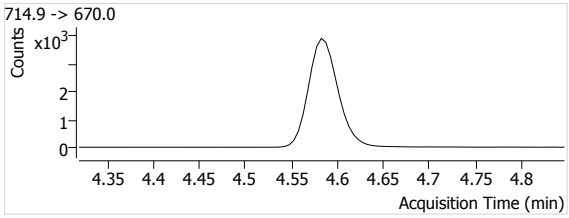

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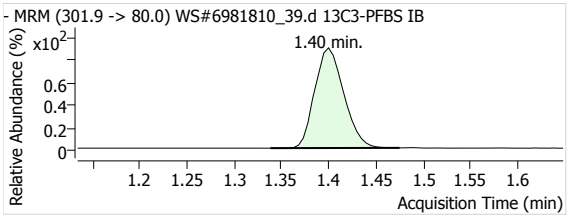
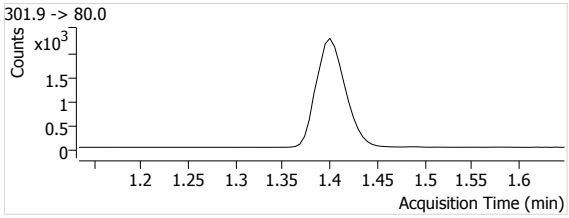
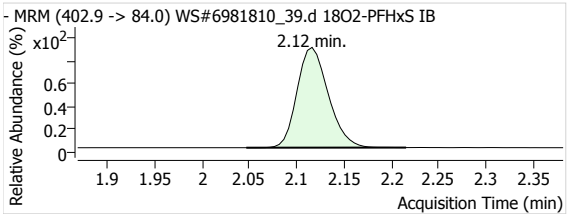
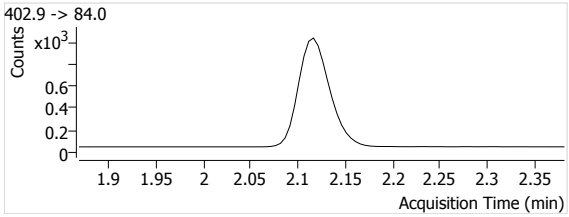




18O2-PFHxS





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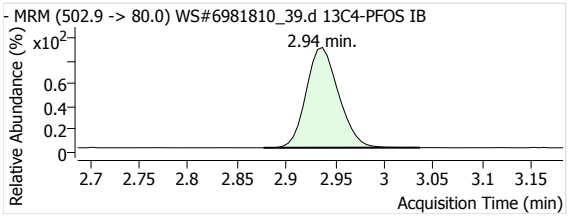
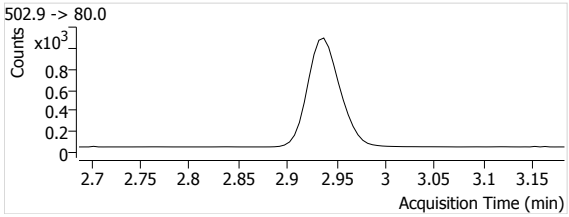
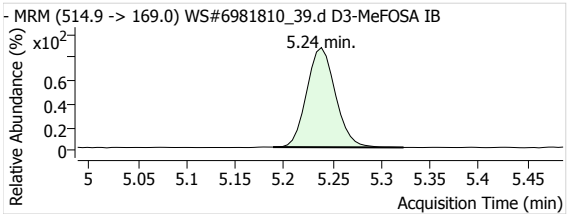
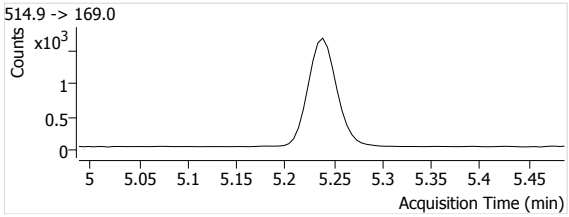


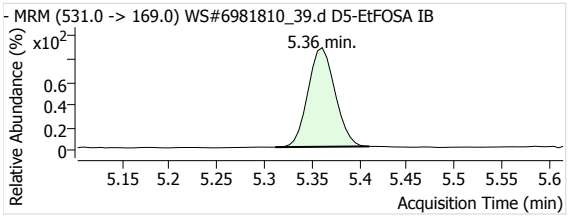


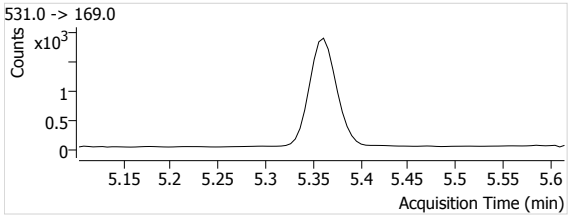
D3-MeFOSA





D5-EtFOSA





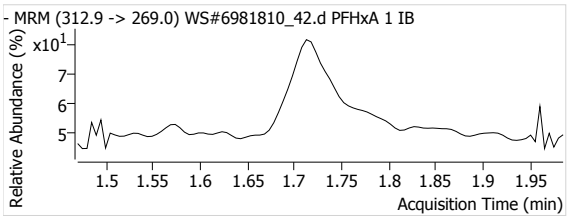
Quantitative Analysis Report

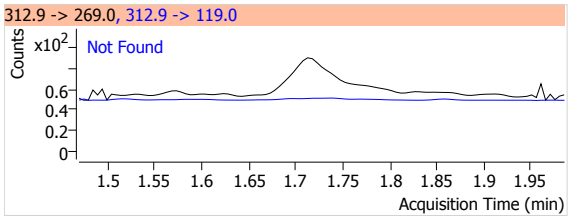
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	IB	**Data File**	WS#6981810_42.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A8
Acq. Date-Time	2020/10/05 12:08:24 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	0.0000	--	184	4.08	6	0.0173	21	4.08	5	11.4
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	112.2808	--	13961	1.72	1025		--	--	--	--
13C4-PFHpA	µg/L	--	115.7084	--	12014	2.16	1831		--	--	--	--
13C4-PFOA	µg/L	--	114.6024	--	12926	2.63	1340		--	--	--	--
13C5-PFNA	µg/L	--	121.6910	--	10766	3.06	1494		--	--	--	--
13C2-PFDA	µg/L	--	117.1308	--	9128	3.45	998		--	--	--	--
13C2-PFUnA	µg/L	--	118.2182	--	10045	3.79	448		--	--	--	--
13C2-PFDoA	µg/L	--	117.1992	--	10637	4.09	810		--	--	--	--
13C2-PFTeDA	µg/L	--	118.6089	--	8509	4.58	966		--	--	--	--
13C3-PFBS	µg/L	--	110.7436	--	4721	1.40	643		--	--	--	--
18O2-PFHxS	µg/L	--	115.2575	--	2372	2.12	514		--	--	--	--
13C4-PFOS	µg/L	--	116.6904	--	2461	2.93	307		--	--	--	--
D3-MeFOSA	µg/L	--	120.3451	--	3348	5.24	129		--	--	--	--
D5-EtFOSA	µg/L	--	108.2356	--	3601	5.36	97		--	--	--	--

PFHxA 1





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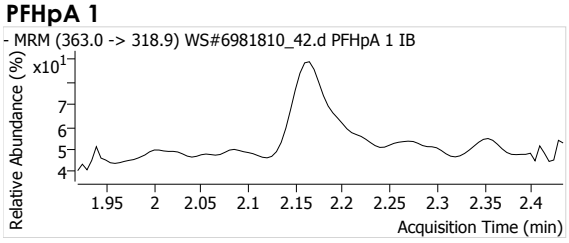

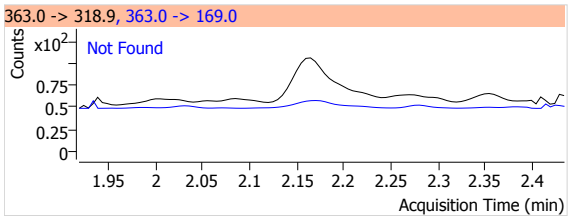

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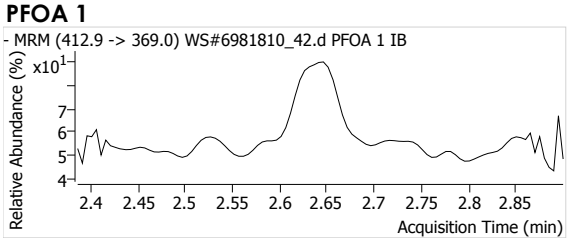

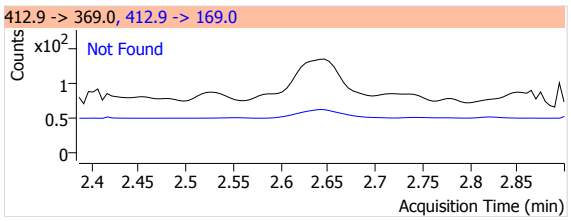

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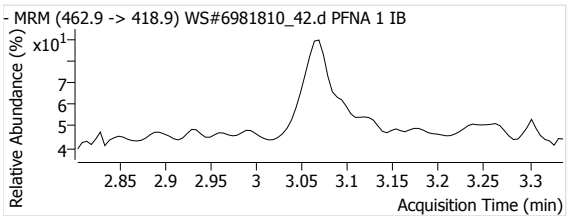

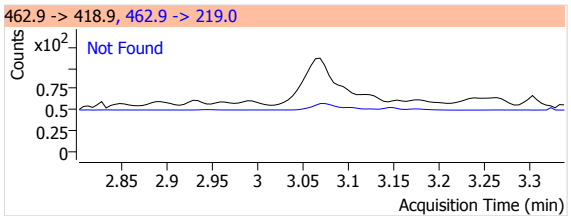

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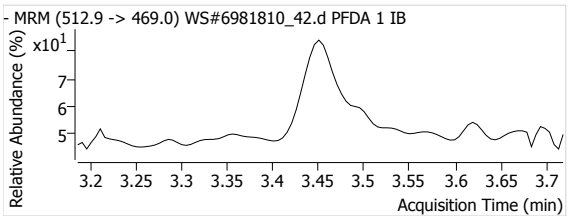
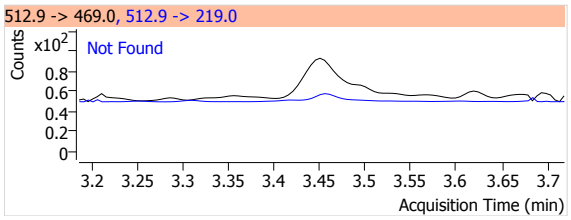
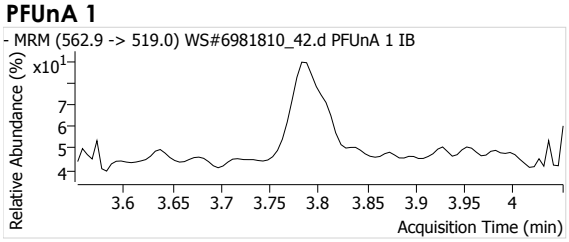
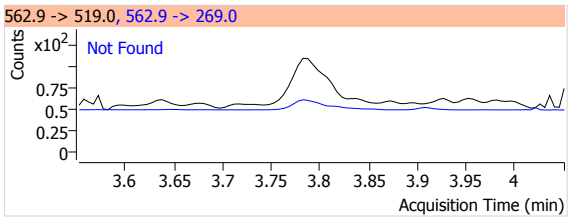




PFUnA 1





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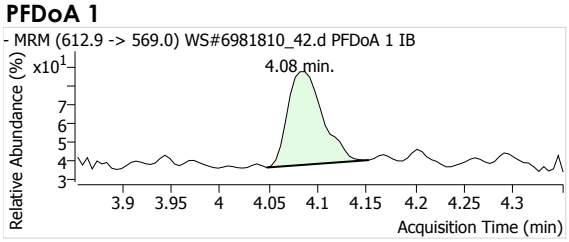

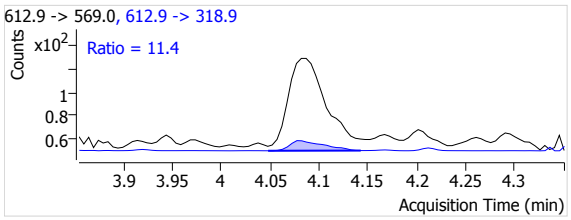

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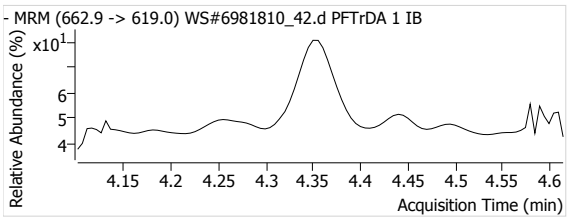

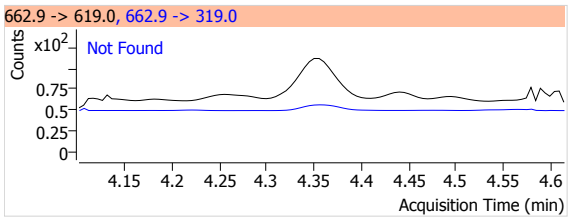

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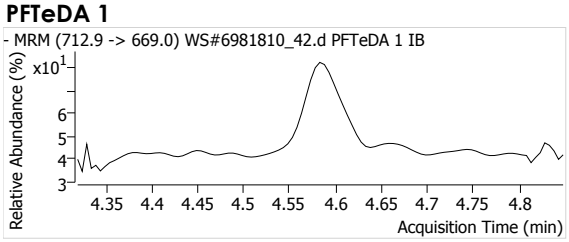

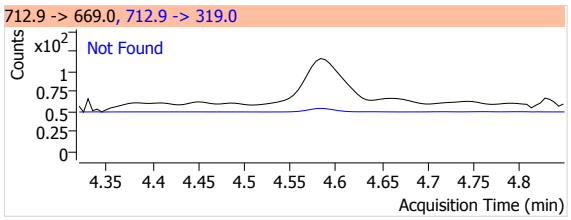

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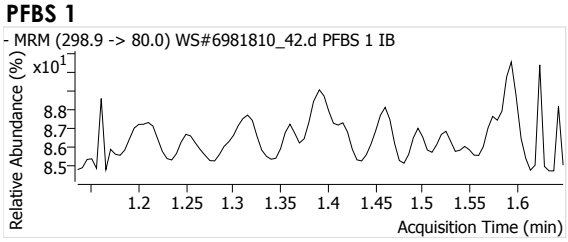

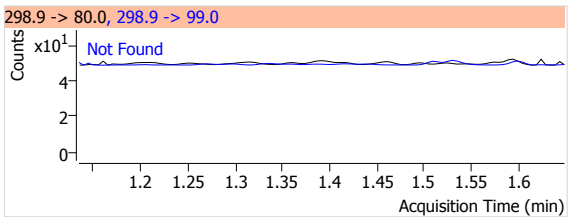

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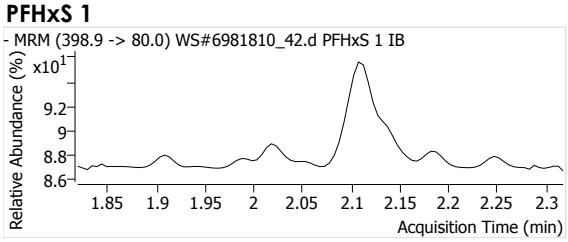
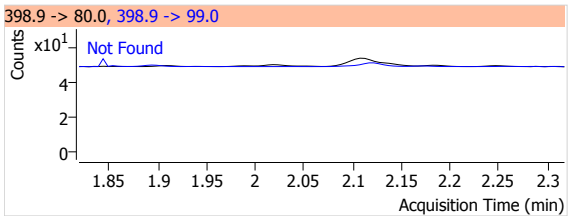
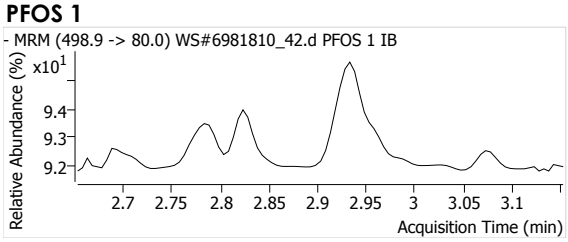
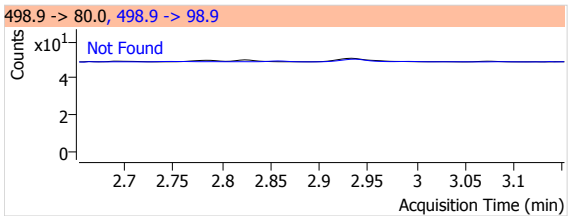




PFOS 1





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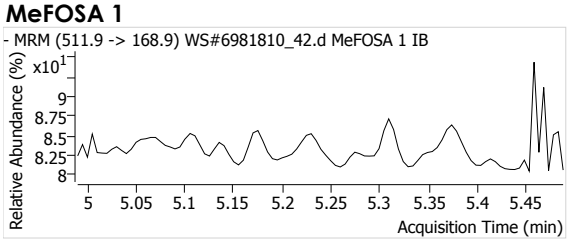

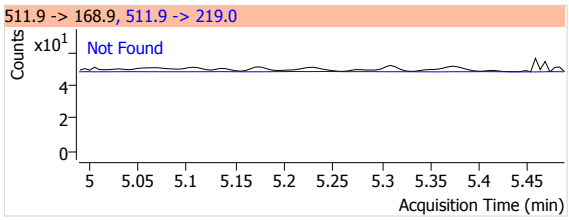

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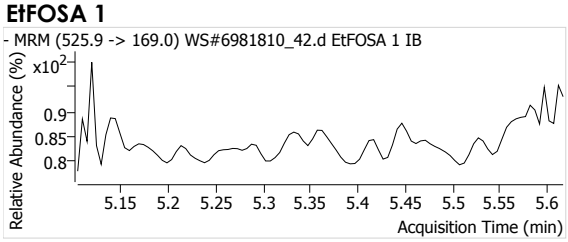
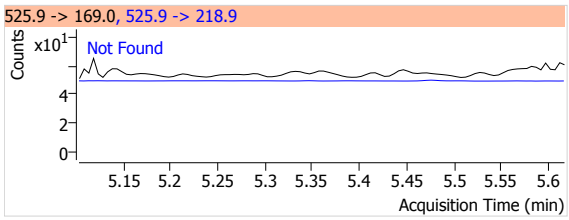
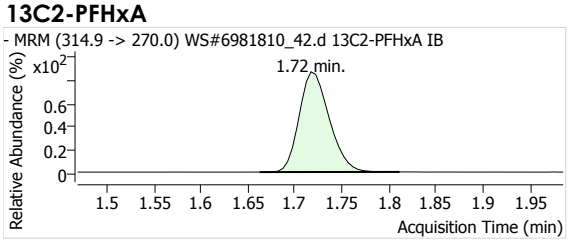
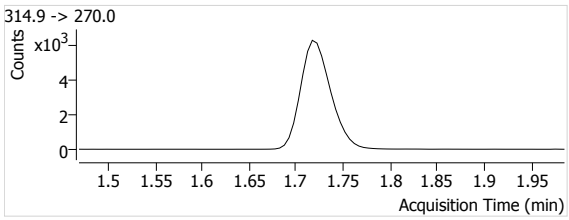




13C2-PFHxA





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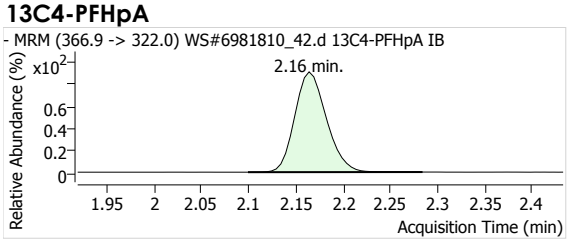

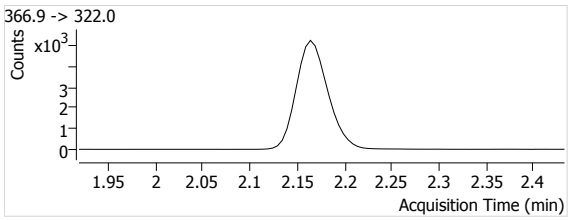

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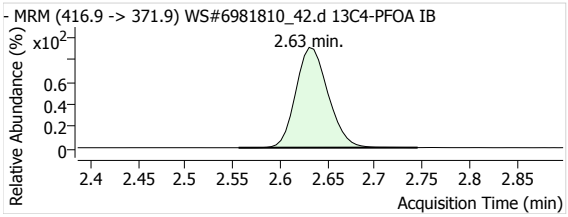

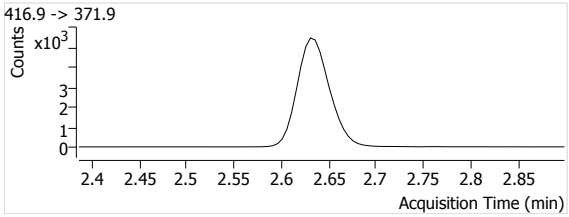

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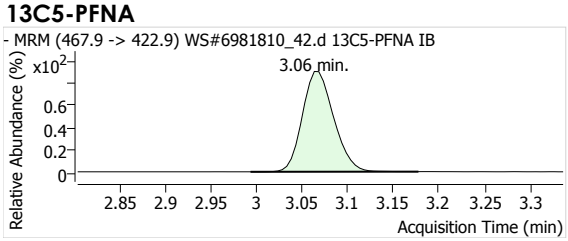

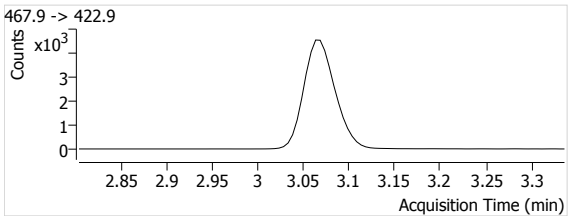

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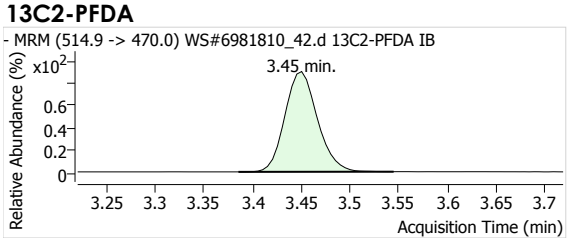

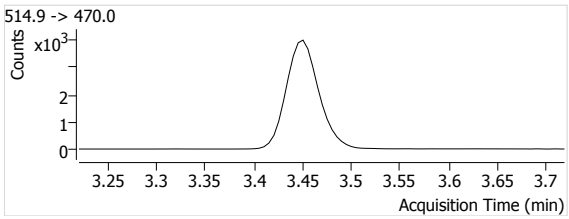

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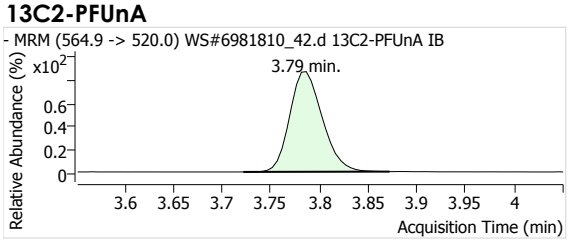

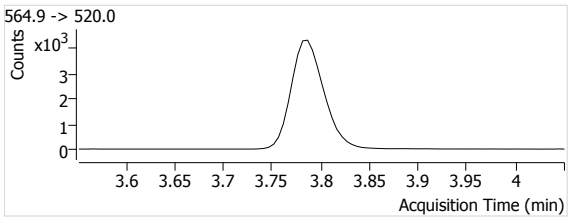

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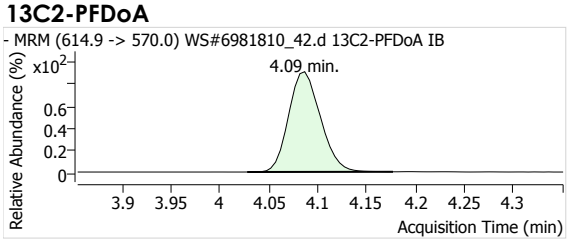

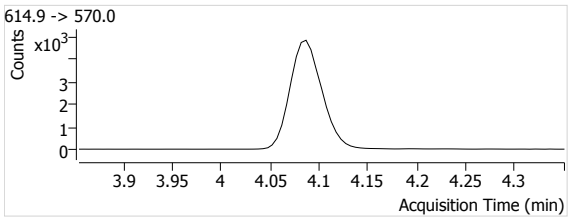

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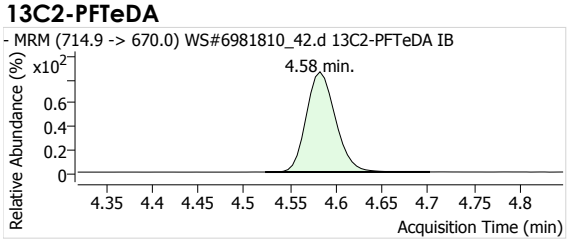

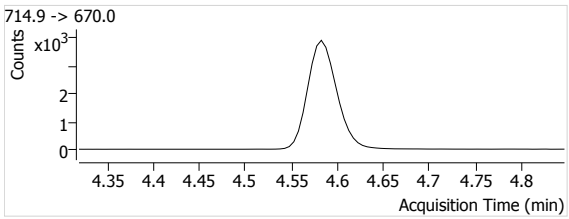

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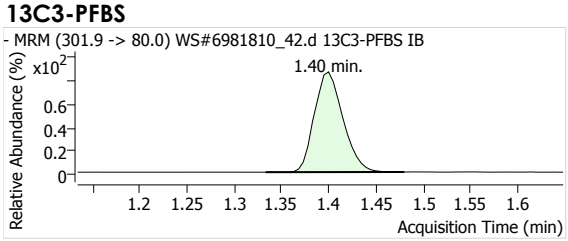
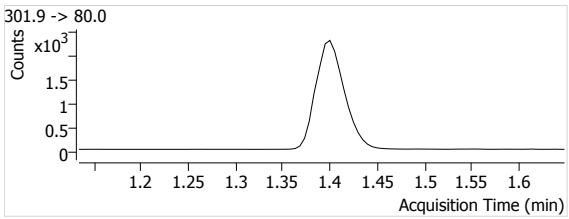
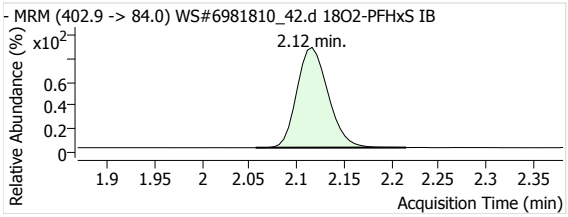
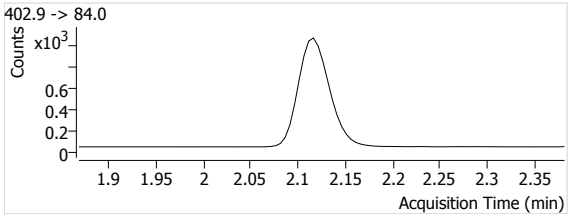




18O2-PFHxS





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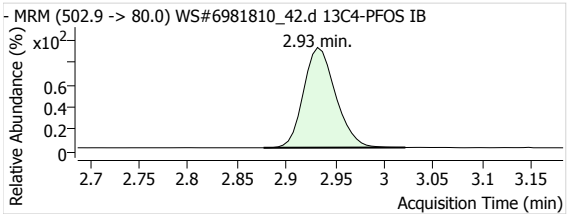
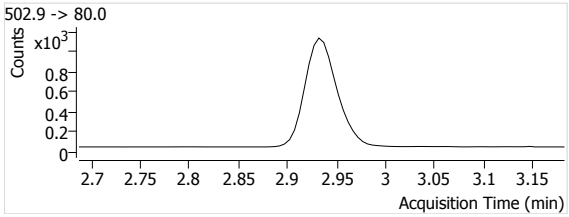
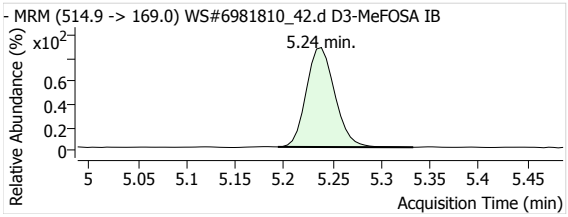
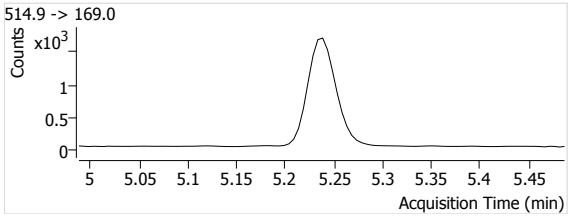


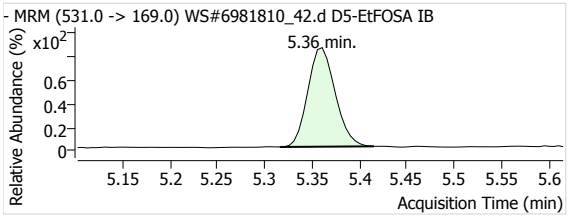


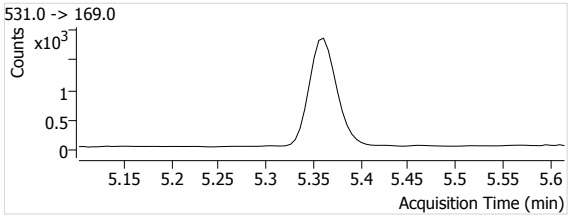
D3-MeFOSA





D5-EtFOSA





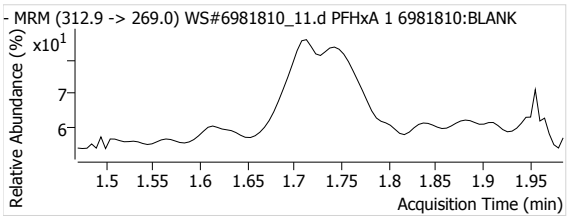
Quantitative Analysis Report

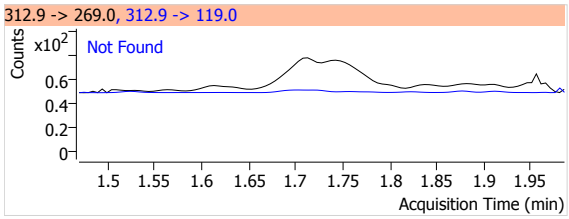
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:BLANK	**Data File**	WS#6981810_11.d
Type	Sample	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B1
Acq. Date-Time	2020/10/05 8:31:41 AM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	0.0007	--	191	4.35	3	0.0277	17	4.36	44	8.9
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	109.3775	--	13600	1.72	1601		--	--	--	--
13C4-PFHpA	µg/L	--	112.3182	--	11662	2.16	1146		--	--	--	--
13C4-PFOA	µg/L	--	108.2454	--	12209	2.64	936		--	--	--	--
13C5-PFNA	µg/L	--	111.3598	--	9852	3.07	485		--	--	--	--
13C2-PFDA	µg/L	--	106.2749	--	8282	3.45	602		--	--	--	--
13C2-PFUnA	µg/L	--	107.5438	--	9138	3.79	695		--	--	--	--
13C2-PFDoA	µg/L	--	102.1375	--	9270	4.09	883		--	--	--	--
13C2-PFTeDA	µg/L	--	95.9716	--	6885	4.58	399		--	--	--	--
13C3-PFBS	µg/L	--	105.8879	--	4514	1.39	1013		--	--	--	--
18O2-PFHxS	µg/L	--	106.0739	--	2183	2.12	608		--	--	--	--
13C4-PFOS	µg/L	--	110.4789	--	2330	2.93	376		--	--	--	--
D3-MeFOSA	µg/L	--	84.2919	--	2345	5.24	107		--	--	--	--
D5-EtFOSA	µg/L	--	82.9576	--	2760	5.36	61		--	--	--	--

PFHxA 1





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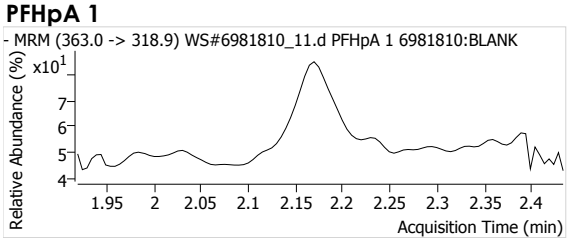

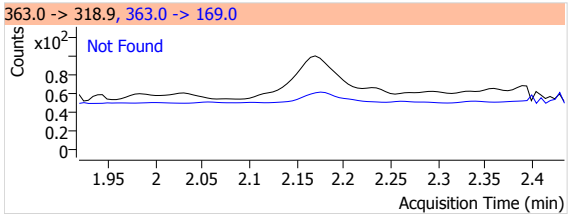

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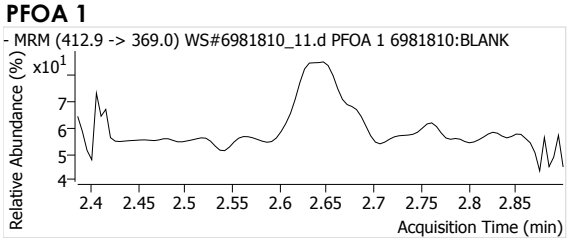

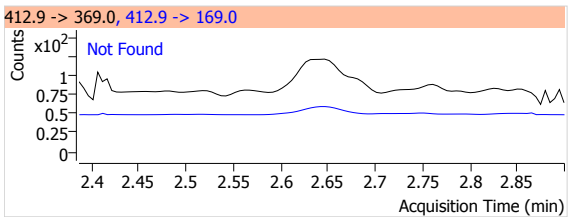

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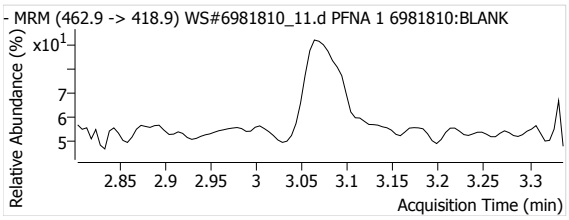

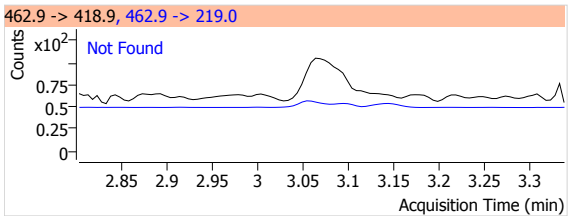

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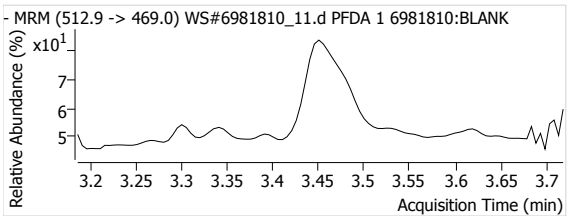

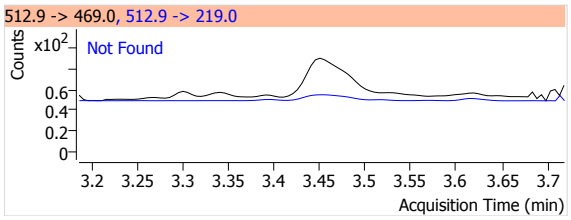

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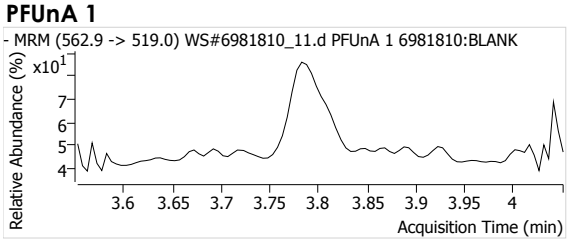

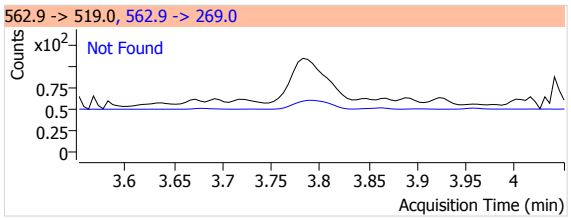

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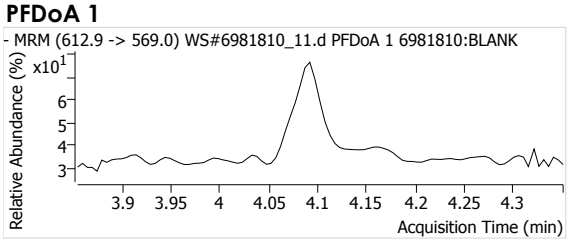

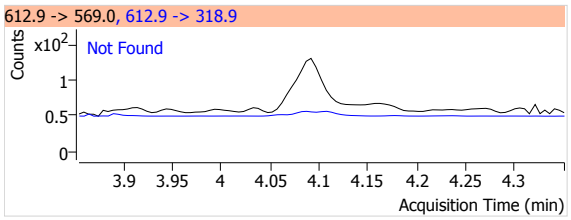

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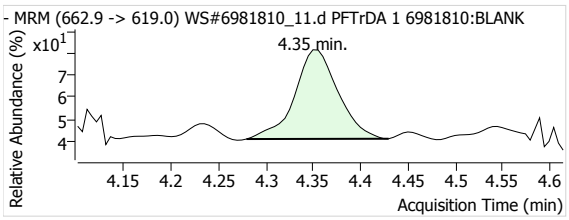

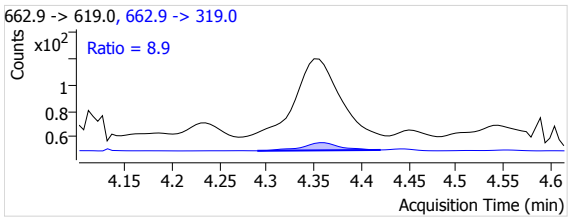

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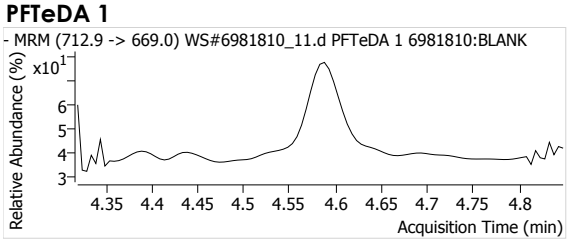

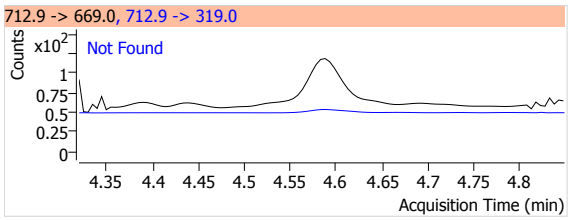

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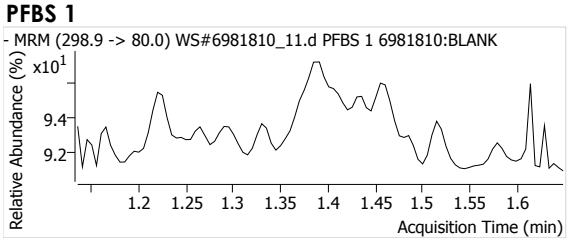

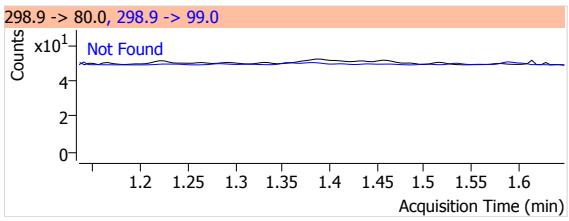

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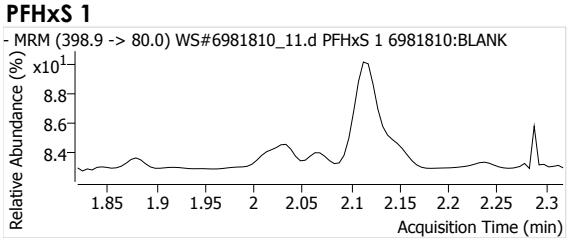
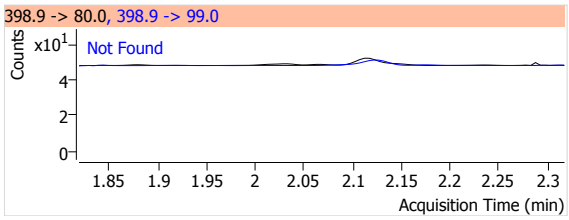
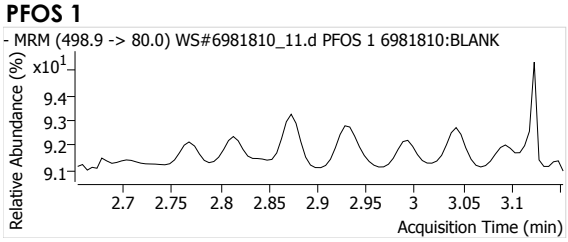
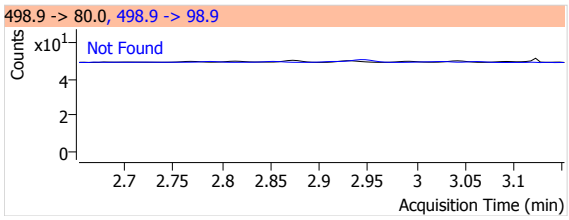




PFOS 1





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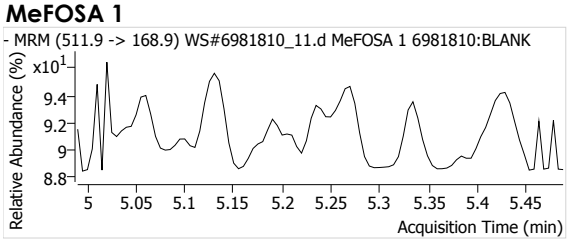
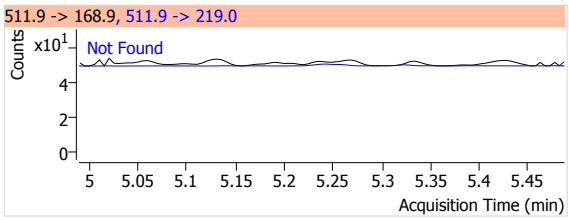
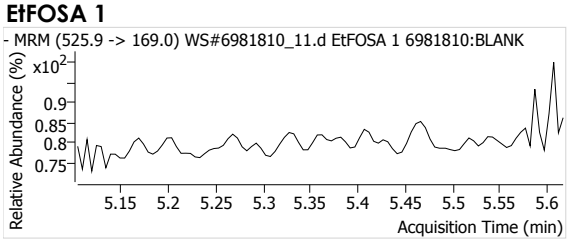
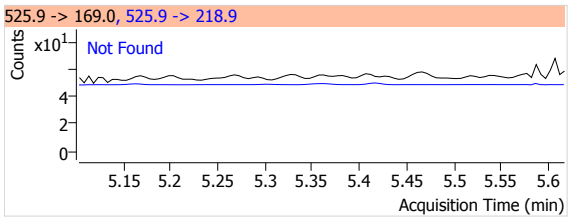


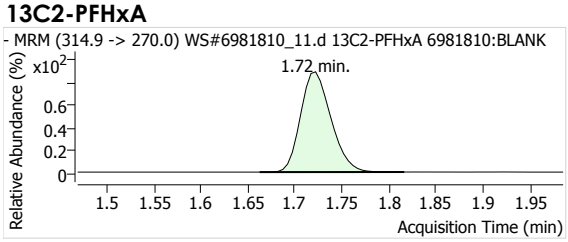


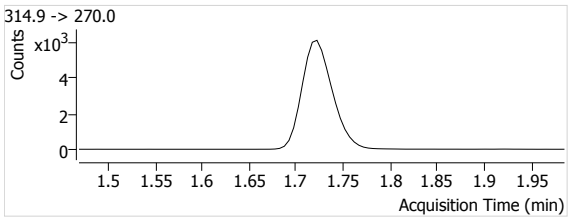
EtFOSA 1





13C2-PFHxA





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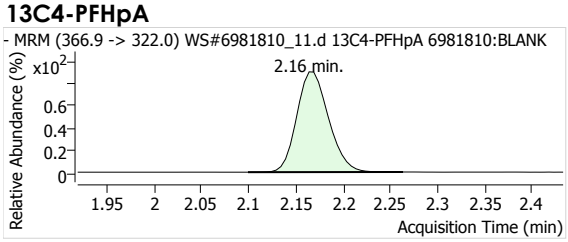

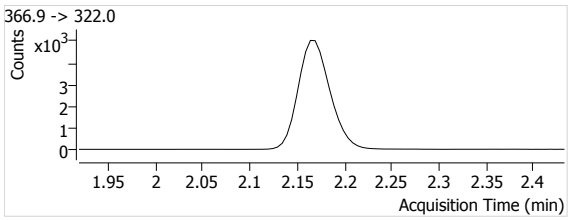

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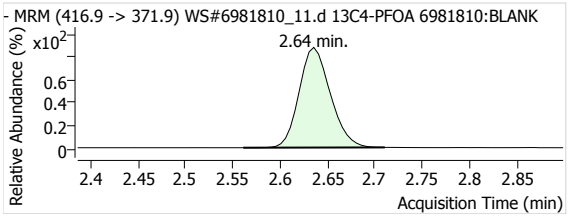

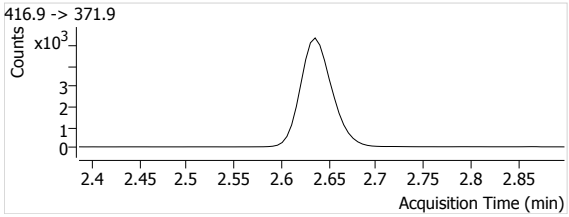

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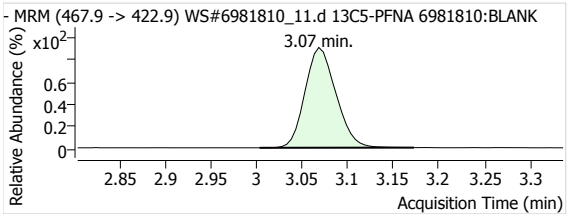

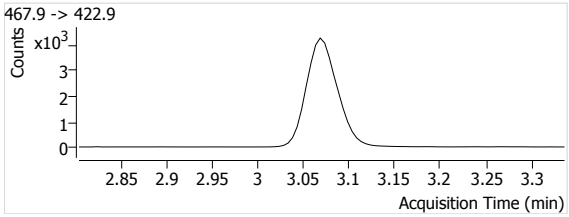

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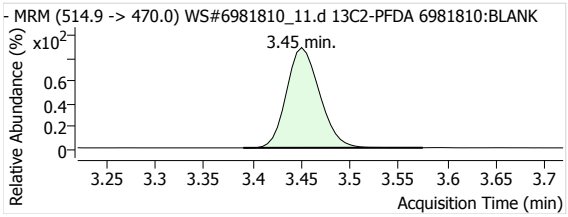

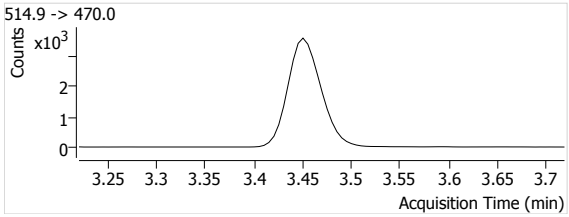

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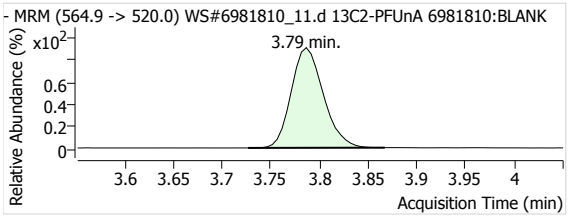

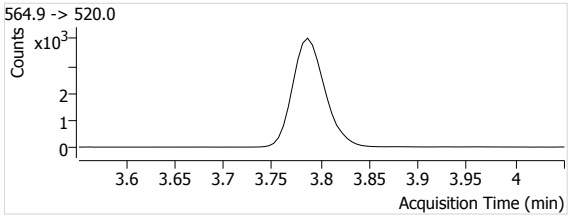

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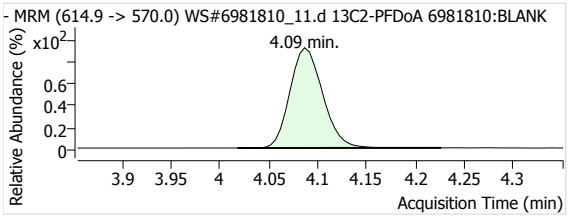

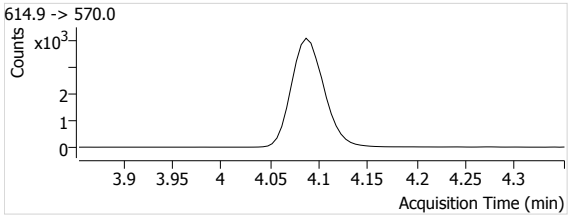

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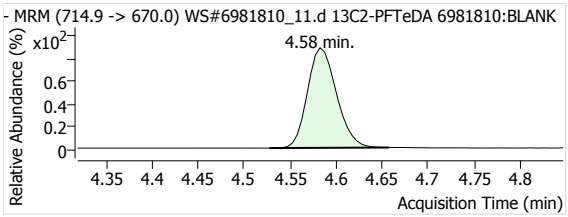

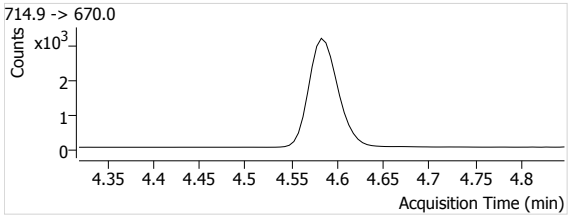

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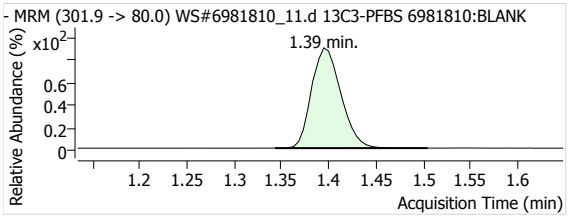

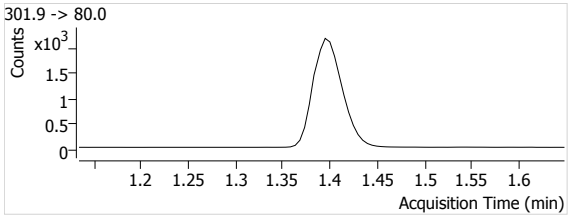

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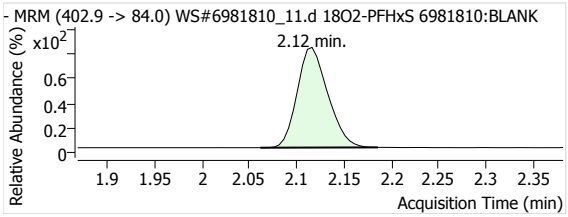

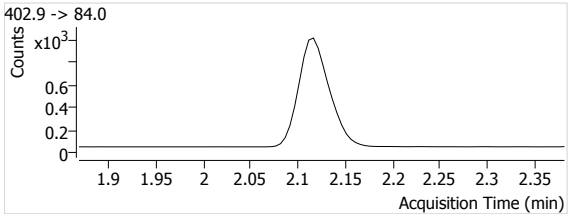

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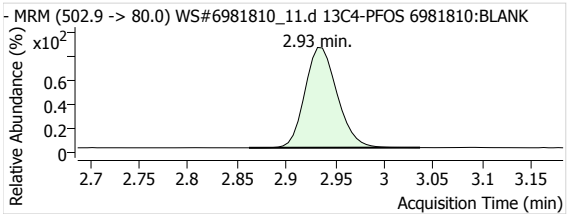
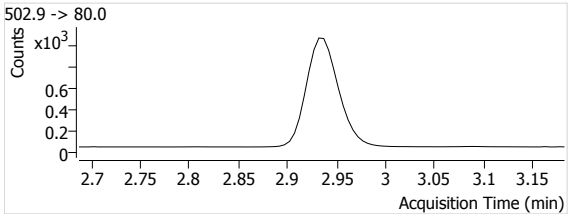
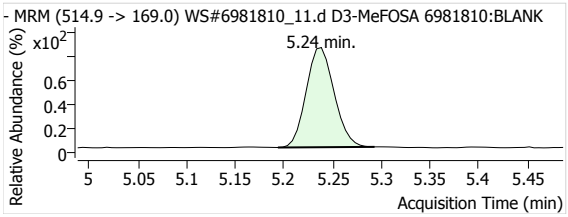
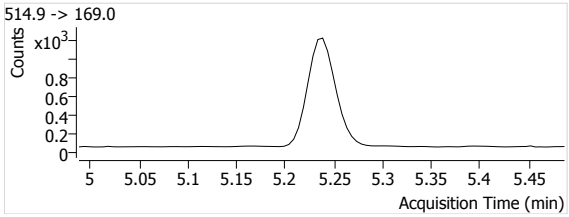




D3-MeFOSA





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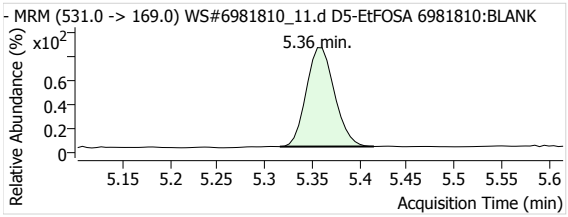
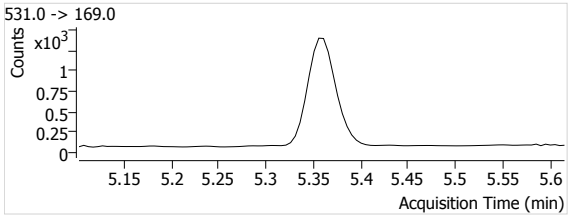




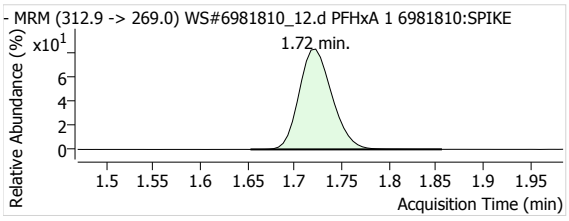
Quantitative Analysis Report

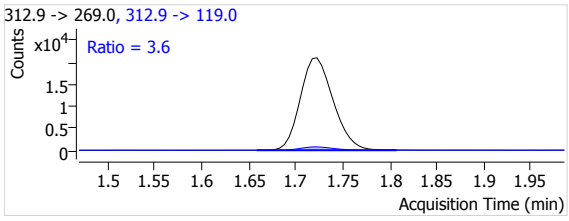
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:SPIKE	**Data File**	WS#6981810_12.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B2
Acq. Date-Time	2020/10/05 8:38:40 AM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.4989	103.9	51171	1.72	960	3.6995	1855	1.72	417	3.6
PFHpA 1	µg/L	20.000	0.4941	102.9	60484	2.17	939	4.9765	10012	2.17	451	16.6
PFOA 1	µg/L	20.000	0.5049	105.2	43404	2.64	577	3.3825	10540	2.64	587	24.3
PFNA 1	µg/L	20.000	0.4967	103.5	39609	3.07	691	3.8688	6362	3.07	613	16.1
PFDA 1	µg/L	20.000	0.5153	107.4	32573	3.45	590	3.7823	5601	3.45	695	17.2
PFUnA 1	µg/L	20.000	0.4833	100.7	35847	3.79	759	3.7391	5868	3.79	529	16.4
PFDoA 1	µg/L	20.000	0.4830	100.6	33585	4.09	538	3.4263	4805	4.09	594	14.3
PFTrDA 1	µg/L	20.000	0.4937	102.9	29028	4.35	637	3.9048	2872	4.35	307	9.9
PFTeDA 1	µg/L	20.000	0.4847	101.0	25062	4.58	576	3.3713	1838	4.58	346	7.3
PFBS 1	µg/L	20.000	0.5060	105.4	19668	1.40	1581	4.1749	7666	1.40	652	39.0
PFHxS 1	µg/L	20.000	0.4944	103.0	10671	2.07	551	4.5333	4956	2.07	287	46.4
PFOS 1	µg/L	20.000	0.5022	104.6	9928	2.89	207	4.0291	4819	2.89	530	48.5
MeFOSA 1	µg/L	20.000	0.5301	110.4	5191	5.23	135	2.1894	4231	5.23	422	81.5
EtFOSA 1	µg/L	20.000	0.5129	106.8	4777	5.36	414	1.6946	4797	5.36	70001	100.4
13C2-PFHxA	µg/L	100.000	111.2434	111.2	13832	1.72	1803		--	--	--	--
13C4-PFHpA	µg/L	100.000	117.0567	117.1	12154	2.17	2460		--	--	--	--
13C4-PFOA	µg/L	100.000	113.7690	113.8	12832	2.64	372		--	--	--	--
13C5-PFNA	µg/L	100.000	115.7228	115.7	10238	3.07	749		--	--	--	--
13C2-PFDA	µg/L	100.000	110.5094	110.5	8612	3.45	988		--	--	--	--
13C2-PFUnA	µg/L	100.000	112.8281	112.8	9587	3.79	689		--	--	--	--
13C2-PFDoA	µg/L	100.000	107.9991	108.0	9802	4.09	614		--	--	--	--
13C2-PFTeDA	µg/L	100.000	103.6242	103.6	7434	4.58	454		--	--	--	--
13C3-PFBS	µg/L	100.000	110.5090	110.5	4711	1.39	881		--	--	--	--
18O2-PFHxS	µg/L	100.000	114.3829	114.4	2354	2.12	412		--	--	--	--
13C4-PFOS	µg/L	100.000	116.8326	116.8	2464	2.93	295		--	--	--	--
D3-MeFOSA	µg/L	100.000	85.2265	85.2	2371	5.23	113		--	--	--	--
D5-EtFOSA	µg/L	100.000	84.7310	84.7	2819	5.36	66		--	--	--	--

PFHxA 1





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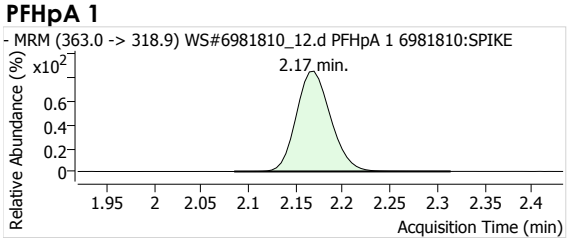

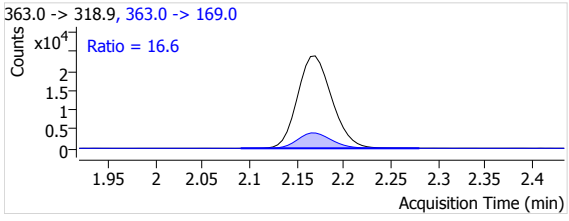

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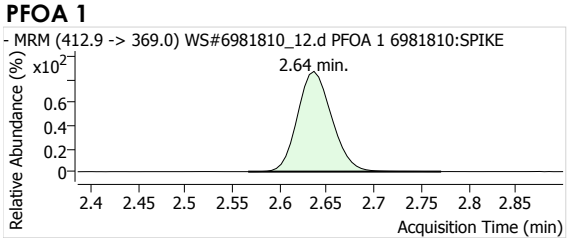

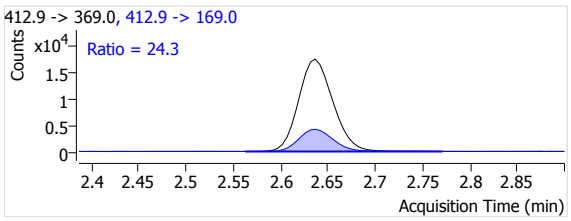

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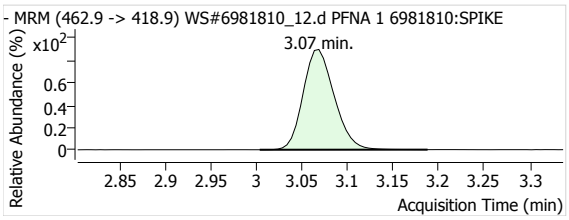

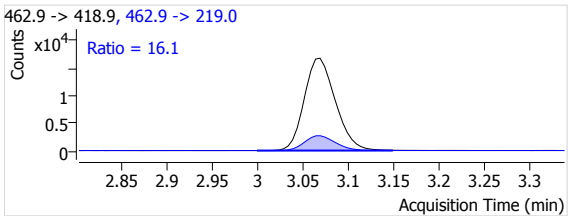

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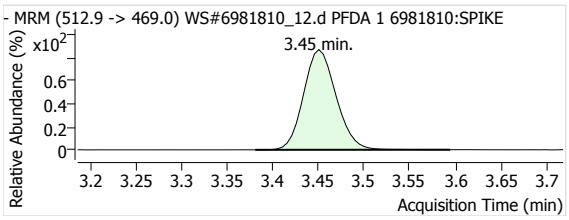

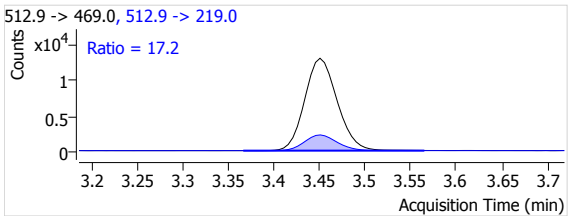

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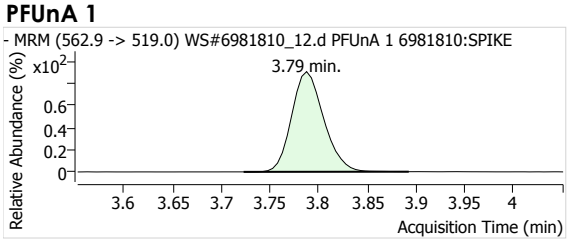

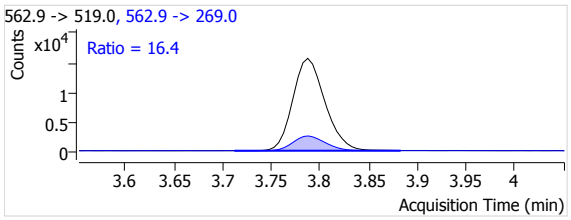

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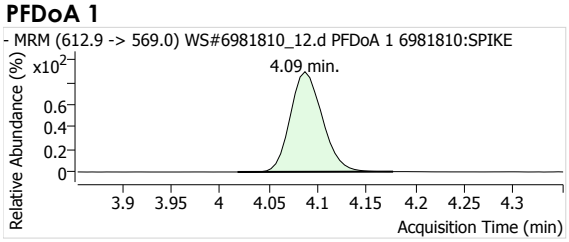

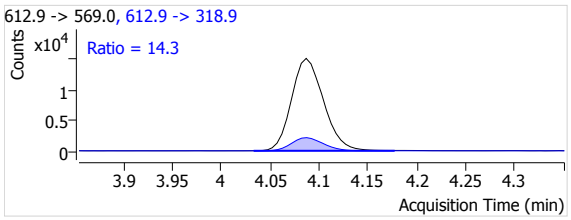

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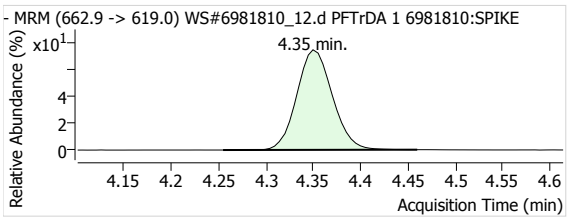

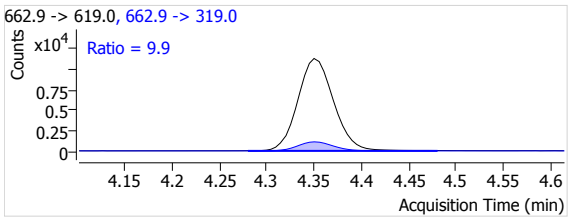

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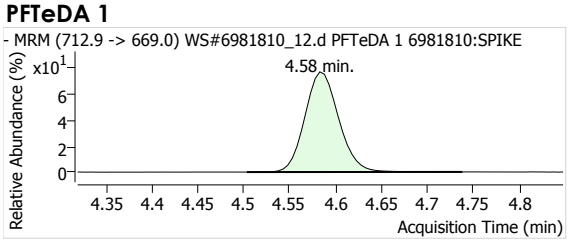

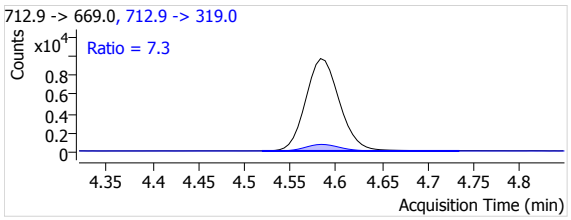

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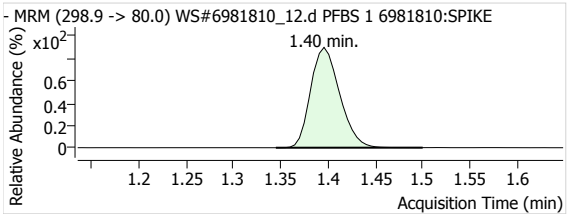

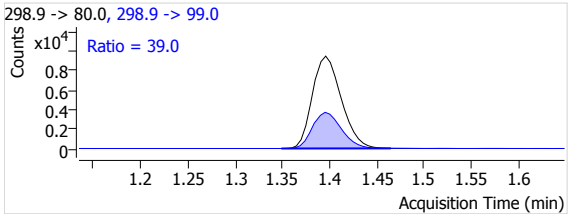

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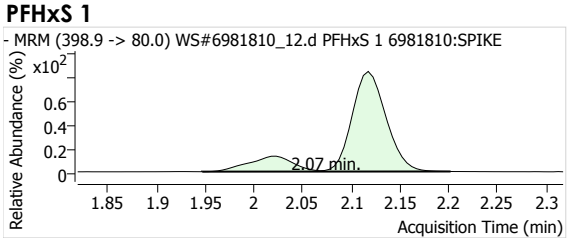

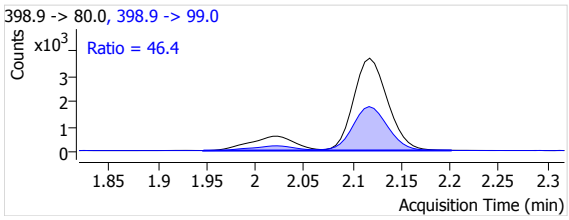

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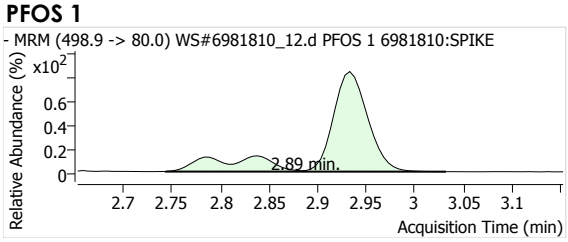

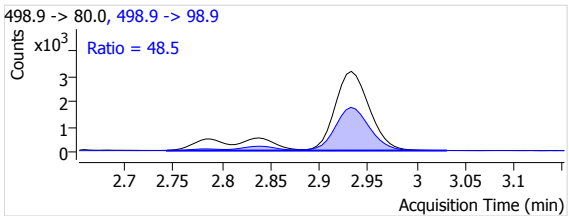

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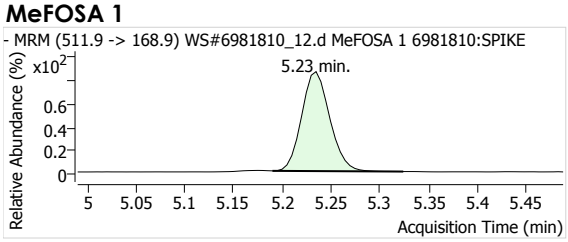

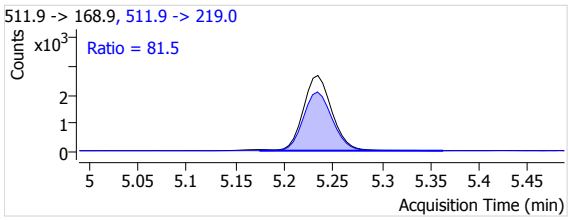

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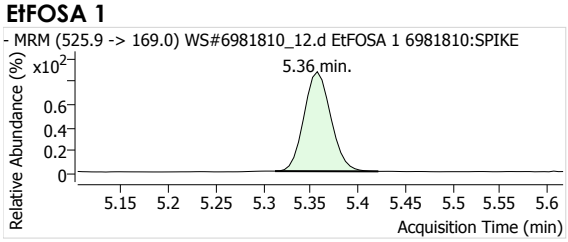

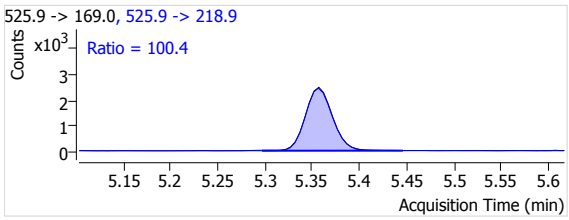

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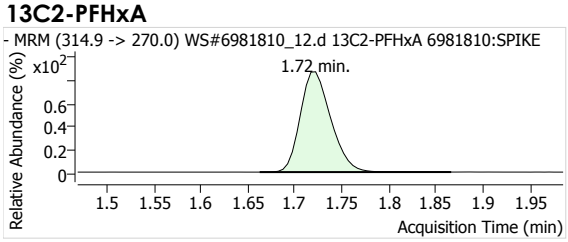

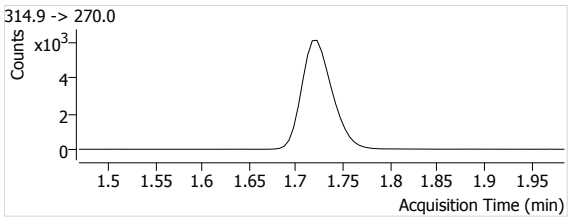

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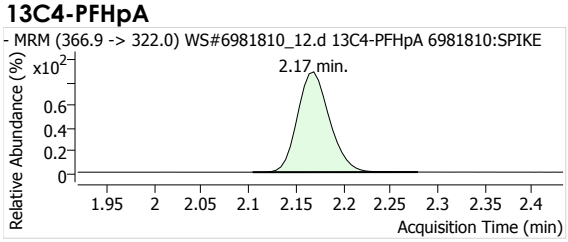

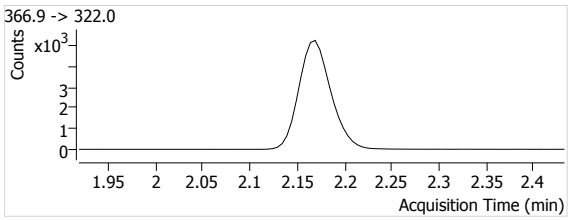

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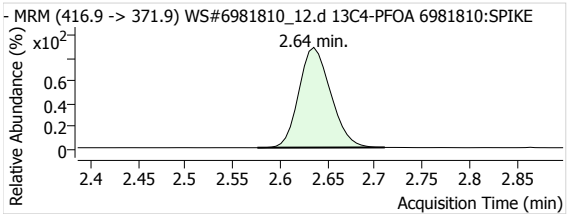

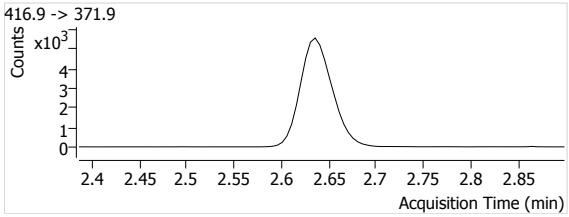

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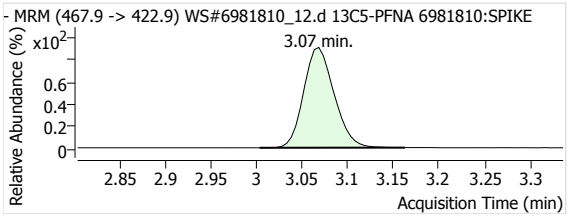

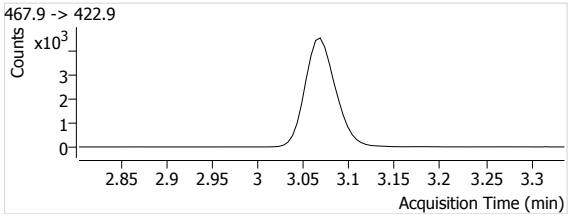

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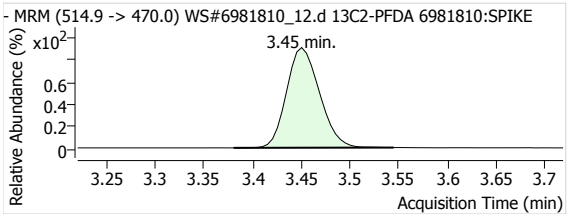

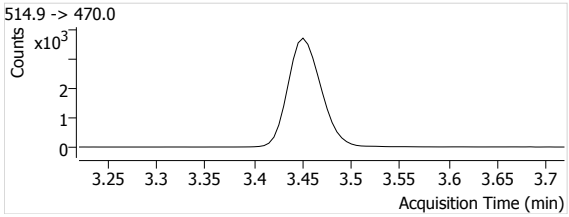

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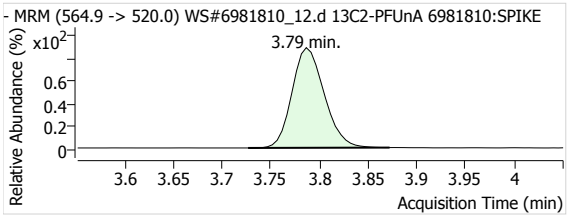

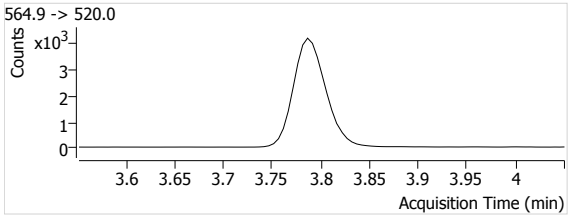

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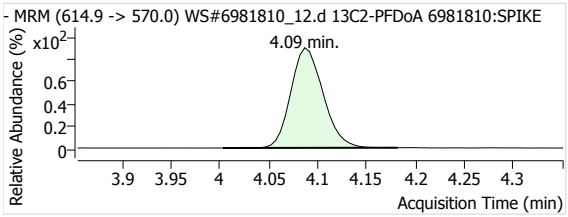

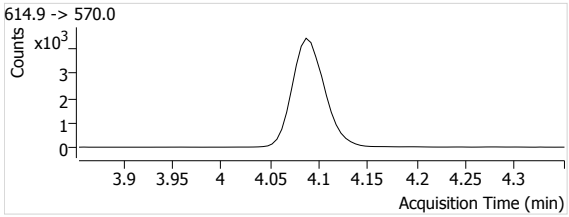

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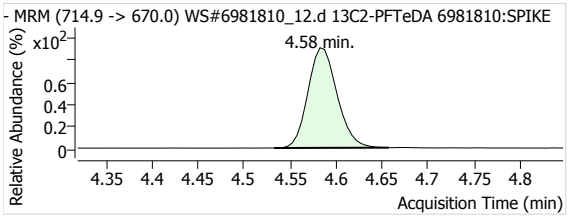

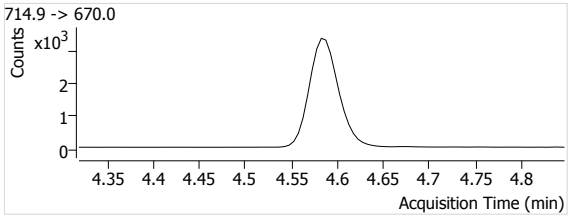

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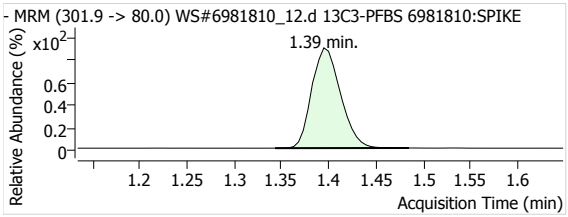

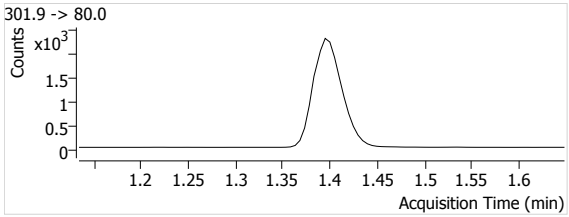

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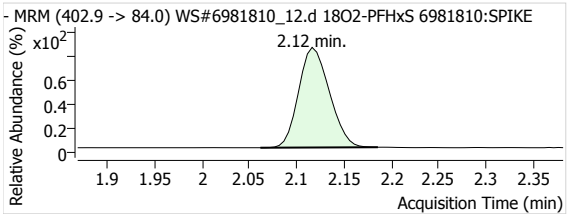

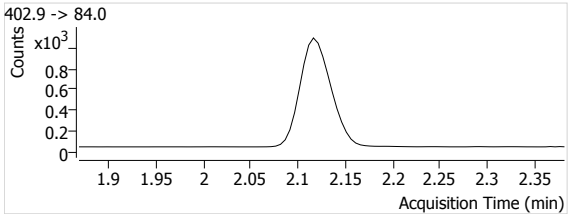

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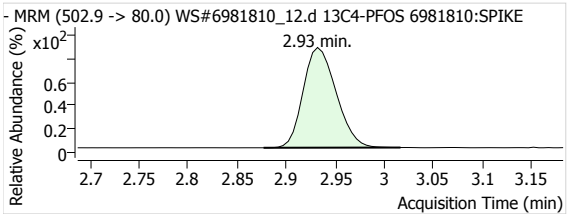
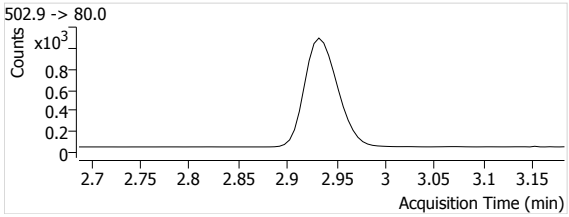
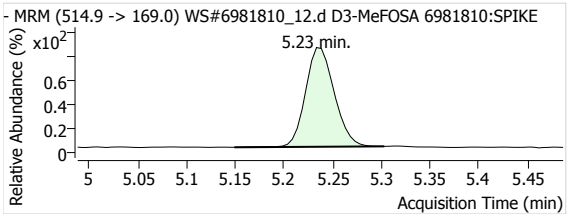
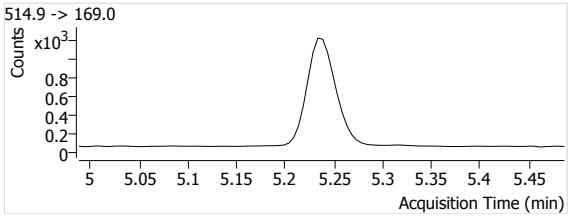




D3-MeFOSA





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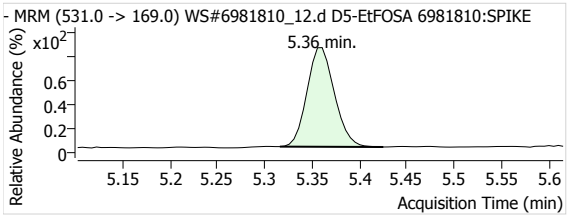
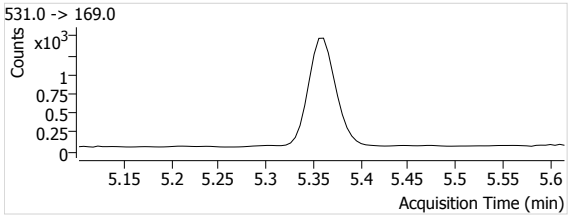




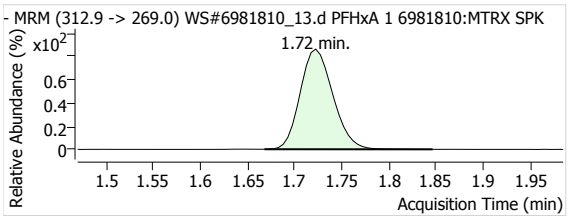
Quantitative Analysis Report

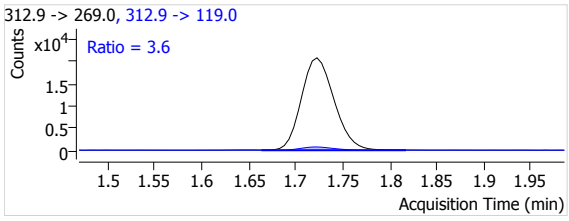
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:MTRX SPK	**Data File**	WS#6981810_13.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B3
Acq. Date-Time	2020/10/05 8:45:39 AM	**Dil.**	0.0
Comment	NTX290-01		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.5004	104.2	50347	1.72	638	3.7104	1805	1.72	220	3.6
PFHpA 1	µg/L	20.000	0.4943	103.0	58604	2.17	797	4.9783	9775	2.17	719	16.7
PFOA 1	µg/L	20.000	0.5219	108.7	44767	2.64	686	3.4957	11033	2.64	886	24.6
PFNA 1	µg/L	20.000	0.4852	101.1	37889	3.07	727	3.7802	6106	3.07	734	16.1
PFDA 1	µg/L	20.000	0.4930	102.7	30978	3.45	906	3.6193	5324	3.45	636	17.2
PFUnA 1	µg/L	20.000	0.4834	100.7	34170	3.79	683	3.7397	5566	3.79	417	16.3
PFDoA 1	µg/L	20.000	0.4742	98.8	31537	4.09	789	3.3639	4495	4.09	325	14.3
PFTrDA 1	µg/L	20.000	0.5028	104.8	27298	4.35	458	3.9764	2749	4.35	194	10.1
PFTeDA 1	µg/L	20.000	0.4808	100.2	22962	4.58	512	3.3448	1648	4.58	203	7.2
PFBS 1	µg/L	20.000	0.4994	104.0	18921	1.40	567	4.1204	7375	1.40	634	39.0
PFHxS 1	µg/L	20.000	0.5299	110.4	11028	2.07	426	4.8584	4987	2.07	521	45.2
PFOS 1	µg/L	20.000	0.5543	115.5	10526	2.89	177	4.4468	5166	2.89	407	49.1
MeFOSA 1	µg/L	20.000	0.5365	111.8	3632	5.23	150	2.2160	3095	5.23	446	85.2
EtFOSA 1	µg/L	20.000	0.5157	107.4	3406	5.36	536	1.7039	3492	5.36	4445	102.5
13C2-PFHxA	µg/L	100.000	109.1282	109.1	13569	1.72	559		--	--	--	--
13C4-PFHpA	µg/L	100.000	113.3776	113.4	11772	2.17	748		--	--	--	--
13C4-PFOA	µg/L	100.000	113.5384	113.5	12806	2.64	1506		--	--	--	--
13C5-PFNA	µg/L	100.000	113.2926	113.3	10023	3.07	988		--	--	--	--
13C2-PFDA	µg/L	100.000	109.8293	109.8	8559	3.45	357		--	--	--	--
13C2-PFUnA	µg/L	100.000	107.5321	107.5	9137	3.79	932		--	--	--	--
13C2-PFDoA	µg/L	100.000	103.2944	103.3	9375	4.09	725		--	--	--	--
13C2-PFTeDA	µg/L	100.000	95.6928	95.7	6865	4.58	950		--	--	--	--
13C3-PFBS	µg/L	100.000	107.7176	107.7	4592	1.39	317		--	--	--	--
18O2-PFHxS	µg/L	100.000	110.3013	110.3	2270	2.12	952		--	--	--	--
13C4-PFOS	µg/L	100.000	112.2333	112.2	2367	2.93	432		--	--	--	--
D3-MeFOSA	µg/L	100.000	58.9145	58.9	1639	5.24	51		--	--	--	--
D5-EtFOSA	µg/L	100.000	60.0842	60.1	1999	5.36	47		--	--	--	--

PFHxA 1





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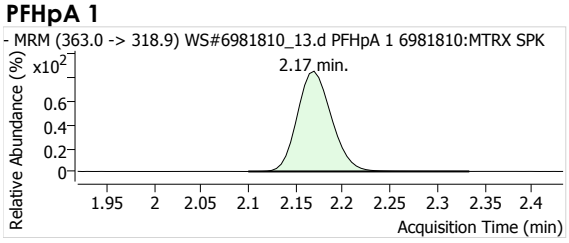
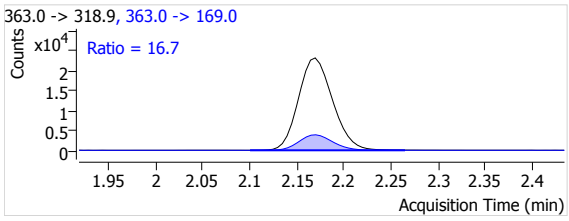
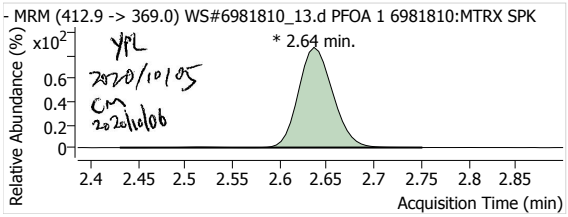
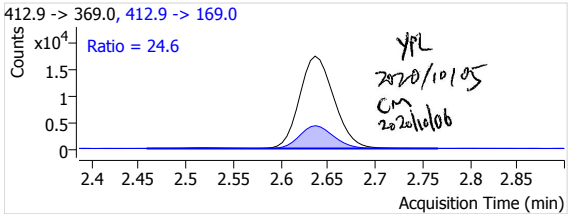




PFOA 1





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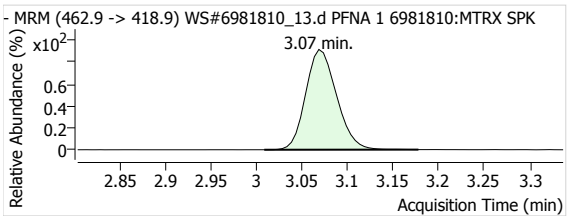

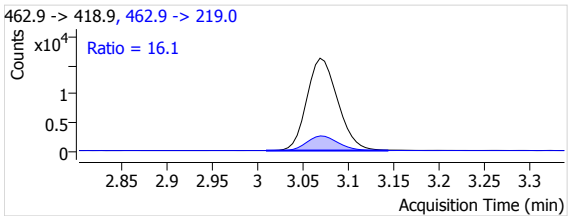

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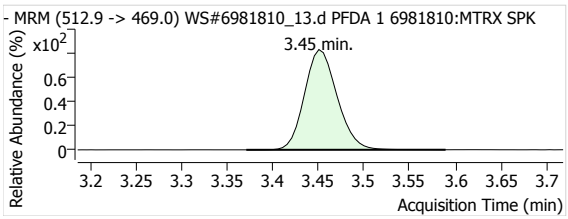

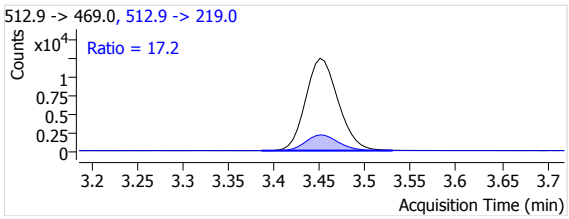

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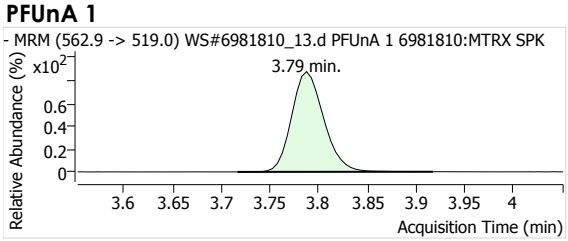

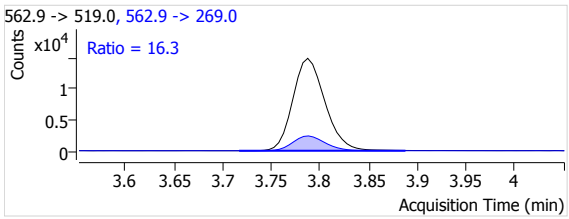

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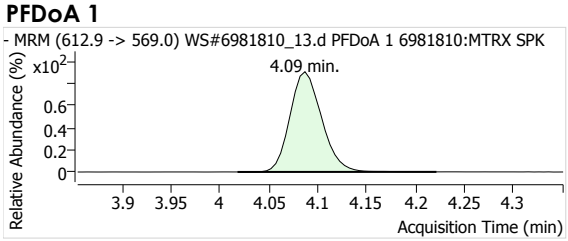

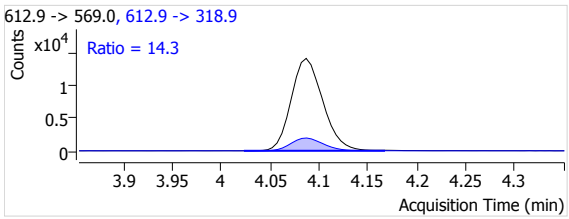

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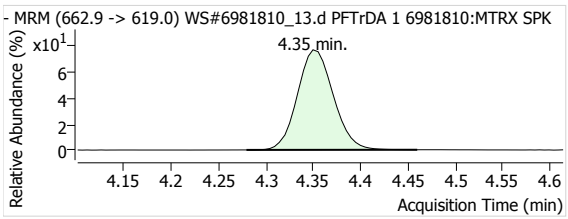

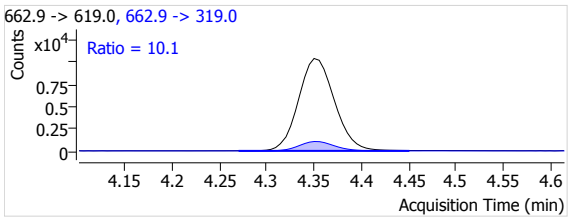

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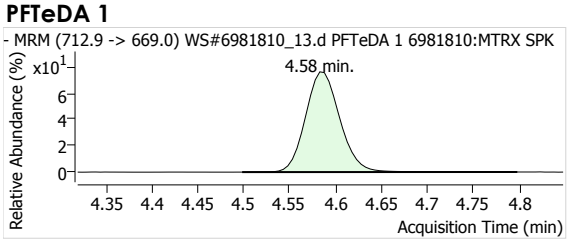

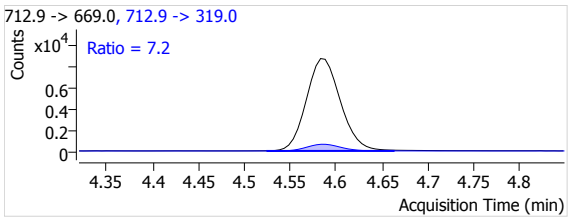

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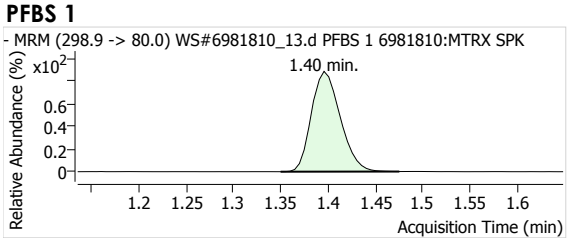

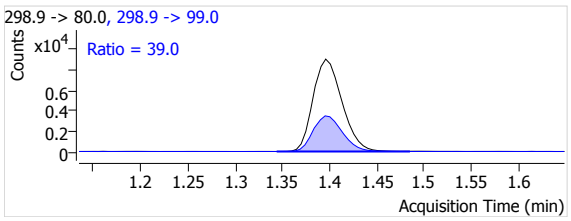

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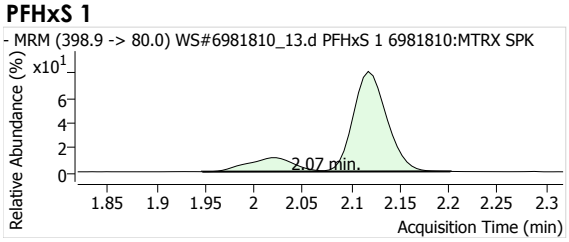

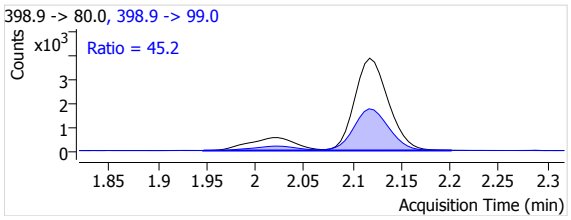

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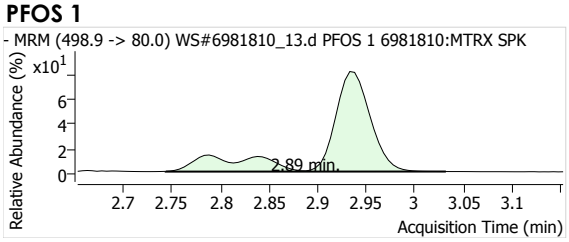

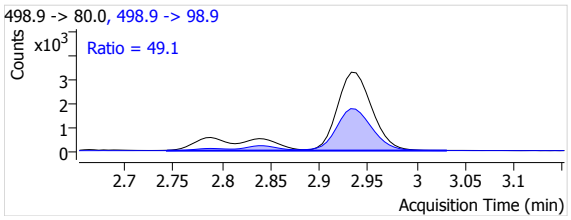

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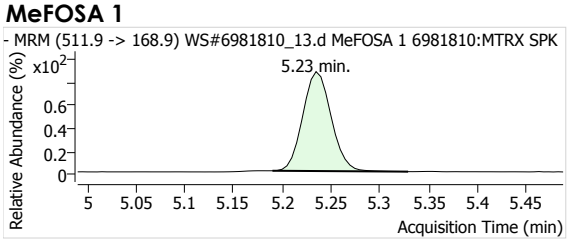

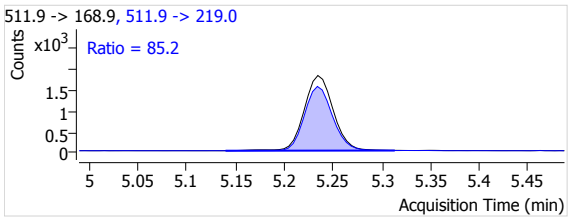

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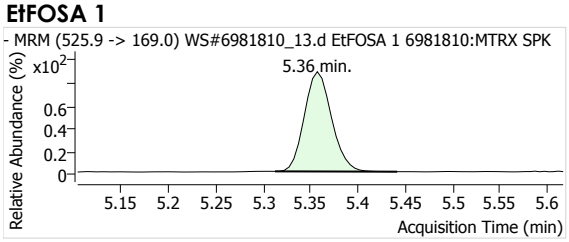

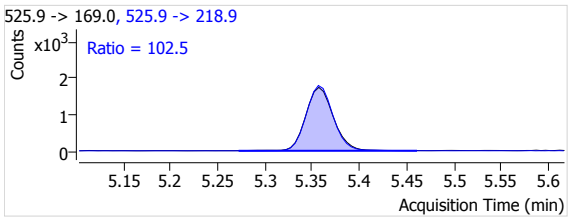

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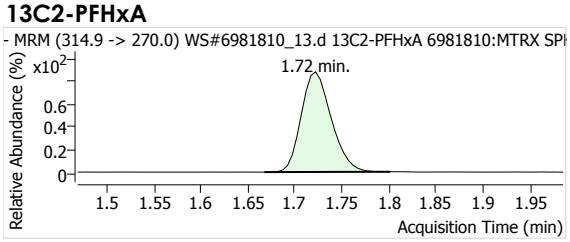

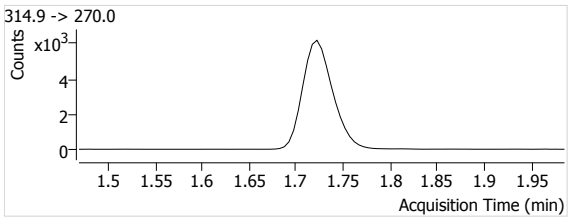

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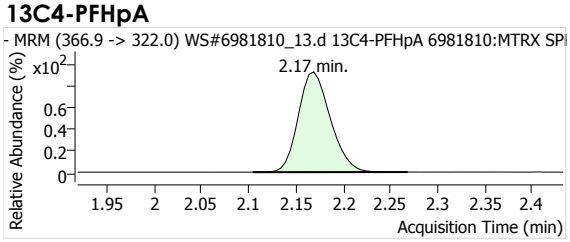

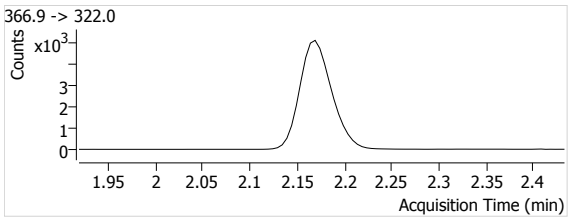

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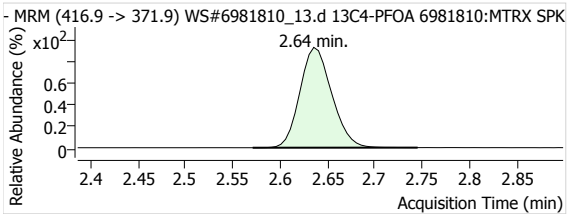

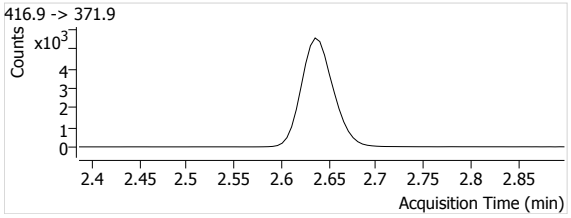

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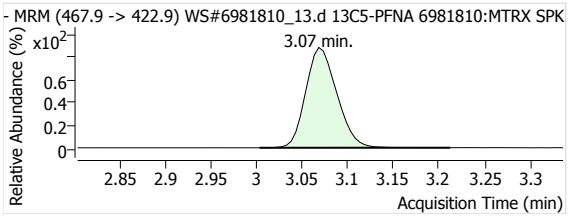

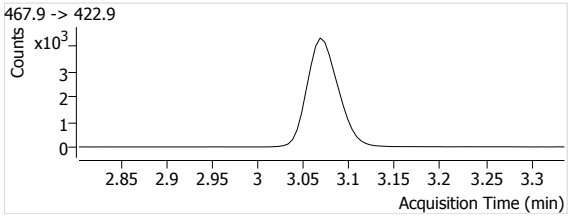

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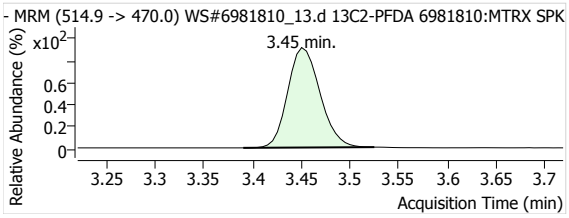

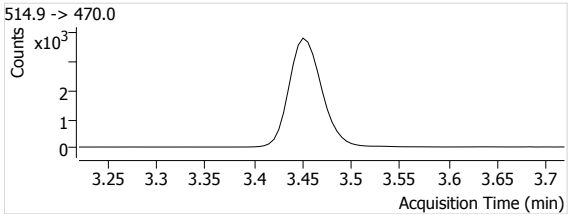

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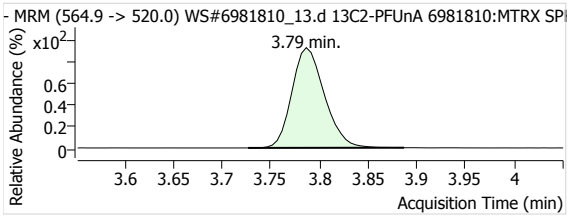

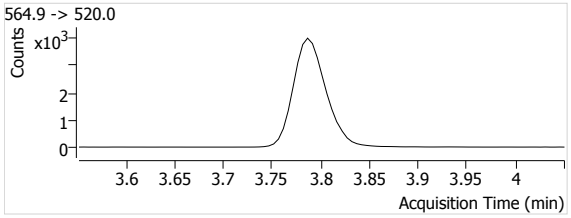

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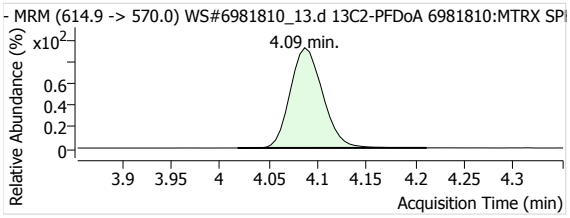

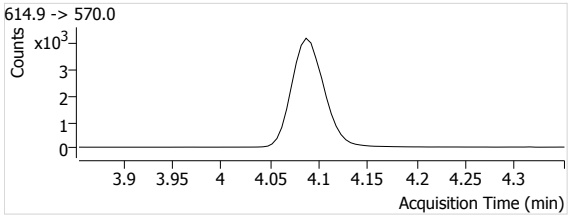

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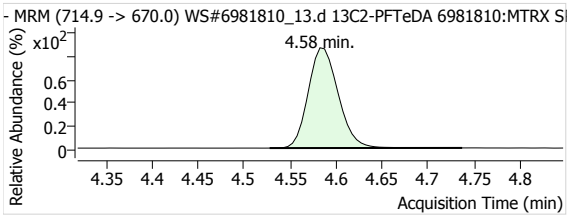

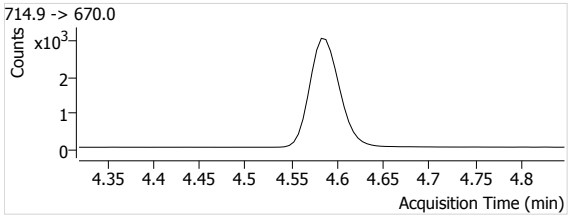

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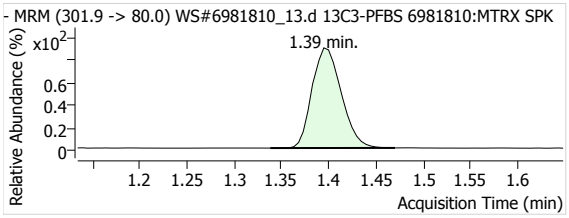

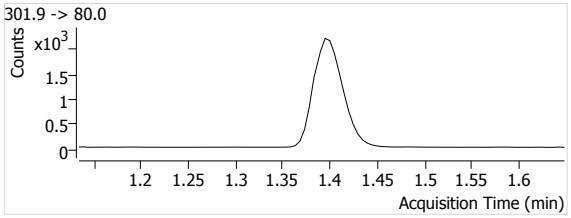

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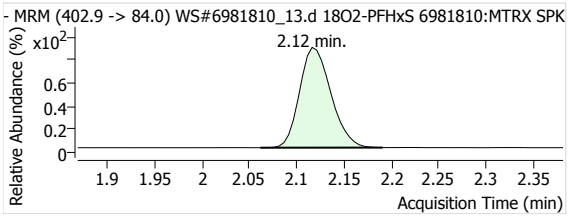

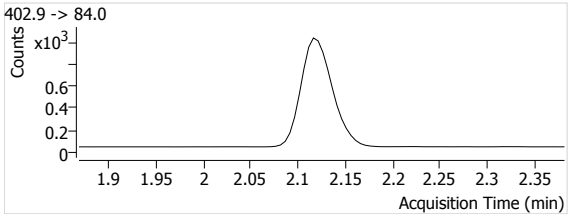

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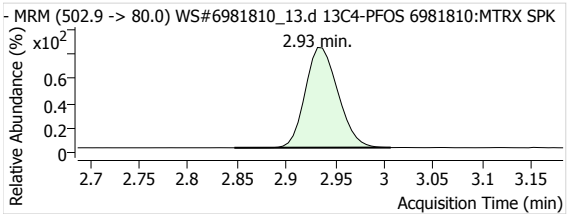
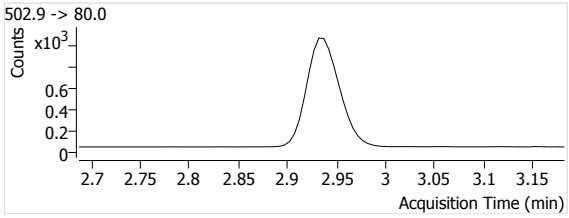
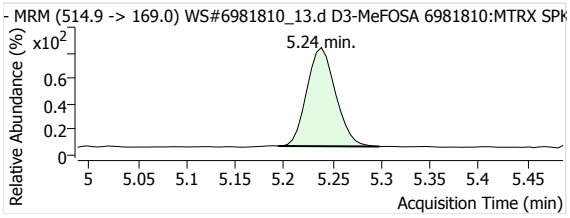
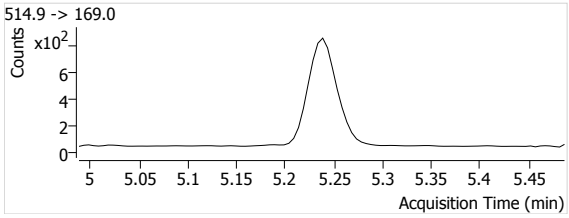


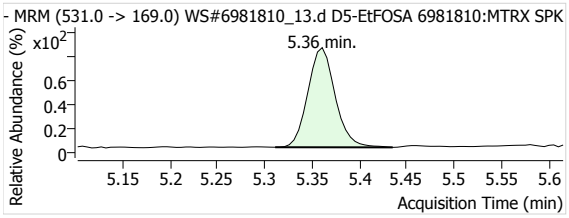


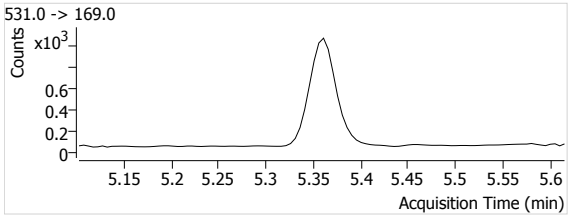
D3-MeFOSA





D5-EtFOSA





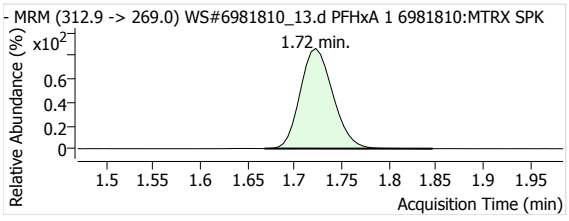
Quantitative Analysis Report

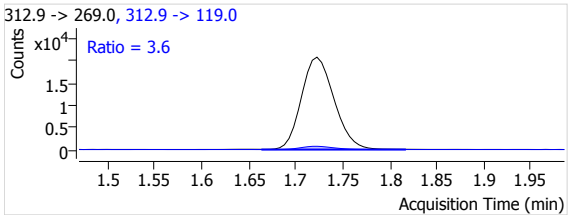
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:MTRX SPK	**Data File**	WS#6981810_13.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B3
Acq. Date-Time	2020/10/05 8:45:39 AM	**Dil.**	0.0
Comment	NTX290-01		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.5004	104.2	50347	1.72	638	3.7104	1805	1.72	220	3.6
PFHpA 1	µg/L	20.000	0.4943	103.0	58604	2.17	797	4.9783	9775	2.17	719	16.7
PFOA 1	µg/L	20.000	0.5169	107.7	44340	2.64	275	3.4624	10890	2.64	983	24.6
PFNA 1	µg/L	20.000	0.4852	101.1	37889	3.07	727	3.7802	6106	3.07	734	16.1
PFDA 1	µg/L	20.000	0.4930	102.7	30978	3.45	906	3.6193	5324	3.45	636	17.2
PFUnA 1	µg/L	20.000	0.4834	100.7	34170	3.79	683	3.7397	5566	3.79	417	16.3
PFDoA 1	µg/L	20.000	0.4742	98.8	31537	4.09	789	3.3639	4495	4.09	325	14.3
PFTrDA 1	µg/L	20.000	0.5028	104.8	27298	4.35	458	3.9764	2749	4.35	194	10.1
PFTeDA 1	µg/L	20.000	0.4808	100.2	22962	4.58	512	3.3448	1648	4.58	203	7.2
PFBS 1	µg/L	20.000	0.4994	104.0	18921	1.40	567	4.1204	7375	1.40	634	39.0
PFHxS 1	µg/L	20.000	0.5299	110.4	11028	2.07	426	4.8584	4987	2.07	521	45.2
PFOS 1	µg/L	20.000	0.5543	115.5	10526	2.89	177	4.4468	5166	2.89	407	49.1
MeFOSA 1	µg/L	20.000	0.5365	111.8	3632	5.23	150	2.2160	3095	5.23	446	85.2
EtFOSA 1	µg/L	20.000	0.5157	107.4	3406	5.36	536	1.7039	3492	5.36	4445	102.5
13C2-PFHxA	µg/L	100.000	109.1282	109.1	13569	1.72	559		--	--	--	--
13C4-PFHpA	µg/L	100.000	113.3776	113.4	11772	2.17	748		--	--	--	--
13C4-PFOA	µg/L	100.000	113.5384	113.5	12806	2.64	1506		--	--	--	--
13C5-PFNA	µg/L	100.000	113.2926	113.3	10023	3.07	988		--	--	--	--
13C2-PFDA	µg/L	100.000	109.8293	109.8	8559	3.45	357		--	--	--	--
13C2-PFUnA	µg/L	100.000	107.5321	107.5	9137	3.79	932		--	--	--	--
13C2-PFDoA	µg/L	100.000	103.2944	103.3	9375	4.09	725		--	--	--	--
13C2-PFTeDA	µg/L	100.000	95.6928	95.7	6865	4.58	950		--	--	--	--
13C3-PFBS	µg/L	100.000	107.7176	107.7	4592	1.39	317		--	--	--	--
18O2-PFHxS	µg/L	100.000	110.3013	110.3	2270	2.12	952		--	--	--	--
13C4-PFOS	µg/L	100.000	112.2333	112.2	2367	2.93	432		--	--	--	--
D3-MeFOSA	µg/L	100.000	58.9145	58.9	1639	5.24	51		--	--	--	--
D5-EtFOSA	µg/L	100.000	60.0842	60.1	1999	5.36	47		--	--	--	--

PFHxA 1





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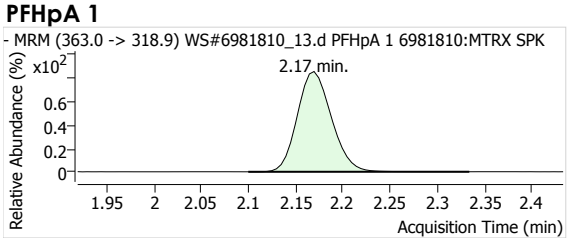
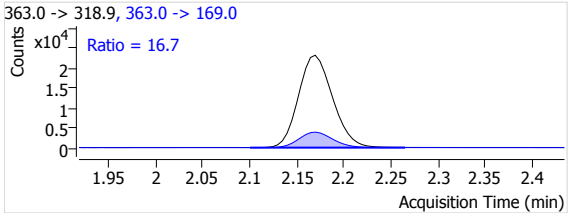
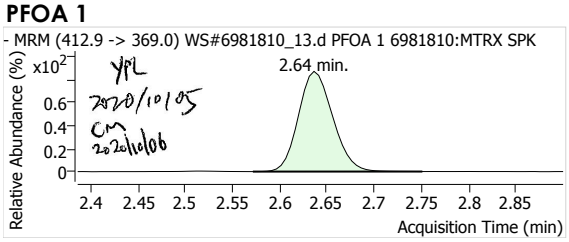
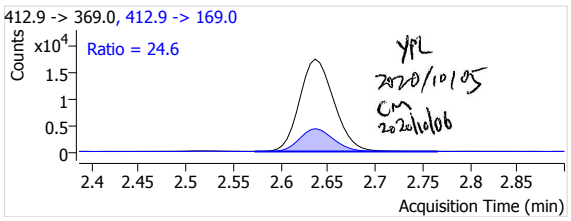




PFOA 1





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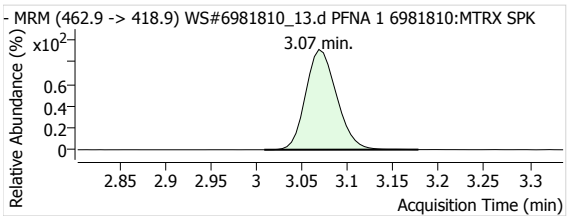

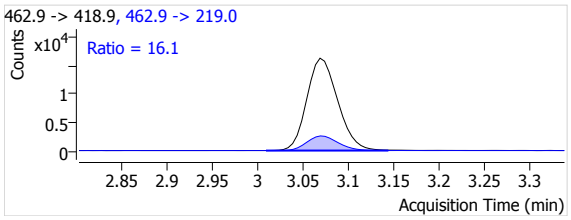

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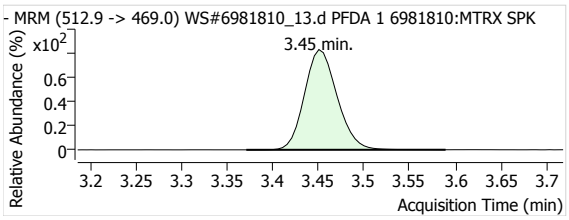
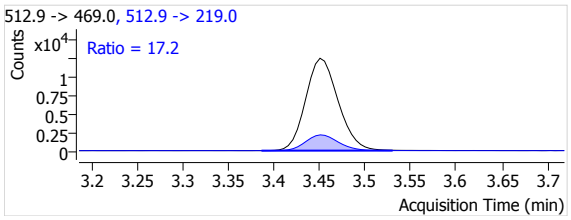
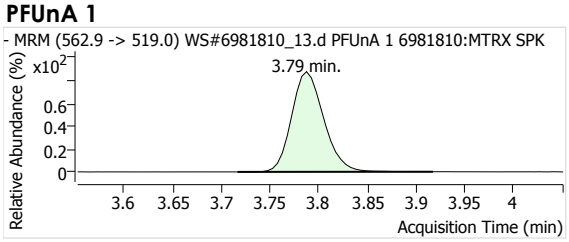
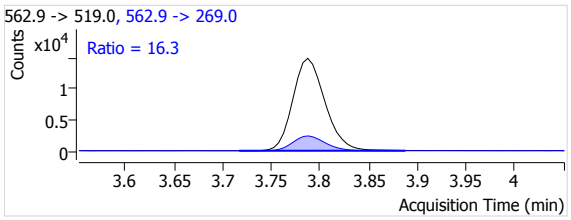




PFUnA 1





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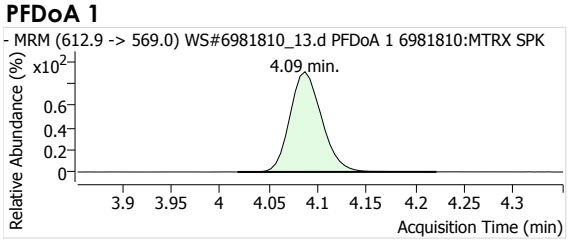

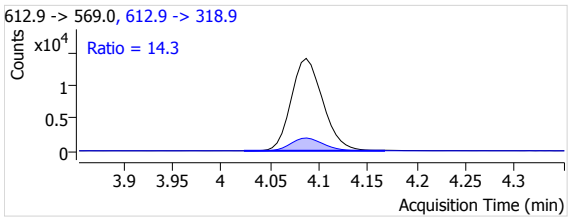

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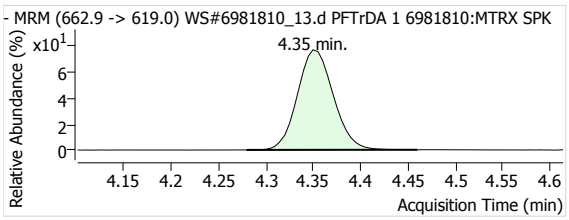

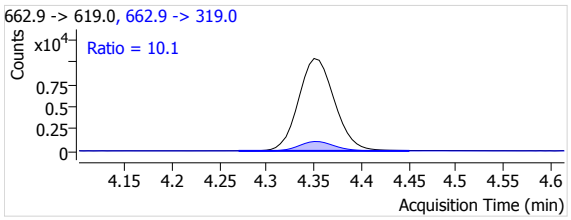

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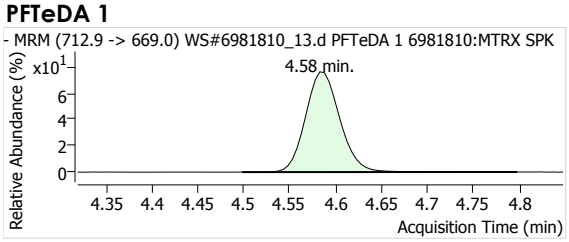

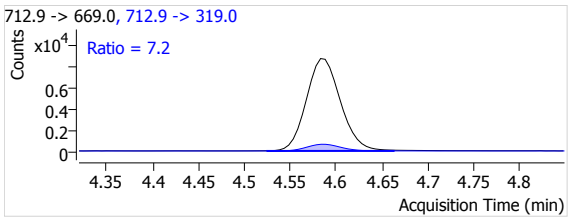

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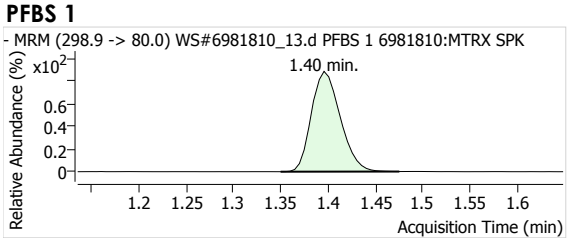

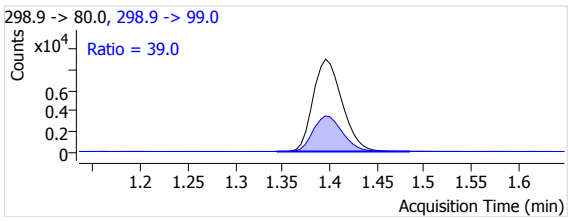

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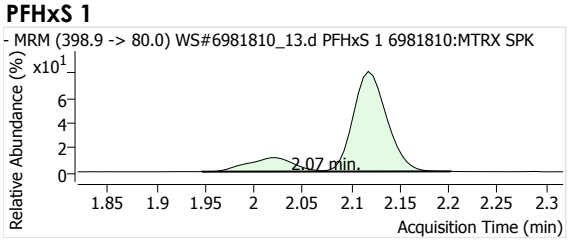

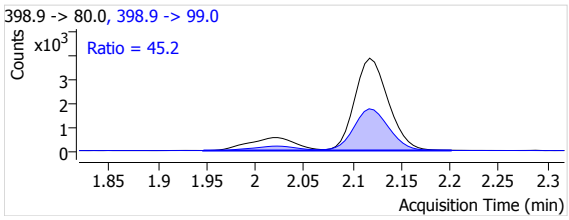

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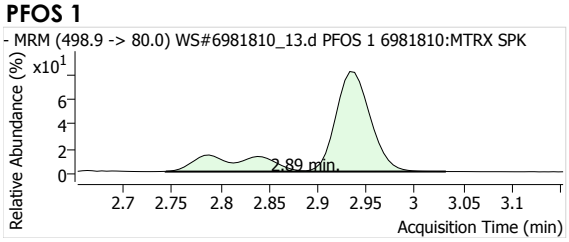

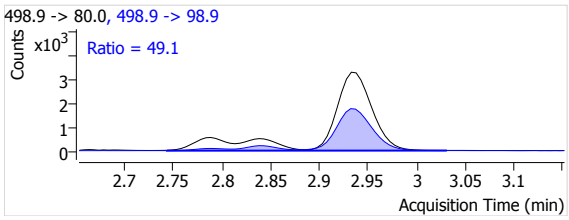

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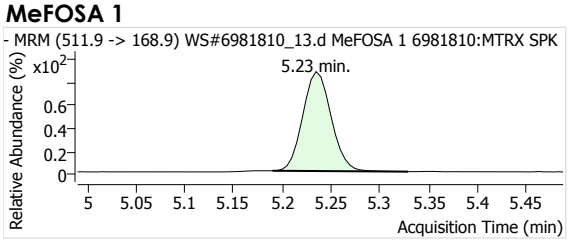

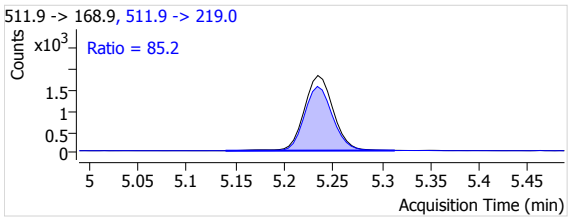

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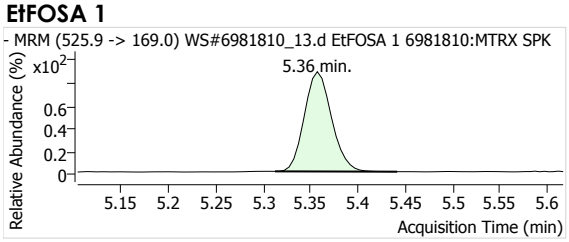

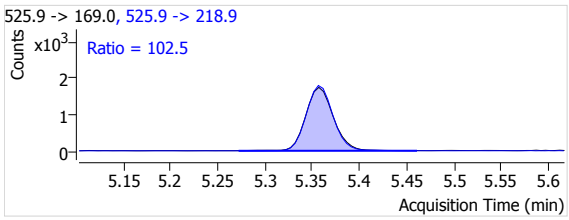

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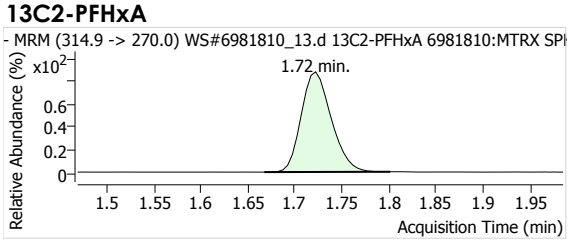

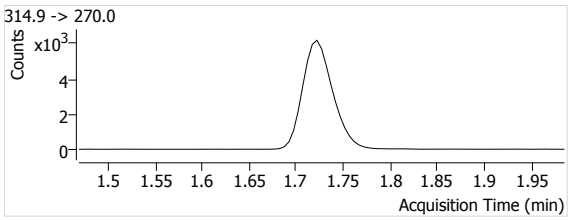

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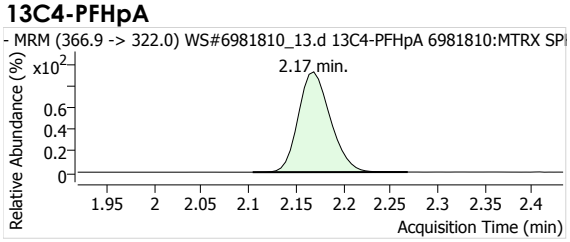

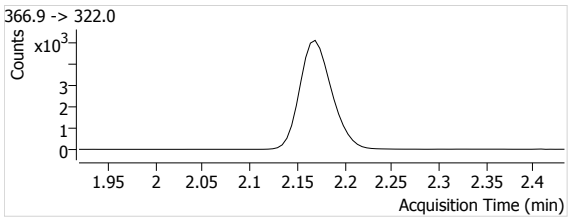

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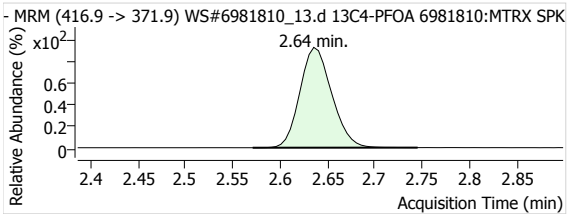

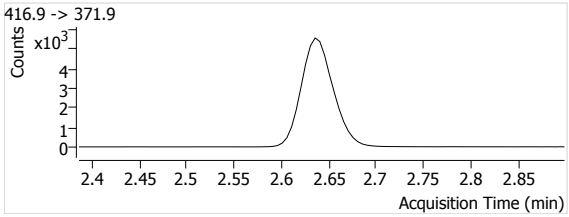

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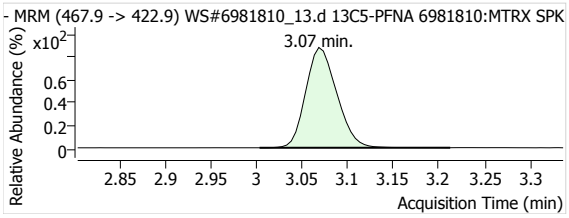

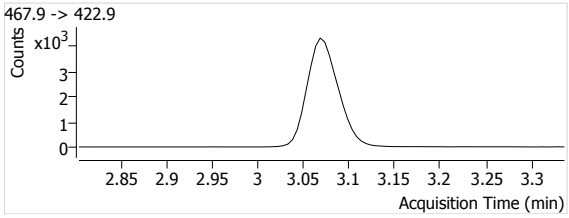

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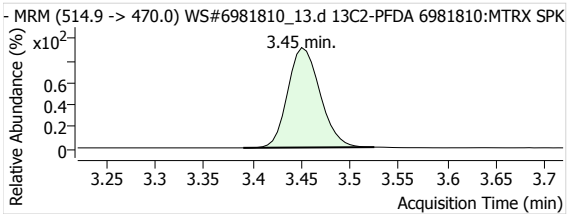

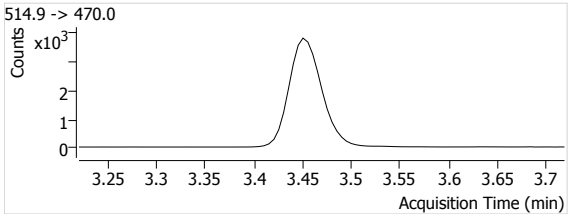

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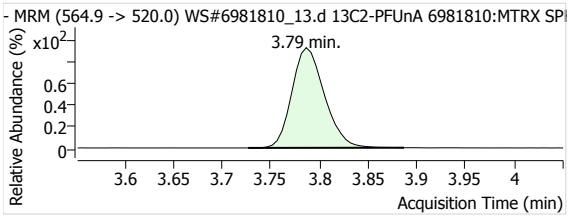

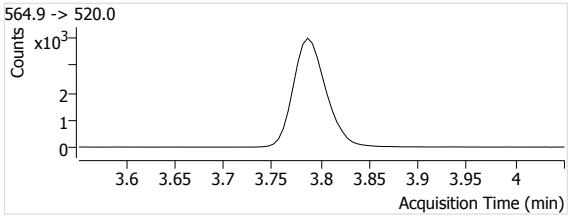

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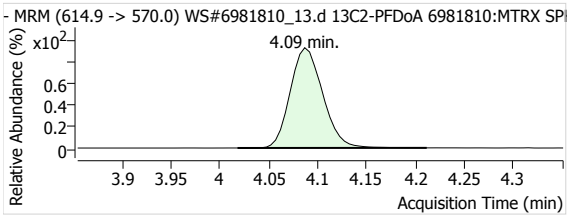

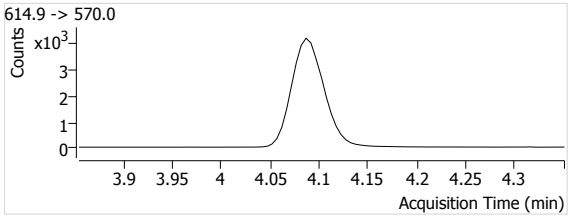

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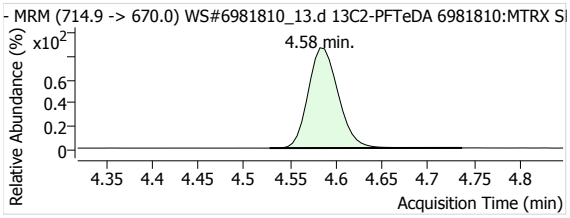

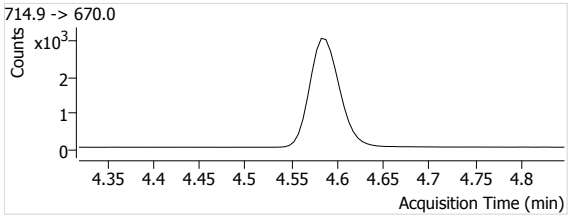

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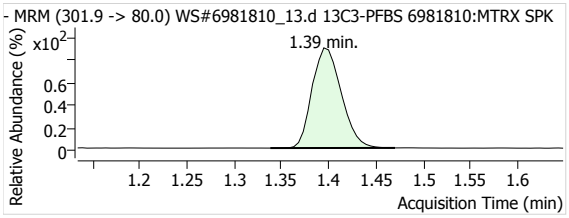

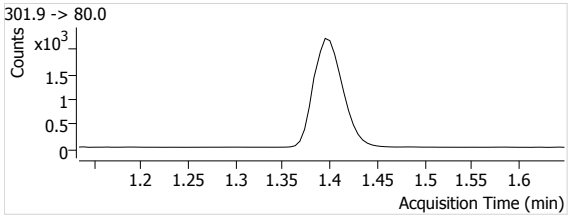

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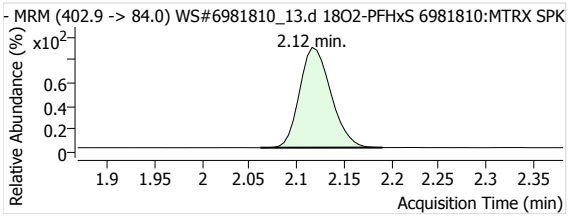

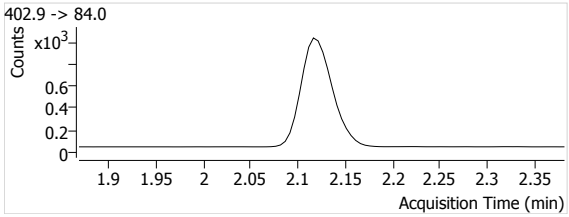

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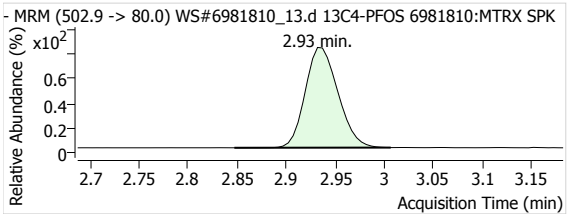
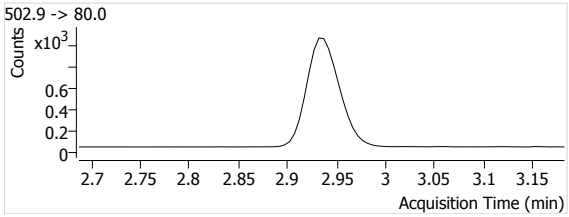
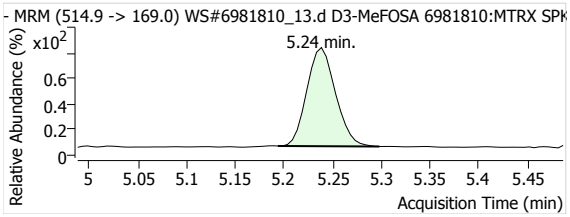
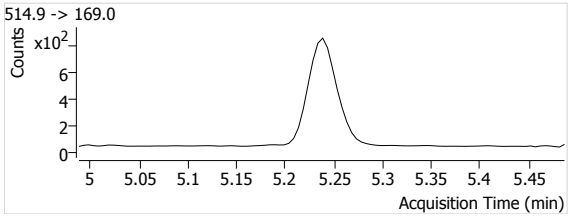


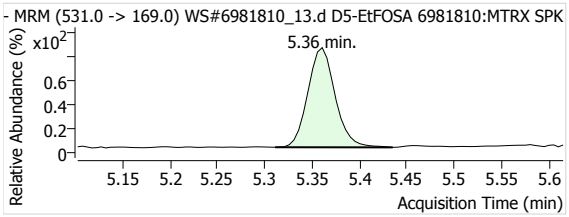


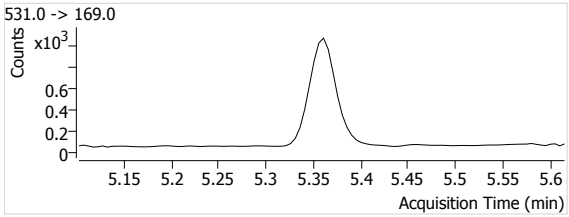
D3-MeFOSA





D5-EtFOSA





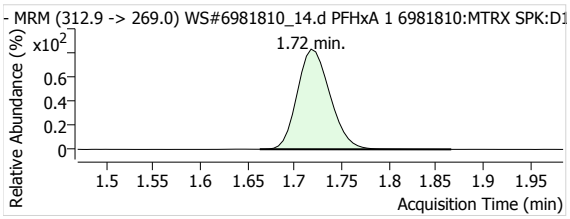
Quantitative Analysis Report

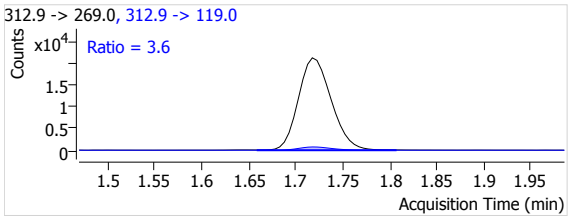
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	6981810:MTRX SPK:D1	**Data File**	WS#6981810_14.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B4
Acq. Date-Time	2020/10/05 8:52:38 AM	**Dil.**	0.0
Comment	NTX290-01		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.5061	105.4	50923	1.72	645	3.7526	1821	1.72	193	3.6
PFHpA 1	µg/L	20.000	0.4998	104.1	58866	2.16	806	5.0334	9838	2.17	928	16.7
PFOA 1	µg/L	20.000	0.5227	108.9	45075	2.63	537	3.5015	11124	2.63	1172	24.7
PFNA 1	µg/L	20.000	0.4913	102.3	38763	3.07	1155	3.8269	6121	3.06	478	15.8
PFDA 1	µg/L	20.000	0.4899	102.1	31304	3.45	840	3.5969	5395	3.45	493	17.2
PFUnA 1	µg/L	20.000	0.4832	100.7	34429	3.78	514	3.7378	5561	3.78	436	16.2
PFDoA 1	µg/L	20.000	0.4783	99.7	31870	4.09	645	3.3933	4437	4.09	405	13.9
PFTrDA 1	µg/L	20.000	0.5309	110.6	28120	4.35	334	4.1970	2668	4.35	413	9.5
PFTeDA 1	µg/L	20.000	0.4949	103.1	23058	4.58	561	3.4415	1689	4.58	570	7.3
PFBS 1	µg/L	20.000	0.5035	104.9	18965	1.40	723	4.1544	7399	1.40	668	39.0
PFHxS 1	µg/L	20.000	0.5212	108.6	11187	2.07	604	4.7788	5236	2.07	612	46.8
PFOS 1	µg/L	20.000	0.5535	115.3	10540	2.89	192	4.4400	5248	2.89	541	49.8
MeFOSA 1	µg/L	20.000	0.5130	106.9	3702	5.23	106	2.1191	3024	5.23	374	81.7
EtFOSA 1	µg/L	20.000	0.5305	110.5	3413	5.36	846	1.7530	3435	5.36	26167	100.6
13C2-PFHxA	µg/L	100.000	109.1362	109.1	13570	1.72	625		--	--	--	--
13C4-PFHpA	µg/L	100.000	112.6360	112.6	11695	2.16	1053		--	--	--	--
13C4-PFOA	µg/L	100.000	114.1325	114.1	12873	2.63	800		--	--	--	--
13C5-PFNA	µg/L	100.000	114.4908	114.5	10129	3.07	909		--	--	--	--
13C2-PFDA	µg/L	100.000	111.6771	111.7	8703	3.45	484		--	--	--	--
13C2-PFUnA	µg/L	100.000	108.4030	108.4	9211	3.78	627		--	--	--	--
13C2-PFDoA	µg/L	100.000	103.4817	103.5	9392	4.09	484		--	--	--	--
13C2-PFTeDA	µg/L	100.000	93.3928	93.4	6700	4.58	623		--	--	--	--
13C3-PFBS	µg/L	100.000	107.0842	107.1	4565	1.39	281		--	--	--	--
18O2-PFHxS	µg/L	100.000	113.7512	113.8	2341	2.12	849		--	--	--	--
13C4-PFOS	µg/L	100.000	112.5652	112.6	2374	2.93	505		--	--	--	--
D3-MeFOSA	µg/L	100.000	62.7965	62.8	1747	5.23	75		--	--	--	--
D5-EtFOSA	µg/L	100.000	58.5212	58.5	1947	5.36	64		--	--	--	--

PFHxA 1





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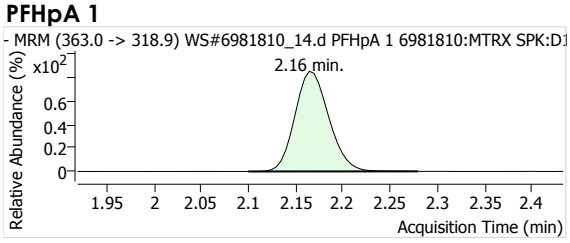

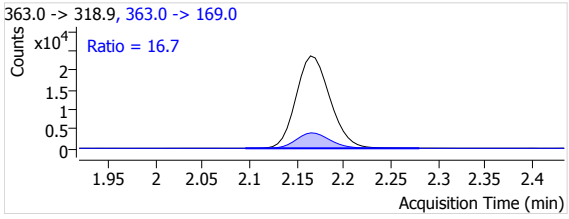

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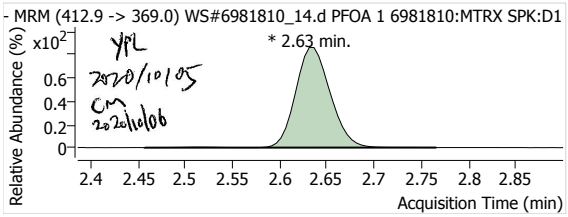

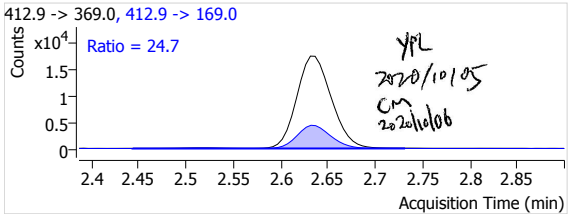

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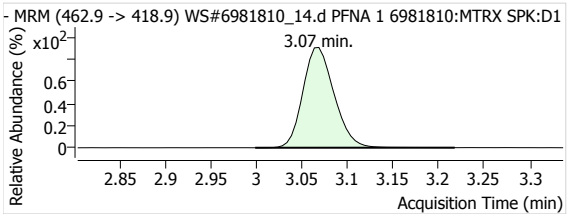

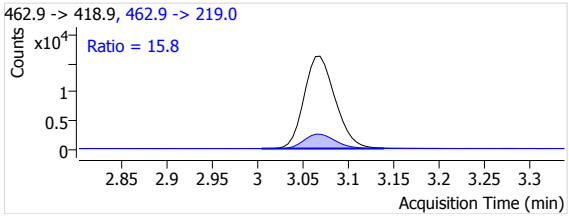

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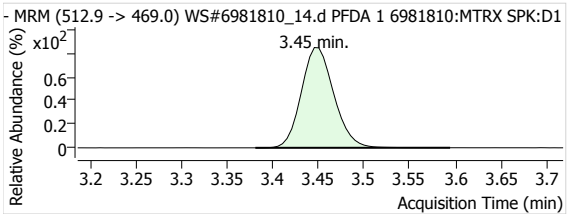

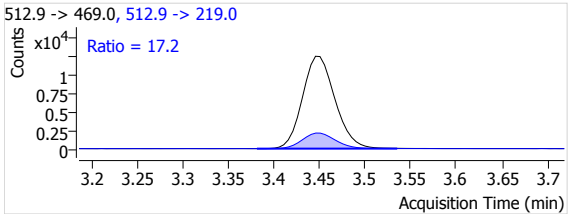

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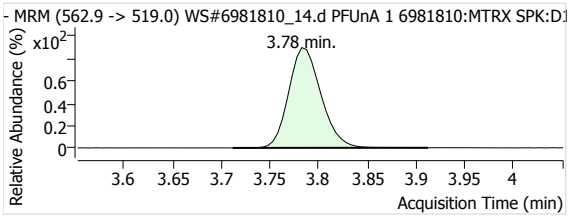

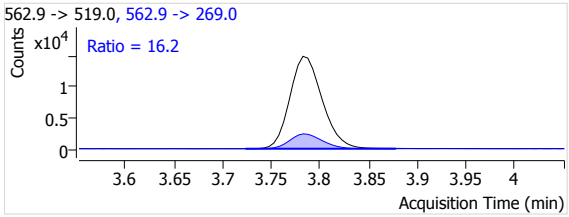

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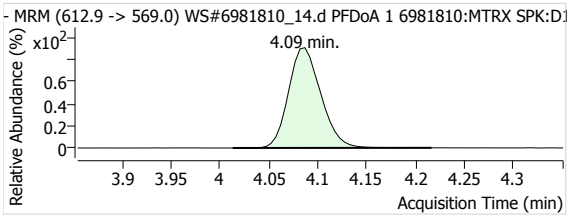

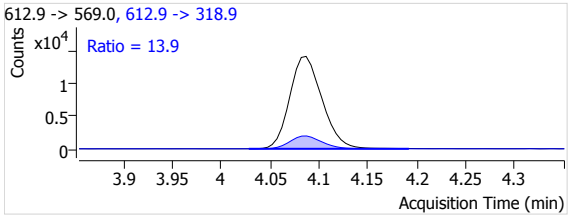

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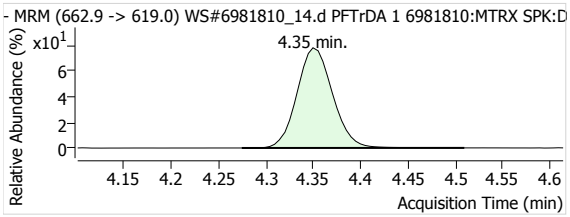

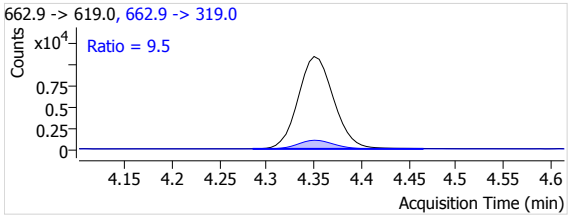

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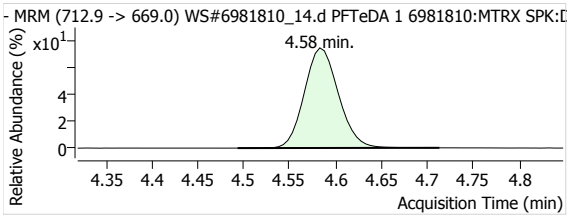

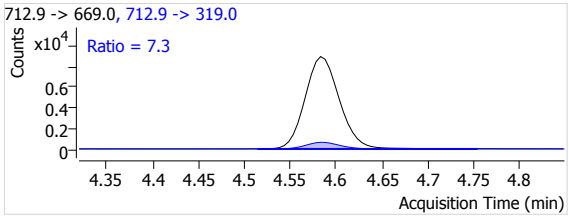

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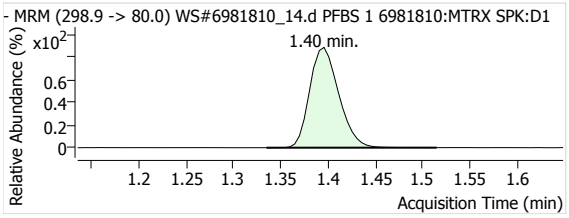

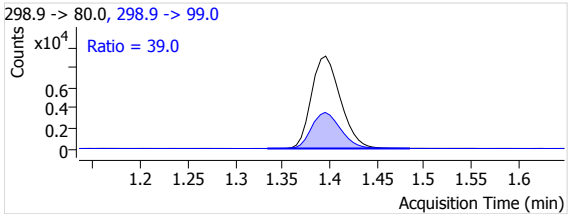

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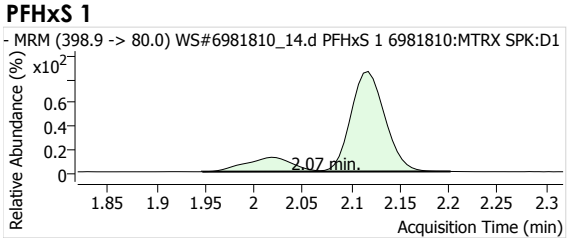

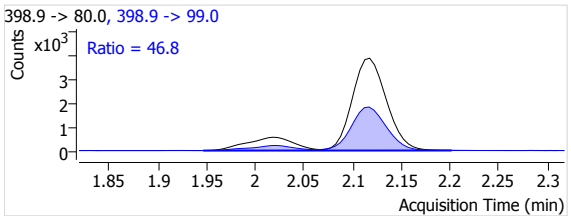

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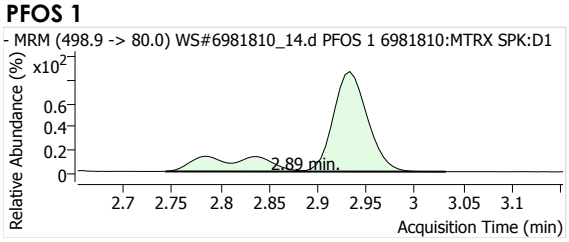

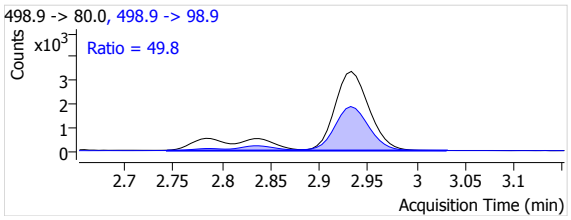

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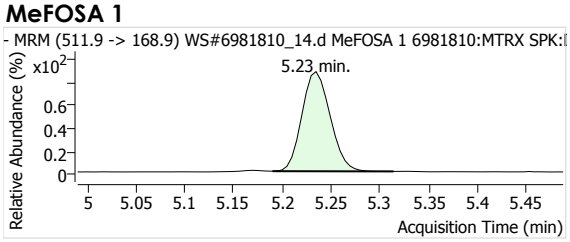

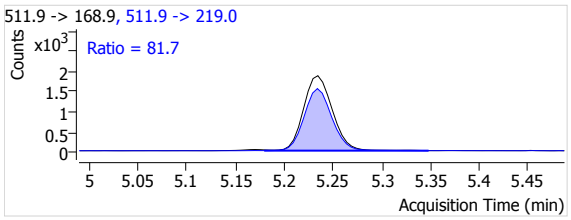

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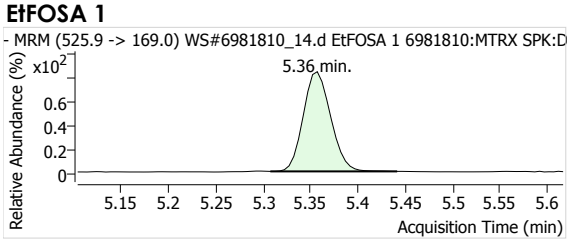

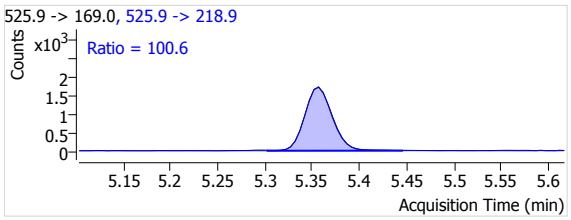

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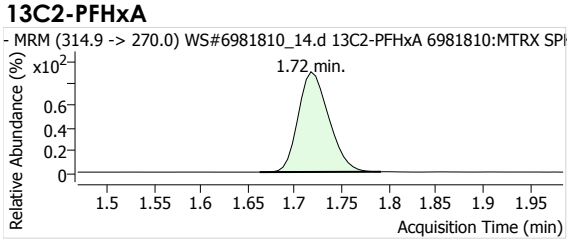

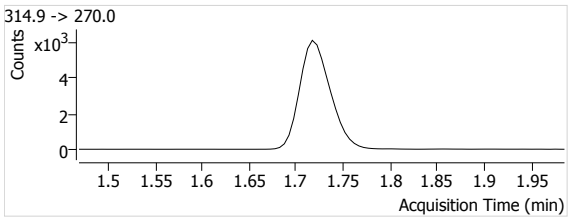

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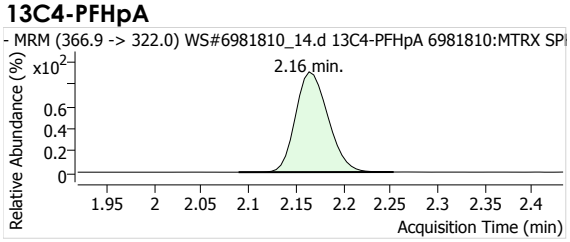

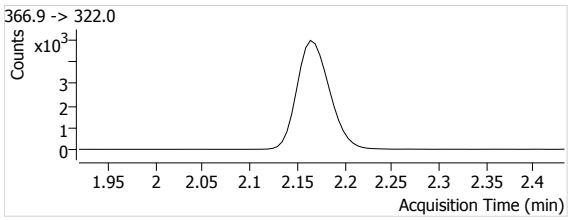

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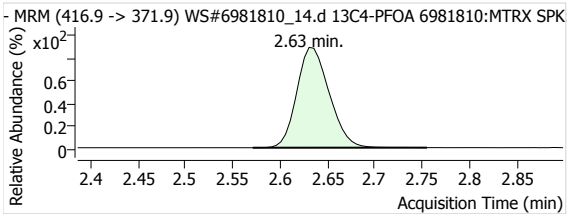

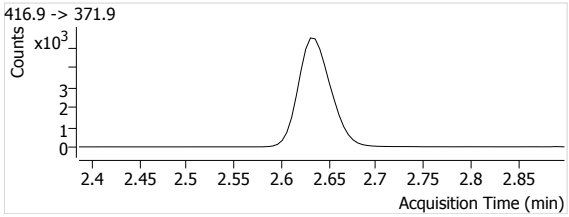

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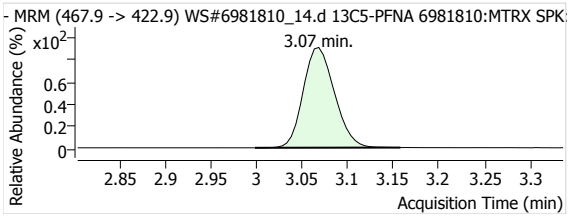

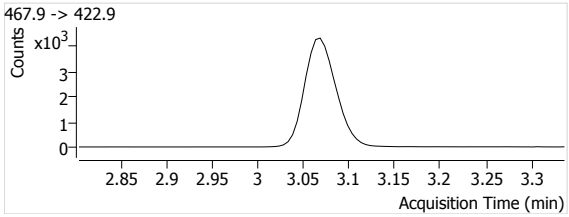

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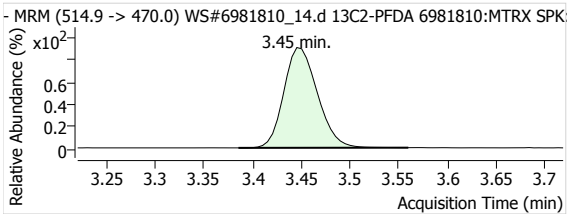

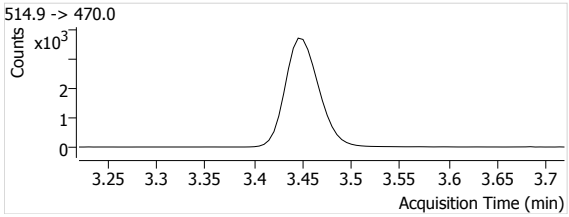

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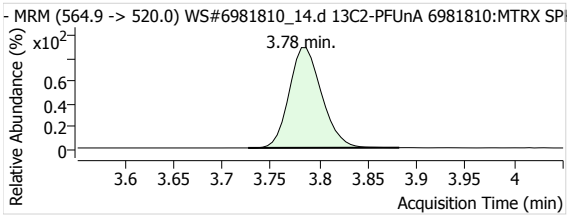

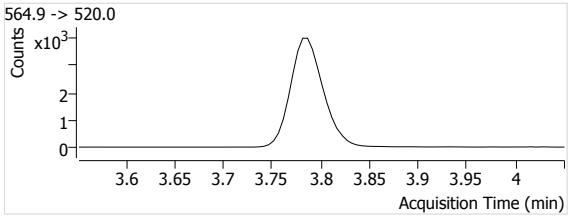

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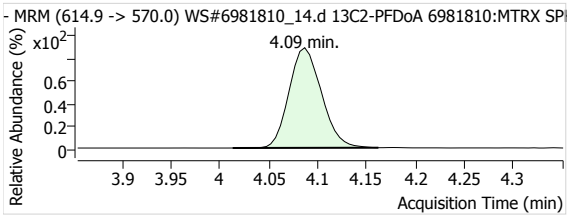

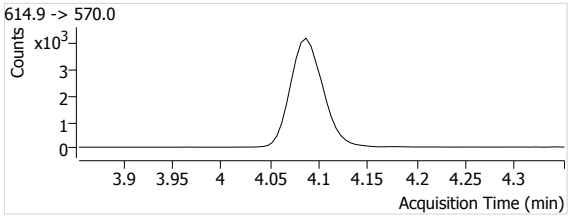

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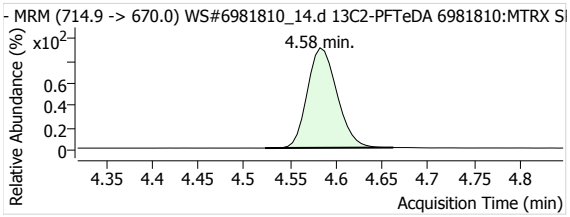

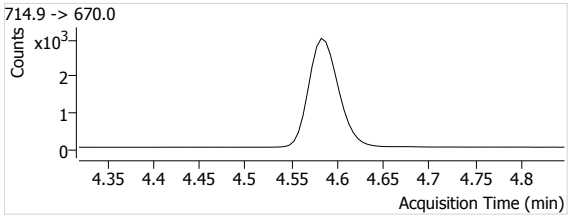

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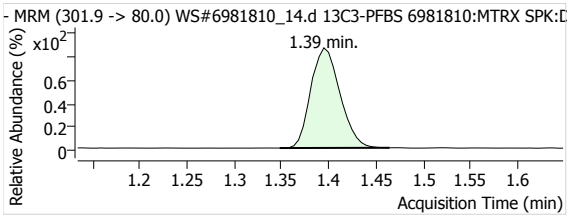

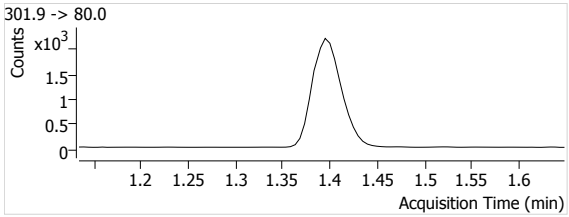

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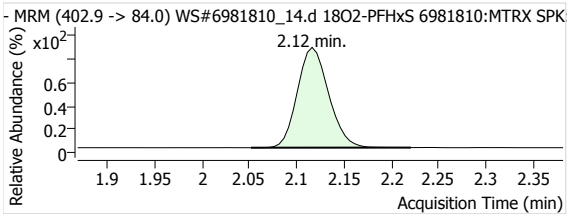

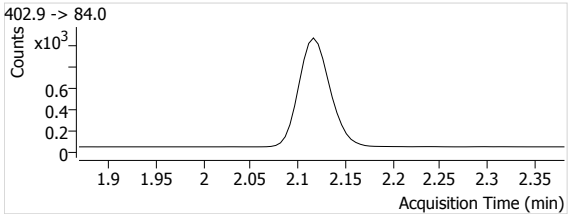

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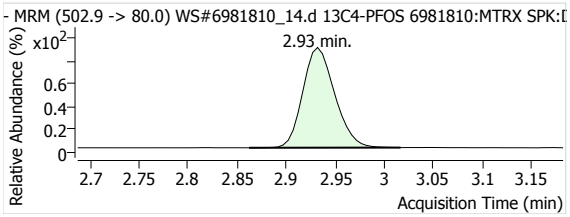

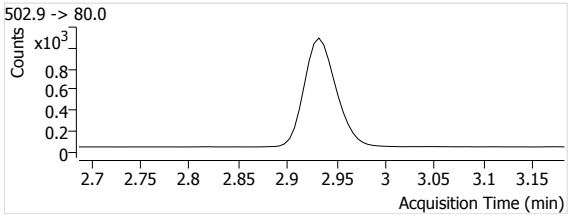

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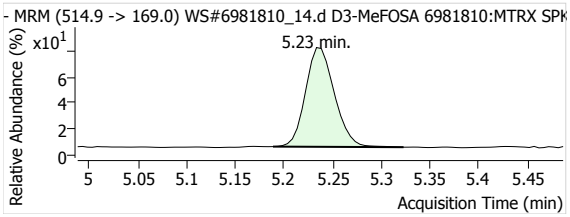

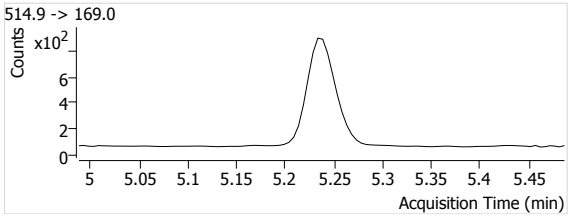

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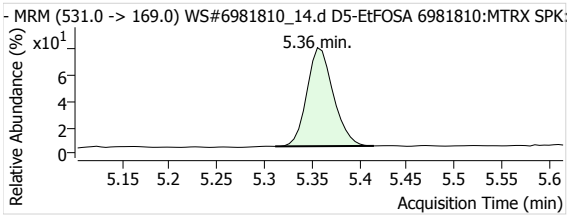
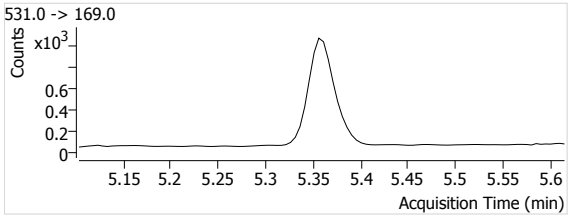




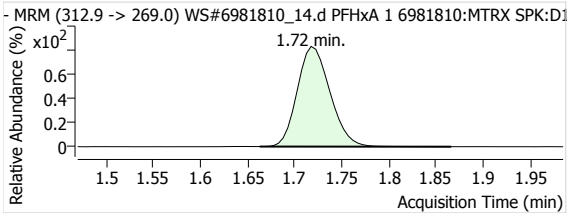
Quantitative Analysis Report

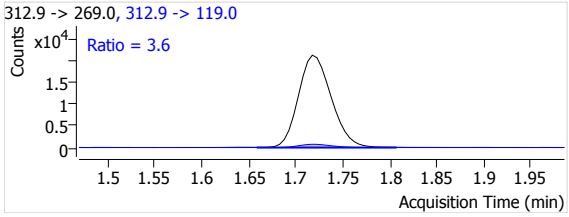
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810.batch.bin

Sample Name	6981810:MTRX SPK:D1	**Data File**	WS#6981810_14.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-B4
Acq. Date-Time	2020/10/05 8:52:38 AM	**Dil.**	0.0
Comment	NTX290-01		
User Defined	MI PFOA		

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.5061	105.4	50923	1.72	645	3.7526	1821	1.72	193	3.6
PFHpA 1	µg/L	20.000	0.4998	104.1	58866	2.16	806	5.0334	9838	2.17	928	16.7
PFOA 1	µg/L	20.000	0.5197	108.3	44814	2.63	532	3.4812	10966	2.63	1172	24.5
PFNA 1	µg/L	20.000	0.4913	102.3	38763	3.07	1155	3.8269	6121	3.06	478	15.8
PFDA 1	µg/L	20.000	0.4899	102.1	31304	3.45	840	3.5969	5395	3.45	493	17.2
PFUnA 1	µg/L	20.000	0.4832	100.7	34429	3.78	514	3.7378	5561	3.78	436	16.2
PFDoA 1	µg/L	20.000	0.4783	99.7	31870	4.09	645	3.3933	4437	4.09	405	13.9
PFTrDA 1	µg/L	20.000	0.5309	110.6	28120	4.35	334	4.1970	2668	4.35	413	9.5
PFTeDA 1	µg/L	20.000	0.4949	103.1	23058	4.58	561	3.4415	1689	4.58	570	7.3
PFBS 1	µg/L	20.000	0.5035	104.9	18965	1.40	723	4.1544	7399	1.40	668	39.0
PFHxS 1	µg/L	20.000	0.5212	108.6	11187	2.07	604	4.7788	5236	2.07	612	46.8
PFOS 1	µg/L	20.000	0.5535	115.3	10540	2.89	192	4.4400	5248	2.89	541	49.8
MeFOSA 1	µg/L	20.000	0.5130	106.9	3702	5.23	106	2.1191	3024	5.23	374	81.7
EtFOSA 1	µg/L	20.000	0.5305	110.5	3413	5.36	846	1.7530	3435	5.36	26167	100.6
13C2-PFHxA	µg/L	100.000	109.1362	109.1	13570	1.72	625		--	--	--	--
13C4-PFHpA	µg/L	100.000	112.6360	112.6	11695	2.16	1053		--	--	--	--
13C4-PFOA	µg/L	100.000	114.1325	114.1	12873	2.63	800		--	--	--	--
13C5-PFNA	µg/L	100.000	114.4908	114.5	10129	3.07	909		--	--	--	--
13C2-PFDA	µg/L	100.000	111.6771	111.7	8703	3.45	484		--	--	--	--
13C2-PFUnA	µg/L	100.000	108.4030	108.4	9211	3.78	627		--	--	--	--
13C2-PFDoA	µg/L	100.000	103.4817	103.5	9392	4.09	484		--	--	--	--
13C2-PFTeDA	µg/L	100.000	93.3928	93.4	6700	4.58	623		--	--	--	--
13C3-PFBS	µg/L	100.000	107.0842	107.1	4565	1.39	281		--	--	--	--
18O2-PFHxS	µg/L	100.000	113.7512	113.8	2341	2.12	849		--	--	--	--
13C4-PFOS	µg/L	100.000	112.5652	112.6	2374	2.93	505		--	--	--	--
D3-MeFOSA	µg/L	100.000	62.7965	62.8	1747	5.23	75		--	--	--	--
D5-EtFOSA	µg/L	100.000	58.5212	58.5	1947	5.36	64		--	--	--	--

PFHxA 1





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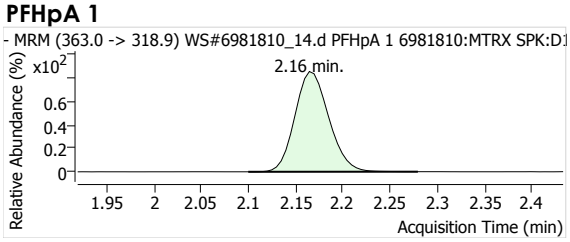

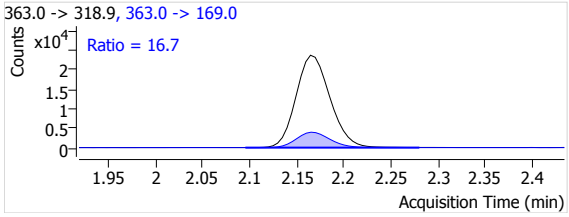

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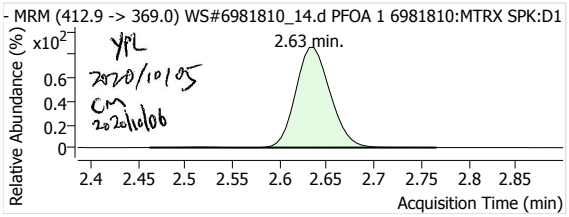

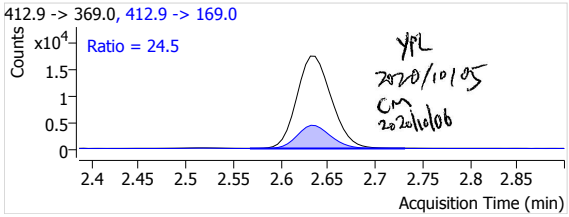

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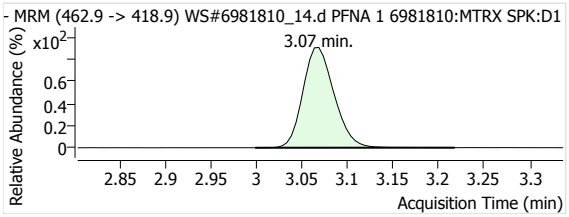

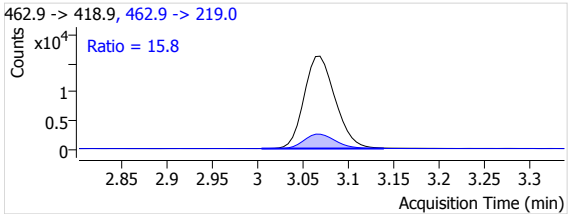

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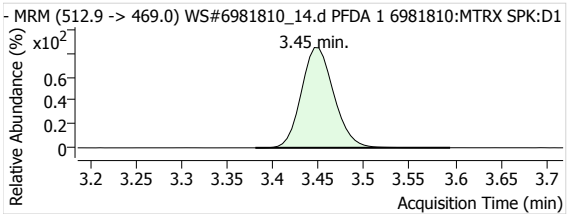

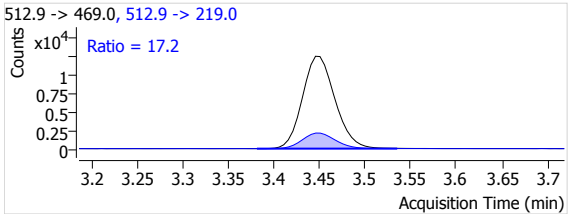

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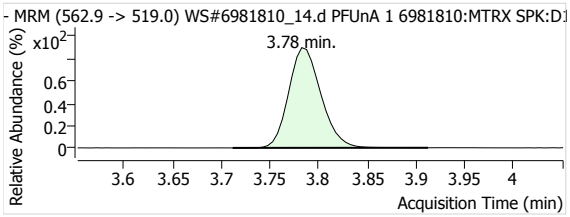

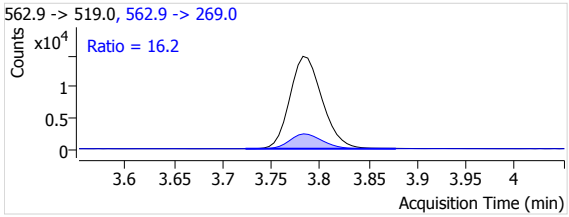

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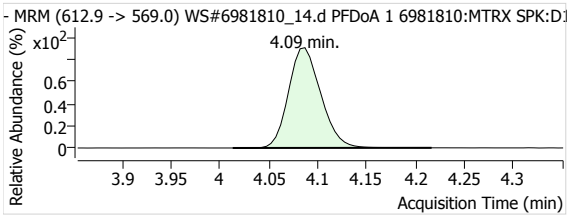

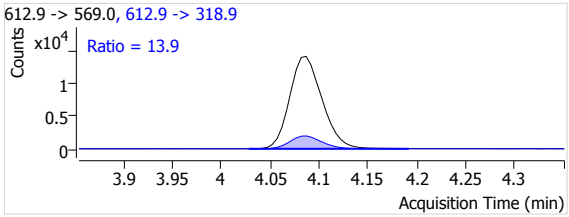

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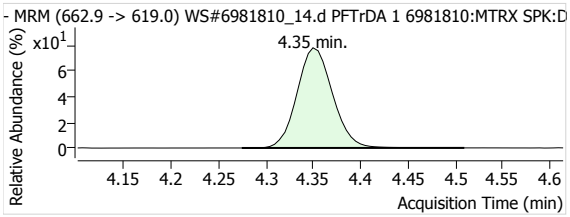

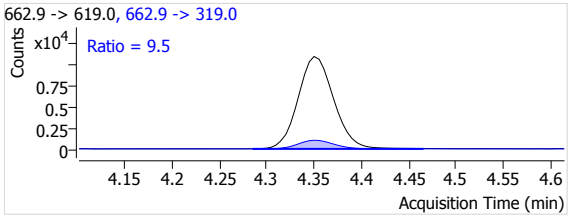

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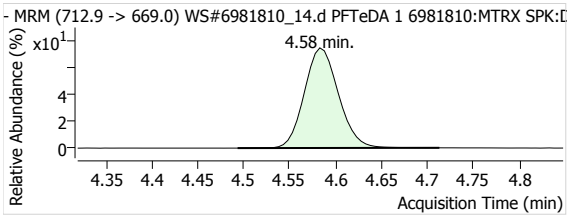

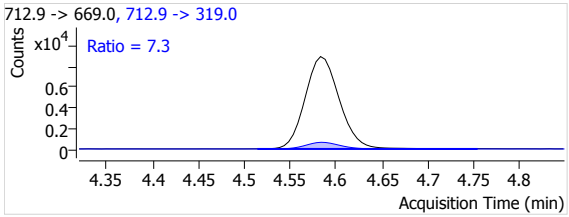

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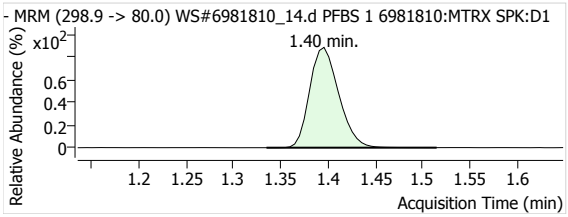

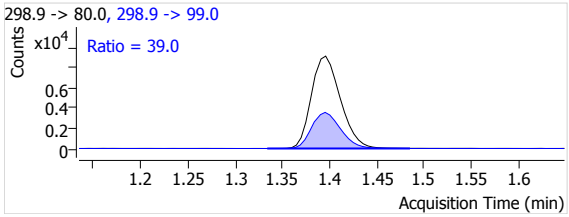

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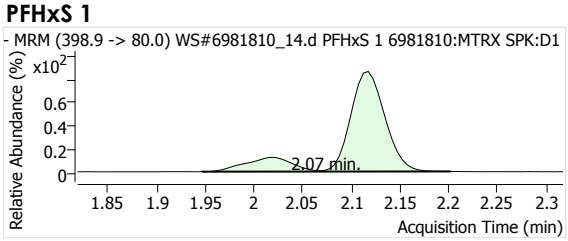

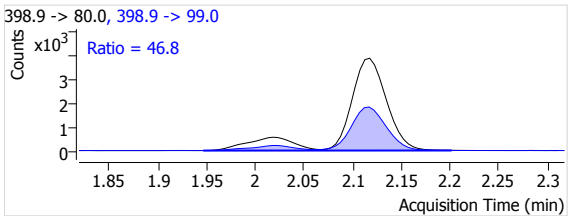

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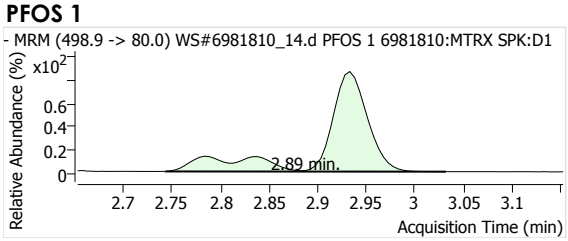
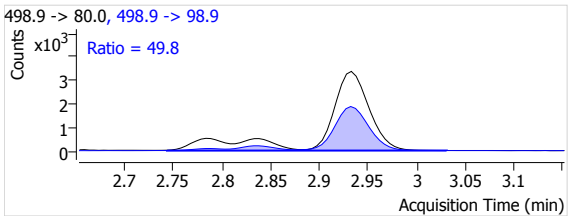
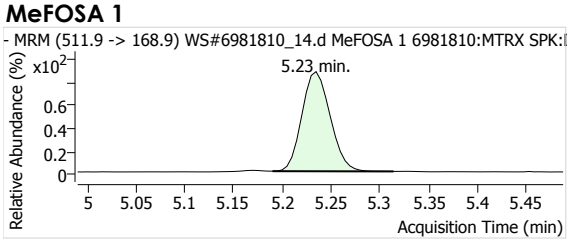
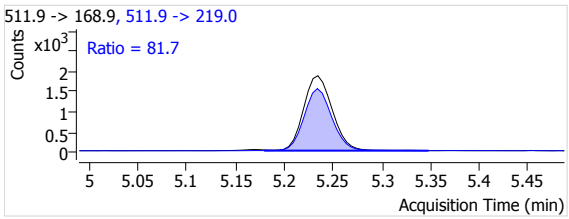




MeFOSA 1





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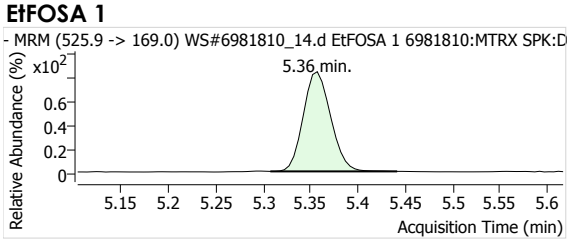

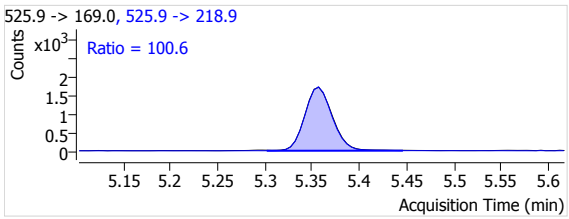

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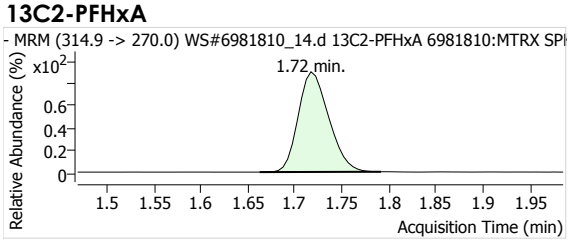

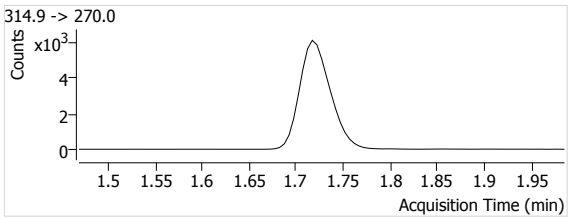

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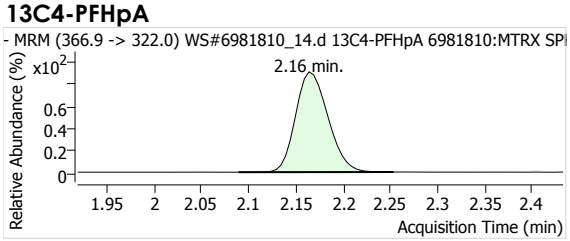

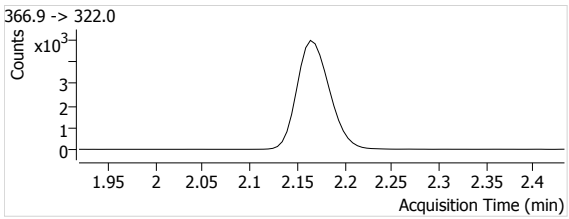

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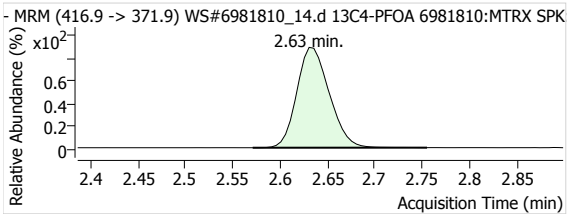

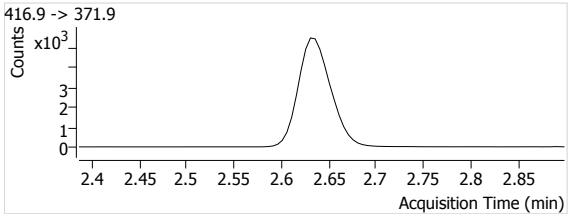

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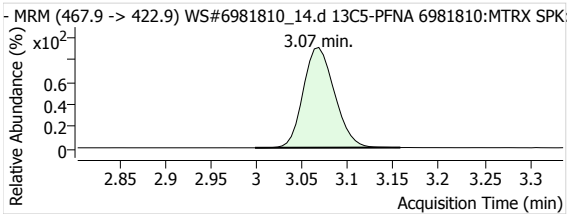

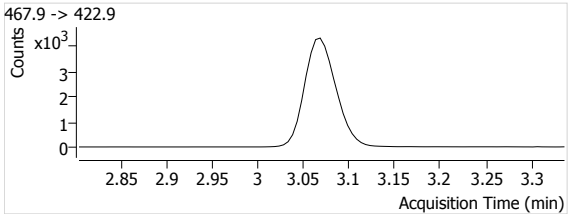

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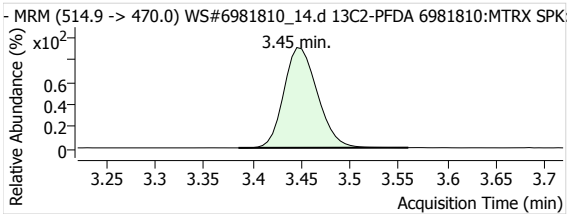

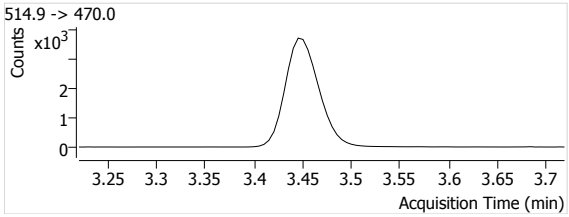

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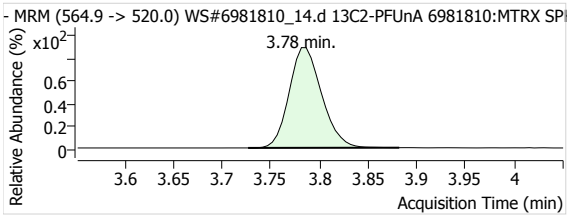

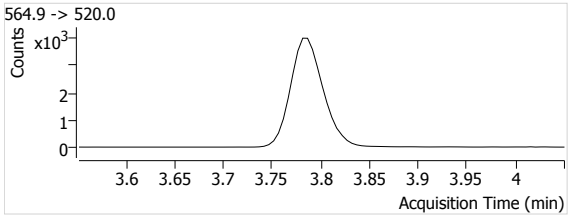

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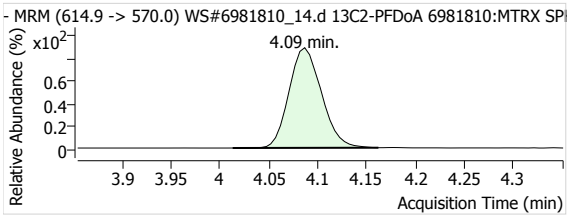

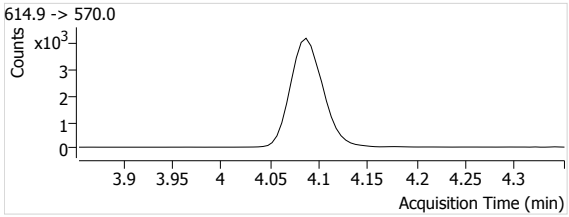

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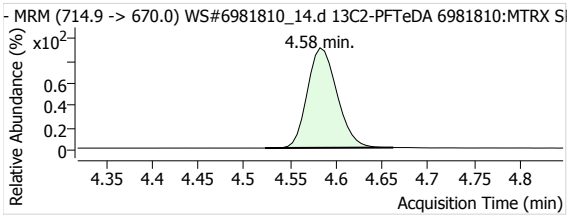

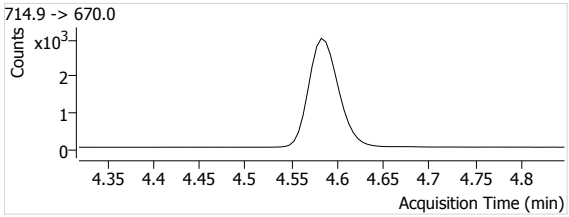

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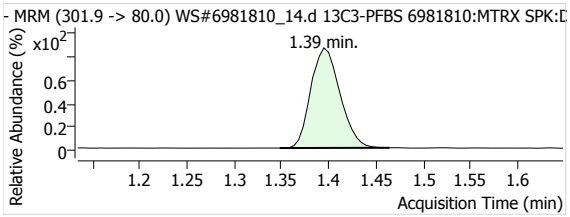

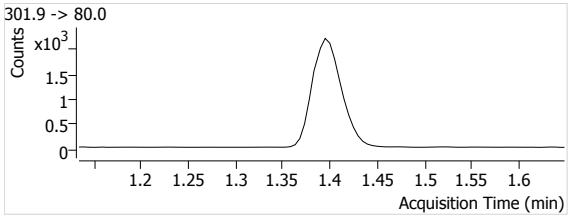

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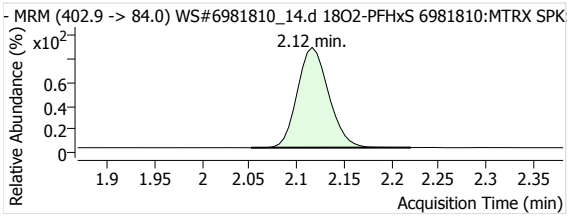

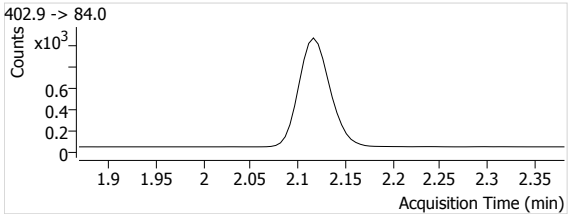

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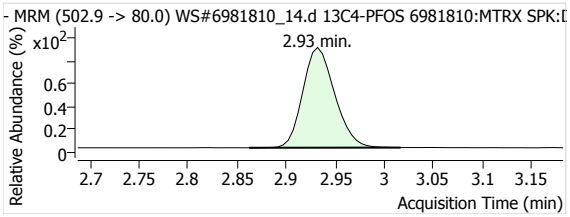
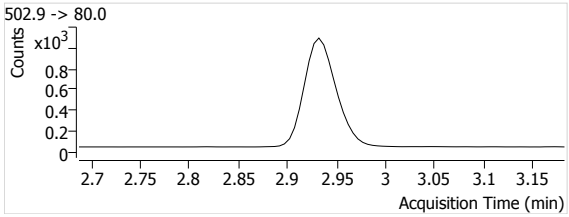
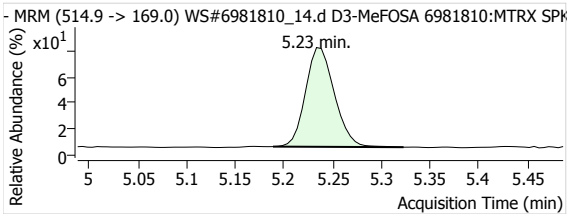
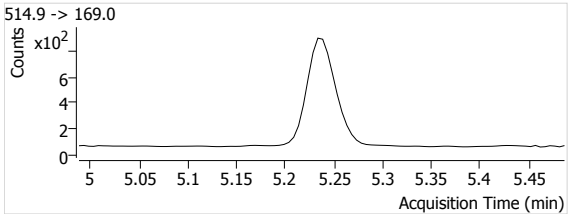


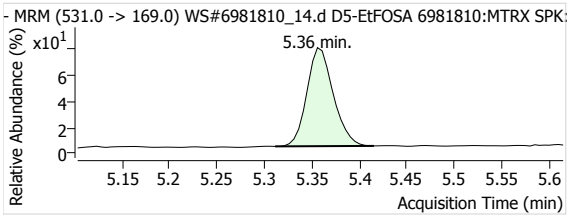


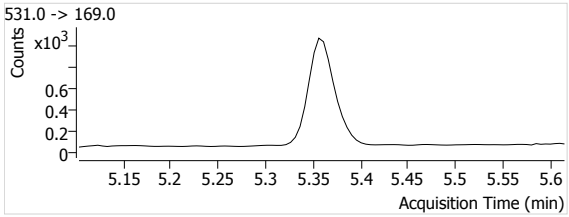
D3-MeFOSA





D5-EtFOSA





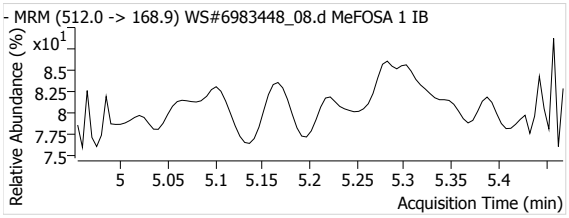
Quantitative Analysis Report

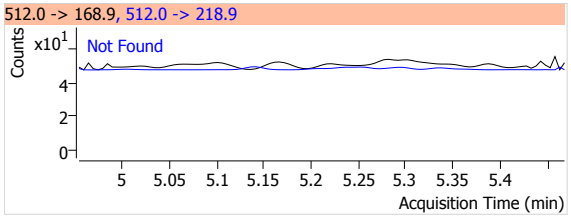
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	IB	**Data File**	WS#6983448_08.d
Type	Sample	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E7
Acq. Date-Time	2020/10/06 1:15:10 PM	**Dil.**	0.0
Comment	-		
User Defined			

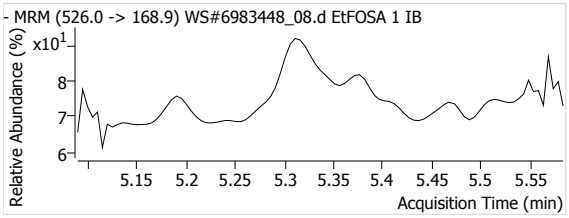
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
D3-MeFOSA	µg/L	--	97.9029	--	5929	5.22	83		--	--	--	--
D5-EtFOSA	µg/L	--	101.8557	--	5324	5.35	137		--	--	--	--

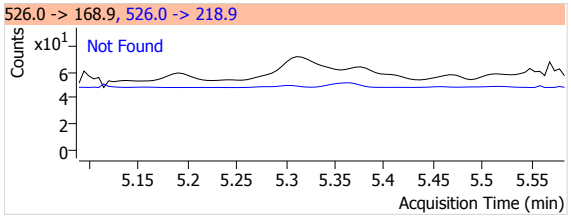
MeFOSA 1



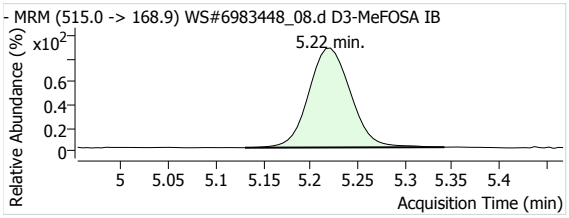


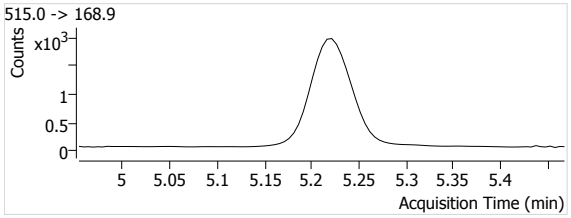
EtFOSA 1



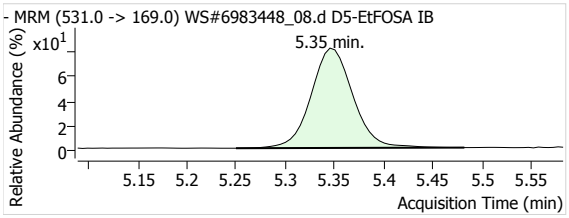


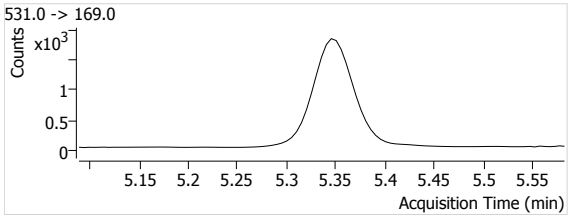
D3-MeFOSA





D5-EtFOSA





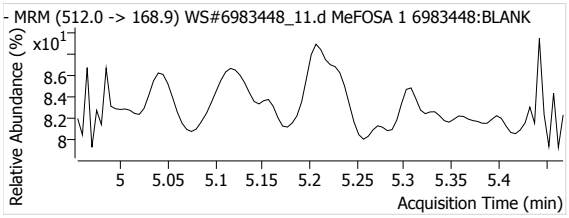
Quantitative Analysis Report

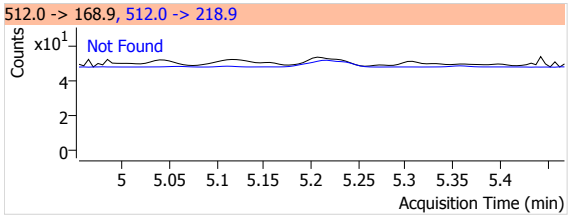
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	6983448:BLANK	**Data File**	WS#6983448_11.d
Type	Sample	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E9
Acq. Date-Time	2020/10/06 1:35:57 PM	**Dil.**	0.0
Comment	-		
User Defined			

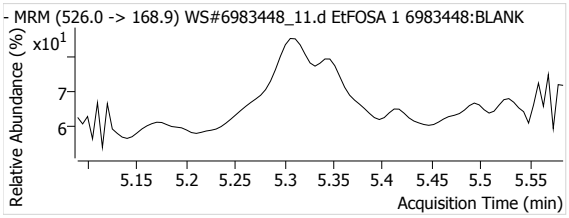
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
D3-MeFOSA	µg/L	--	46.8956	--	2840	5.22	54		--	--	--	--
D5-EtFOSA	µg/L	--	48.0582	--	2512	5.35	44		--	--	--	--

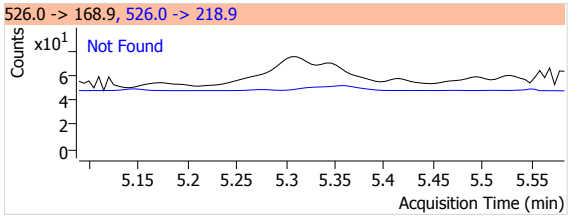
MeFOSA 1



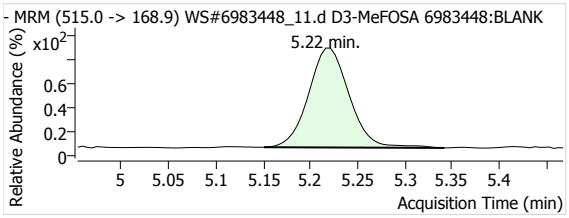


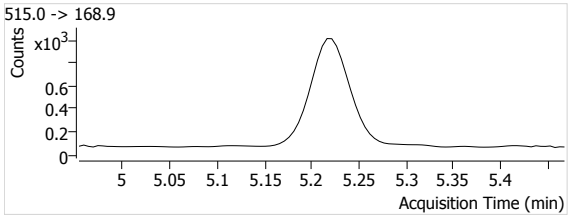
EtFOSA 1



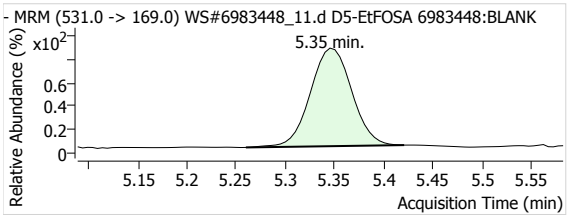


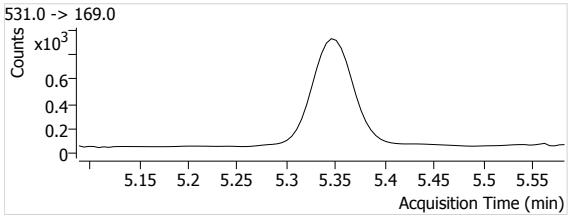
D3-MeFOSA





D5-EtFOSA





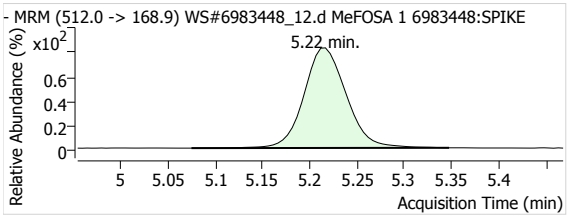
Quantitative Analysis Report

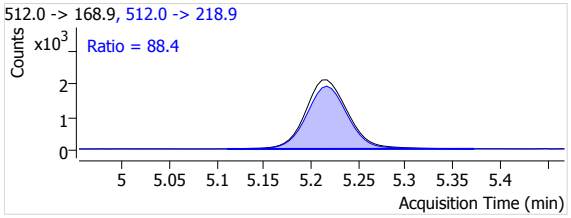
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	6983448:SPIKE	**Data File**	WS#6983448_12.d
Type	QC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-F1
Acq. Date-Time	2020/10/06 1:42:54 PM	**Dil.**	0.0
Comment	-		
User Defined			

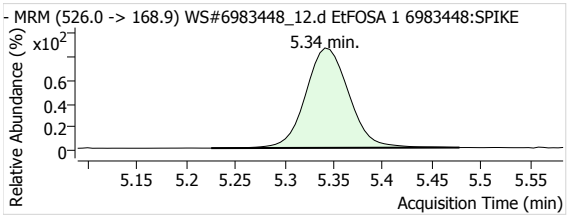
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	20.000	0.5004	104.2	6478	5.22	339	1.6696	5724	5.22	451	88.4
EtFOSA 1	µg/L	20.000	0.4836	100.7	6713	5.34	135	1.8867	6099	5.34	389	90.9
D3-MeFOSA	µg/L	100.000	64.0687	64.1	3880	5.22	51		--	--	--	--
D5-EtFOSA	µg/L	100.000	68.0696	68.1	3558	5.35	83		--	--	--	--

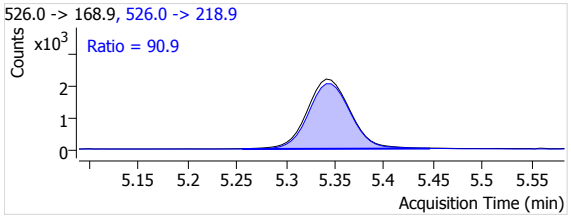
MeFOSA 1



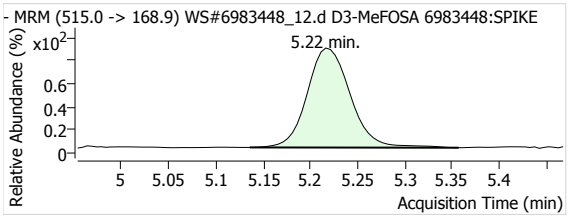


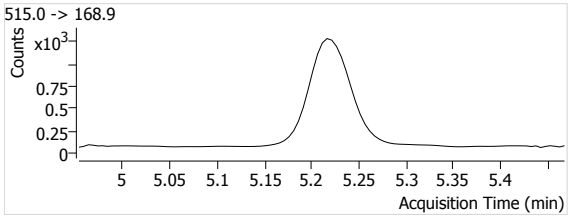
EtFOSA 1



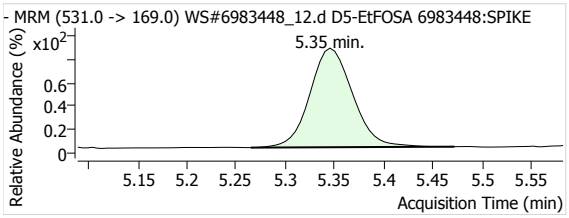


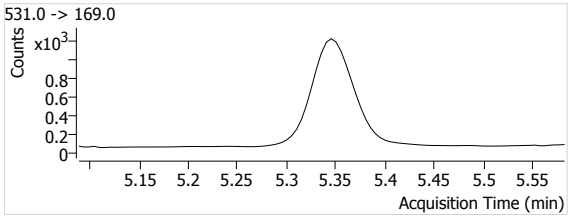
D3-MeFOSA





D5-EtFOSA





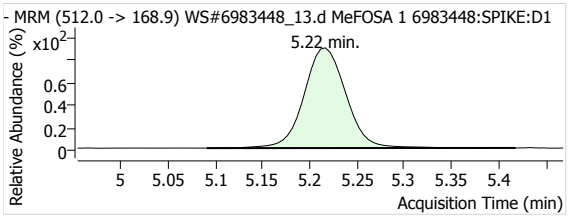
Quantitative Analysis Report

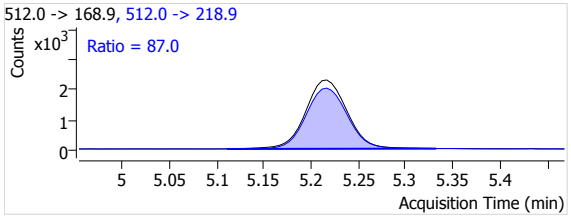
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	6983448:SPIKE:D1	**Data File**	WS#6983448_13.d
Type	QC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-F2
Acq. Date-Time	2020/10/06 1:49:50 PM	**Dil.**	0.0
Comment	-		
User Defined			

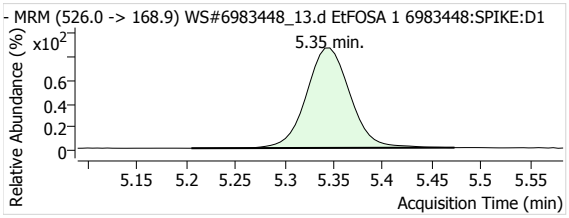
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	20.000	0.5192	108.2	7063	5.22	309	1.7324	6142	5.22	401	87.0
EtFOSA 1	µg/L	20.000	0.5110	106.5	7605	5.35	236	1.9929	6881	5.35	575	90.5
D3-MeFOSA	µg/L	100.000	67.3217	67.3	4077	5.22	77		--	--	--	--
D5-EtFOSA	µg/L	100.000	73.0055	73.0	3816	5.35	51		--	--	--	--

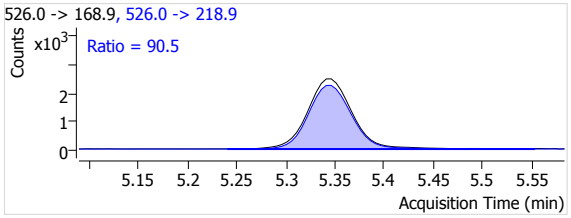
MeFOSA 1



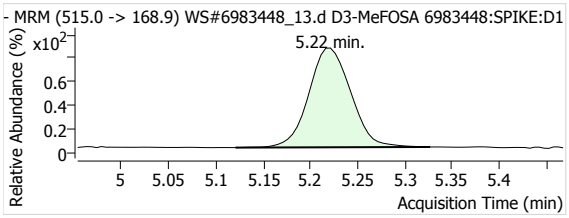


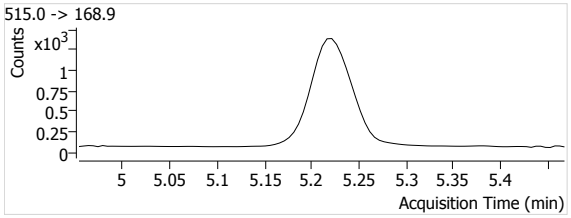
EtFOSA 1



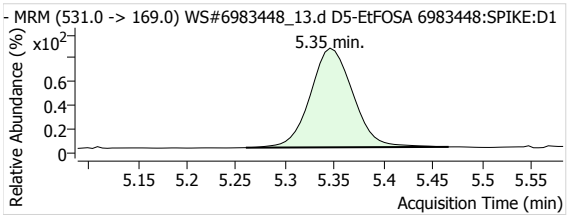


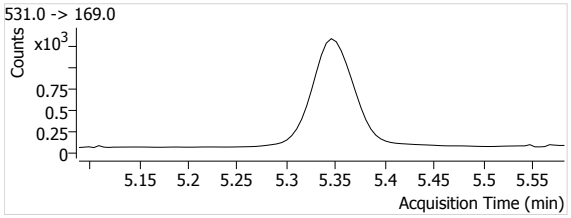
D3-MeFOSA





D5-EtFOSA





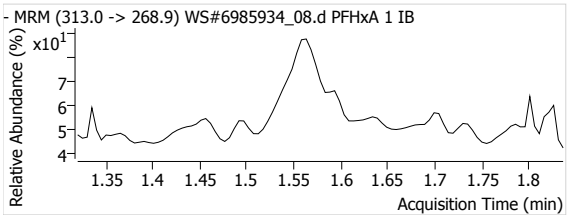
Quantitative Analysis Report

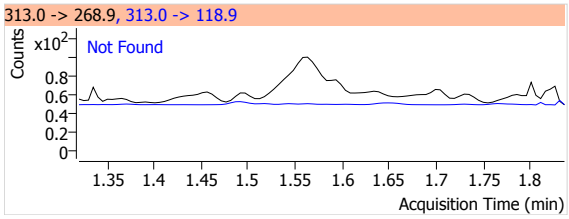
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	IB	**Data File**	WS#6985934_08.d
Type	Sample	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A8
Acq. Date-Time	2020/10/07 2:02:42 PM	**Dil.**	0.0
Comment	-		
User Defined			

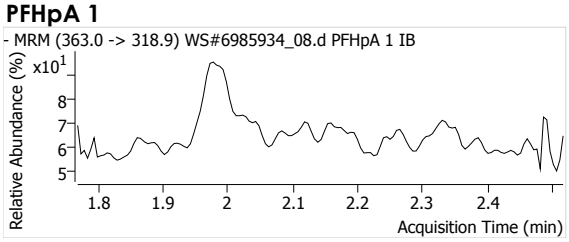
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	0.0011	--	311	4.48	6	0.0112	18	4.47	4	5.8
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	107.4967	--	15558	1.56	705		--	--	--	--
13C4-PFHpA	µg/L	--	105.7733	--	21747	1.98	2262		--	--	--	--
13C4-PFOA	µg/L	--	105.7645	--	19210	2.44	2729		--	--	--	--
13C5-PFNA	µg/L	--	104.5325	--	17989	2.89	1280		--	--	--	--
13C2-PFDA	µg/L	--	96.0663	--	13212	3.29	136		--	--	--	--
13C2-PFUnA	µg/L	--	104.0163	--	16886	3.64	1033		--	--	--	--
13C2-PFDoA	µg/L	--	106.2136	--	20803	3.95	1489		--	--	--	--
13C2-PFTeDA	µg/L	--	103.2182	--	27679	4.47	1993		--	--	--	--
13C3-PFBS	µg/L	--	102.8093	--	3440	1.27	257		--	--	--	--
18O2-PFHxS	µg/L	--	100.8003	--	2645	1.97	299		--	--	--	--
13C4-PFOS	µg/L	--	104.0385	--	2705	2.80	362		--	--	--	--
D3-MeFOSA	µg/L	--	101.6296	--	6299	5.20	105		--	--	--	--
D5-EtFOSA	µg/L	--	101.4846	--	5537	5.33	125		--	--	--	--

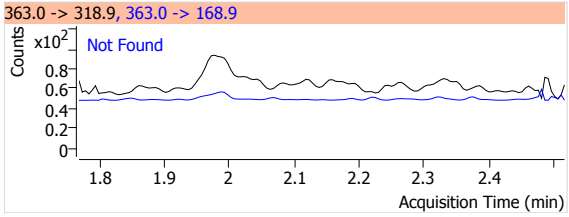
PFHxA 1





PFHpA 1





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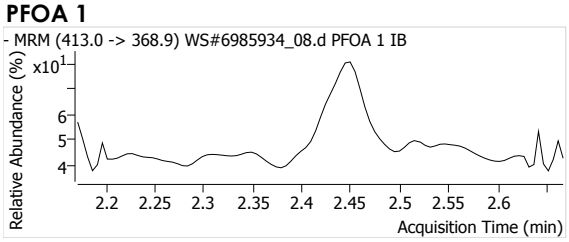

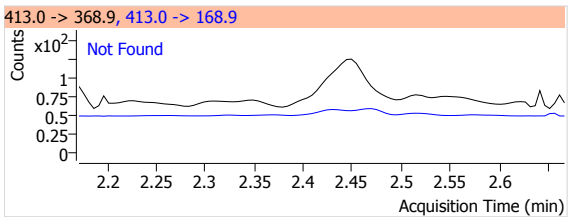

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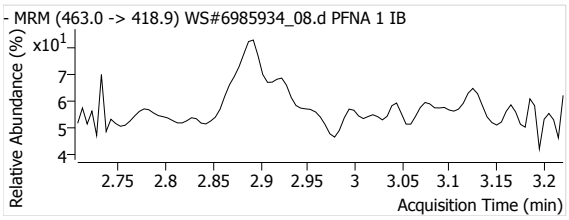

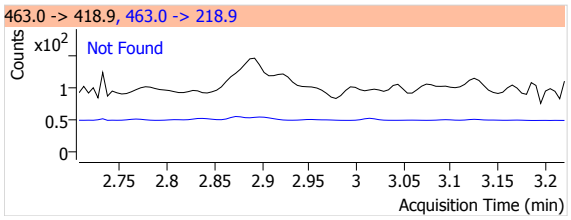

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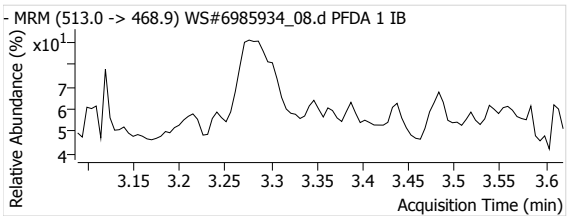

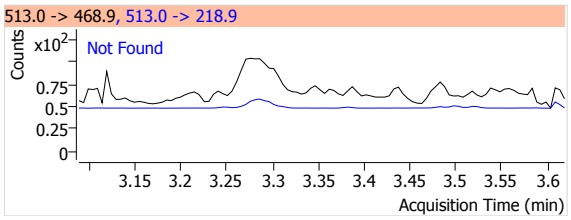

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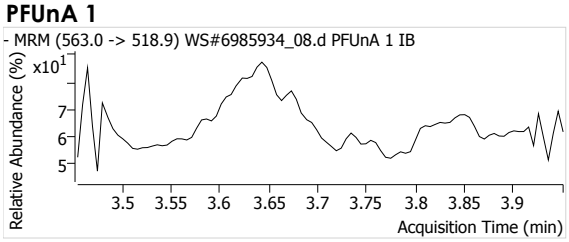

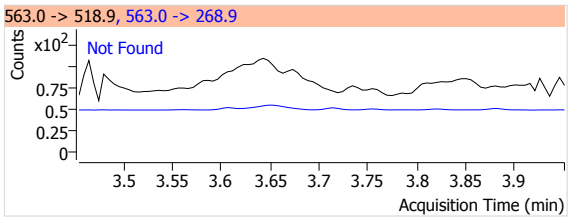

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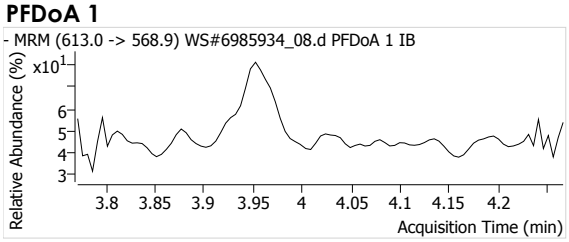

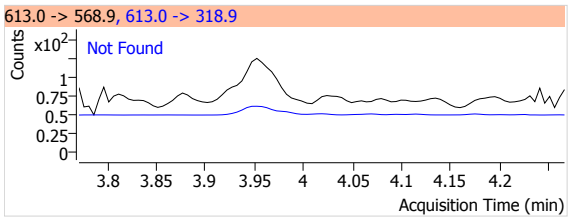

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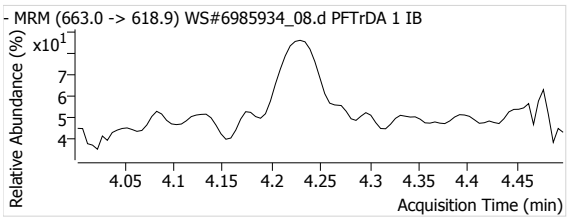

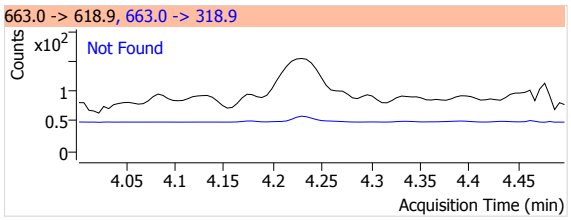

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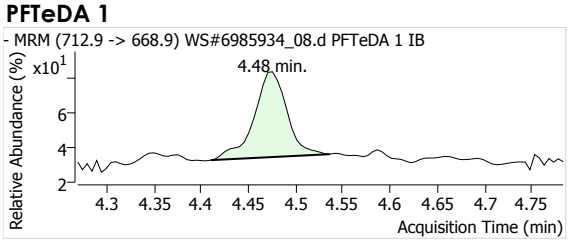

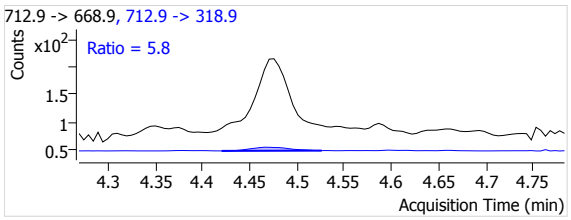

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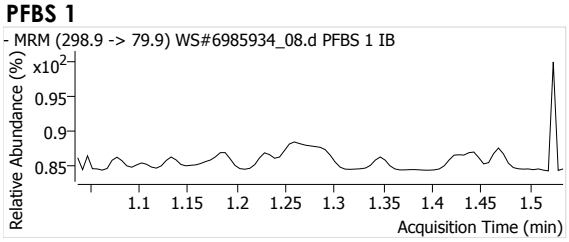

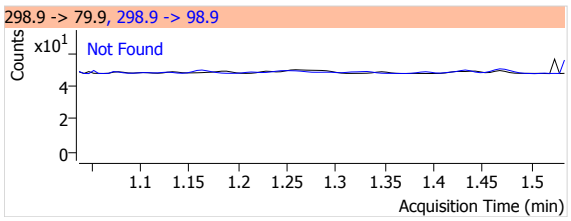

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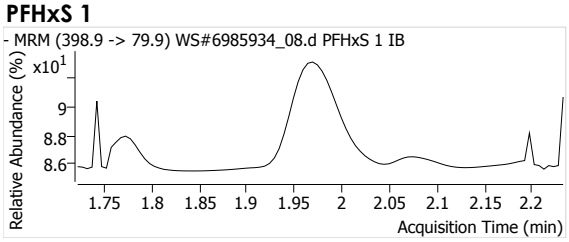

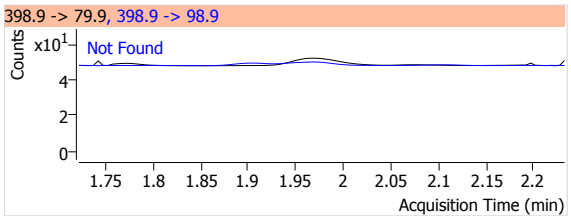

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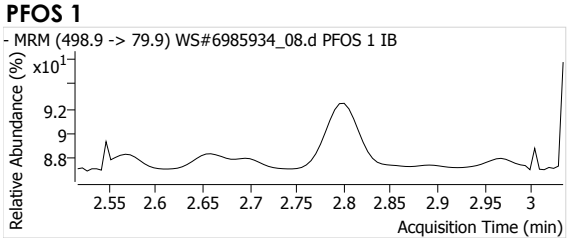

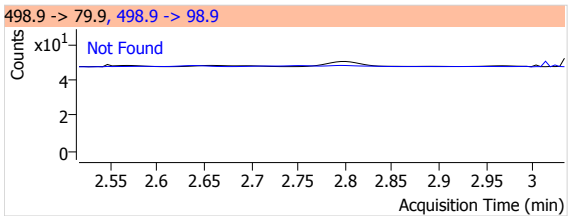

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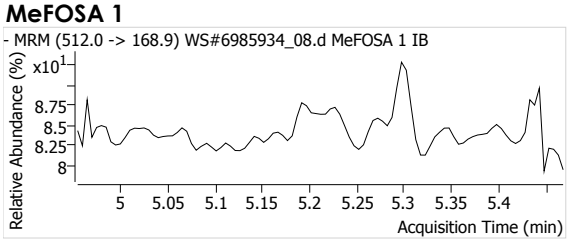

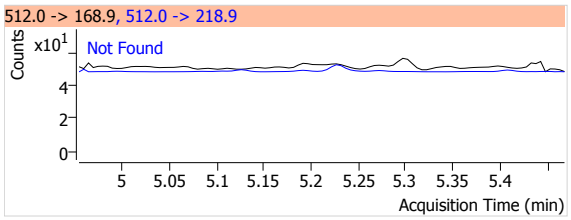

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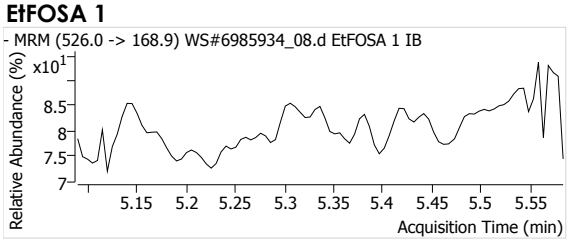

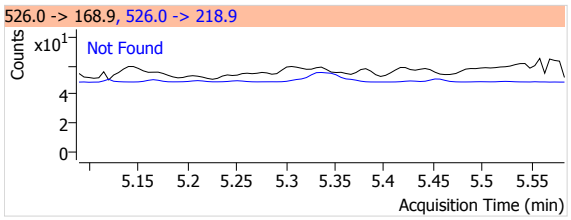

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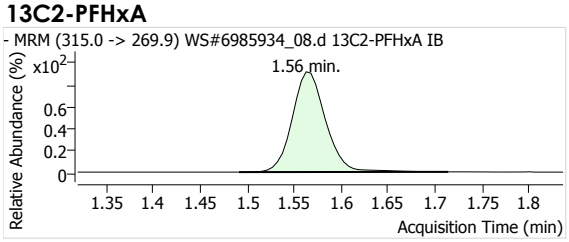

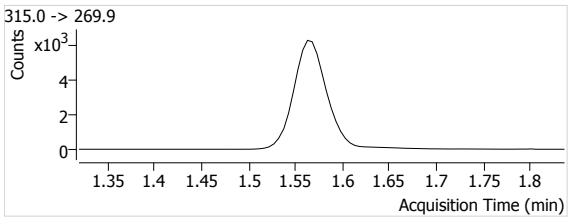

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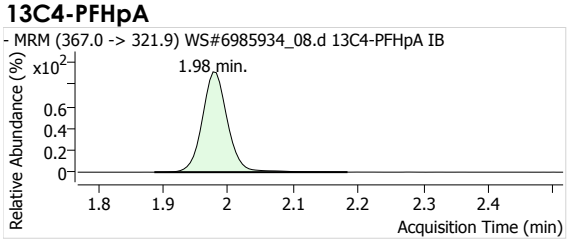

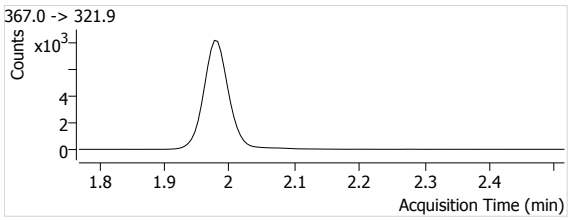

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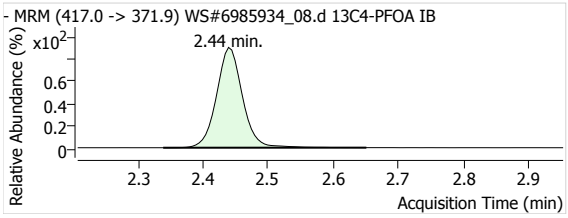

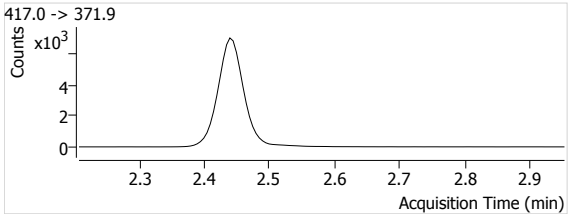

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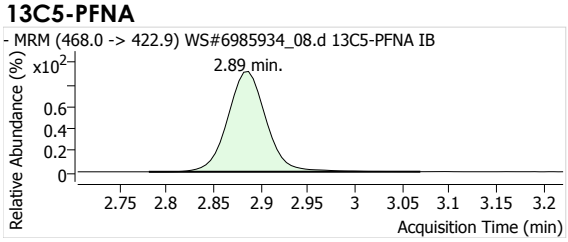

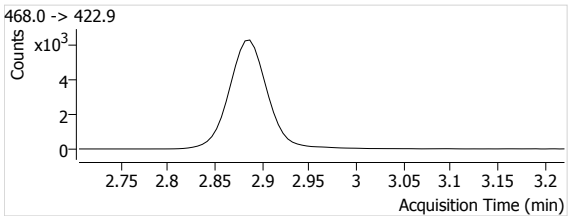

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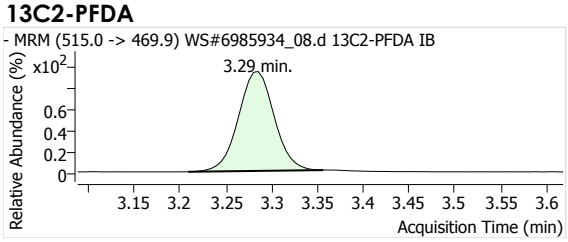

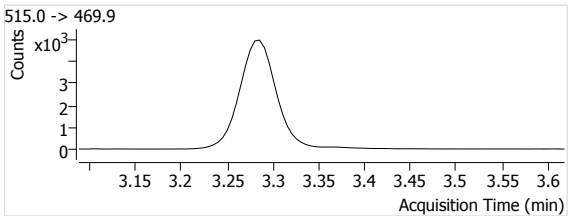

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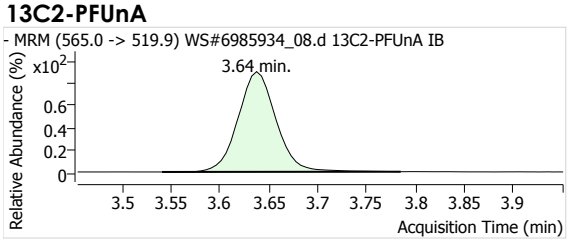

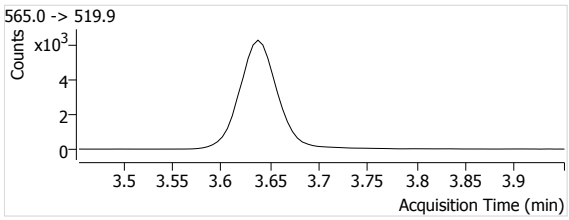

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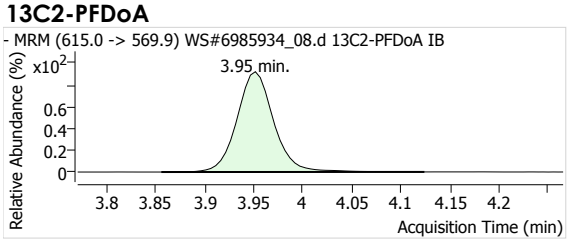

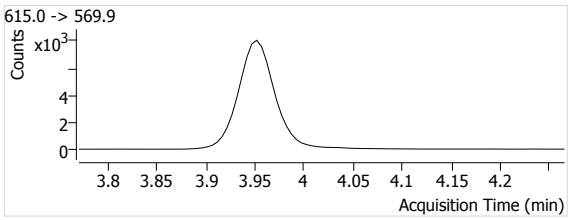

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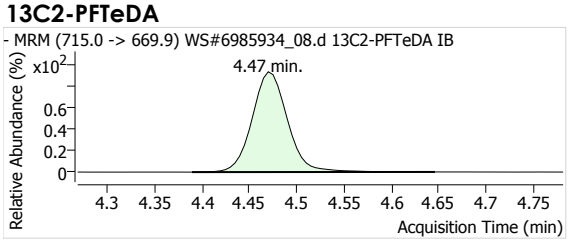

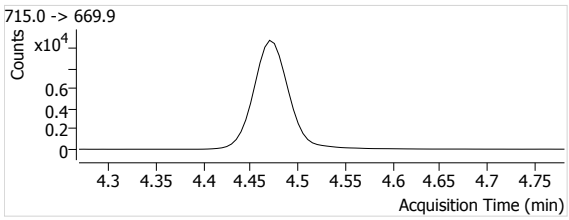

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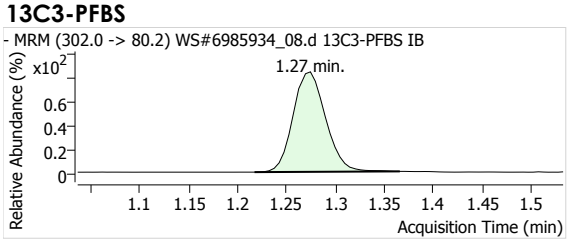

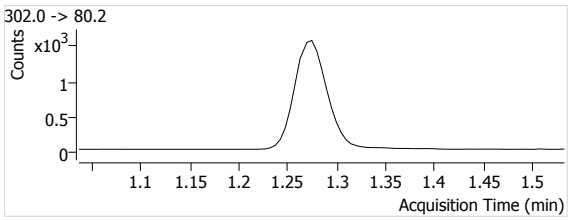

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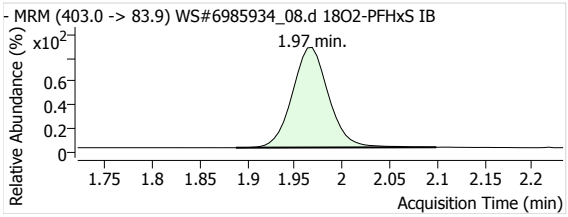

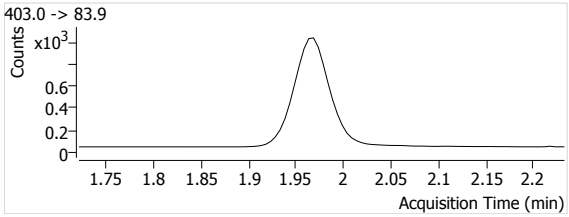

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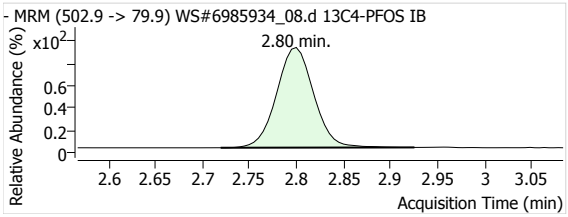

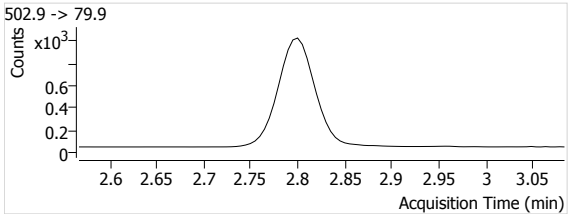

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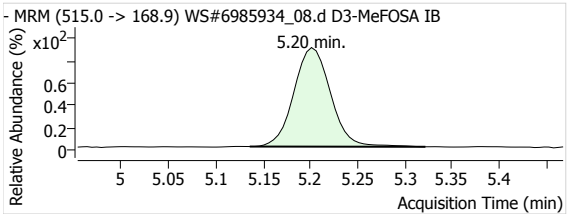

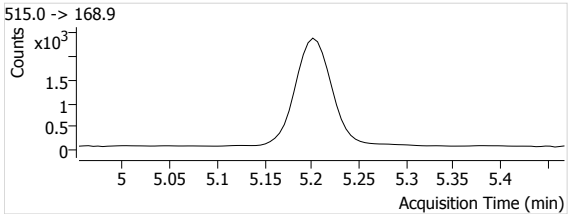

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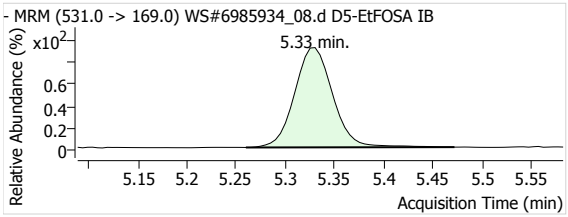

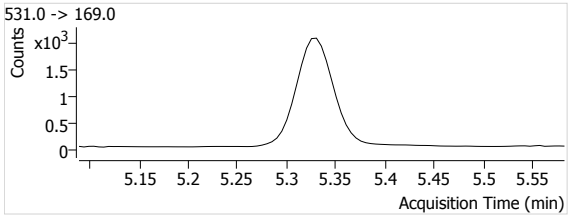

Quantitative Analysis Report

Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

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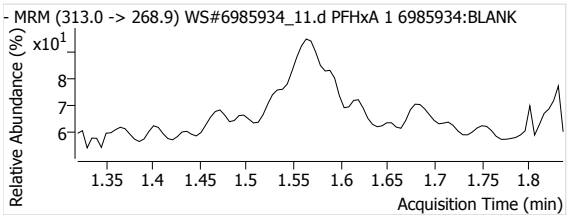
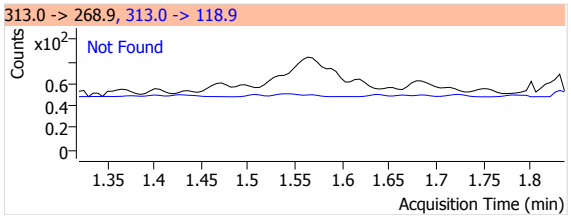
Type	Sample	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-B1
Acq. Date-Time	2020/10/07 2:23:32 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHpA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFNA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFUnA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFDoA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTrDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFTeDA 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFBS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFHxS 1	µg/L	--	--	--	--	--	--		--	--	--	--
PFOS 1	µg/L	--	--	--	--	--	--		--	--	--	--
MeFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
EtFOSA 1	µg/L	--	--	--	--	--	--		--	--	--	--
13C2-PFHxA	µg/L	--	92.9386	--	13451	1.56	165		--	--	--	--
13C4-PFHpA	µg/L	--	93.9786	--	19322	1.98	1156		--	--	--	--
13C4-PFOA	µg/L	--	97.4013	--	17691	2.44	997		--	--	--	--
13C5-PFNA	µg/L	--	92.8584	--	15980	2.88	327		--	--	--	--
13C2-PFDA	µg/L	--	90.5475	--	12453	3.28	437		--	--	--	--
13C2-PFUnA	µg/L	--	87.4584	--	14198	3.64	535		--	--	--	--
13C2-PFDoA	µg/L	--	84.3051	--	16512	3.95	534		--	--	--	--
13C2-PFTeDA	µg/L	--	79.5010	--	21319	4.47	1339		--	--	--	--
13C3-PFBS	µg/L	--	91.8111	--	3072	1.27	254		--	--	--	--
18O2-PFHxS	µg/L	--	88.3384	--	2318	1.97	351		--	--	--	--
13C4-PFOS	µg/L	--	93.0385	--	2419	2.79	259		--	--	--	--
D3-MeFOSA	µg/L	--	65.5373	--	4062	5.20	59		--	--	--	--
D5-EtFOSA	µg/L	--	67.3754	--	3676	5.33	108		--	--	--	--

PFHxA 1





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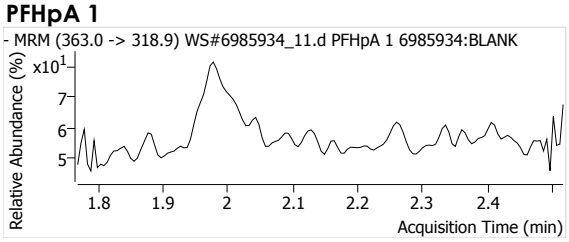

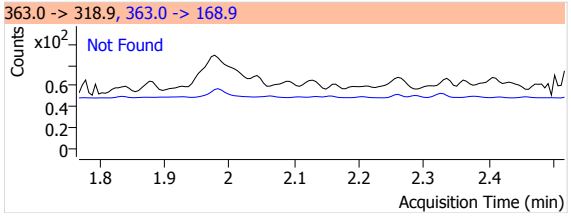

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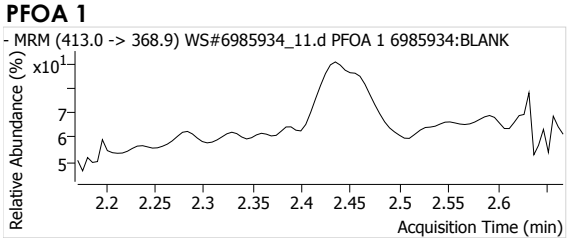

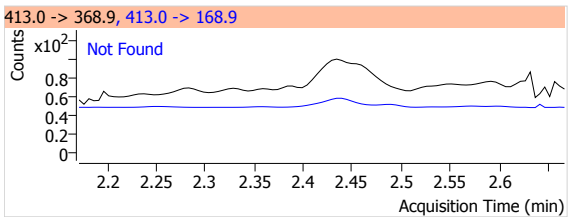

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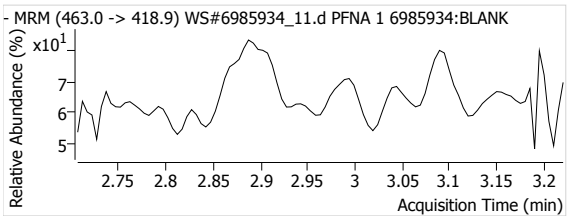

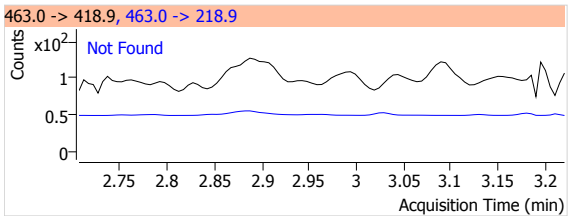

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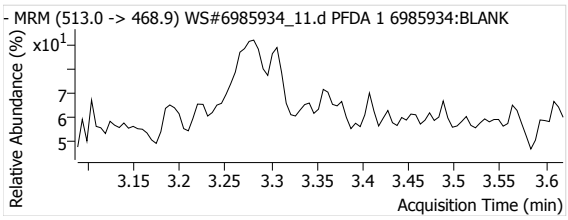

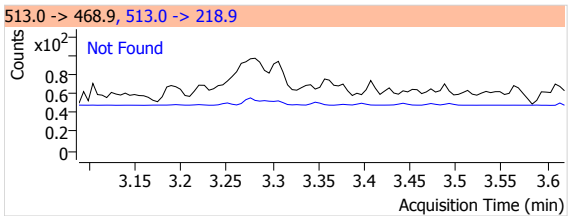

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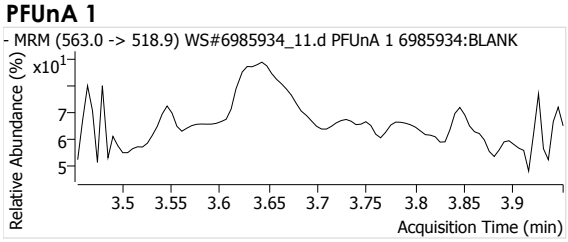

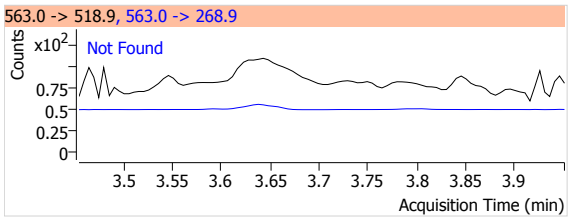

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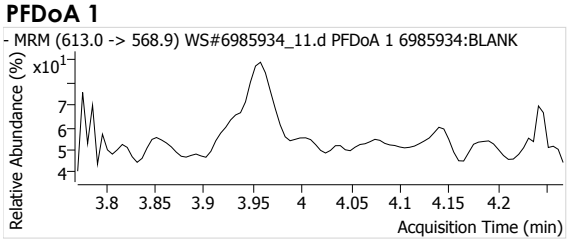

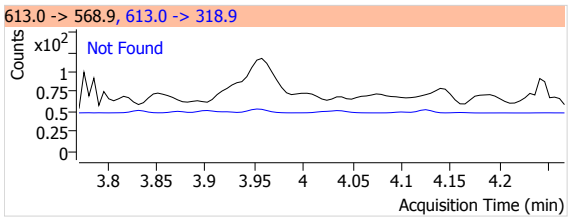

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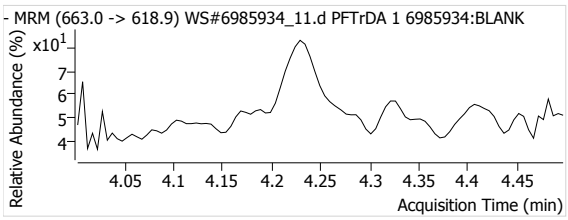

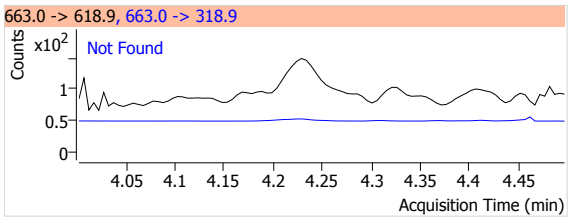

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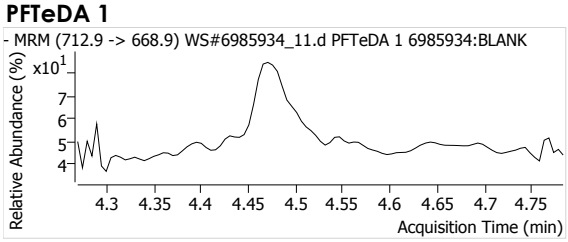

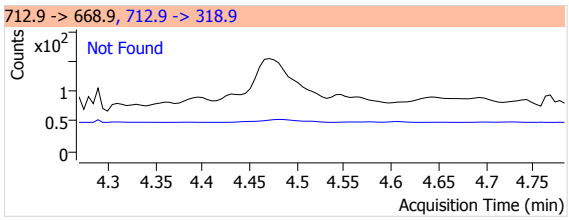

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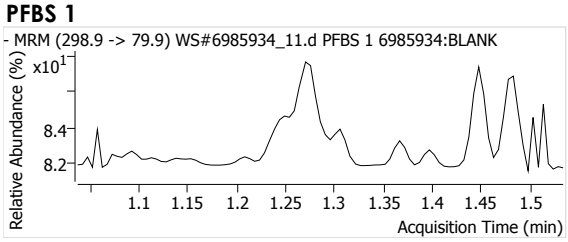

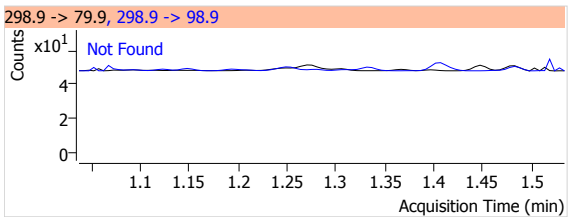

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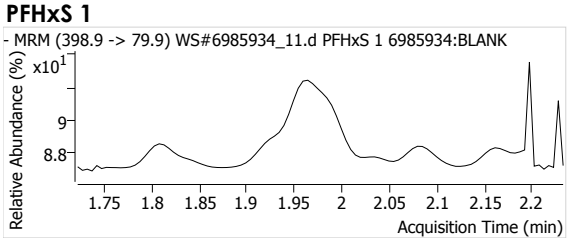

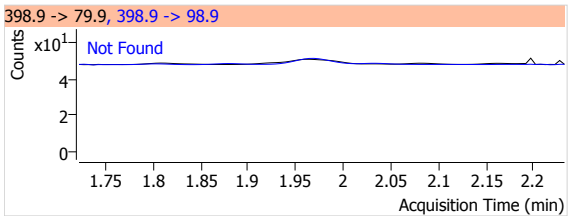

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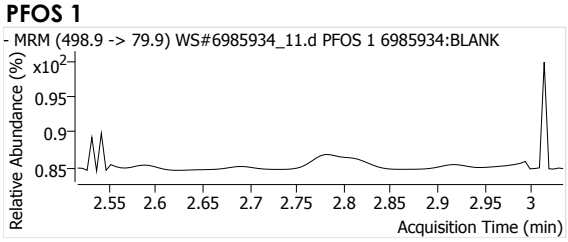

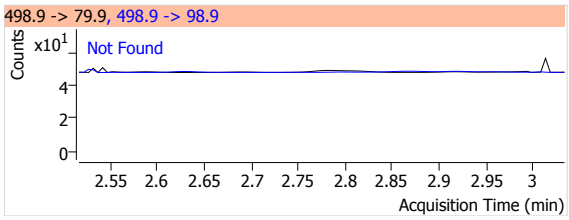

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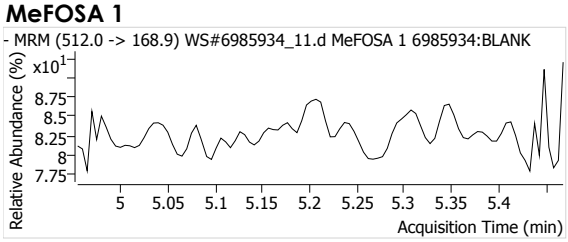

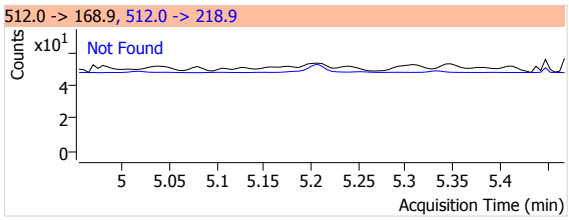

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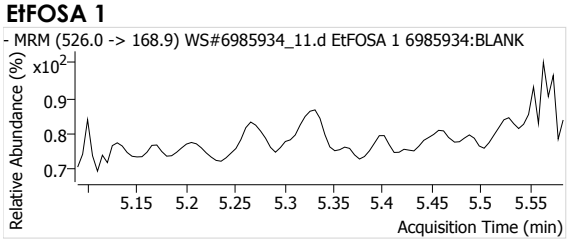

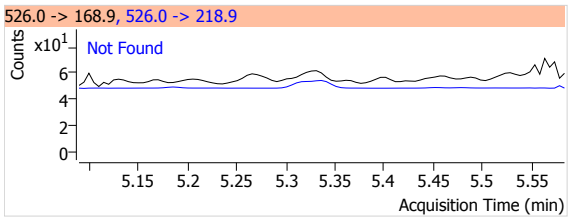

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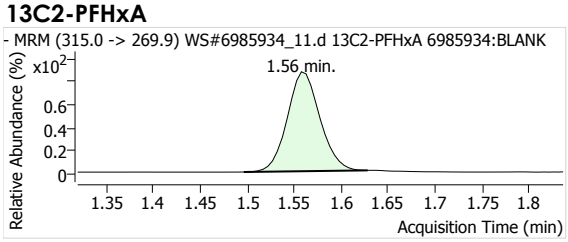

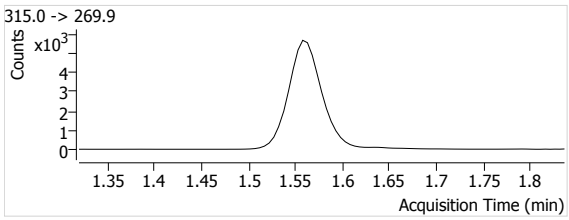

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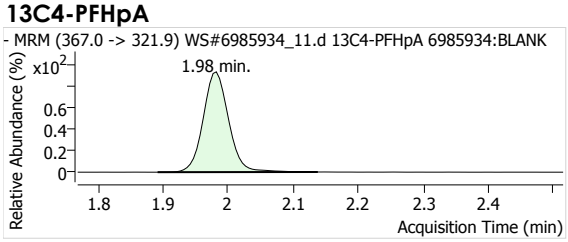

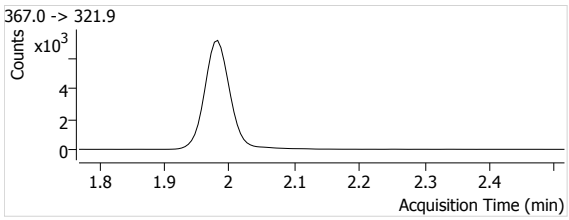

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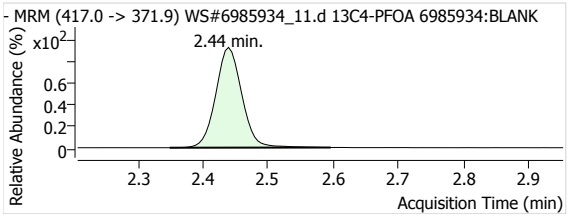

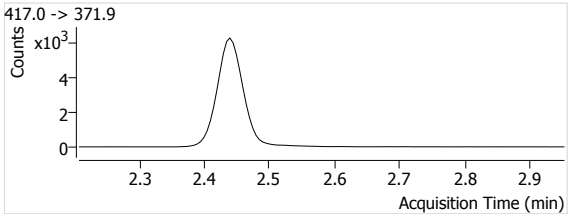

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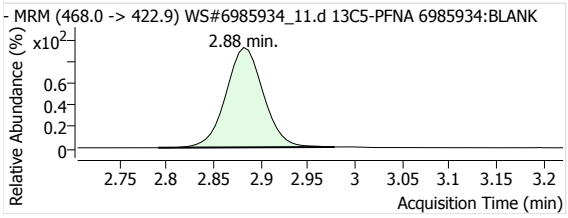

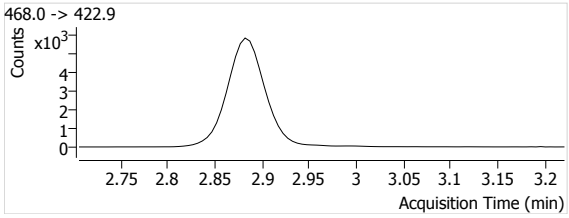

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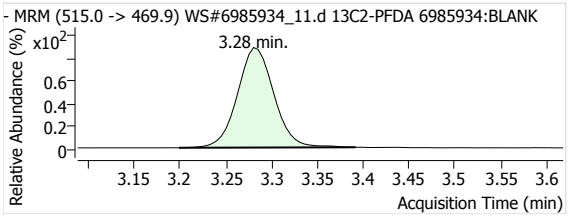

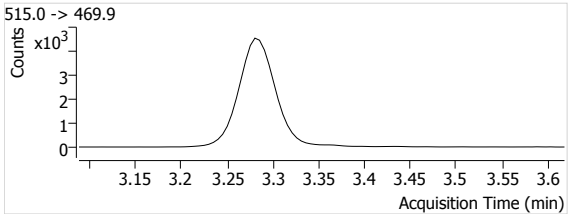

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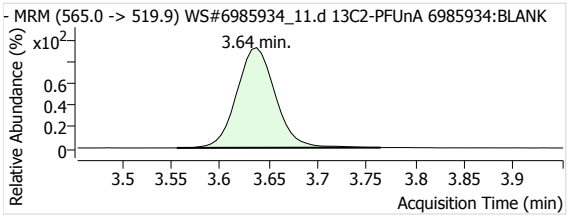

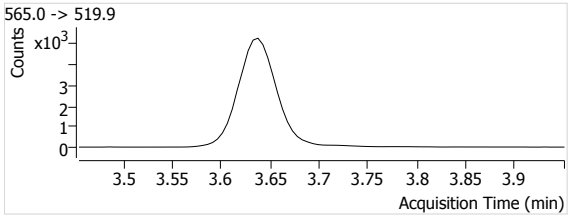

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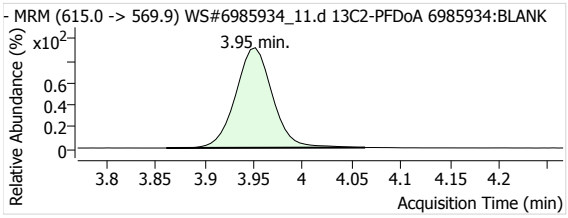

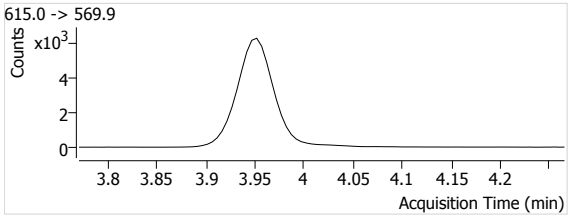

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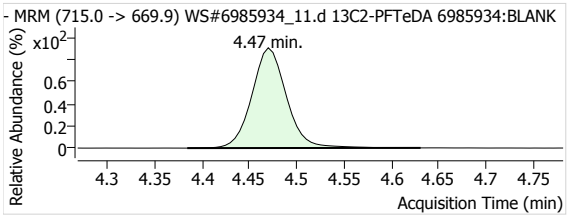

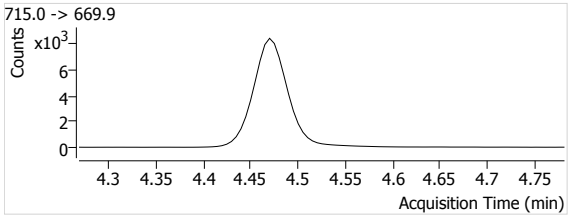

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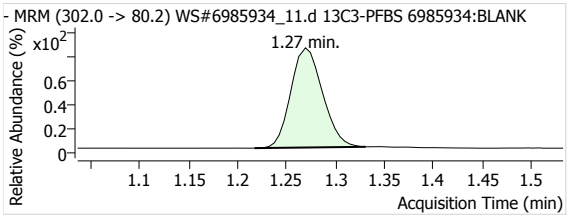

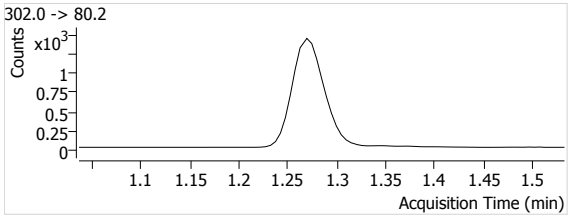

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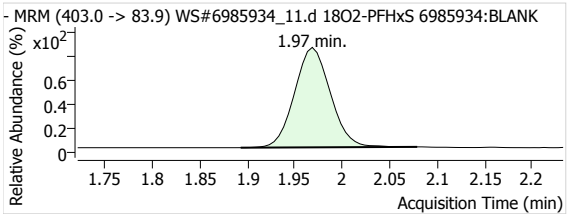

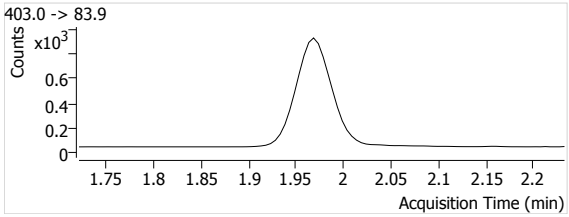

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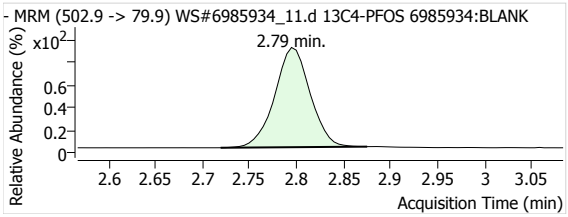

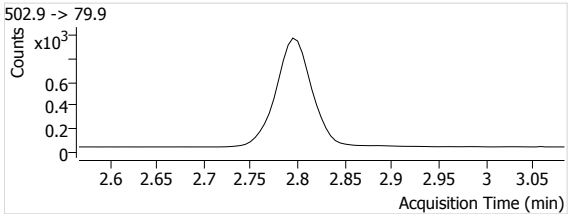

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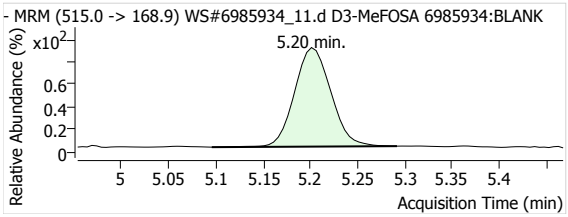

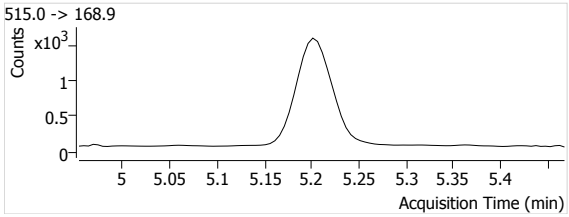

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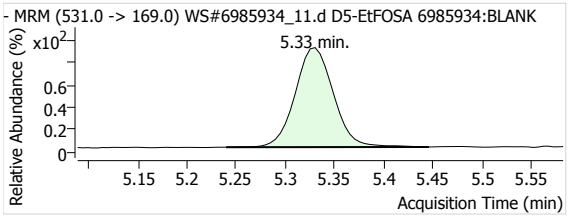
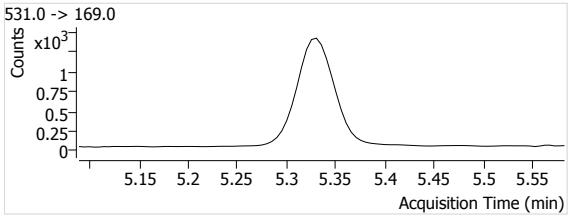




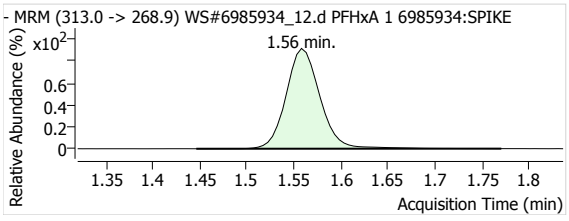
Quantitative Analysis Report

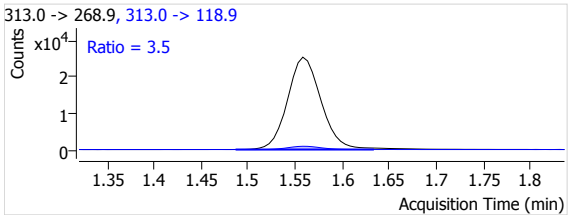
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	6985934:SPIKE	**Data File**	WS#6985934_12.d
Type	QC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-B2
Acq. Date-Time	2020/10/07 2:30:28 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.4337	90.3	63487	1.56	1128	4.4406	2227	1.56	156	3.5
PFHpA 1	µg/L	20.000	0.4395	91.6	74367	1.98	1020	3.8379	12886	1.98	729	17.3
PFOA 1	µg/L	20.000	0.4349	90.6	72787	2.44	1010	4.0566	15916	2.44	730	21.9
PFNA 1	µg/L	20.000	0.4317	89.9	61210	2.88	509	3.6372	11159	2.88	1410	18.2
PFDA 1	µg/L	20.000	0.4342	90.5	66124	3.28	1051	5.0612	9214	3.28	151	13.9
PFUnA 1	µg/L	20.000	0.4445	92.6	59648	3.64	559	4.0500	8229	3.64	799	13.8
PFDoA 1	µg/L	20.000	0.4252	88.6	64591	3.95	1004	3.6252	7689	3.95	635	11.9
PFTrDA 1	µg/L	20.000	0.4358	90.8	71321	4.22	566	3.0943	5664	4.22	260	7.9
PFTeDA 1	µg/L	20.000	0.4396	91.6	84108	4.47	1269	3.6491	4261	4.47	171	5.1
PFBS 1	µg/L	20.000	0.4344	90.5	13164	1.27	668	4.2004	5564	1.27	353	42.3
PFHxS 1	µg/L	20.000	0.4398	91.6	10226	1.94	96	4.3186	5288	1.94	143	51.7
PFOS 1	µg/L	20.000	0.4498	93.7	8836	2.75	61	3.7050	4511	2.75	183	51.1
MeFOSA 1	µg/L	20.000	0.4540	94.6	7126	5.20	333	1.5613	6258	5.20	308	87.8
EtFOSA 1	µg/L	20.000	0.4363	90.9	7545	5.33	304	1.8016	6936	5.33	641	91.9
13C2-PFHxA	µg/L	100.000	98.7839	98.8	14297	1.56	489		--	--	--	--
13C4-PFHpA	µg/L	100.000	94.2461	94.2	19377	1.98	1107		--	--	--	--
13C4-PFOA	µg/L	100.000	98.7887	98.8	17943	2.44	649		--	--	--	--
13C5-PFNA	µg/L	100.000	97.7919	97.8	16829	2.88	1019		--	--	--	--
13C2-PFDA	µg/L	100.000	94.9975	95.0	13065	3.29	401		--	--	--	--
13C2-PFUnA	µg/L	100.000	90.7232	90.7	14728	3.64	494		--	--	--	--
13C2-PFDoA	µg/L	100.000	90.9680	91.0	17817	3.95	623		--	--	--	--
13C2-PFTeDA	µg/L	100.000	85.9524	86.0	23049	4.47	885		--	--	--	--
13C3-PFBS	µg/L	100.000	93.6641	93.7	3134	1.27	534		--	--	--	--
18O2-PFHxS	µg/L	100.000	90.2439	90.2	2368	1.96	191		--	--	--	--
13C4-PFOS	µg/L	100.000	91.7308	91.7	2385	2.80	156		--	--	--	--
D3-MeFOSA	µg/L	100.000	73.6367	73.6	4564	5.20	88		--	--	--	--
D5-EtFOSA	µg/L	100.000	76.7595	76.8	4188	5.33	92		--	--	--	--

PFHxA 1





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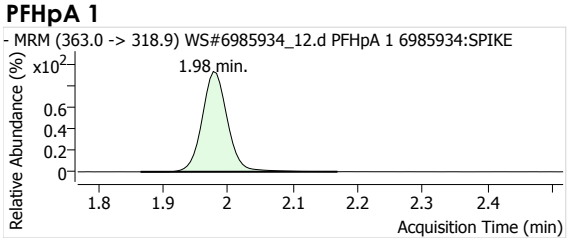

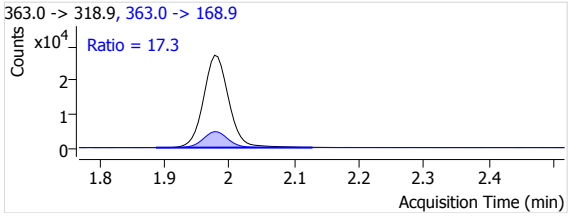

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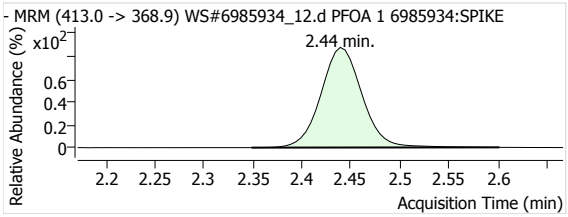

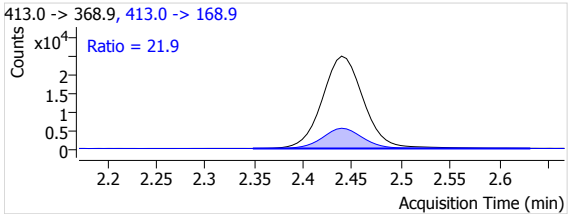

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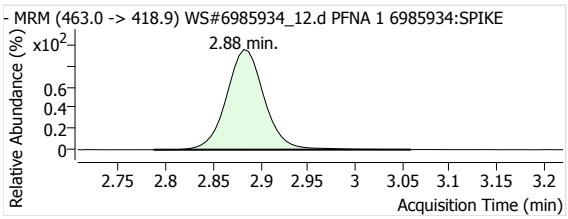

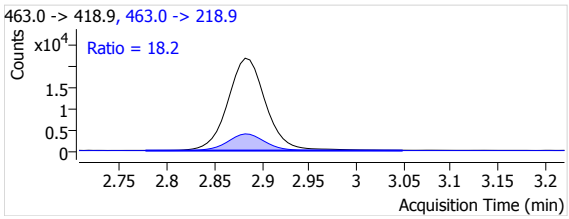

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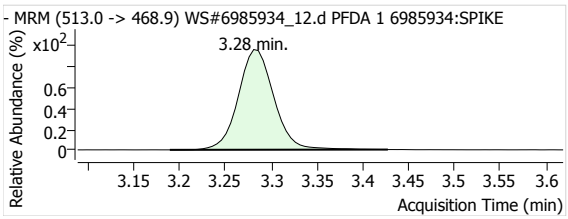

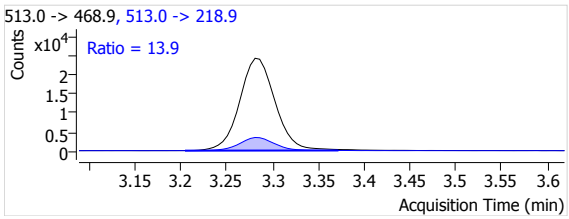

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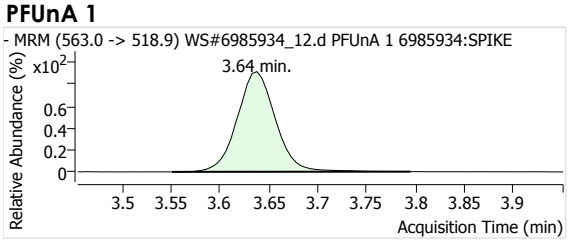

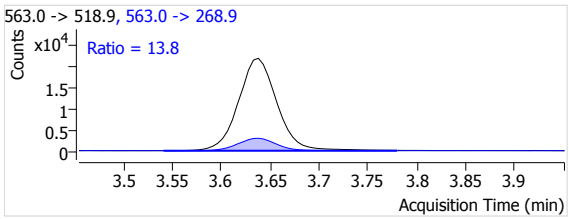

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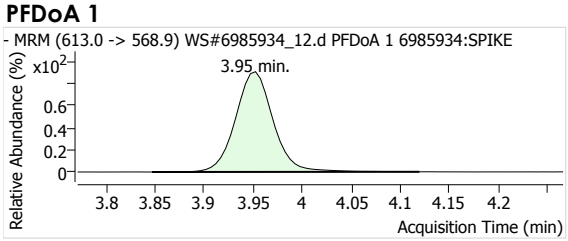

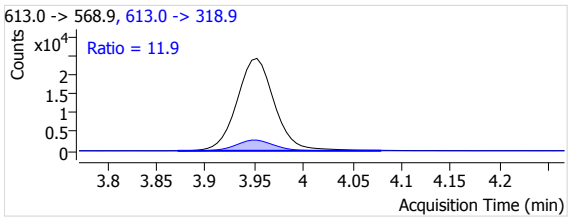

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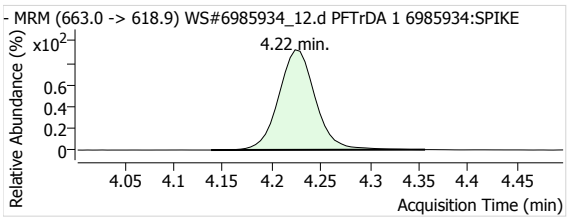

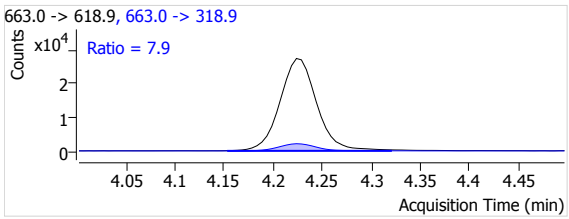

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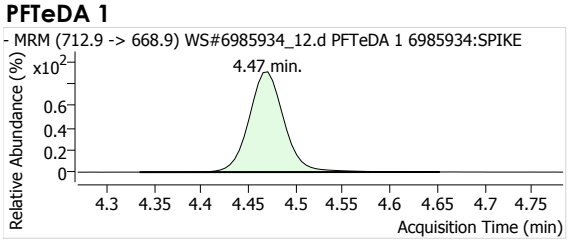

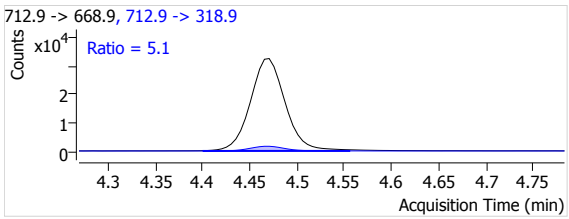

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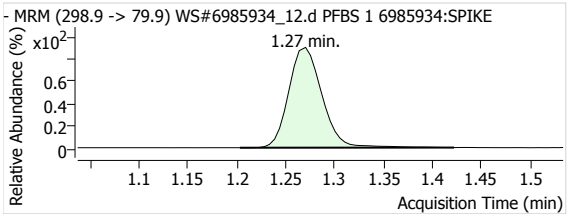

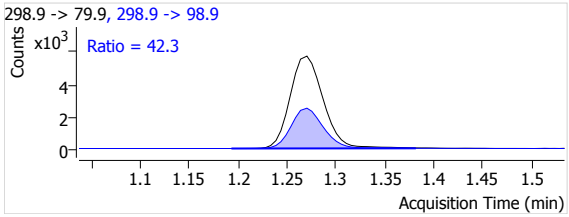

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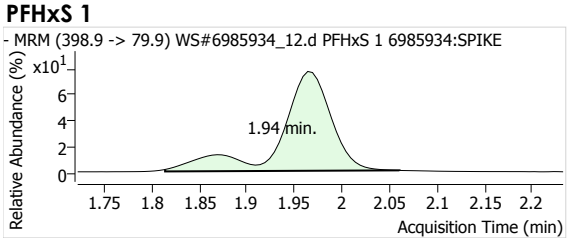

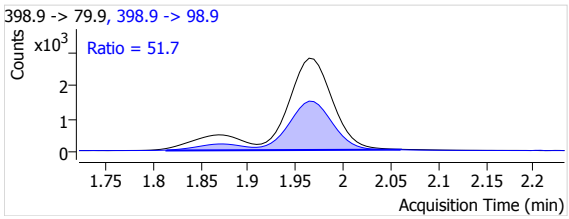

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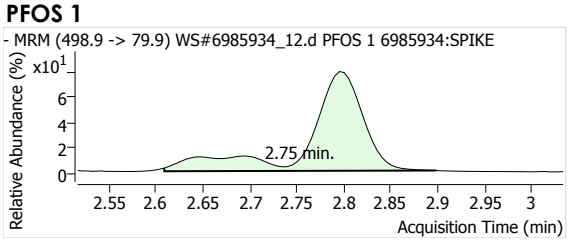

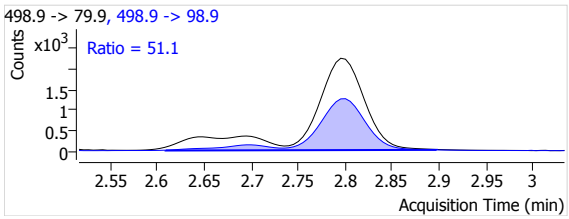

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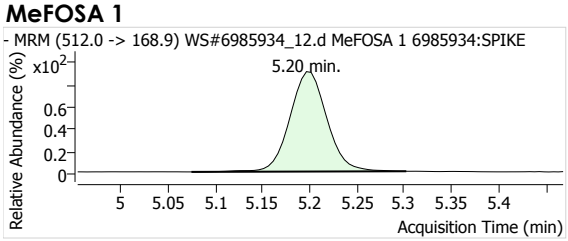

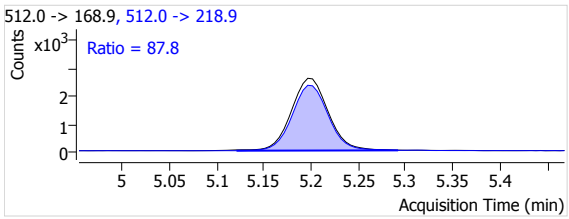

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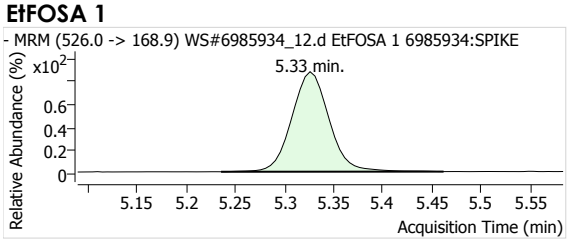

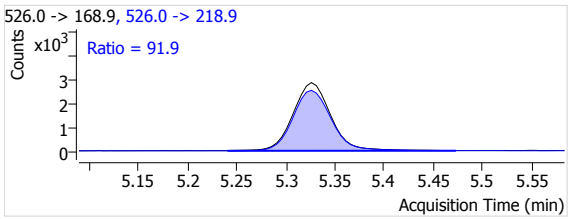

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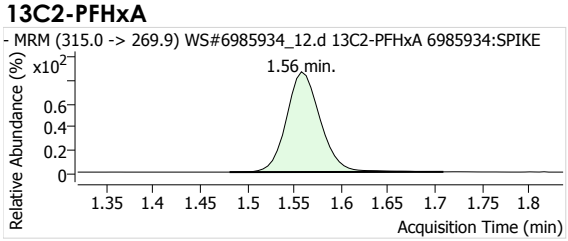

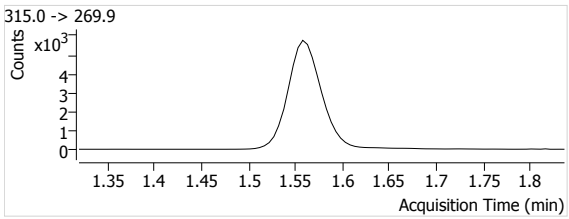

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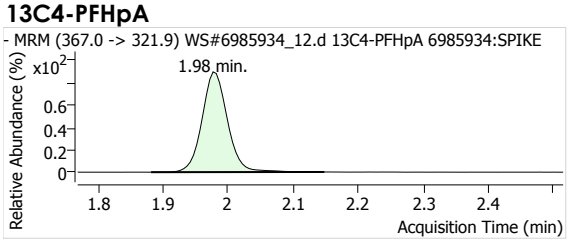

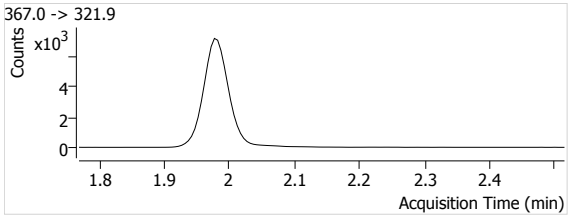

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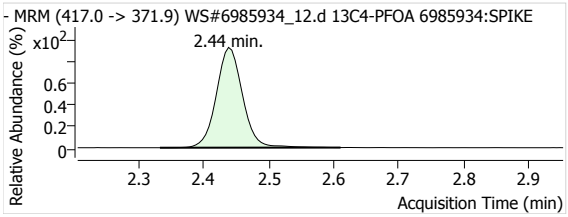

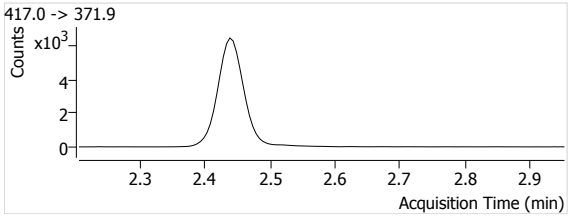

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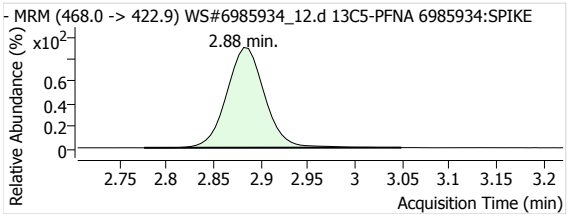

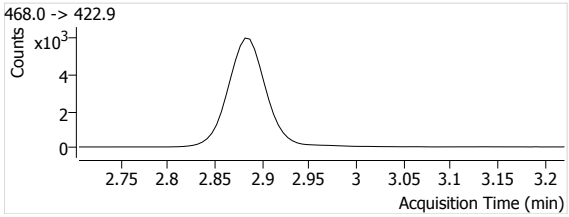

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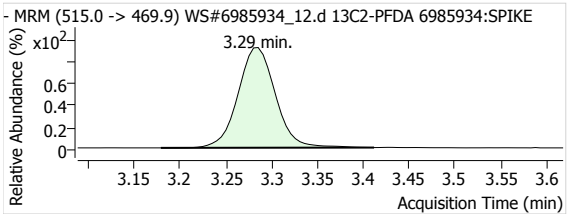

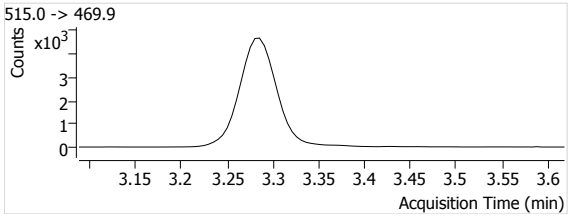

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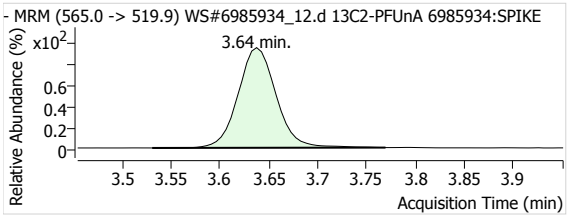

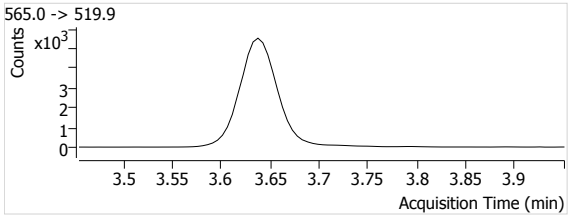

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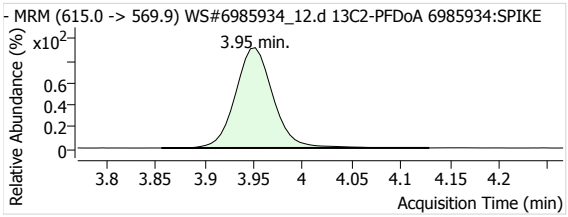

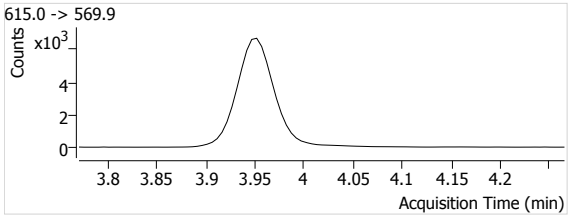

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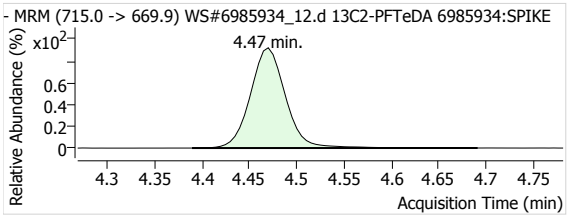

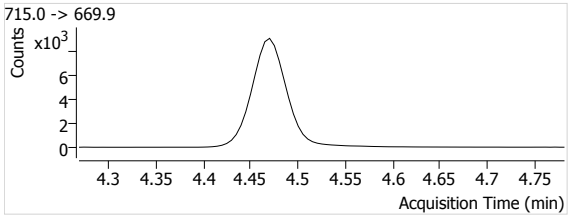

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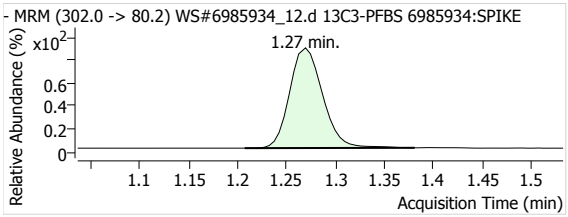
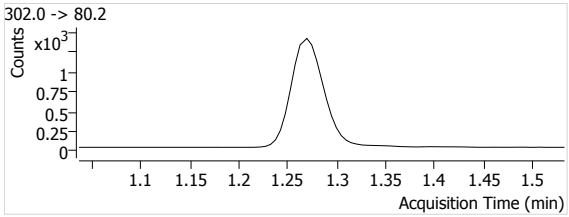
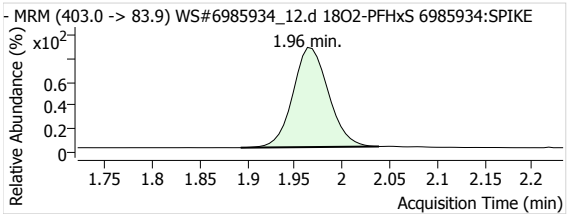
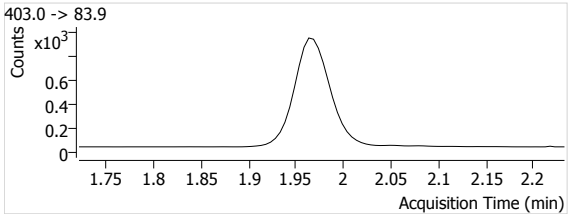


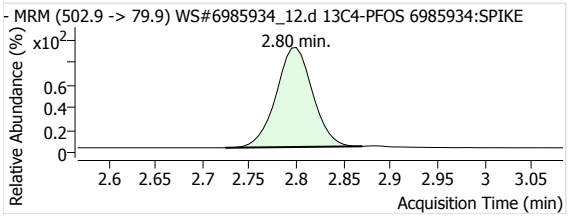


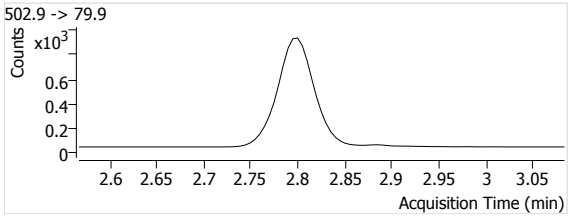
18O2-PFHxS



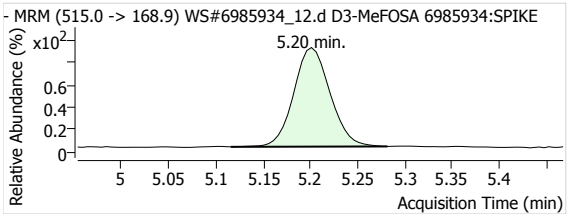


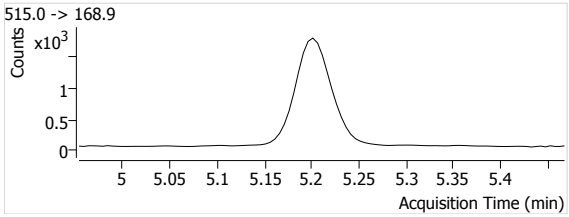
13C4-PFOS





D3-MeFOSA





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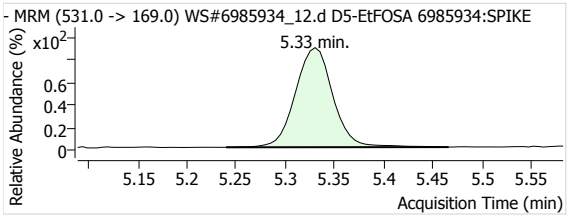
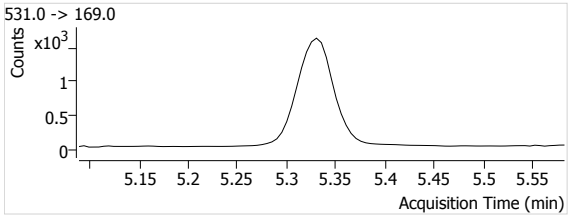




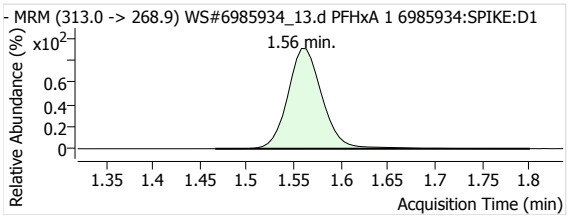
Quantitative Analysis Report

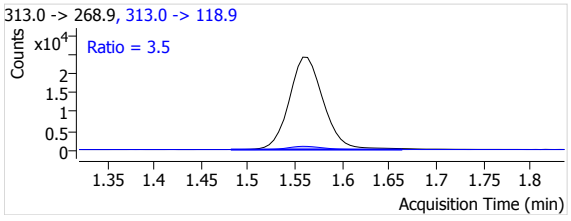
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	6985934:SPIKE:D1	**Data File**	WS#6985934_13.d
Type	QC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-B3
Acq. Date-Time	2020/10/07 2:37:24 PM	**Dil.**	0.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	0.4325	90.1	62504	1.56	1146	4.4282	2179	1.56	316	3.5
PFHpA 1	µg/L	20.000	0.4273	89.0	72559	1.98	963	3.7309	12572	1.98	771	17.3
PFOA 1	µg/L	20.000	0.4217	87.9	71279	2.44	1004	3.9335	15563	2.44	634	21.8
PFNA 1	µg/L	20.000	0.4165	86.8	59036	2.88	374	3.5088	11072	2.88	1034	18.8
PFDA 1	µg/L	20.000	0.4420	92.1	64234	3.28	954	5.1515	8897	3.28	113	13.9
PFUnA 1	µg/L	20.000	0.4277	89.1	57143	3.64	663	3.8971	7642	3.63	273	13.4
PFDoA 1	µg/L	20.000	0.4229	88.1	62345	3.95	805	3.6054	7688	3.95	619	12.3
PFTrDA 1	µg/L	20.000	0.4330	90.2	68618	4.23	552	3.0743	5623	4.23	325	8.2
PFTeDA 1	µg/L	20.000	0.4354	90.7	80671	4.47	818	3.6143	4164	4.47	531	5.2
PFBS 1	µg/L	20.000	0.4114	85.7	12635	1.27	332	3.9783	5385	1.27	511	42.6
PFHxS 1	µg/L	20.000	0.4095	85.3	9860	1.94	97	4.0211	5156	1.94	140	52.3
PFOS 1	µg/L	20.000	0.4311	89.8	8552	2.75	58	3.5515	4506	2.75	153	52.7
MeFOSA 1	µg/L	20.000	0.4432	92.3	6598	5.20	240	1.5241	5890	5.20	360	89.3
EtFOSA 1	µg/L	20.000	0.4656	97.0	7201	5.33	295	1.9223	6420	5.33	512	89.2
13C2-PFHxA	µg/L	100.000	97.5264	97.5	14115	1.56	313		--	--	--	--
13C4-PFHpA	µg/L	100.000	94.5914	94.6	19448	1.98	1073		--	--	--	--
13C4-PFOA	µg/L	100.000	99.7688	99.8	18121	2.44	684		--	--	--	--
13C5-PFNA	µg/L	100.000	97.7686	97.8	16825	2.88	838		--	--	--	--
13C2-PFDA	µg/L	100.000	90.6639	90.7	12469	3.28	171		--	--	--	--
13C2-PFUnA	µg/L	100.000	90.3228	90.3	14663	3.64	291		--	--	--	--
13C2-PFDoA	µg/L	100.000	88.2876	88.3	17292	3.95	718		--	--	--	--
13C2-PFTeDA	µg/L	100.000	83.2339	83.2	22320	4.48	1184		--	--	--	--
13C3-PFBS	µg/L	100.000	94.9193	94.9	3176	1.27	309		--	--	--	--
18O2-PFHxS	µg/L	100.000	93.4451	93.4	2452	1.96	638		--	--	--	--
13C4-PFOS	µg/L	100.000	92.6154	92.6	2408	2.79	154		--	--	--	--
D3-MeFOSA	µg/L	100.000	69.8451	69.8	4329	5.20	74		--	--	--	--
D5-EtFOSA	µg/L	100.000	68.6584	68.7	3746	5.33	60		--	--	--	--

PFHxA 1





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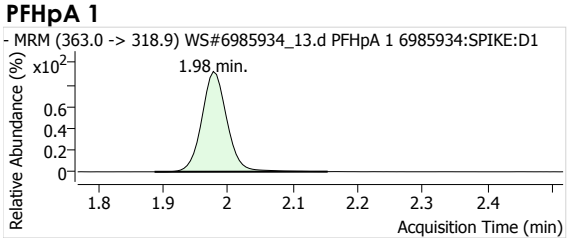

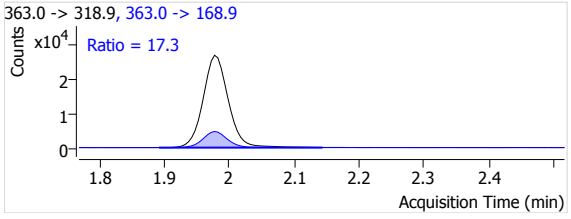

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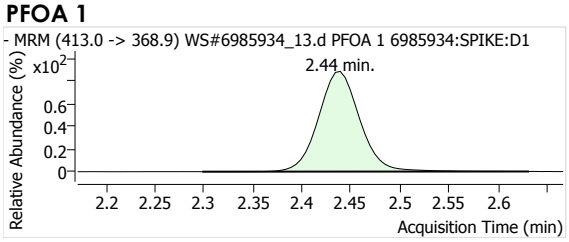

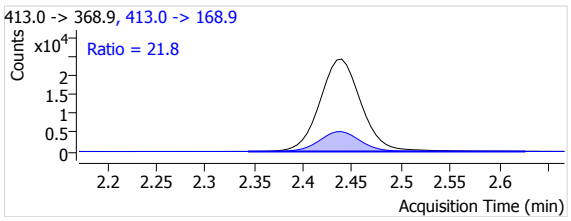

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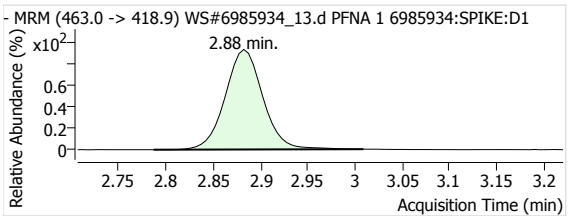

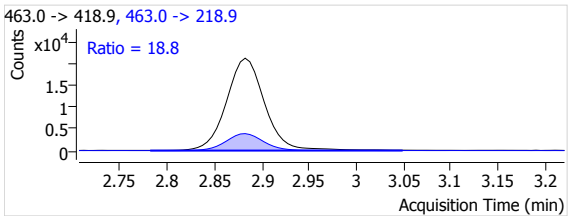

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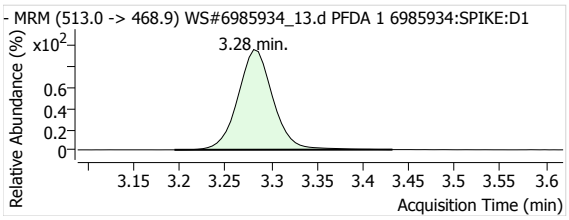

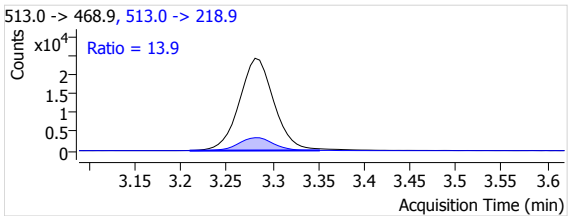

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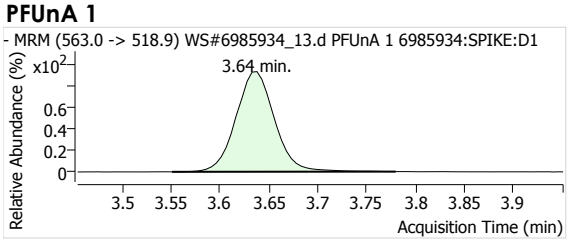

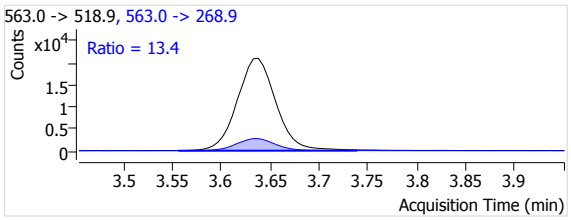

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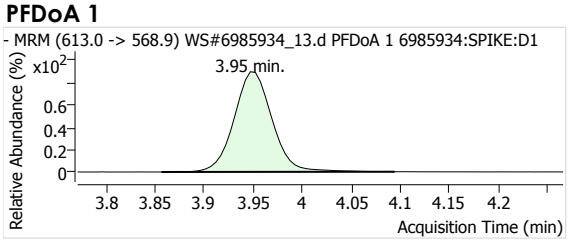

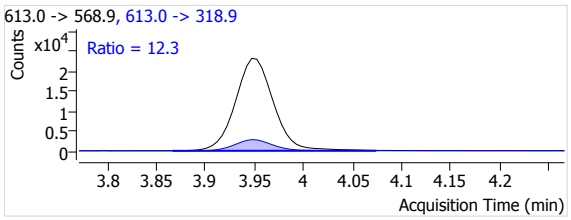

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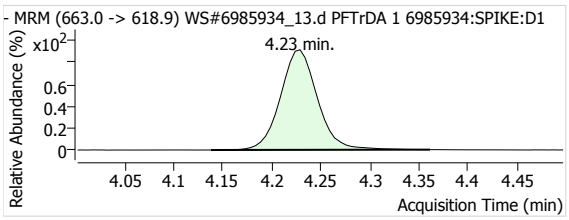

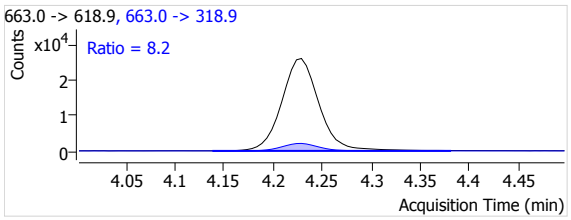

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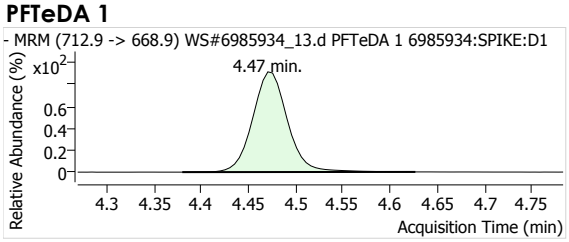

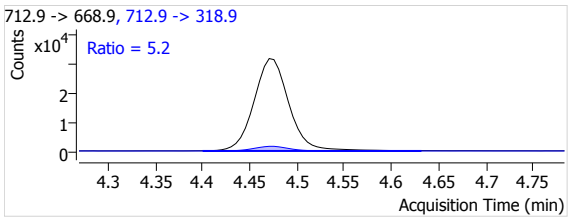

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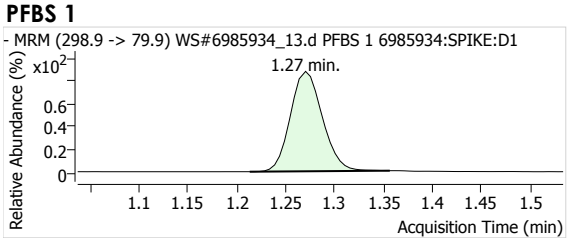

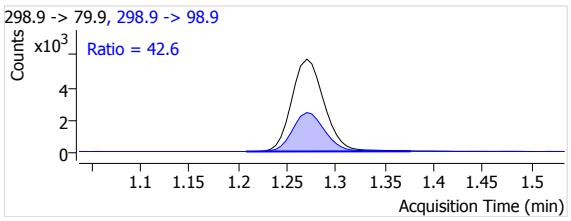

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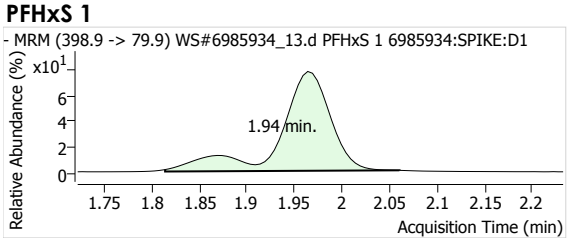
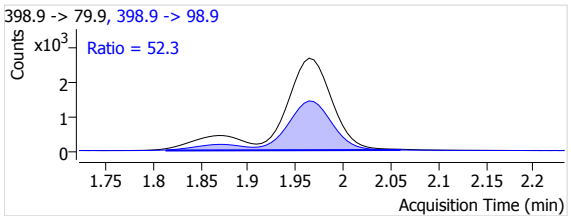
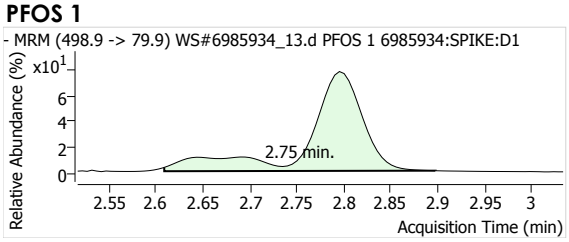
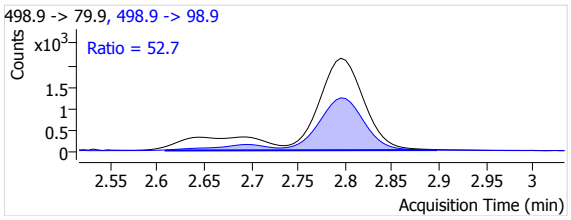




PFOS 1





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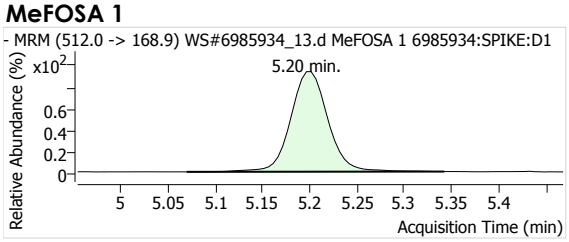

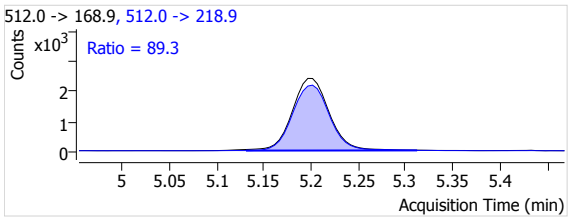

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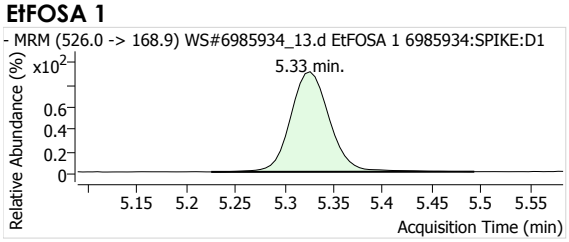

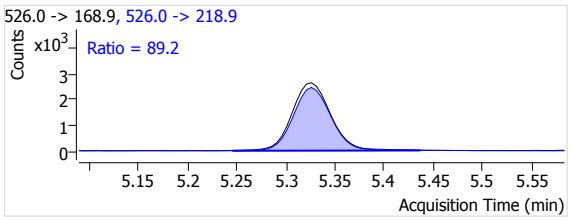

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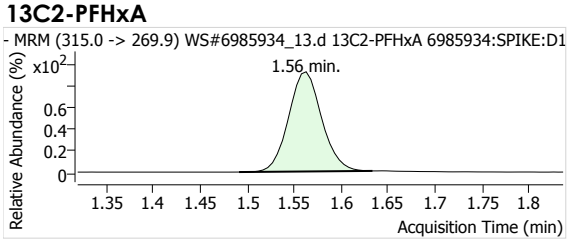

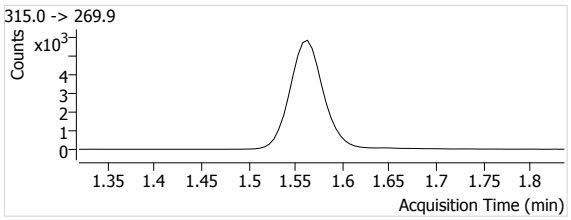

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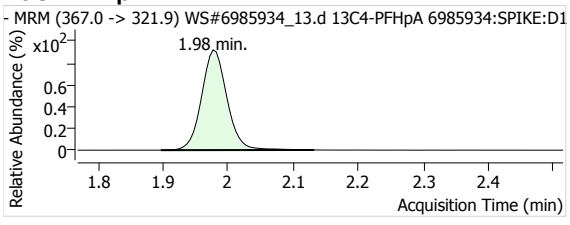

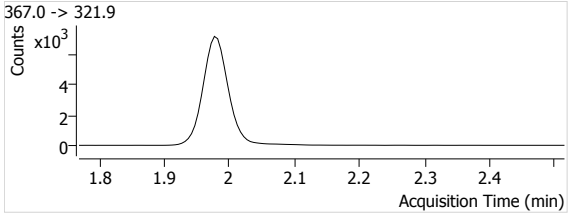

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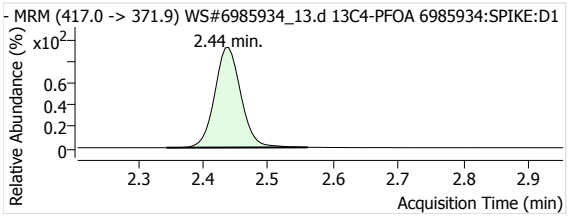

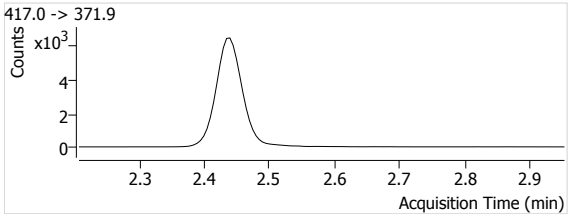

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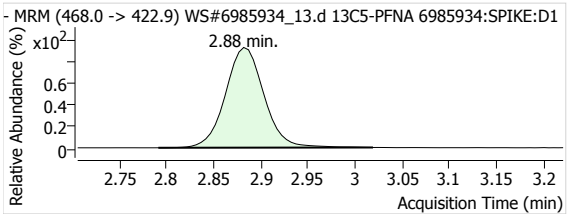

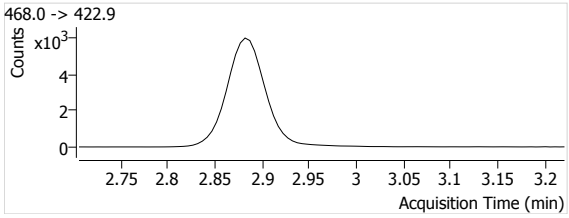

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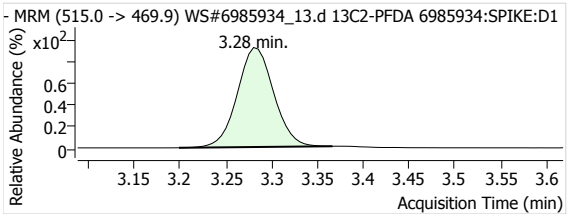
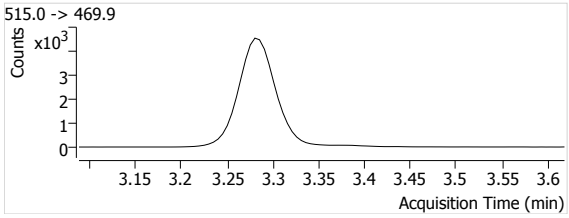
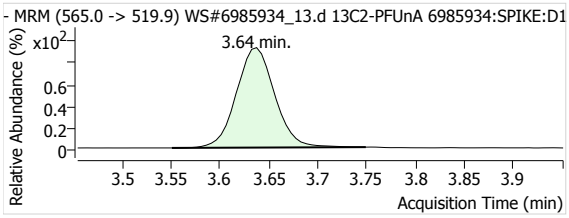
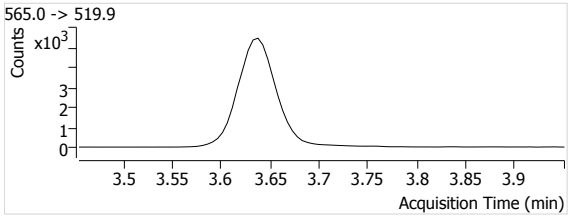




13C2-PFUnA





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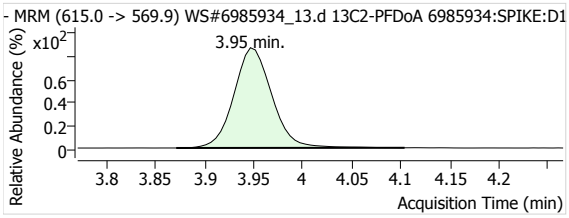

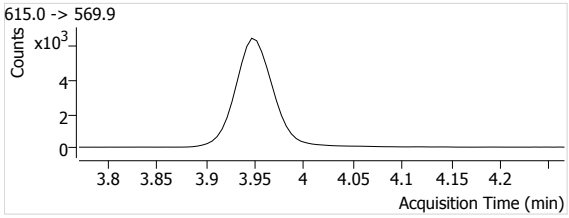

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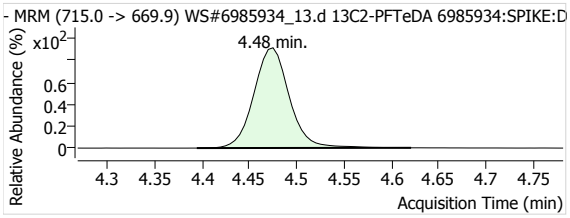

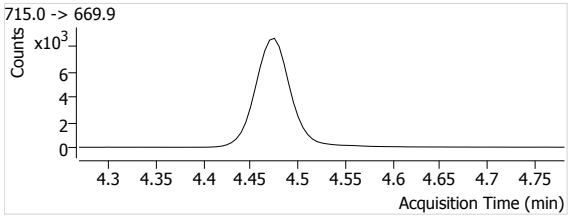

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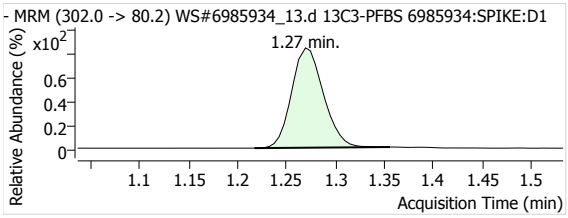
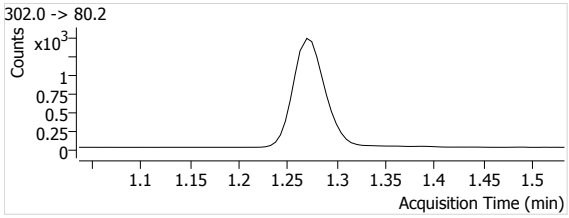
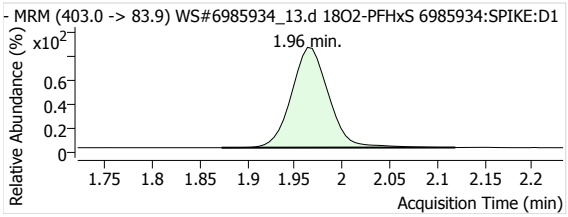
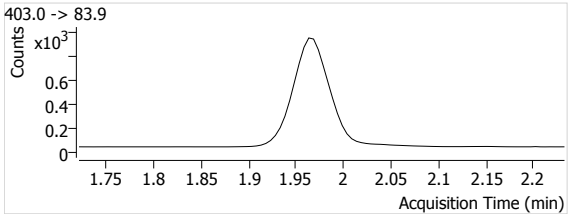


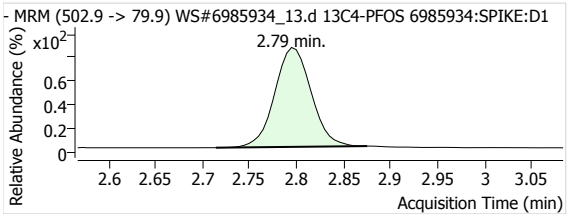


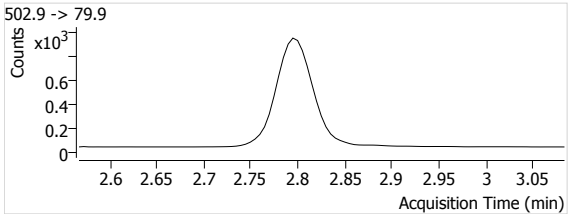
18O2-PFHxS



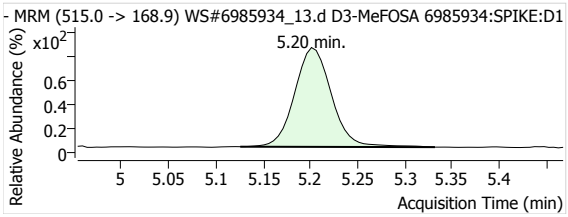


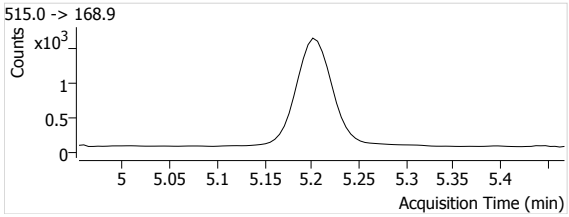
13C4-PFOS



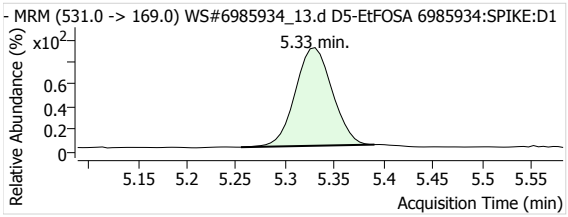


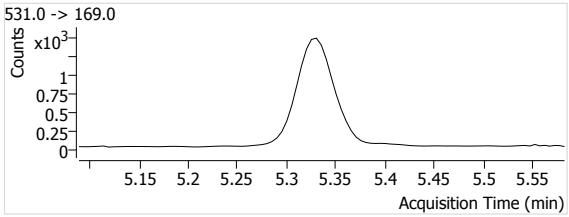
D3-MeFOSA





D5-EtFOSA





DoD Projects - Internal Data Validation Checklist

Run date: 2020/10/05

Worksheet # (s): 6981801

Analysis: PFCDOD-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria		✓		✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria	✓			✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated	✓			✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: YPL Date: 2020/10/06

Comments: Samples NTX315-01, NTX314-01, NTX312-01 were required to re-work due to low surrogates recoveries. YPL 2020/10/06.

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: [signature] Date: 10/6/20.

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 6981801 | Testcode: PFCD6D-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: KM1 | Date: 2020.10.06

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

YPL 2020/10/06

Reviewed by: | Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

WS# : 6981801

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Sunday, October 04, 2020

Assigned to : karmishtha Mistry

Test Code : PFCDOD-W

Instrument Id:

Test Description : Per- and Polyfluoroalkyl Substances (PFAS) in Water by SPE/LC-MS/MS

sediment wt

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol wt	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK	0	LL PFCDODW NT*		<0.1	125	3	1X					2020/10/04
	MTRX SPK	1	LL PFCDODW NT*		<0.1	125	3	1X					2020/10/04
	SPIKE		LL PFCDODW		0	125	3	1X					2020/10/04
	BLANK				0	125	3	1X					2020/10/04
C0P6559	*NTX300-01R		HP02		<0.1	125	3	1X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX301-01R		HP03		<0.1	125	3	1X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX302-01R		HP03 DUP		<0.1	125	3	1X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX303-01R		HP04		<0.1	125	3	1X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX304-01R		HP05		<0.1	125	3	1X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX305-01R		HP06		<0.1	125	3	1X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX306-01R		HP07		<0.1	108/125	3	1X/10X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX307-01R		HP08		<0.1	125/125	3	1X/10X	2	2020/10/07	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX308-01R		HP08 DUP		<0.1	113/125	3	1X/10X	2	2020/10/07	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX309-01R		HP09		<0.1	113/125	3	1X/10X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX310-01R		HP10		<0.1	125	3	1X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX311-01R		HP11		<0.1	125	3	1X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX312-01R		HP12		<0.1	125	3	1X	2	2020/10/07	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX313-01R		HP13		<0.1	125	3	1X	6	2020/10/07	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX314-01R		QCFB-092220		<0.1	125/125	3	1X/10X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX315-01R		QCFB-092320		<0.1	125	3	1X	2	2020/10/07	2020/10/15 23:00	DOD	2020/10/04

Remarks:

Samples extracted by: karmishtha Mistry KM1 2020.10.04

Instrumentation performed by: JPL Date: 2020/10/05

Calculations performed by: JPL Date: 2020/10/06

Validated by: CM Date: 20/10/07

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GC0P6559	SP8 EMAX Laboratories Inc	Richard Beauvil	Tier 4 (Enviro.)	

DKN, nreg, PFCDOD-W MS/MSD required on NTX290 and NTX313 Level IV Data Package and NEDD EDD and EDF EDD required Project #: TREASURE ISLAND, IR SITE 6

KMI 2020.10.04

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
C0P6559	NTX300-01R	
C0P6559	NTX301-01R	
C0P6559	NTX302-01R	
C0P6559	NTX303-01R	
C0P6559	NTX304-01R	
C0P6559	NTX305-01R	
C0P6559	NTX306-01R	Centrifuge
C0P6559	NTX307-01R	Centrifuge
C0P6559	NTX308-01R	Centrifuge
C0P6559	NTX309-01R	Centrifuge
C0P6559	NTX310-01R	
C0P6559	NTX311-01R	
C0P6559	NTX312-01R	Centrifuge
C0P6559	NTX313-01R	centrifuge
C0P6559	NTX314-01R	Centrifuge KMI 2020.10.04
C0P6559	NTX315-01R	centrifuge KMI 2020.10.04

LCMS05/
Folder: 20201005

YPL 2020/10/06

LCMS Calibration Standard Preparation Sheet
Worksheet : 6981801 Intial : KMI Date: 2020.10.06 Witnessed by: CP3

PFOSALCM-W (SPE)

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	SIS-0015 (4/5) Internal Standard A (uL) 125/250ng/mL
S1	2825	25	100 ng/mL	SPK-0045 (2/2)	150
S2	2760	90			150
S3	2826	24	1 ug/mL	INT-0009 (3/3)	150
S4	2802	48			150
S5	2760	90			150
S6	2725	125			150
*ICV	2790	60	1 ug/mL	INT-0008 (2/2)	150
IB	2850	NA			150

PFOSALCM-W (High)

Calib. Std.	Volume of MeOH (uL)	Volume of Water (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard A (uL) 125/250ng/mL
S1	480	0.75	20	30 ng/mL		100
S2	425	0.75	75			100
S3	477	0.75	23	300 ng/mL		100
S4	452	0.75	48			100
S5	473	0.75	27	1 ug/mL		100
S6	463	0.75	37.5			100
*ICV	482	0.75	18	1 ug/mL		100
IB	500	0.75	NA			100

PFOSALCM-S

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard A (uL) 125/250ng/mL
S1	1885	15	100 ng/mL		100
S2	1840	60			100
S3	1750	150			100
S4	1870	30	1 ug/mL		100
S5	1846	54			100
S6	1825	75			100
*ICV	1864	36	1 ug/mL		100
IB	1900	NA			100

PFOSLOW-W (SPE)

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard B (uL) 12.5/25ng/mL
S1	1475	25	100 ng/mL		1500
S2	1410	90			1500
S3	1476	24	1 ug/mL		1500
S4	1452	48			1500
S5	1410	90			1500
S6	1375	125			1500
*ICV	1440	60	1 ug/mL		1500
IB	1500	NA			1500

PFC-TI

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard (uL)
S1	1890	10	100 ng/mL		100
S2	1880	20			100
S3	1840	60			100
S4	1885	15	1 ug/mL		100
S5	1870	30			100
S6	1850	50			100
*ICV	1875	25	1 ug/mL		100

MORPH-L

Calib. Std.	Volume of DI Water (mL)	Methanol (mL)	Solution Conc.	Solution ID#	Amount Spiked (uL)	Internal Standard (uL)
S1	1	1	200 ug/L		20	50
S2	1	1			50	50
S3	1	1	2500 ug/L		20	50
S4	1	1			80	50
S5	1	1			200	50
S6	1	1			400	50
*ICV	1	1	2500 ug/L		80	50

PFAADW-W

Calib. Std.	Volume of 96:4 (MeOH : Water) (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Surrogate (25/200 ng/mL)	Internal Standard (uL) 50/100/200 ng/mL
S1	780	20	6.25/25/50 ng/mL DWB		100	100
S2	728	72			100	100
S3	608	192			100	100
S4	762	38.4	62.5/250/500 ng/mL DWA		100	100
S5	728	72			100	100
S6	700	100			100	100
*ICV	752	48	62.5/250/500 ng/mL DWA		100	100
tPFOA	800	100	50 ng/mL		N/A	100

STERIL-S

Calib. Std.	Volume of 60: 40 Water : MEOH (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard (uL)
S1	5	20	** Solution B		50
S2	5	30			50
S3	5	40			50
S4	5	80			50
S5	5	22	** Solution A		50
S6	5	40			50
*ICV	5	20	**		50

CLO4LCMS-W/ CLO4LCMS-S

Calib. Std.	Volume of Water (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#
S1	9.95	50	10ug/L	
S2	9.9	100		
S3	9.75	250		
S4	9.5	500		
S5	9	1000		
S6	8	2000		
*ICV	9	1000	10 ug/L	

* ICV are prepared using second source

** Concentration of Individual Parameters in Solution A & B Varies

PFAS worksheet reagent tracking sheet

Worksheet # 6981801 Date : 2020.10.04 Spiked by: KM1

	Spiking Witness checklist	Yes	Initial
1	Verify that the Solution ID on the bottle matches the documented solution ID in the tracking sheet.	✓	TTM
2	Verify that the syringe ID documented on the tracking sheet matches the syringe ID used for spiking.	✓	
3	Verify the volume spiking solution required matches the documented volume on the tracking sheet.	✓	
4	Observe each spiking event to ensure that the appropriate QC samples are spiked.	✓	
5	Was the spiking information such as solution ID, syringe ID and spike volume recorded before spiking event occurred?	✓	

Test code		Surrogate /Spike/IS solutions	Solution ID#	Conc.	Spike	MS	Sample	Syringe ID	Witness
PFOSALCM-W PFCDOD-W PFASBC-W	SPE	PFAS Second Source Solution A	WT 0008	(2/3) 1ug/mL	60	60	N/A	R406416	TTM
		PFAS Internal Standard Solution A	STS 0015 (4/5)	125/250 ng/mL	150	150	150	Q401086	
		PFC Injection IS	—	100 ng/mL	20	20	20	—	
PFOSALCM-W	Dilution	PFAS Second Source Solution A		1ug/mL	18	18	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	100	100	100		
		PFAS Second Source Solution D		30 ng/mL	N/A	N/A	10		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSLOW-W PFASDOD-W PFCODW-W PFASLOBC-W	SPE	PFAS Second Source Solution C		100 ng/mL	60	60	N/A		
		PFAS Internal Standard Solution B		12.5/25 ng/mL	150	150	150		
		PFC Injection IS		100 ng/mL	15	15	15		
PFAADW-W	SPE	Second Source Spiking Solution DWB		6.25/25/50 ng/mL	40	40	N/A		
		Second Source Spiking Solution DWA		62.5/250/500 ng/mL	48/80	48/80	N/A		
		PFAA Internal Standard Solution		50/100/200 ng/mL	100	100	100		
		PFAA Surrogate solution		25/200 ng/mL	100	100	100		
PFOS_OX-W PFOS_OX-S	SPE	PFAS Internal Standard Solution A		125/250 ng/mL	150	150	150		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSALCM-S PFASDOD-S PFASBC-S	SPE	PFAS Second Source Solution A		1ug/mL	72	72	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	200	200	200		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSLOW-S	SPE	PFAS Second Source Solution C		100 ng/mL	72	72	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	20	20	20		
		PFC Injection IS		100 ng/mL	15	15	15		

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/Prepared
0.2% NH_4OH in Methanol	✓	PRLRE 143 - 215		Blank Mat.			
0.5% NH_4OH in 70:30 Methanol:Water				Env. Carb.	✓	126486	2020.09.18
1% NH4OH in methanol				Leachate Fluid			
10mM KOH in Methanol				Methanol	✓	SHBM0726	2020.10.04
2% Formic Acid	✓	PRLRE143 - 202		Ottawa Sand			
60:40 Water: Methanol	✓	PRLRE143 - 203		Reagent Water	✓	60189	2020.10.04
60:40 Water:Acetonitrile				Ref. Mat.			
96:4 Methanol: Water				Trizma			
0.2 % Formic Acid				Acid water	✓	PRLRE143-215	

Equipment & ID	√	Equipment	√	ID#	Bottle Tracking	
Pipettor N220621, K2620F K19865E, R40641G	✓	SPE Cartridge	✓	005039240A	Bottle# 23273	
Thermometer ID &Temp		QC Balance ID			Cap# 23191	
Dispenser EC-1	✓	Centrifuge	✓	42148683	Systems plus Lot# 20.09.22	
Measuring cylinder 250mL		Sonicator				
Shaker						
Comments:						

Worksheet: 6981801

Dilution and Column Cleanup Worksheet

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample Added mL	Solvent Added mL	Int Std Added uL	New Effective Final Volume	Initials and Date	Column Cleanup
COP6559	NTX306-01	12.5mL	10X	12.5mL	—	150	12.5mL	KMI 2020.10.04	
	NTX307-01	(All samples were diluted (same) as above.							
	NTX308-01								
	NTX309-01								
	NTX314-01								

NA
KMI
2020.10.04

Worksheet Number: **6981801**

PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	C0P6559 NTX300	C0P6559 NTX301
Perfluorobutanoic acid (PFBA)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluoropentanoic acid (PFPeA)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanoic acid (PFHxA)	ug/L	107.81613	104.39829	103.88230	0	0	0.00131956
Perfluoroheptanoic acid (PFHpA)	ug/L	110.57946	106.63354	106.63583	0	0	0
Perfluorooctanoic acid (PFOA)	ug/L	108.46790	107.46840	106.73565	0	0.01484179	0.00663895
Perfluorononanoic acid (PFNA)	ug/L	106.39431	103.24441	103.54084	0	0.00663126	0.00197941
Perfluorodecanoic acid (PFDA)	ug/L	102.88411	105.30037	105.20829	0	0	0
Perfluoroundecanoic acid (PFUnA)	ug/L	100.41678	105.88959	105.07159	0	0	0
Perfluorododecanoic acid (PFDoA)	ug/L	96.10842	106.87447	103.53269	0	0	0
Perfluorotridecanoic acid (PFTRDA)	ug/L	98.52115	111.62255	106.58667	0	0	0
Perfluorotetradecanoic acid(PFTEDA)	ug/L	97.97396	109.33285	107.08178	0	0	0
Perfluorobutanesulfonic acid (PFBS)	ug/L	108.40778	110.15440	104.33820	0	0.02424700	0.00618856
Perfluoropentanesulfonic acid PFPes	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorohexanesulfonic acid(PFHxS)	ug/L	112.27064	109.81955	102.70235	0	0.01129048	0.01221030
Perfluoroheptanesulfonic acid PFHpS	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorooctanesulfonic acid (PFOS)	ug/L	108.97116	106.12460	107.19703	0	0.14426529	0.06262586
Perfluorononanesulfonic acid (PFNS)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorodecanesulfonic acid (PFDS)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	ug/L	N/A*******	N/A*******	105.24995	0	N/A*******	N/A*******
EtFOSA	ug/L	85.12032	117.91640	111.69881	0	0	0
MeFOSA	ug/L	88.83494	125.56971	111.03091	0	0	0
EtFOSE	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSE	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
EtFOSAA	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
MeFOSAA	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
4:2 Fluorotelomer sulfonic acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
6:2 Fluorotelomer sulfonic acid	ug/L	N/A*******	N/A*******	103.56434	0	N/A*******	N/A*******
8:2 Fluorotelomer sulfonic acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
Hexafluoropropyleneoxide dimer acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
4,8-Dioxa-3H-perfluorononanoic acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
9Cl-PF3ONS (F-53B Major)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
11Cl-PF3OUdS (F-53B Minor)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C4-Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C5-Perfluoropentanoic acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-Perfluorohexanoic acid	ug/L	85.5568406	91.5640519	93.7546771	92.5164977	93.4077148	89.4958840
13C4-Perfluoroheptanoic acid	ug/L	86.4659245	92.1358212	94.7545447	94.2740450	93.1368623	90.1257307
13C4-Perfluorooctanoic acid	ug/L	87.8374413	91.2045187	95.0264084	91.5713028	93.2878521	89.1431924
13C5-Perfluorononanoic acid	ug/L	86.2803502	92.1292535	95.3335138	92.0389926	91.2808015	90.2518277
13C2-Perfluorodecanoic acid	ug/L	83.3045070	88.3914945	91.9625597	92.3186488	84.0268592	89.9481127
13C2-Perfluoroundecanoic acid	ug/L	81.3752234	85.6175336	90.6876117	87.0755338	85.5328755	85.6645658
13C2-Perfluorododecanoic acid	ug/L	77.3795481	83.6856909	85.5185554	83.1412757	81.3628527	79.3575900
13C2-perfluorotetradecanoic acid	ug/L	74.5779653	78.9426921	81.3416259	81.6081741	71.4238116	74.9222567
13C3-Perfluorobutanesulfonic acid	ug/L	84.8634744	87.4752671	92.7779976	88.4052235	90.1068460	87.2378314
18O2-Perfluorohexanesulfonic acid	ug/L	84.1070023	89.8111723	94.4925255	89.0243902	91.5027537	87.9228953
13C4-Perfluorooctanesulfonic acid	ug/L	85.5538922	91.0179640	93.2260479	91.3922155	89.4461077	87.4625748
13C8-Perfluorooctane Sulfonamide	ug/L	N/A*******	N/A*******	83.4773500	81.6444095	N/A*******	N/A*******
D5-EtFOSA	ug/L	56.2230732	54.6194351	55.6965055	54.9784585	53.3508855	!! 49.4973
D3-MeFOSA	ug/L	57.1469167	54.6746234	59.3066211	56.8059107	55.4134697	56.0954816
D9-EtFOSE	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D7-MeFOSE	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D5-EtFOSAA	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-4:2-Fluorotelomersulfonic Acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C2-6:2-Fluorotelomersulfonic Acid	ug/L	N/A*******	N/A*******	96.1901021	99.6857816	N/A*******	N/A*******
13C2-8:2-Fluorotelomersulfonic Acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******
13C3-HFPO-DA	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******

PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	C0P6559 NTX302	C0P6559 NTX303	C0P6559 NTX304	C0P6559 NTX305	DL	C0P6559 NTX306	DL
Perfluorobutanoic acid (PFBA)	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
Perfluoropentanoic acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
Perfluorohexanoic acid (PFHxA)	0.00106827	0.00693701	0	0.00166148	0.02	0.32714574	0.023
Perfluoroheptanoic acid (PFHpA)	0	0	0	0.00049559	0.02	0.10605767	0.023
Perfluorooctanoic acid (PFOA)	0.00589293	0.01266043	0.00574376	0.02639517	0.02	0.36921580	0.023
Perfluorononanoic acid (PFNA)	0.00164810	0.00124328	0.00105976	0.00284673	0.02	0.00957117	0.023
Perfluorodecanoic acid (PFDA)	0	0.00130853	0	0	0.02	0	0.023
Perfluoroundecanoic acid (PFUnA)	0	0	0	0	0.02	0	0.023
Perfluorododecanoic acid (PFDoA)	0	0	0	0	0.02	0	0.023
Perfluorotridecanoic acid (PFTRDA)	0	0	0	0	0.02	0	0.023
Perfluorotetradecanoic acid(PFTEDA)	0	0	0	0	0.02	0	0.023
Perfluorobutanesulfonic acid (PFBS)	0.00582222	0.00284347	0.00700273	0.00944501	0.02	0.01928755	0.023
Perfluoropentanesulfonic acid PFPes	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
Perfluorohexanesulfonic acid(PFHxS)	0.01119085	0.02137841	0.00788580	0.04183686	0.02	0.88775238	0.023
Perfluoroheptanesulfonic acid PFHpS	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
Perfluorooctanesulfonic acid (PFOS)	0.06127738	0.05325700	0.04208870	0.09262835	0.02	0.81044650	0.023
Perfluorononanesulfonic acid (PFNS)	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
Perfluorodecanesulfonic acid (PFDS)	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
EtFOSA	0	0	0	0	0.04	0.00000	0.046
MeFOSA	0	0	0	0	0.04	0	0.046
EtFOSE	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.046
MeFOSE	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.046
EtFOSAA	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
MeFOSAA	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
4:2 Fluorotelomer sulfonic acid	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
6:2 Fluorotelomer sulfonic acid	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
8:2 Fluorotelomer sulfonic acid	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.023
Hexafluoropropyleneoxide dimer acid	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.046
4,8-Dioxa-3H-perfluorononanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.046
9Cl-PF3ONS (F-53B Major)	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.046
11Cl-PF3OUdS (F-53B Minor)	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.046
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-Perfluorohexanoic acid	93.1832097	88.6522892	93.2920606	90.0537451		90.2782502	
13C4-Perfluoroheptanoic acid	93.8095619	90.1737807	95.1869944	90.8304636		90.8384720	
13C4-Perfluorooctanoic acid	90.8377347	91.5786384	95.1951291	89.8840962		88.6810446	
13C5-Perfluorononanoic acid	94.6294791	89.0874627	93.7539489	91.0912537		89.5748713	
13C2-Perfluorodecanoic acid	91.1282938	85.0239088	92.2983009	86.4584393		85.6445213	
13C2-Perfluoroundecanoic acid	87.9785532	86.0220110	88.8627598	84.4229141		84.3476624	
13C2-Perfluorododecanoic acid	84.7745213	80.6369657	84.0123400	81.9798566		78.4774521	
13C2-perfluorotetradecanoic acid	78.3762772	76.5659706	79.7090182	78.8760550		72.5233229	
13C3-Perfluorobutanesulfonic acid	89.5330431	86.5255243	92.9362880	89.7704788		88.6822318	
18O2-Perfluorohexanesulfonic acid	86.7820613	85.0118017	93.6664044	85.7985837		89.1030684	
13C4-Perfluorooctanesulfonic acid	91.3173652	88.4730538	95.6961077	86.5643712		86.4895209	
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
D5-EtFOSA	53.3030157	54.7630445	54.1168022	54.8348492		!! 49.4973	
D3-MeFOSA	56.8911622	58.1415174	55.6976413	57.2037510		50.7530548	
D9-EtFOSE	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
D7-MeFOSE	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
D5-EtFOSAA	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
D3-MeFOSAA	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-4:2-Fluorotelomersulfonic Acid	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-6:2-Fluorotelomersulfonic Acid	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-8:2-Fluorotelomersulfonic Acid	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	
13C3-HFPO-DA	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******	

PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	C0P6559 NTX307	DL	C0P6559 NTX308	DL	C0P6559 NTX309	DL	C0P6559 NTX310
Perfluorobutanoic acid (PFBA)	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
Perfluoropentanoic acid (PFPeA)	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
Perfluorohexanoic acid (PFHxA)	0.26304551	0.02	0.28305819	0.022	0.06920862	0.022	0
Perfluoroheptanoic acid (PFHpA)	0.08811807	0.02	0.09205709	0.022	0.02872026	0.022	0
Perfluorooctanoic acid (PFOA)	0.74817199	0.02	0.78525185	0.022	0.11347776	0.022	0
Perfluorononanoic acid (PFNA)	0.00894558	0.02	0.00999861	0.022	0.00577555	0.022	0
Perfluorodecanoic acid (PFDA)	0	0.02	0	0.022	0	0.022	0
Perfluoroundecanoic acid (PFUnA)	0	0.02	0	0.022	0	0.022	0
Perfluorododecanoic acid (PFDoA)	0	0.02	0	0.022	0	0.022	0
Perfluorotridecanoic acid (PFTRDA)	0	0.02	0	0.022	0	0.022	0
Perfluorotetradecanoic acid(PFTEDA)	0	0.02	0	0.022	0	0.022	0
Perfluorobutanesulfonic acid (PFBS)	0.02795813	0.02	0.02794651	0.022	0.01556961	0.022	0.00063130
Perfluoropentanesulfonic acid PFPes	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
Perfluorohexanesulfonic acid(PFHxS)	1.64457731	0.2	1.63214410	0.2	0.67626329	0.022	0.00192622
Perfluoroheptanesulfonic acid PFHpS	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
Perfluorooctanesulfonic acid (PFOS)	1.15964182	0.2	1.05994127	0.2	0.58787496	0.022	0
Perfluorononanesulfonic acid (PFNS)	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
Perfluorodecanesulfonic acid (PFDS)	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
EtFOSA	0	0.04	0	0.044	0	0.044	0
MeFOSA	0	0.04	0	0.044	0	0.044	0
EtFOSE	N/A*******	0.04	N/A*******	0.044	N/A*******	0.044	N/A*******
MeFOSE	N/A*******	0.04	N/A*******	0.044	N/A*******	0.044	N/A*******
EtFOSAA	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
MeFOSAA	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
4:2 Fluorotelomer sulfonic acid	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
6:2 Fluorotelomer sulfonic acid	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
8:2 Fluorotelomer sulfonic acid	N/A*******	0.02	N/A*******	0.022	N/A*******	0.022	N/A*******
Hexafluoropropyleneoxide dimer acid	N/A*******	0.04	N/A*******	0.044	N/A*******	0.044	N/A*******
4,8-Dioxa-3H-perfluorononanoic acid	N/A*******	0.04	N/A*******	0.044	N/A*******	0.044	N/A*******
9Cl-PF3ONS (F-53B Major)	N/A*******	0.04	N/A*******	0.044	N/A*******	0.044	N/A*******
11Cl-PF3OUdS (F-53B Minor)	N/A*******	0.04	N/A*******	0.044	N/A*******	0.044	N/A*******
13C4-Perfluorobutanoic acid	N/A*******		N/A*******		N/A*******		N/A*******
13C5-Perfluoropentanoic acid	N/A*******		N/A*******		N/A*******		N/A*******
13C2-Perfluorohexanoic acid	89.3190012		88.6795020		87.9583645		92.3668276
13C4-Perfluoroheptanoic acid	89.9415392		92.4561544		89.9255225		92.5362376
13C4-Perfluorooctanoic acid	86.7811032		89.9427816		86.2382629		91.6373239
13C5-Perfluorononanoic acid	87.0475674		91.5335319		88.2570629		90.9829406
13C2-Perfluorodecanoic acid	85.8480008		83.6605961		85.1663444		84.1387730
13C2-Perfluoroundecanoic acid	84.2535979		87.1695983		82.0430815		81.0648104
13C2-Perfluorododecanoic acid	78.5228200		80.2649487		78.1689501		79.0127937
13C2-perfluorotetradecanoic acid	72.4566859		77.5211017		70.2576632		75.7330075
13C3-Perfluorobutanesulfonic acid	87.1191135		90.3838543		84.7843292		76.7708745
18O2-Perfluorohexanesulfonic acid	86.2706530		90.0078678		82.6121164		92.4862313
13C4-Perfluorooctanesulfonic acid	85.4041916		90.3068862		83.8697604		87.5748502
13C8-Perfluorooctane Sulfonamide	N/A*******		N/A*******		N/A*******		N/A*******
D5-EtFOSA	56.8453805		56.0794638		49.7127812		!! 49.0665
D3-MeFOSA	56.1807331		58.1699346		49.8437055		49.6732026
D9-EtFOSE	N/A*******		N/A*******		N/A*******		N/A*******
D7-MeFOSE	N/A*******		N/A*******		N/A*******		N/A*******
D5-EtFOSAA	N/A*******		N/A*******		N/A*******		N/A*******
D3-MeFOSAA	N/A*******		N/A*******		N/A*******		N/A*******
13C2-4:2-Fluorotelomersulfonic Acid	N/A*******		N/A*******		N/A*******		N/A*******
13C2-6:2-Fluorotelomersulfonic Acid	N/A*******		N/A*******		N/A*******		N/A*******
13C2-8:2-Fluorotelomersulfonic Acid	N/A*******		N/A*******		N/A*******		N/A*******
13C3-HFPO-DA	N/A*******		N/A*******		N/A*******		N/A*******

PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	C0P6559 NTX311	C0P6559 NTX312	C0P6559 NTX313	C0P6559 NTX314	C0P6559 NTX315	DL	RDL
Perfluorobutanoic acid (PFBA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Perfluoropentanoic acid (PFPeA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Perfluorohexanoic acid (PFHxA)	0.10341778	0.07385693	0.02001195	0.00000	0	0.02	0.02
Perfluoroheptanoic acid (PFHpA)	0.02522242	0.01212205	0.00613470	0.00000	0	0.02	0.02
Perfluorooctanoic acid (PFOA)	0.09540274	0.07203749	0.02840348	0.00000	0	0.02	0.02
Perfluorononanoic acid (PFNA)	0.00550951	0.00784569	0.00500033	0.00000	0	0.02	0.02
Perfluorodecanoic acid (PFDA)	0	0	0	0.00000	0	0.02	0.02
Perfluoroundecanoic acid (PFUnA)	0	0	0	0.00000	0	0.02	0.02
Perfluorododecanoic acid (PFDoA)	0	0.00023785	0	0.00000	0	0.02	0.02
Perfluorotridecanoic acid (PFTRDA)	0	0	0	0.00000	0	0.02	0.02
Perfluorotetradecanoic acid(PFTEDA)	0	0	0	0.00000	0	0.02	0.02
Perfluorobutanesulfonic acid (PFBS)	0.03445850	0.01373331	0.00580392	0	0	0.02	0.02
Perfluoropentanesulfonic acid PFPes	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Perfluorohexanesulfonic acid(PFHxS)	0.59839531	0.32596387	0.11934264	0.00000	0	0.02	0.02
Perfluoroheptanesulfonic acid PFHpS	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Perfluorooctanesulfonic acid (PFOS)	0.27241675	0.44092999	0.19352328	0.00000	0	0.02	0.02
Perfluorononanesulfonic acid (PFNS)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Perfluorodecanesulfonic acid (PFDS)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
EtFOSA	0	0	0	0.00000	0	0.04	0.04
MeFOSA	0	0	0	0.00000	0	0.04	0.04
EtFOSE	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.04	0.04
MeFOSE	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.04	0.04
EtFOSAA	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
MeFOSAA	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
4:2 Fluorotelomer sulfonic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
6:2 Fluorotelomer sulfonic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
8:2 Fluorotelomer sulfonic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.02	0.02
Hexafluoropropyleneoxide dimer acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.04	0.04
4,8-Dioxa-3H-perfluorononanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.04	0.04
9Cl-PF3ONS (F-53B Major)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.04	0.04
11Cl-PF3OUdS (F-53B Minor)	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******	0.04	0.04
13C4-Perfluorobutanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		
13C5-Perfluoropentanoic acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		
13C2-Perfluorohexanoic acid	87.3392747	81.5157493	94.2921287	!! 4.97993	80.2095380		
13C4-Perfluoroheptanoic acid	88.3078401	82.0853687	92.5842876	!! 0	82.2135020		
13C4-Perfluorooctanoic acid	87.6467136	78.1910211	92.1948356	!! 0	84.2723004		
13C5-Perfluorononanoic acid	88.7805758	74.6818304	89.5387670	!! 0	83.6266811		
13C2-Perfluorodecanoic acid	87.4351409	70.6989520	87.3537491	!! 0	74.8906297		
13C2-Perfluoroundecanoic acid	84.3852883	69.3443702	86.0408240	!! 0	67.0491957		
13C2-Perfluorododecanoic acid	80.7004809	66.4368024	84.3843571	!! 0	66.1736684		
13C2-perfluorotetradecanoic acid	76.1550422	53.1430475	78.6761439	!! 0	66.2927587		
13C3-Perfluorobutanesulfonic acid	88.0490700	86.3276612	92.3822714	!! 0	!! 38.7811		
18O2-Perfluorohexanesulfonic acid	84.6577498	80.4484657	92.2895357	!! 0	59.0873328		
13C4-Perfluorooctanesulfonic acid	87.3502994	79.8278443	89.9326347	!! 0	66.7290419		
13C8-Perfluorooctane Sulfonamide	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		
D5-EtFOSA	52.4892292	!! 23.5519	53.3748204	!! 0	49.8563906		
D3-MeFOSA	55.2145495	!! 22.9610	52.5149190	!! 0	54.6746234		
D9-EtFOSE	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		
D7-MeFOSE	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		
D5-EtFOSAA	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		
D3-MeFOSAA	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		
13C2-4:2-Fluorotelomersulfonic Acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		
13C2-6:2-Fluorotelomersulfonic Acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		
13C2-8:2-Fluorotelomersulfonic Acid	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		
13C3-HFPO-DA	N/A*******	N/A*******	N/A*******	N/A*******	N/A*******		

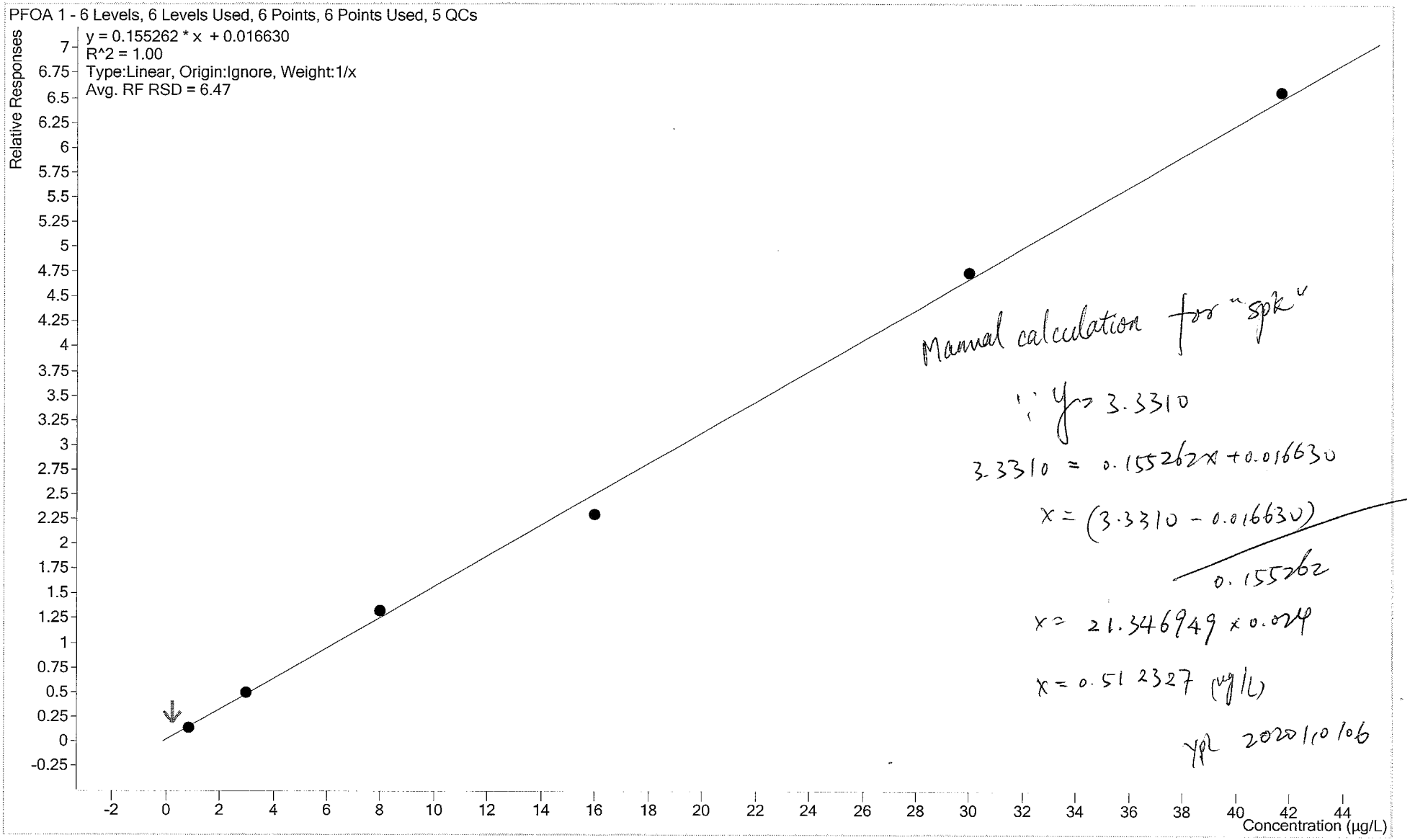
PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	MDL	IDL					
Perfluorobutanoic acid (PFBA)	0.0039	0					
Perfluoropentanoic acid (PFPeA)	0.0067	0					
Perfluorohexanoic acid (PFHxA)	0.0053	0					
Perfluoroheptanoic acid (PFHpA)	0.0067	0					
Perfluorooctanoic acid (PFOA)	0.005	0					
Perfluorononanoic acid (PFNA)	0.0051	0					
Perfluorodecanoic acid (PFDA)	0.0039	0					
Perfluoroundecanoic acid (PFUnA)	0.0062	0					
Perfluorododecanoic acid (PFDoA)	0.008	0					
Perfluorotridecanoic acid (PFTRDA)	0.0064	0					
Perfluorotetradecanoic acid(PFTEDA)	0.0068	0					
Perfluorobutanesulfonic acid (PFBS)	0.0056	0					
Perfluoropentanesulfonic acid PFPes	0.0055	0					
Perfluorohexanesulfonic acid(PFHxS)	0.0044	0					
Perfluoroheptanesulfonic acid PFHpS	0.0065	0					
Perfluorooctanesulfonic acid (PFOS)	0.0057	0					
Perfluorononanesulfonic acid (PFNS)	0.0072	0					
Perfluorodecanesulfonic acid (PFDS)	0.0064	0					
Perfluorooctane Sulfonamide (PFOSA)	0.0036	0					
EtFOSA	0.007	0					
MeFOSA	0.0078	0					
EtFOSE	0.0071	0					
MeFOSE	0.007	0					
EtFOSAA	0.007	0					
MeFOSAA	0.008	0					
4:2 Fluorotelomer sulfonic acid	0.0054	0					
6:2 Fluorotelomer sulfonic acid	0.0065	0					
8:2 Fluorotelomer sulfonic acid	0.0067	0					
Hexafluoropropyleneoxide dimer acid	0.009	0					
4,8-Dioxa-3H-perfluorononanoic acid	0.0063	0					
9Cl-PF3ONS (F-53B Major)	0.0054	0					
11Cl-PF3OUdS (F-53B Minor)	0.0077	0					
13C4-Perfluorobutanoic acid							
13C5-Perfluoropentanoic acid							
13C2-Perfluorohexanoic acid							
13C4-Perfluoroheptanoic acid							
13C4-Perfluorooctanoic acid							
13C5-Perfluorononanoic acid							
13C2-Perfluorodecanoic acid							
13C2-Perfluoroundecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-perfluorotetradecanoic acid							
13C3-Perfluorobutanesulfonic acid							
18O2-Perfluorohexanesulfonic acid							
13C4-Perfluorooctanesulfonic acid							
13C8-Perfluorooctane Sulfonamide							
D5-EtFOSA							
D3-MeFOSA							
D9-EtFOSE							
D7-MeFOSE							
D5-EtFOSAA							
D3-MeFOSAA							
13C2-4:2-Fluorotelomersulfonic Acid							
13C2-6:2-Fluorotelomersulfonic Acid							
13C2-8:2-Fluorotelomersulfonic Acid							
13C3-HFPO-DA							

Calibration Curve Window

Agilent Technologies

Data Path	D:\MassHunter\Data\PFC\20201005\WS#6981801
Data File	WS#6981801_20.d
Acq Operator	
Acq. Date-Time	10/5/2020 2:56 PM
Instrument Name	LCMS05



Report Name: Worksheet - Parameter Lists
Report Date: 2020/10/04

Test Code: **PFCDOD-W**
Worksheet Number: **6981801**

Sample Number	Parameter Code	Parameter
NTX300-01	PFHXA	Perfluorohexanoic acid (PFHxA)
NTX301-01	PFHPA	Perfluoroheptanoic acid (PFHpA)
NTX302-01	PFOA1	Perfluorooctanoic acid (PFOA)
NTX303-01	PFNA	Perfluorononanoic acid (PFNA)
NTX304-01	PFDA	Perfluorodecanoic acid (PFDA)
NTX305-01	PFUNA	Perfluoroundecanoic acid (PFUnA)
NTX306-01	PFDOA	Perfluorododecanoic acid (PFDoA)
NTX307-01	PFTRDA	Perfluorotridecanoic acid (PFTRDA)
NTX308-01	PFTEDA	Perfluorotetradecanoic acid (PFTEDA)
NTX309-01	PFBSA	Perfluorobutanesulfonic acid (PFBS)
NTX310-01	PFHXSA	Perfluorohexanesulfonic acid (PFHxS)
NTX311-01	PFOS2	Perfluorooctanesulfonic acid (PFOS)
NTX312-01	ETFOSA	EtFOSA
NTX313-01	MEFOSA	MeFOSA
NTX314-01		
NTX315-01		

1.	6981801:MTRX SPK	MTRX SPK
2.	6981801:MTRX SPK:D1	MTRX SPK :D1
3.	6981801:SPIKE	SPIKE
4.	6981801:BLANK	BLANK
5.	6981801:NTX300-01	HP02
6.	6981801:NTX301-01	HP03
7.	6981801:NTX302-01	HP03 DUP
8.	6981801:NTX303-01	HP04
9.	6981801:NTX304-01	HP05
10.	6981801:NTX305-01	HP06
11.	6981801:NTX306-01	HP07
12.	6981801:NTX307-01	HP08
13.	6981801:NTX308-01	HP08 DUP
14.	6981801:NTX309-01	HP09
15.	6981801:NTX310-01	HP10
16.	6981801:NTX311-01	HP11
17.	6981801:NTX312-01	HP12
18.	6981801:NTX313-01	HP13
19.	6981801:NTX314-01	QCFB-092220
20.	6981801:NTX315-01	QCFB-092320

Worklist Report

Agilent | Trusted Answers

Instrument Name: LCMS05 **Worklist Path:** D:\MassHunter\Worklists\PFC_20201005_Water_DOD.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: ---
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\PFC\20201005\WS#6981801\
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Post Analysis Script: ---
Overlapped Injection: No
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #458 MP A1:Solution #140 [FSRE19]
MP B1:Methanol, Sigma (SHBM0726)

YPL
2020/10/05

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	MeOH RINSE	P1-A1	PFAS.m	WS#6981801_01.d	Sample		As Method	-
2	STD 1	P1-A2	PFAS.m	WS#6981801_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-A3	PFAS.m	WS#6981801_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-A4	PFAS.m	WS#6981801_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-A5	PFAS.m	WS#6981801_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-A6	PFAS.m	WS#6981801_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-A7	PFAS.m	WS#6981801_07.d	Calibration	STD 6	As Method	-
8	IB	P1-A8	PFAS.m	WS#6981801_08.d	Sample		As Method	-
9	ICV	P1-A9	PFAS.m	WS#6981801_09.d	QC	ICV	As Method	-
10	ISC	P1-A2	PFAS.m	WS#6981801_10.d	QC	STD 1	As Method	-
11	6981801:BLANK	P1-B1	PFAS.m	WS#6981801_11.d	Sample		As Method	-
12	6981801:SPIKE	P1-B2	PFAS.m	WS#6981801_12.d	QC	ICV	As Method	-

Worklist Report

Agilent | Trusted Answers

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
13	6981801:MTRX SPK	P1-B3	PFAS.m	WS#6981801_13.d	QC	ICV	As Method	-
14	6981801:MTRX SPK:D1	P1-B4	PFAS.m	WS#6981801_14.d	QC	ICV	As Method	-
15	IB	P1-A8	PFAS.m	WS#6981801_15.d	Sample		As Method	-
16	6981801:NTX300-01	P1-B5	PFAS.m	WS#6981801_16.d	Sample		As Method	-
17	6981801:NTX301-01	P1-B6	PFAS.m	WS#6981801_17.d	Sample		As Method	-
18	6981801:NTX302-01	P1-B7	PFAS.m	WS#6981801_18.d	Sample		As Method	-
19	6981801:NTX303-01	P1-B8	PFAS.m	WS#6981801_19.d	Sample		As Method	-
20	6981801:NTX304-01	P1-B9	PFAS.m	WS#6981801_20.d	Sample		As Method	-
21	6981801:NTX305-01	P1-C1	PFAS.m	WS#6981801_21.d	Sample		As Method	-
22	CCV	P1-A5	PFAS.m	WS#6981801_22.d	ConCal	STD 4	As Method	-
23	6981801:NTX306-01:10x	P1-C2	PFAS.m	WS#6981801_23.d	Sample		As Method	-
24	6981801:NTX306-01	P1-C3	PFAS.m	WS#6981801_24.d	Sample		As Method	-
25	IB	P1-A8	PFAS.m	WS#6981801_25.d	Sample		As Method	-
26	6981801:NTX307-01:10x	P1-C4	PFAS.m	WS#6981801_26.d	Sample		As Method	-
27	6981801:NTX307-01	P1-C5	PFAS.m	WS#6981801_27.d	Sample		As Method	-
28	IB	P1-A8	PFAS.m	WS#6981801_28.d	Sample		As Method	-
29	6981801:NTX308-01:10x	P1-C6	PFAS.m	WS#6981801_29.d	Sample		As Method	-
30	6981801:NTX308-01	P1-C7	PFAS.m	WS#6981801_30.d	Sample		As Method	-
31	IB	P1-A8	PFAS.m	WS#6981801_31.d	Sample		As Method	-
32	CCV	P1-A5	PFAS.m	WS#6981801_32.d	ConCal	STD 4	As Method	-
33	6981801:NTX309-01:10x	P1-C8	PFAS.m	WS#6981801_33.d	Sample		As Method	-
34	6981801:NTX309-01	P1-C9	PFAS.m	WS#6981801_34.d	Sample		As Method	-
35	IB	P1-A8	PFAS.m	WS#6981801_35.d	Sample		As Method	-
36	6981801:NTX310-01	P1-D1	PFAS.m	WS#6981801_36.d	Sample		As Method	-
37	6981801:NTX311-01	P1-D2	PFAS.m	WS#6981801_37.d	Sample		As Method	-
38	6981801:NTX312-01	P1-D3	PFAS.m	WS#6981801_38.d	Sample		As Method	-
39	6981801:NTX313-01	P1-D4	PFAS.m	WS#6981801_39.d	Sample		As Method	-
40	6981801:NTX314-01:10x	P1-D5	PFAS.m	WS#6981801_40.d	Sample		As Method	-
41	6981801:NTX314-01	P1-D6	PFAS.m	WS#6981801_41.d	Sample		As Method	-
42	IB	P1-A8	PFAS.m	WS#6981801_42.d	Sample		As Method	-
43	6981801:NTX315-01	P1-D7	PFAS.m	WS#6981801_43.d	Sample		As Method	-
44	CCV	P1-A5	PFAS.m	WS#6981801_44.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.
STD 1	-	2020/10/05 12:50 PM	WS#6981801_02.d	PFAS.m	P1-A2
STD 2	-	2020/10/05 12:57 PM	WS#6981801_03.d	PFAS.m	P1-A3
STD 3	-	2020/10/05 1:04 PM	WS#6981801_04.d	PFAS.m	P1-A4
STD 4	-	2020/10/05 1:11 PM	WS#6981801_05.d	PFAS.m	P1-A5
STD 5	-	2020/10/05 1:18 PM	WS#6981801_06.d	PFAS.m	P1-A6
STD 6	-	2020/10/05 1:25 PM	WS#6981801_07.d	PFAS.m	P1-A7
IB	-	2020/10/05 1:32 PM	WS#6981801_08.d	PFAS.m	P1-A8
ICV	-	2020/10/05 1:39 PM	WS#6981801_09.d	PFAS.m	P1-A9
ISC	-	2020/10/05 1:46 PM	WS#6981801_10.d	PFAS.m	P1-A2
6981801:BLANK	-	2020/10/05 1:53 PM	WS#6981801_11.d	PFAS.m	P1-B1
6981801:SPIKE	-	2020/10/05 2:00 PM	WS#6981801_12.d	PFAS.m	P1-B2
6981801:MTRX SPK	NTX313-01	2020/10/05 2:07 PM	WS#6981801_13.d	PFAS.m	P1-B3
6981801:MTRX SPK:D1	NTX313-01	2020/10/05 2:14 PM	WS#6981801_14.d	PFAS.m	P1-B4
IB	-	2020/10/05 2:21 PM	WS#6981801_15.d	PFAS.m	P1-A8
6981801:NTX300-01	-	2020/10/05 2:28 PM	WS#6981801_16.d	PFAS.m	P1-B5
6981801:NTX301-01	-	2020/10/05 2:35 PM	WS#6981801_17.d	PFAS.m	P1-B6
6981801:NTX302-01	-	2020/10/05 2:42 PM	WS#6981801_18.d	PFAS.m	P1-B7
6981801:NTX303-01	-	2020/10/05 2:49 PM	WS#6981801_19.d	PFAS.m	P1-B8
6981801:NTX304-01	-	2020/10/05 2:56 PM	WS#6981801_20.d	PFAS.m	P1-B9
6981801:NTX305-01	-	2020/10/05 3:03 PM	WS#6981801_21.d	PFAS.m	P1-C1
CCV	-	2020/10/05 3:10 PM	WS#6981801_22.d	PFAS.m	P1-A5
6981801:NTX306-01:10x	Not reported	2020/10/05 3:17 PM	WS#6981801_23.d	PFAS.m	P1-C2
6981801:NTX306-01	-	2020/10/05 3:24 PM	WS#6981801_24.d	PFAS.m	P1-C3
IB	-	2020/10/05 3:31 PM	WS#6981801_25.d	PFAS.m	P1-A8
6981801:NTX307-01:10x	Reported PFHxS, PFOS	2020/10/05 3:38 PM	WS#6981801_26.d	PFAS.m	P1-C4
6981801:NTX307-01	Reported all except PFHxS, PFOS	2020/10/05 3:45 PM	WS#6981801_27.d	PFAS.m	P1-C5
IB	-	2020/10/05 3:52 PM	WS#6981801_28.d	PFAS.m	P1-A8
6981801:NTX308-01:10x	Reported PFHxS, PFOS	2020/10/05 3:59 PM	WS#6981801_29.d	PFAS.m	P1-C6
6981801:NTX308-01	Reported all except PFHxS, PFOS	2020/10/05 4:06 PM	WS#6981801_30.d	PFAS.m	P1-C7
IB	-	2020/10/05 4:13 PM	WS#6981801_31.d	PFAS.m	P1-A8
CCV	-	2020/10/05 4:20 PM	WS#6981801_32.d	PFAS.m	P1-A5
6981801:NTX309-01:10x	Not reported	2020/10/05 4:27 PM	WS#6981801_33.d	PFAS.m	P1-C8

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.
6981801:NTX309-01	-	2020/10/05 4:34 PM	WS#6981801_34.d	PFAS.m	P1-C9
IB	-	2020/10/05 4:41 PM	WS#6981801_35.d	PFAS.m	P1-A8
6981801:NTX310-01	-	2020/10/05 4:48 PM	WS#6981801_36.d	PFAS.m	P1-D1
6981801:NTX311-01	-	2020/10/05 4:55 PM	WS#6981801_37.d	PFAS.m	P1-D2
6981801:NTX312-01	-	2020/10/05 5:02 PM	WS#6981801_38.d	PFAS.m	P1-D3
6981801:NTX313-01	-	2020/10/05 5:09 PM	WS#6981801_39.d	PFAS.m	P1-D4
6981801:NTX314-01:10x	Not reported	2020/10/05 5:16 PM	WS#6981801_40.d	PFAS.m	P1-D5
6981801:NTX314-01	Re-work, due to lack of Ext.IS.	2020/10/05 5:23 PM	WS#6981801_41.d	PFAS.m	P1-D6
IB	-	2020/10/05 5:30 PM	WS#6981801_42.d	PFAS.m	P1-A8
6981801:NTX315-01	-	2020/10/05 5:37 PM	WS#6981801_43.d	PFAS.m	P1-D7
CCV	-	2020/10/05 5:44 PM	WS#6981801_44.d	PFAS.m	P1-A5

DoD Projects - Internal Data Validation Checklist

Run date: 2020/10/05

Worksheet # (s): 6981810

Analysis: PFCDOD-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria		✓		✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria	✓			✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed	✓			✓
17	Dilution factors (where justified) have been checked for correctness and entered	✓			✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated	✓			✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: YPL Date: 2020/10/05

Comments: Sample NTX 293-01 was required to re-work, due to D3-MeFOSA & D5-EtFOSAA recoveries low. YPL 2020/10/05

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced	✓		
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: [signature] Date: 20201006

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review

Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 6981810 Testcode: PFCDOD-W

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: AP3 Date: 2020.10.06

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: Date:

Comments:

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: Date:

Comments:

WS# : 6981810

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Sunday, October 4, 2020

Assigned to : Chiragkumar patel

Test Code : PFCDOD-W

Instrument Id:

Test Description : Per- and Polyfluoroalkyl Substances (PFAS) in Water by SPE/LC-MS/MS

Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt or Vol (sed)	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	MTRX SPK	0	LL PFCDODW NT*		<0.1	125	3	1X					2020/10/04
	MTRX SPK	1	LL PFCDODW NT*		<0.1	125	3	1X					2020/10/04
	SPIKE		LL PFCDODW		0	125	3	1X					2020/10/04
	BLANK				0	125	3	1X					2020/10/04
C0P6559	*NTX288-01R		06-MW25-0920		<0.1	62.5	3	2X/20X	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/02
C0P6559	*NTX289-01R		06-MW26-0920		<0.1	110	3	1X/10X	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX290-01R		06-MW30-0920		<0.1	125	3	1X	6	2020/10/05	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX291-01R		06-MW31-0920		<0.1	125	3	1X/10X	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX292-01R		06-MW31-0920 DUP		<0.1	120	3	1X/10X	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX293-01R		06-MW32-0920		<0.1	25/2.5	3	5X/50X	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX294-01R		06-MW33-0920		<0.1	125	3	1X/10X	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX295-01R		06-MW34-0920		<0.1	110	3	1X/10X	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX296-01R		06-MW35-0920		<0.1	115	3	1X/10X	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX297-01R		06-MW36-0920		<0.1	125	3	1X	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX298-01R		QCFB-092120		<0.1	125	3	1X	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/04
C0P6559	*NTX299-01R		HP01		<0.1	125	3	1X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/04

CP3
2020-10-04

Remarks:

Samples extracted by: Chiragkumar patel CP3 2020-10-04

Instrumentation performed by: YPL Date: 2020/10/05

Calculations performed by: YPL Date: 2020/10/05

Validated by: CM Date: 2020/10/06

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GC0P6559	SP8 EMAX Laboratories Inc DKN, nreg, PFCDOD-W MS/MSD required on NTX290 and NTX313 Level IV Data Package and NEDD EDD and EDF EDD required Project #: TREASURE ISLAND, IR SITE 6	Richard Beauvil	Tier 4 (Enviro.)	

Job	Sample	Lab Comments
	MTRX SPK	
	MTRX SPK	
	SPIKE	
	BLANK	
C0P6559	NTX288-01R	
C0P6559	NTX289-01R	
C0P6559	NTX290-01R	CP3 2020-10-04
C0P6559	NTX291-01R	
C0P6559	NTX292-01R	
C0P6559	NTX293-01R	
C0P6559	NTX294-01R	
C0P6559	NTX295-01R	
C0P6559	NTX296-01R	
C0P6559	NTX297-01R	
C0P6559	NTX298-01R	
C0P6559	NTX299-01R	

L(M) 05
20201005
on 20210604.

LCMS Calibration Standard Preparation Sheet
Worksheet : Intial: CP3 Date: 2020-10-04 Witnessed by: KM1

[redacted]

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard A (uL) 125/250ng/mL
S1	2825	25		SPK-0005	150
S2	2760	90	100 ng/mL	C212	150
S3	2826	24		INT-0009	150
S4	2802	48			150
S5	2760	90	1 ug/mL	C213	150
S6	2725	125			150
*ICV	2790	60	1 ug/mL	INT-0008	150
IB	2850	NA		C213	150

PFOSALCM-W (High)

Calib. Std.	Volume of MeOH (uL)	Volume of Water (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard A (uL) 125/250ng/mL
S1	480	0.75	20			100
S2	425	0.75	75	30 ng/mL		100
S3	477	0.75	23			100
S4	452	0.75	48	300 ng/mL		100
S5	473	0.75	27	1 ug/mL		100
S6	463	0.75	37.5			100
*ICV	482	0.75	18	1 ug/mL		100
IB	500	0.75	NA			100

PFOSALCM-S

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard A (uL) 125/250ng/mL
S1	1885	15			100
S2	1840	60	100 ng/mL		100
S3	1750	150			100
S4	1870	30			100
S5	1846	54	1 ug/mL		100
S6	1825	75			100
*ICV	1864	36	1 ug/mL		100
IB	1900	NA			100

PFOSLOW-W (SPE)

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard B (uL) 12.5/25ng/mL
S1	1475	25			1500
S2	1410	90	100 ng/mL		1500
S3	1476	24			1500
S4	1452	48			1500
S5	1410	90	1 ug/mL		1500
S6	1375	125			1500
*ICV	1440	60	1 ug/mL		1500
IB	1500	NA			1500

PFC-TI

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard (uL)
S1	1890	10			100
S2	1880	20	100 ng/mL		100
S3	1840	60			100
S4	1885	15			100
S5	1870	30	1 ug/mL		100
S6	1850	50			100
*ICV	1875	25	1 ug/mL		100

MORPH-L

Calib. Std.	Volume of DI Water (mL)	Methanol (mL)	Solution Conc.	Solution ID#	Amount Spiked (uL)	Internal Standard (uL)
S1	1	1	200 ug/L		20	50
S2	1	1			50	50
S3	1	1	2500 ug/L		20	50
S4	1	1			80	50
S5	1	1			200	50
S6	1	1			400	50
*ICV	1	1	2500 ug/L		80	50

PFAADW-W

Calib. Std.	Volume of 96:4 (MeOH : Water) (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Surrogate (25/200 ng/mL)	Internal Standard (uL) 50/100/200 ng/mL
S1	780	20	6.25/25/50 ng/mL		100	100
S2	728	72	DWB		100	100
S3	608	192			100	100
S4	762	38.4	62.5/250/500 ng/mL		100	100
S5	728	72			100	100
S6	700	100	DWA		100	100
*ICV	752	48	62.5/250/500 ng/mL DWA		100	100
tPFOA	800	100	50 ng/mL		N/A	100

STERIL-S

Calib. Std.	Volume of 60: 40 Water : MEOH (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard (uL)
S1	5	20	**		50
S2	5	30	Solution B		50
S3	5	40			50
S4	5	80			50
S5	5	22	**		50
S6	5	40	Solution A		50
*ICV	5	20	**		50

CLO4LCMS-W/ CLO4LCMS-S

Calib. Std.	Volume of Water (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#
S1	9.95	50		
S2	9.9	100		
S3	9.75	250	10ug/L	
S4	9.5	500		
S5	9	1000		
S6	8	2000		
*ICV	9	1000	10 ug/L	

* ICV are prepared using second source

** Concentration of Individual Parameters in Solution A & B Varies

PFAS worksheet reagent tracking sheet Worksheet # 6981810 Date : 2020-10-04 Spiked by: CP3

	Spiking Witness checklist	Yes	Initial
1	Verify that the Solution ID on the bottle matches the documented solution ID in the tracking sheet.	✓	EG1
2	Verify that the syringe ID documented on the tracking sheet matches the syringe ID used for spiking.	✓	
3	Verify the volume spiking solution required matches the documented volume on the tracking sheet.	✓	
4	Observe each spiking event to ensure that the appropriate QC samples are spiked.	✓	
5	Was the spiking information such as solution ID, syringe ID and spike volume recorded before spiking event occurred?	✓	

Test code		Surrogate /Spike/IS solutions	Solution ID#	Conc.	Spike	MS	Sample	Syringe ID	Witness
PFOSALCM-W PFCDOD-W PFASBC-W	SPE	PFAS Second Source Solution A	INT-0083(2/3)	1ug/mL	60	60	N/A	0365880	EG1
		PFAS Internal Standard Solution A	STS-0015(4/5)	125/250 ng/mL	150	150	150	0401086	
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSALCM-W	Dilution	PFAS Second Source Solution A		1ug/mL	18	18	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	100	100	100		
		PFAS Second Source Solution D		30 ng/mL	N/A	N/A	10		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSLOW-W PFASDOD-W PFCODW-W PFASLOBC-W	SPE	PFAS Second Source Solution C		100 ng/mL	60	60	N/A		
		PFAS Internal Standard Solution B		12.5/25 ng/mL	150	150	150		
		PFC Injection IS		100 ng/mL	15	15	15		
PFAADW-W	SPE	Second Source Spiking Solution DWB		6.25/25/50 ng/mL	40	40	N/A		
		Second Source Spiking Solution DWA		62.5/250/500 ng/mL	48/80	48/80	N/A		
		PFAA Internal Standard Solution		50/100/200 ng/mL	100	100	100		
		PFAA Surrogate solution		25/200 ng/mL	100	100	100		
PFOS_OX-W PFOS_OX-S	SPE	PFAS Internal Standard Solution A		125/250 ng/mL	150	150	150		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSALCM-S PFASDOD-S PFASBC-S	SPE	PFAS Second Source Solution A		1ug/mL	72	72	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	200	200	200		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSLOW-S	SPE	PFAS Second Source Solution C		100 ng/mL	72	72	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	20	20	20		
		PFC Injection IS		100 ng/mL	15	15	15		

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/Prepared
0.2% NH_4OH in Methanol	✓	PRLRE 143-215		Blank Mat.			
0.5% NH_4OH in 70:30 Methanol:Water				Env. Carb.	✓	28486	2020.09.18
1% NH4OH in methanol				Leachate Fluid			
10mM KOH in Methanol				Methanol	✓	SHBM0786	2020.10.04
2% Formic Acid	✓	PRLRE 143-202		Ottawa Sand			
60:40 Water: Methanol	✓	PRLRE 143-203		Reagent Water	✓	60184	2020.10.04
60:40 Water:Acetonitrile				Ref. Mat.			
96:4 Methanol: Water				Trizma			
0.2 % Formic Acid				Acetonitrile	✓	PRLRE 142-216	

Equipment & ID	√	Equipment	√	ID#	Bottle Tracking	
Pipettor N220621, K185205F, K196565E, R406011G	✓	SPE Cartridge	✓	00839240A	Bottle#	23273
Thermometer ID &Temp		QC Balance ID			Cap#	23191
Dispenser EE-1	✓	Centrifuge	✓	12148683	Systems plus Lot#	20.09.22
Measuring cylinder 250mL		Sonicator				
Shaker						

Comments:

Worksheet: 69 81 810

Dilution and Column Cleanup Worksheet

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample Added mL	Solvent Added mL	Int Std Added uL	New Effective Final Volume mL	Initials and Date	Column Cleanup
COP6559	NTX288-01	1X	2X	62.5	-	150	62.5		-
		1X	20X	6.25	-	150	6.25		-
	NTX289-01	1X	10X	12.5	-	150	12.5		-
	NTX291-01	1X	10X	12.5	-	150	12.5	CP3	-
	NTX292-01	1X	10X	12.5	-	150	12.5	2020-10-04	-
	NTX293-01	1X	5X	25	-	150	25		-
		1X	50X	2.5	122.5	150	125		-
	NTX299-01	1X	10X	12.5	-	150	12.5		-
	NTX295-01	1X	10X	12.5	-	150	12.5		-
	NTX296-01	1X	10X	12.5	-	150	12.5		-
								CP3 2020-10-04	

Worksheet Number: **6981810**

PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	Units	MTRX SPK	MTRX SPK Dup1	SPIKE	BLANK	DL	C0P6559 NTX288
Perfluorobutanoic acid (PFBA)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******
Perfluoropentanoic acid (PFPeA)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******
Perfluorohexanoic acid (PFHxA)	ug/L	101.53577	102.72581	103.93931	0	0.02	1.62092470
Perfluoroheptanoic acid (PFHpA)	ug/L	102.46645	103.61268	102.94464	0	0.02	0.39812756
Perfluorooctanoic acid (PFOA)	ug/L	101.44036	101.61917	105.18963	0	0.02	1.06904479
Perfluorononanoic acid (PFNA)	ug/L	101.08895	102.34788	103.47647	0	0.02	0.04591431
Perfluorodecanoic acid (PFDA)	ug/L	102.70677	102.06663	107.35727	0	0.02	0.01222086
Perfluoroundecanoic acid (PFUnA)	ug/L	100.71443	100.66236	100.69784	0	0.02	0
Perfluorododecanoic acid (PFDoA)	ug/L	98.78305	99.65075	100.62662	0	0.02	0
Perfluorotridecanoic acid (PFTRDA)	ug/L	104.70657	110.55148	102.86049	0.00068493	0.02	0.00131087
Perfluorotetradecanoic acid(PFTEDA)	ug/L	100.17654	103.09842	100.97650	0	0.02	0
Perfluorobutanesulfonic acid (PFBS)	ug/L	102.71361	103.57361	105.41221	0	0.02	0.10304421
Perfluoropentanesulfonic acid PFPes	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******
Perfluorohexanesulfonic acid(PFHxS)	ug/L	103.38188	101.56734	102.99265	0	0.02	1.26228939
Perfluoroheptanesulfonic acid PFHpS	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******
Perfluorooctanesulfonic acid (PFOS)	ug/L	101.54274	101.36429	104.62938	0	0.02	10.4514503
Perfluorononanesulfonic acid (PFNS)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******
Perfluorodecanesulfonic acid (PFDS)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	ug/L	N/A*******	N/A*******	101.12859	0	0.02	N/A*******
EtFOSA	ug/L	107.43038	110.52507	106.84553	0	0.04	0
MeFOSA	ug/L	111.77822	106.87427	110.43168	0	0.04	0
EtFOSE	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******
MeFOSE	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******
EtFOSAA	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******
MeFOSAA	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******
4:2 Fluorotelomer sulfonic acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******
6:2 Fluorotelomer sulfonic acid	ug/L	N/A*******	N/A*******	105.48027	0	0.02	N/A*******
8:2 Fluorotelomer sulfonic acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.02	N/A*******
Hexafluoropropyleneoxide dimer acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******
4,8-Dioxa-3H-perfluorononanoic acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******
9Cl-PF3ONS (F-53B Major)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******
11Cl-PF3OUdS (F-53B Minor)	ug/L	N/A*******	N/A*******	N/A*******	N/A*******	0.04	N/A*******
13C4-Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******
13C5-Perfluoropentanoic acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******
13C2-Perfluorohexanoic acid	ug/L	109.128196	109.136239	111.243364	109.377513		97.1047128
13C4-Perfluoroheptanoic acid	ug/L	113.377636	112.636039	117.056727	112.318212		104.497736
13C4-Perfluorooctanoic acid	ug/L	113.538434	114.132458	113.768951	108.245411		100.984129
13C5-Perfluorononanoic acid	ug/L	113.292641	114.490787	115.722843	111.359782		107.674918
13C2-Perfluorodecanoic acid	ug/L	109.829334	111.677146	110.509431	106.274862		102.746054
13C2-Perfluoroundecanoic acid	ug/L	107.532070	108.402965	112.828056	107.543839		102.365540
13C2-Perfluorododecanoic acid	ug/L	103.294402	103.481710	107.999118	102.137505		94.6342000
13C2-perfluorotetradecanoic acid	ug/L	95.6927794	93.3928073	103.624198	95.9715639		95.2606635
13C3-Perfluorobutanesulfonic acid	ug/L	107.717569	107.084212	110.509031	105.887872		103.776683
18O2-Perfluorohexanesulfonic acid	ug/L	110.301263	113.751214	114.382896	106.073858		106.948493
13C4-Perfluorooctanesulfonic acid	ug/L	112.233285	112.565196	116.832622	110.478899		104.030346
13C8-Perfluorooctane Sulfonamide	ug/L	N/A*******	N/A*******	112.483696	102.273150		N/A*******
D5-EtFOSA	ug/L	60.0841599	58.5211902	84.7309888	82.9576194		68.6504358
D3-MeFOSA	ug/L	58.9144500	62.7965492	85.2264557	84.2918763		74.5147375
D9-EtFOSE	ug/L	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******
D7-MeFOSE	ug/L	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******
D5-EtFOSAA	ug/L	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******
D3-MeFOSAA	ug/L	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******
13C2-4:2-Fluorotelomersulfonic Acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******
13C2-6:2-Fluorotelomersulfonic Acid	ug/L	N/A*******	N/A*******	108.373786	113.915857		N/A*******
13C2-8:2-Fluorotelomersulfonic Acid	ug/L	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******
13C3-HFPO-DA	ug/L	N/A*******	N/A*******	N/A*******	N/A*******		N/A*******

PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	DL	C0P6559 NTX289	DL	C0P6559 NTX290	DL	C0P6559 NTX291	DL
Perfluorobutanoic acid (PFBA)	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
Perfluoropentanoic acid (PFPeA)	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
Perfluorohexanoic acid (PFHxA)	0.04	0.27549211	0.023	0.01302390	0.02	1.34378870	0.2
Perfluoroheptanoic acid (PFHpA)	0.04	0.15777268	0.023	0.00247327	0.02	0.55040313	0.02
Perfluorooctanoic acid (PFOA)	0.04	0.64903688	0.023	0.03494725	0.02	0.44664487	0.02
Perfluorononanoic acid (PFNA)	0.04	0.01443162	0.023	0	0.02	0.05166008	0.02
Perfluorodecanoic acid (PFDA)	0.04	0.00561253	0.023	0	0.02	0.00789815	0.02
Perfluoroundecanoic acid (PFUnA)	0.04	0	0.023	0	0.02	0	0.02
Perfluorododecanoic acid (PFDoA)	0.04	0	0.023	0	0.02	0	0.02
Perfluorotridecanoic acid (PFTRDA)	0.04	0	0.023	0.00024938	0.02	0	0.02
Perfluorotetradecanoic acid(PFTEDA)	0.04	0	0.023	0	0.02	0	0.02
Perfluorobutanesulfonic acid (PFBS)	0.04	0.02769629	0.023	0.00634014	0.02	0.16395781	0.02
Perfluoropentanesulfonic acid PFPes	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
Perfluorohexanesulfonic acid(PFHxS)	0.04	0.67172590	0.023	0.03370398	0.02	5.04109592	0.2
Perfluoroheptanesulfonic acid PFHpS	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
Perfluorooctanesulfonic acid (PFOS)	0.4	2.05939884	0.2	0.06690561	0.02	1.74521629	0.2
Perfluorononanesulfonic acid (PFNS)	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
Perfluorodecanesulfonic acid (PFDS)	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
Perfluorooctane Sulfonamide (PFOSA)	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
EtFOSA	0.08	0	0.046	0	0.04	0	0.04
MeFOSA	0.08	0	0.046	0	0.04	0	0.04
EtFOSE	0.08	N/A*******	0.046	N/A*******	0.04	N/A*******	0.04
MeFOSE	0.08	N/A*******	0.046	N/A*******	0.04	N/A*******	0.04
EtFOSAA	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
MeFOSAA	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
4:2 Fluorotelomer sulfonic acid	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
6:2 Fluorotelomer sulfonic acid	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
8:2 Fluorotelomer sulfonic acid	0.04	N/A*******	0.023	N/A*******	0.02	N/A*******	0.02
Hexafluoropropyleneoxide dimer acid	0.08	N/A*******	0.046	N/A*******	0.04	N/A*******	0.04
4,8-Dioxa-3H-perfluorononanoic acid	0.08	N/A*******	0.046	N/A*******	0.04	N/A*******	0.04
9Cl-PF3ONS (F-53B Major)	0.08	N/A*******	0.046	N/A*******	0.04	N/A*******	0.04
11Cl-PF3OUdS (F-53B Minor)	0.08	N/A*******	0.046	N/A*******	0.04	N/A*******	0.04
13C4-Perfluorobutanoic acid		N/A*******		N/A*******		N/A*******	
13C5-Perfluoropentanoic acid		N/A*******		N/A*******		N/A*******	
13C2-Perfluorohexanoic acid		104.367058		108.549139		107.720765	
13C4-Perfluoroheptanoic acid		106.356544		110.719445		111.769238	
13C4-Perfluorooctanoic acid		104.796524		109.566450		109.096551	
13C5-Perfluorononanoic acid		109.958177		111.020684		112.637052	
13C2-Perfluorodecanoic acid		104.491210		110.201462		110.175798	
13C2-Perfluoroundecanoic acid		104.154407		104.448628		106.825938	
13C2-Perfluorododecanoic acid		99.0193918		96.7386513		100.539885	
13C2-perfluorotetradecanoic acid		96.5430722		92.2916085		94.6612768	
13C3-Perfluorobutanesulfonic acid		103.823598		103.284072		98.5221674	
18O2-Perfluorohexanesulfonic acid		108.357628		106.122448		108.503401	
13C4-Perfluorooctanesulfonic acid		105.168326		110.431484		115.836889	
13C8-Perfluorooctane Sulfonamide		N/A*******		N/A*******		N/A*******	
D5-EtFOSA		66.2458671		63.4505560		54.6738803	
D3-MeFOSA		69.7699496		64.9173256		61.8979151	
D9-EtFOSE		N/A*******		N/A*******		N/A*******	
D7-MeFOSE		N/A*******		N/A*******		N/A*******	
D5-EtFOSAA		N/A*******		N/A*******		N/A*******	
D3-MeFOSAA		N/A*******		N/A*******		N/A*******	
13C2-4:2-Fluorotelomersulfonic Acid		N/A*******		N/A*******		N/A*******	
13C2-6:2-Fluorotelomersulfonic Acid		N/A*******		N/A*******		N/A*******	
13C2-8:2-Fluorotelomersulfonic Acid		N/A*******		N/A*******		N/A*******	
13C3-HFPO-DA		N/A*******		N/A*******		N/A*******	

PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	C0P6559 NTX292	DL	C0P6559 NTX293	DL	C0P6559 NTX294	DL	C0P6559 NTX295
Perfluorobutanoic acid (PFBA)	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
Perfluoropentanoic acid (PFPeA)	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
Perfluorohexanoic acid (PFHxA)	1.34106454	0.2	1.77448101	0.1	0.95067796	0.02	0.24366140
Perfluoroheptanoic acid (PFHpA)	0.55796717	0.021	0.98438563	0.1	0.47199514	0.02	0.08756429
Perfluorooctanoic acid (PFOA)	0.44461225	0.021	1.15251945	0.1	1.16678215	0.2	0.19525195
Perfluorononanoic acid (PFNA)	0.05386494	0.021	0.06985870	0.1	0.04084055	0.02	0.01001300
Perfluorodecanoic acid (PFDA)	0.00831607	0.021	0.00791215	0.1	0.01000646	0.02	0.00175712
Perfluoroundecanoic acid (PFUnA)	0.00082214	0.021	0.00275915	0.1	0	0.02	0.00067168
Perfluorododecanoic acid (PFDoA)	0	0.021	0	0.1	0	0.02	0
Perfluorotridecanoic acid (PFTRDA)	0	0.021	0	0.1	0.00055088	0.02	0
Perfluorotetradecanoic acid(PFTEDA)	0	0.021	0	0.1	0	0.02	0
Perfluorobutanesulfonic acid (PFBS)	0.15984153	0.021	0.13104925	0.1	0.06926393	0.02	0.03869507
Perfluoropentanesulfonic acid PFPes	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
Perfluorohexanesulfonic acid(PFHxS)	4.99636973	0.2	5.86943073	1.0	1.89777431	0.2	0.91833411
Perfluoroheptanesulfonic acid PFHpS	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
Perfluorooctanesulfonic acid (PFOS)	1.81108246	0.2	23.4578682	1.0	7.02314207	0.2	2.37648847
Perfluorononanesulfonic acid (PFNS)	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
Perfluorodecanesulfonic acid (PFDS)	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
EtFOSA	0	0.042	0	0.2	0	0.04	0
MeFOSA	0	0.042	0	0.2	0	0.04	0
EtFOSE	N/A*******	0.042	N/A*******	0.2	N/A*******	0.04	N/A*******
MeFOSE	N/A*******	0.042	N/A*******	0.2	N/A*******	0.04	N/A*******
EtFOSAA	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
MeFOSAA	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
4:2 Fluorotelomer sulfonic acid	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
6:2 Fluorotelomer sulfonic acid	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
8:2 Fluorotelomer sulfonic acid	N/A*******	0.021	N/A*******	0.1	N/A*******	0.02	N/A*******
Hexafluoropropyleneoxide dimer acid	N/A*******	0.042	N/A*******	0.2	N/A*******	0.04	N/A*******
4,8-Dioxa-3H-perfluorononanoic acid	N/A*******	0.042	N/A*******	0.2	N/A*******	0.04	N/A*******
9Cl-PF3ONS (F-53B Major)	N/A*******	0.042	N/A*******	0.2	N/A*******	0.04	N/A*******
11Cl-PF3OUdS (F-53B Minor)	N/A*******	0.042	N/A*******	0.2	N/A*******	0.04	N/A*******
13C4-Perfluorobutanoic acid	N/A*******		N/A*******		N/A*******		N/A*******
13C5-Perfluoropentanoic acid	N/A*******		N/A*******		N/A*******		N/A*******
13C2-Perfluorohexanoic acid	107.640341		95.1262666		104.905903		102.308187
13C4-Perfluoroheptanoic acid	113.541365		110.642396		109.775594		107.897524
13C4-Perfluorooctanoic acid	110.523982		111.268729		105.629931		104.716730
13C5-Perfluorononanoic acid	110.184243		114.886402		113.744772		107.867073
13C2-Perfluorodecanoic acid	111.253689		110.098806		108.520467		104.670858
13C2-Perfluoroundecanoic acid	109.438625		108.814875		108.497116		102.118394
13C2-Perfluorododecanoic acid	101.035698		101.465403		102.578228		95.2291758
13C2-perfluorotetradecanoic acid	95.8879286		106.258712		98.7175913		94.6055199
13C3-Perfluorobutanesulfonic acid	102.134646		107.952146		106.474313		103.612479
18O2-Perfluorohexanesulfonic acid	109.912536		98.4450923		108.843537		106.073858
13C4-Perfluorooctanesulfonic acid	113.323850		99.4784257		109.293504		107.823613
13C8-Perfluorooctane Sulfonamide	N/A*******		N/A*******		N/A*******		N/A*******
D5-EtFOSA	53.8923955		!! 32.3715		70.4538623		52.3594830
D3-MeFOSA	57.2250179		!! 36.0172		70.7045291		53.9899352
D9-EtFOSE	N/A*******		N/A*******		N/A*******		N/A*******
D7-MeFOSE	N/A*******		N/A*******		N/A*******		N/A*******
D5-EtFOSAA	N/A*******		N/A*******		N/A*******		N/A*******
D3-MeFOSAA	N/A*******		N/A*******		N/A*******		N/A*******
13C2-4:2-Fluorotelomersulfonic Acid	N/A*******		N/A*******		N/A*******		N/A*******
13C2-6:2-Fluorotelomersulfonic Acid	N/A*******		N/A*******		N/A*******		N/A*******
13C2-8:2-Fluorotelomersulfonic Acid	N/A*******		N/A*******		N/A*******		N/A*******
13C3-HFPO-DA	N/A*******		N/A*******		N/A*******		N/A*******

PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	DL	C0P6559 NTX296	DL	C0P6559 NTX297	C0P6559 NTX298	C0P6559 NTX299	DL
Perfluorobutanoic acid (PFBA)	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
Perfluoropentanoic acid (PFPeA)	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
Perfluorohexanoic acid (PFHxA)	0.023	0.25085998	0.022	0.09643526	0	0.00548258	0.02
Perfluoroheptanoic acid (PFHpA)	0.023	0.14126326	0.022	0.05341931	0	0.00026041	0.02
Perfluorooctanoic acid (PFOA)	0.023	0.19195505	0.022	0.06223498	0	0.04388683	0.02
Perfluorononanoic acid (PFNA)	0.023	0.02639136	0.022	0.00533701	0	0.00261269	0.02
Perfluorodecanoic acid (PFDA)	0.023	0.00314365	0.022	0.00092372	0	0	0.02
Perfluoroundecanoic acid (PFUnA)	0.023	0.00038496	0.022	0	0	0	0.02
Perfluorododecanoic acid (PFDoA)	0.023	0	0.022	0	0	0.00118953	0.02
Perfluorotridecanoic acid (PFTRDA)	0.023	0.00117876	0.022	0	0.00025096	0	0.02
Perfluorotetradecanoic acid(PFTEDA)	0.023	0	0.022	0	0	0	0.02
Perfluorobutanesulfonic acid (PFBS)	0.023	0.03332874	0.022	0.01973649	0	0.01191440	0.02
Perfluoropentanesulfonic acid PFPes	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
Perfluorohexanesulfonic acid(PFHxS)	0.023	1.04153251	0.022	0.48720426	0	0.09876565	0.02
Perfluoroheptanesulfonic acid PFHpS	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
Perfluorooctanesulfonic acid (PFOS)	0.2	3.40522192	0.2	0.75311625	0	0.21131477	0.02
Perfluorononanesulfonic acid (PFNS)	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
Perfluorodecanesulfonic acid (PFDS)	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
Perfluorooctane Sulfonamide (PFOSA)	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
EtFOSA	0.046	0	0.044	0	0	0	0.04
MeFOSA	0.046	0	0.044	0	0	0	0.04
EtFOSE	0.046	N/A*******	0.044	N/A*******	N/A*******	N/A*******	0.04
MeFOSE	0.046	N/A*******	0.044	N/A*******	N/A*******	N/A*******	0.04
EtFOSAA	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
MeFOSAA	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
4:2 Fluorotelomer sulfonic acid	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
6:2 Fluorotelomer sulfonic acid	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
8:2 Fluorotelomer sulfonic acid	0.023	N/A*******	0.022	N/A*******	N/A*******	N/A*******	0.02
Hexafluoropropyleneoxide dimer acid	0.046	N/A*******	0.044	N/A*******	N/A*******	N/A*******	0.04
4,8-Dioxa-3H-perfluorononanoic acid	0.046	N/A*******	0.044	N/A*******	N/A*******	N/A*******	0.04
9Cl-PF3ONS (F-53B Major)	0.046	N/A*******	0.044	N/A*******	N/A*******	N/A*******	0.04
11Cl-PF3OUdS (F-53B Minor)	0.046	N/A*******	0.044	N/A*******	N/A*******	N/A*******	0.04
13C4-Perfluorobutanoic acid		N/A*******		N/A*******	N/A*******	N/A*******	
13C5-Perfluoropentanoic acid		N/A*******		N/A*******	N/A*******	N/A*******	
13C2-Perfluorohexanoic acid		111.460511		113.599806	111.299662	106.482226	
13C4-Perfluoroheptanoic acid		113.117596		115.775787	112.193007	109.534816	
13C4-Perfluorooctanoic acid		112.518840		113.166060	113.086266	109.610781	
13C5-Perfluorononanoic acid		116.446252		114.502091	116.197581	111.789307	
13C2-Perfluorodecanoic acid		112.254587		109.752341	116.052867	106.865135	
13C2-Perfluoroundecanoic acid		106.814169		112.216076	107.838060	96.2692715	
13C2-Perfluorododecanoic acid		97.9616571		101.906126	103.525782	67.8933450	
13C2-perfluorotetradecanoic acid		99.7630331		99.1915249	105.422358	63.3816559	
13C3-Perfluorobutanesulfonic acid		108.655876		110.649777	105.231057	106.380483	
18O2-Perfluorohexanesulfonic acid		109.037900		115.840621	110.835762	108.309037	
13C4-Perfluorooctanesulfonic acid		117.496443		113.229018	113.940256	114.224751	
13C8-Perfluorooctane Sulfonamide		N/A*******		N/A*******	N/A*******	N/A*******	
D5-EtFOSA		63.7811842		51.2774271	78.9900811	56.3270213	
D3-MeFOSA		66.2473040		52.0848310	86.4485981	65.0611071	
D9-EtFOSE		N/A*******		N/A*******	N/A*******	N/A*******	
D7-MeFOSE		N/A*******		N/A*******	N/A*******	N/A*******	
D5-EtFOSAA		N/A*******		N/A*******	N/A*******	N/A*******	
D3-MeFOSAA		N/A*******		N/A*******	N/A*******	N/A*******	
13C2-4:2-Fluorotelomersulfonic Acid		N/A*******		N/A*******	N/A*******	N/A*******	
13C2-6:2-Fluorotelomersulfonic Acid		N/A*******		N/A*******	N/A*******	N/A*******	
13C2-8:2-Fluorotelomersulfonic Acid		N/A*******		N/A*******	N/A*******	N/A*******	
13C3-HFPO-DA		N/A*******		N/A*******	N/A*******	N/A*******	

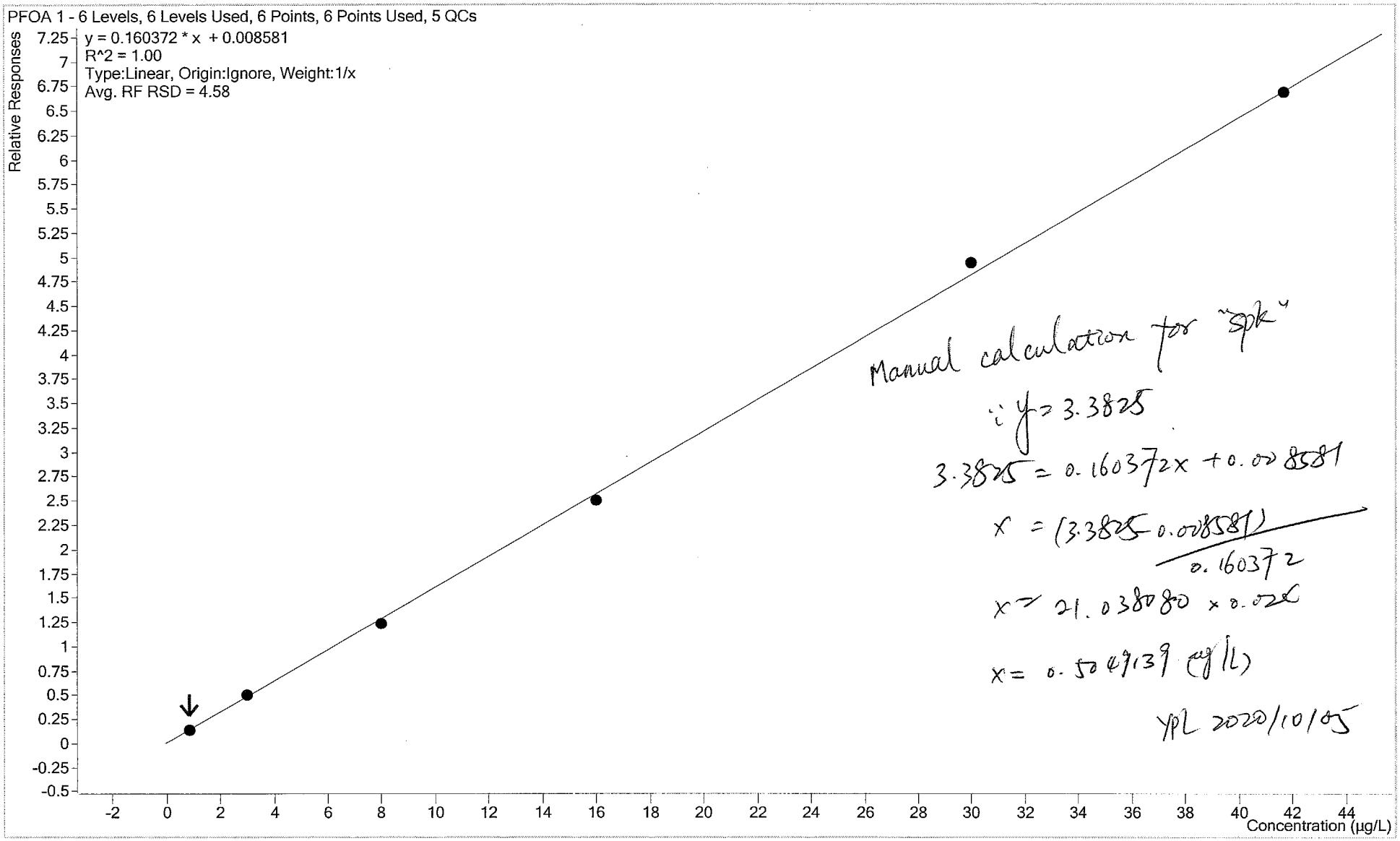
PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	RDL	MDL	IDL				
Perfluorobutanoic acid (PFBA)	0.02	0.0039	0				
Perfluoropentanoic acid (PFPeA)	0.02	0.0067	0				
Perfluorohexanoic acid (PFHxA)	0.02	0.0053	0				
Perfluoroheptanoic acid (PFHpA)	0.02	0.0067	0				
Perfluorooctanoic acid (PFOA)	0.02	0.005	0				
Perfluorononanoic acid (PFNA)	0.02	0.0051	0				
Perfluorodecanoic acid (PFDA)	0.02	0.0039	0				
Perfluoroundecanoic acid (PFUnA)	0.02	0.0062	0				
Perfluorododecanoic acid (PFDoA)	0.02	0.008	0				
Perfluorotridecanoic acid (PFTRDA)	0.02	0.0064	0				
Perfluorotetradecanoic acid(PFTEDA)	0.02	0.0068	0				
Perfluorobutanesulfonic acid (PFBS)	0.02	0.0056	0				
Perfluoropentanesulfonic acid PFPes	0.02	0.0055	0				
Perfluorohexanesulfonic acid(PFHxS)	0.02	0.0044	0				
Perfluoroheptanesulfonic acid PFHpS	0.02	0.0065	0				
Perfluorooctanesulfonic acid (PFOS)	0.02	0.0057	0				
Perfluorononanesulfonic acid (PFNS)	0.02	0.0072	0				
Perfluorodecanesulfonic acid (PFDS)	0.02	0.0064	0				
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.0036	0				
EtFOSA	0.04	0.007	0				
MeFOSA	0.04	0.0078	0				
EtFOSE	0.04	0.0071	0				
MeFOSE	0.04	0.007	0				
EtFOSAA	0.02	0.007	0				
MeFOSAA	0.02	0.008	0				
4:2 Fluorotelomer sulfonic acid	0.02	0.0054	0				
6:2 Fluorotelomer sulfonic acid	0.02	0.0065	0				
8:2 Fluorotelomer sulfonic acid	0.02	0.0067	0				
Hexafluoropropyleneoxide dimer acid	0.04	0.009	0				
4,8-Dioxa-3H-perfluorononanoic acid	0.04	0.0063	0				
9Cl-PF3ONS (F-53B Major)	0.04	0.0054	0				
11Cl-PF3OUdS (F-53B Minor)	0.04	0.0077	0				
13C4-Perfluorobutanoic acid							
13C5-Perfluoropentanoic acid							
13C2-Perfluorohexanoic acid							
13C4-Perfluoroheptanoic acid							
13C4-Perfluorooctanoic acid							
13C5-Perfluorononanoic acid							
13C2-Perfluorodecanoic acid							
13C2-Perfluoroundecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-perfluorotetradecanoic acid							
13C3-Perfluorobutanesulfonic acid							
18O2-Perfluorohexanesulfonic acid							
13C4-Perfluorooctanesulfonic acid							
13C8-Perfluorooctane Sulfonamide							
D5-EtFOSA							
D3-MeFOSA							
D9-EtFOSE							
D7-MeFOSE							
D5-EtFOSAA							
D3-MeFOSAA							
13C2-4:2-Fluorotelomersulfonic Acid							
13C2-6:2-Fluorotelomersulfonic Acid							
13C2-8:2-Fluorotelomersulfonic Acid							
13C3-HFPO-DA							

Calibration Curve Window

Agilent Technologies

Data Path	D:\MassHunter\Data\PFC\20201005\WS#6981810
Data File	WS#6981810_02.d
Acq Operator	
Acq. Date-Time	10/5/2020 7:28 AM
Instrument Name	LCMS05



Report Name: Worksheet - Parameter Lists
Report Date: 2020/10/04

Test Code: **PFCDOD-W**
Worksheet Number: **6981810**

Sample Number	Parameter Code	Parameter
NTX288-01	PFHXA	Perfluorohexanoic acid (PFHxA)
NTX289-01	PFHPA	Perfluoroheptanoic acid (PFHpA)
NTX290-01	PFOA1	Perfluorooctanoic acid (PFOA)
NTX291-01	PFNA	Perfluorononanoic acid (PFNA)
NTX292-01	PFDA	Perfluorodecanoic acid (PFDA)
NTX293-01	PFUNA	Perfluoroundecanoic acid (PFUnA)
NTX294-01	PFDOA	Perfluorododecanoic acid (PFDoA)
NTX295-01	PFTRDA	Perfluorotridecanoic acid (PFTRDA)
NTX296-01	PFTEDA	Perfluorotetradecanoic acid (PFTEDA)
NTX297-01	PFBSA	Perfluorobutanesulfonic acid (PFBS)
NTX298-01	PFHXSA	Perfluorohexanesulfonic acid (PFHxS)
NTX299-01	PFOS2	Perfluorooctanesulfonic acid (PFOS)
	ETFOSA	EtFOSA
	MEFOSA	MeFOSA

WorkSheet 6981810 Instrument Sequences

1.	6981810:MTRX SPK	MTRX SPK
2.	6981810:MTRX SPK:D1	MTRX SPK :D1
3.	6981810:SPIKE	SPIKE
4.	6981810:BLANK	BLANK
5.	6981810:NTX288-01	06-MW25-0920
6.	6981810:NTX289-01	06-MW26-0920
7.	6981810:NTX290-01	06-MW30-0920
8.	6981810:NTX291-01	06-MW31-0920
9.	6981810:NTX292-01	06-MW31-0920 DUP
10.	6981810:NTX293-01	06-MW32-0920
11.	6981810:NTX294-01	06-MW33-0920
12.	6981810:NTX295-01	06-MW34-0920
13.	6981810:NTX296-01	06-MW35-0920
14.	6981810:NTX297-01	06-MW36-0920
15.	6981810:NTX298-01	QCFB-092120
16.	6981810:NTX299-01	HP01

Worklist Report

Agilent | Trusted Answers

Instrument Name: LCMS05 **Worklist Path:** D:\MassHunter\Worklists \PFC_20201005_Water_DOD_A.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: ---
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\PFC\20201005\WS#6981810\
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Post Analysis Script: ---
Overlapped Injection: No
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #458 MP A1:Solution #140 [FSRE19]
MP B1:Methanol, Sigma (SHBM0726)

YPL
20201005

Plate Barcode:

Plate	Barcode
P2	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	MeOH RINSE	P2-A1	PFAS.m	WS#6981810_01.d	Sample		As Method	-
2	STD 1	P2-A2	PFAS.m	WS#6981810_02.d	Calibration	STD 1	As Method	-
3	STD 2	P2-A3	PFAS.m	WS#6981810_03.d	Calibration	STD 2	As Method	-
4	STD 3	P2-A4	PFAS.m	WS#6981810_04.d	Calibration	STD 3	As Method	-
5	STD 4	P2-A5	PFAS.m	WS#6981810_05.d	Calibration	STD 4	As Method	-
6	STD 5	P2-A6	PFAS.m	WS#6981810_06.d	Calibration	STD 5	As Method	-
7	STD 6	P2-A7	PFAS.m	WS#6981810_07.d	Calibration	STD 6	As Method	-
8	IB	P2-A8	PFAS.m	WS#6981810_08.d	Sample		As Method	-
9	ICV	P2-A9	PFAS.m	WS#6981810_09.d	QC	ICV	As Method	-
10	ISC	P2-A2	PFAS.m	WS#6981810_10.d	QC	STD 1	As Method	-
11	6981810:BLANK	P2-B1	PFAS.m	WS#6981810_11.d	Sample		As Method	-
12	6981810:SPIKE	P2-B2	PFAS.m	WS#6981810_12.d	QC	ICV	As Method	-

Worklist Report

Agilent | Trusted Answers

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
13	6981810:MTRX SPK	P2-B3	PFAS.m	WS#6981810_13.d	QC	ICV	As Method	-
14	6981810:MTRX SPK:D1	P2-B4	PFAS.m	WS#6981810_14.d	QC	ICV	As Method	-
15	IB	P2-A8	PFAS.m	WS#6981810_15.d	Sample		As Method	-
16	6981810:NTX288-01:20x	P2-B5	PFAS.m	WS#6981810_16.d	Sample		As Method	-
17	6981810:NTX288-01:2x	P2-B6	PFAS.m	WS#6981810_17.d	Sample		As Method	-
18	IB	P2-A8	PFAS.m	WS#6981810_18.d	Sample		As Method	-
19	6981810:NTX289-01:10x	P2-B7	PFAS.m	WS#6981810_19.d	Sample		As Method	-
20	6981810:NTX289-01	P2-B8	PFAS.m	WS#6981810_20.d	Sample		As Method	-
21	IB	P2-A8	PFAS.m	WS#6981810_21.d	Sample		As Method	-
22	CCV	P2-A5	PFAS.m	WS#6981810_22.d	ConCal	STD 4	As Method	-
23	6981810:NTX290-01	P2-B9	PFAS.m	WS#6981810_23.d	Sample		As Method	-
24	6981810:NTX291-01:10x	P2-C1	PFAS.m	WS#6981810_24.d	Sample		As Method	-
25	6981810:NTX291-01	P2-C2	PFAS.m	WS#6981810_25.d	Sample		As Method	-
26	IB	P2-A8	PFAS.m	WS#6981810_26.d	Sample		As Method	-
27	6981810:NTX292-01:10x	P2-C3	PFAS.m	WS#6981810_27.d	Sample		As Method	-
28	6981810:NTX292-01	P2-C4	PFAS.m	WS#6981810_28.d	Sample		As Method	-
29	IB	P2-A8	PFAS.m	WS#6981810_29.d	Sample		As Method	-
30	6981810:NTX293-01:50x	P2-C5	PFAS.m	WS#6981810_30.d	Sample		As Method	-
31	6981810:NTX293-01:5x	P2-C6	PFAS.m	WS#6981810_31.d	Sample		As Method	-
32	IB	P2-A8	PFAS.m	WS#6981810_32.d	Sample		As Method	-
33	CCV	P2-A5	PFAS.m	WS#6981810_33.d	ConCal	STD 4	As Method	-
34	6981810:NTX294-01:10x	P2-C7	PFAS.m	WS#6981810_34.d	Sample		As Method	-
35	6981810:NTX294-01	P2-C8	PFAS.m	WS#6981810_35.d	Sample		As Method	-
36	IB	P2-A8	PFAS.m	WS#6981810_36.d	Sample		As Method	-
37	6981810:NTX295-01:10x	P2-C9	PFAS.m	WS#6981810_37.d	Sample		As Method	-
38	6981810:NTX295-01	P2-D1	PFAS.m	WS#6981810_38.d	Sample		As Method	-
39	IB	P2-A8	PFAS.m	WS#6981810_39.d	Sample		As Method	-
40	6981810:NTX296-01:10x	P2-D2	PFAS.m	WS#6981810_40.d	Sample		As Method	-
41	6981810:NTX296-01	P2-D3	PFAS.m	WS#6981810_41.d	Sample		As Method	-
42	IB	P2-A8	PFAS.m	WS#6981810_42.d	Sample		As Method	-
43	6981810:NTX297-01	P2-D4	PFAS.m	WS#6981810_43.d	Sample		As Method	-
44	6981810:NTX298-01	P2-D5	PFAS.m	WS#6981810_44.d	Sample		As Method	-
45	6981810:NTX299-01	P2-D6	PFAS.m	WS#6981810_45.d	Sample		As Method	-
46	CCV	P2-A5	PFAS.m	WS#6981810_46.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.
STD 1	-	2020/10/05 7:28 AM	WS#6981810_02.d	PFAS.m	P2-A2
STD 2	-	2020/10/05 7:35 AM	WS#6981810_03.d	PFAS.m	P2-A3
STD 3	-	2020/10/05 7:42 AM	WS#6981810_04.d	PFAS.m	P2-A4
STD 4	-	2020/10/05 7:49 AM	WS#6981810_05.d	PFAS.m	P2-A5
STD 5	-	2020/10/05 7:56 AM	WS#6981810_06.d	PFAS.m	P2-A6
STD 6	-	2020/10/05 8:03 AM	WS#6981810_07.d	PFAS.m	P2-A7
IB	-	2020/10/05 8:10 AM	WS#6981810_08.d	PFAS.m	P2-A8
ICV	-	2020/10/05 8:17 AM	WS#6981810_09.d	PFAS.m	P2-A9
ISC	-	2020/10/05 8:24 AM	WS#6981810_10.d	PFAS.m	P2-A2
6981810:BLANK	-	2020/10/05 8:31 AM	WS#6981810_11.d	PFAS.m	P2-B1
6981810:SPIKE	-	2020/10/05 8:38 AM	WS#6981810_12.d	PFAS.m	P2-B2
6981810:MTRX SPK	NTX290-01	2020/10/05 8:45 AM	WS#6981810_13.d	PFAS.m	P2-B3
6981810:MTRX SPK:D1	NTX290-01	2020/10/05 8:52 AM	WS#6981810_14.d	PFAS.m	P2-B4
IB	-	2020/10/05 8:59 AM	WS#6981810_15.d	PFAS.m	P2-A8
6981810:NTX288-01:20x	Reported PFOS	2020/10/05 9:06 AM	WS#6981810_16.d	PFAS.m	P2-B5
6981810:NTX288-01:2x	Reported all except PFOS	2020/10/05 9:13 AM	WS#6981810_17.d	PFAS.m	P2-B6
IB	-	2020/10/05 9:20 AM	WS#6981810_18.d	PFAS.m	P2-A8
6981810:NTX289-01:10x	Reported PFOS	2020/10/05 9:27 AM	WS#6981810_19.d	PFAS.m	P2-B7
6981810:NTX289-01	Reported all except PFOS	2020/10/05 9:34 AM	WS#6981810_20.d	PFAS.m	P2-B8
IB	-	2020/10/05 9:41 AM	WS#6981810_21.d	PFAS.m	P2-A8
CCV	-	2020/10/05 9:48 AM	WS#6981810_22.d	PFAS.m	P2-A5
6981810:NTX290-01	-	2020/10/05 9:55 AM	WS#6981810_23.d	PFAS.m	P2-B9
6981810:NTX291-01:10x	Reported PFHxA, PFHxS, PFOS	2020/10/05 10:02 AM	WS#6981810_24.d	PFAS.m	P2-C1
6981810:NTX291-01	Reported all except PFHxA, PFHxS, PFOS	2020/10/05 10:09 AM	WS#6981810_25.d	PFAS.m	P2-C2
IB	-	2020/10/05 10:16 AM	WS#6981810_26.d	PFAS.m	P2-A8
6981810:NTX292-01:10x	Reported PFHxA, PFHxS, PFOS	2020/10/05 10:23 AM	WS#6981810_27.d	PFAS.m	P2-C3
6981810:NTX292-01	Reported all except PFHxA, PFHxS, PFOS	2020/10/05 10:30 AM	WS#6981810_28.d	PFAS.m	P2-C4
IB	-	2020/10/05 10:37 AM	WS#6981810_29.d	PFAS.m	P2-A8
6981810:NTX293-01:50x	Reported PFHxS, PFOS	2020/10/05 10:44 AM	WS#6981810_30.d	PFAS.m	P2-C5
6981810:NTX293-01:5x	Reported all except PFHxS, PFOS	2020/10/05 10:51 AM	WS#6981810_31.d	PFAS.m	P2-C6
IB	-	2020/10/05 10:58 AM	WS#6981810_32.d	PFAS.m	P2-A8
CCV	-	2020/10/05 11:05 AM	WS#6981810_33.d	PFAS.m	P2-A5

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.
6981810:NTX294-01:10x	Reported PFOA, PFHxS, PFOS	2020/10/05 11:12 AM	WS#6981810_34.d	PFAS.m	P2-C7
6981810:NTX294-01	Reported all except PFOA, PFHxS, PFOS	2020/10/05 11:19 AM	WS#6981810_35.d	PFAS.m	P2-C8
IB	-	2020/10/05 11:26 AM	WS#6981810_36.d	PFAS.m	P2-A8
6981810:NTX295-01:10x	Reported PFOS	2020/10/05 11:33 AM	WS#6981810_37.d	PFAS.m	P2-C9
6981810:NTX295-01	Reported all except PFOS	2020/10/05 11:40 AM	WS#6981810_38.d	PFAS.m	P2-D1
IB	-	2020/10/05 11:47 AM	WS#6981810_39.d	PFAS.m	P2-A8
6981810:NTX296-01:10x	Reported PFOS	2020/10/05 11:54 AM	WS#6981810_40.d	PFAS.m	P2-D2
6981810:NTX296-01	Reported all except PFOS	2020/10/05 12:01 PM	WS#6981810_41.d	PFAS.m	P2-D3
IB	-	2020/10/05 12:08 PM	WS#6981810_42.d	PFAS.m	P2-A8
6981810:NTX297-01	-	2020/10/05 12:15 PM	WS#6981810_43.d	PFAS.m	P2-D4
6981810:NTX298-01	-	2020/10/05 12:22 PM	WS#6981810_44.d	PFAS.m	P2-D5
6981810:NTX299-01	-	2020/10/05 12:29 PM	WS#6981810_45.d	PFAS.m	P2-D6
CCV	-	2020/10/05 12:36 PM	WS#6981810_46.d	PFAS.m	P2-A5

DoD Projects - Internal Data Validation Checklist

Run date: 2020/10/07

Worksheet # (s): 6983448

Analysis: PFCDOD-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)	✓			✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria		✓		✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria			✓	✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed			✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered			✓	✓
18	Analytical observations/anomalies documented in LIMS	✓			✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: [signature] Date: 2020/10/07

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced			✓
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: [signature] Date: 10/16/20

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 6983448 | Testcode: PFCDOD-CO

Sample Preparation		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded	✓		
9	Matrix spike / Duplicate performed on IOL samples if present	✓		
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: CP3 | Date: 2020-10-05

Comments:

Worksheet Approval		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified			
20	WS Approval performed in LIMS			

Reviewed by: | Date:

Comments:

Refer to BRL-FCD-00002 2020/10/07

Worksheet Validation		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

WS# : 6983448

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Monday, October 5, 2020

Assigned to : Chiragkumar patel

Test Code : PFCDOD-W

Instrument Id:

Test Description : Per- and Polyfluoroalkyl Substances (PFAS) in Water by SPE/LC-MS/MS

Sediment CM

Job Number	Sample Number	ID	Sample ID	F	% Moisture	Wt or Vol	Final Vol	DF or AF	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
	SPIKE	0	LL PFCDODW		<0.1	125	3.00	1					2020/10/05
	SPIKE	1	LL PFCDODW		<0.1	125	3.00	1					2020/10/05
	BLANK				<0.1	125	3.00	1					2020/10/05
C0P6559	*NTX293-01R		06-MW32-0920		<0.1	25 ~~125~~	3.00	5	2	2020/10/05	2020/10/15 23:00	DOD	2020/10/05
						CP3 2020-10-05							

CP3 2020-10-05

Remarks: manifold used. 3 PFOSALCM.W
& PFOSALCM.W

Samples extracted by: Chiragkumar patel CP3 2020-10-05

Instrumentation performed by: [signature] Date: 2020/10/06

Calculations performed by: [signature] Date: 2020/10/07

Validated by: [signature] Date: 2020/10/07

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GC0P6559	SP8 EMAX Laboratories Inc DKN, nreg, PFCDOD-W MS/MSD required on NTX290 and NTX313 Level IV Data Package and NEDD EDD and EDF EDD required Project #: TREASURE ISLAND, IR SITE 6	Richard Beauvil	Tier 4 (Enviro.)	

Job	Sample	Lab Comments
	SPIKE	
	SPIKE	
	BLANK	CP3 2020-10-05
C0P6559	NTX293-01R	

LCMS04

Folder: 20201/10/06

20201/10/07

LCMS Calibration Standard Preparation Sheet
Worksheet : Intial : CP3 Date: 2020-10-05 Witnessed by: DP8

PFOSALCM-W (SPE)					
Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	515-00155 (5) Internal Standard A (uL) 125/250ng/mL
S1	2825	25	100 ng/mL	SPK-00155 C212)	150
S2	2760	90			150
S3	2826	24	1 ug/mL	INT-0009 C213)	150
S4	2802	48			150
S5	2760	90			150
S6	2725	125			150
*ICV	2790	60	1 ug/mL	INT-0008 C213)	150
IB	2850	NA			150

PFOSALCM-W (High)						
Calib. Std.	Volume of MeOH (uL)	Volume of Water (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard A (uL) 125/250ng/mL
S1	480	0.75	20	30 ng/mL		100
S2	425	0.75	75			100
S3	477	0.75	23	300 ng/mL		100
S4	452	0.75	48			100
S5	473	0.75	27	1 ug/mL		100
S6	463	0.75	37.5			100
*ICV	482	0.75	18	1 ug/mL		100
IB	500	0.75	NA			100

PFOSALCM-S					
Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard A (uL) 125/250ng/mL
S1	1885	15	100 ng/mL		100
S2	1840	60			100
S3	1750	150			100
S4	1870	30	1 ug/mL		100
S5	1846	54			100
S6	1825	75			100
*ICV	1864	36	1 ug/mL		100
IB	1900	NA			100

PFOSLOW-W (SPE)					
Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard B (uL) 12.5/25ng/mL
S1	1475	25	100 ng/mL		1500
S2	1410	90			1500
S3	1476	24	1 ug/mL		1500
S4	1452	48			1500
S5	1410	90			1500
S6	1375	125			1500
*ICV	1440	60	1 ug/mL		1500
IB	1500	NA			1500

PFC-TI					
Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard (uL)
S1	1890	10	100 ng/mL		100
S2	1880	20			100
S3	1840	60			100
S4	1885	15	1 ug/mL		100
S5	1870	30			100
S6	1850	50			100
*ICV	1875	25	1 ug/mL		100

MORPH-L						
Calib. Std.	Volume of DI Water (mL)	Methanol (mL)	Solution Conc.	Solution ID#	Amount Spiked (uL)	Internal Standard (uL)
S1	1	1	200 ug/L		20	50
S2	1	1			50	50
S3	1	1	2500 ug/L		20	50
S4	1	1			80	50
S5	1	1			200	50
S6	1	1			400	50
*ICV	1	1	2500 ug/L		80	50

PFAADW-W						
Calib. Std.	Volume of 96:4 (MeOH : Water) (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Surrogate (25/200 ng/mL)	Internal Standard (uL) 50/100/200 ng/mL
S1	780	20	6.25/25/50 ng/mL DWB		100	100
S2	728	72			100	100
S3	608	192			100	100
S4	762	38.4	62.5/250/500 ng/mL DWA		100	100
S5	728	72			100	100
S6	700	100			100	100
*ICV	752	48	62.5/250/500 ng/mL DWA		100	100
tPFOA	800	100	50 ng/mL		N/A	100

STERIL-S					
Calib. Std.	Volume of 60: 40 Water : MEOH (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard (uL)
S1	5	20	** Solution B		50
S2	5	30			50
S3	5	40			50
S4	5	80			50
S5	5	22	** Solution A		50
S6	5	40			50
*ICV	5	20	**		50

CLO4LCMS-W/ CLO4LCMS-S				
Calib. Std.	Volume of Water (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#
S1	9.95	50	10ug/L	
S2	9.9	100		
S3	9.75	250		
S4	9.5	500		
S5	9	1000		
S6	8	2000		
*ICV	9	1000	10 ug/L	

* ICV are prepared using second source

** Concentration of Individual Parameters in Solution A & B Varies

PFAS worksheet reagent tracking sheet

Worksheet # 6983448 Date : 2020-10-05 Spiked by: CP3

	Spiking Witness checklist	Yes	Initial
1	Verify that the Solution ID on the bottle matches the documented solution ID in the tracking sheet.	✓	GSZ
2	Verify that the syringe ID documented on the tracking sheet matches the syringe ID used for spiking.	✓	
3	Verify the volume spiking solution required matches the documented volume on the tracking sheet.	✓	
4	Observe each spiking event to ensure that the appropriate QC samples are spiked.	✓	
5	Was the spiking information such as solution ID, syringe ID and spike volume recorded before spiking event occurred?	✓	

Test code		Surrogate /Spike/IS solutions	Solution ID#	Conc.	Spike	MS	Sample	Syringe ID	Witness
PFOSALCM-W PFCDOD-W PFASBC-W	SPE	PFAS Second Source Solution A	INT-008 (213)	1ug/mL	60	60	N/A	036588D	GSZ
		PFAS Internal Standard Solution A	SIS-00150(4)	125/250 ng/mL	150	150	150	Q20108G	
		PFC Injection IS	SI-8178C(12)	100 ng/mL	20	20	20	036588D	
PFOSALCM-W	Dilution	PFAS Second Source Solution A		1ug/mL	18	18	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	100	100	100		
		PFAS Second Source Solution D		30 ng/mL	N/A	N/A	10		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSLOW-W PFASDOD-W PFCODW-W PFASLOBC-W	SPE	PFAS Second Source Solution C		100 ng/mL	60	60	N/A		
		PFAS Internal Standard Solution B		12.5/25 ng/mL	150	150	150		
		PFC Injection IS		100 ng/mL	15	15	15		
PFAADW-W	SPE	Second Source Spiking Solution DWB		6.25/25/50 ng/mL	40	40	N/A		
		Second Source Spiking Solution DWA		62.5/250/500 ng/mL	48/80	48/80	N/A		
		PFAA Internal Standard Solution		50/100/200 ng/mL	100	100	100		
		PFAA Surrogate solution		25/200 ng/mL	100	100	100		
PFOS_OX-W PFOS_OX-S	SPE	PFAS Internal Standard Solution A		125/250 ng/mL	150	150	150		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSALCM-S PFASDOD-S PFASBC-S	SPE	PFAS Second Source Solution A		1ug/mL	72	72	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	200	200	200		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSLOW-S	SPE	PFAS Second Source Solution C		100 ng/mL	72	72	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	20	20	20		
		PFC Injection IS		100 ng/mL	15	15	15		

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/Prepared
0.2% NH_4OH in Methanol	✓	PRLRE-143-~~217~~218		Blank Mat.			
0.5% NH_4OH in 70:30 Methanol:Water		CP3 2020-10-05		Env. Carb.	✓	126A86	2020-09-18
1% NH4OH in methanol				Leachate Fluid			
10mM KOH in Methanol				Methanol	✓	SHBM0726	2020-10-04
2% Formic Acid	✓	PRLRE-143-217		Ottawa Sand			
60:40 Water: Methanol	✓	PRLRE-143-224		Reagent Water	✓	60218	2020-10-05
60:40 Water:Acetonitrile				Ref. Mat.			
96:4 Methanol: Water				Trizma			
0.2 % Formic Acid				Acid water	✓	PRLRE-143-215	

Equipment & ID	√	Equipment	√	ID#	Bottle Tracking
Pipettor (M2802F, M22062) (M1886F, 036583)	✓	SPE Cartridge	✓	005039240A	Bottle# 23273
Thermometer ID &Temp		QC Balance ID			Cap# 23191
Dispenser EC-1	✓	Centrifuge	✓	A21A8663	Systems plus Lot# 20-09-22
Measuring cylinder 250mL		Sonicator			
Shaker					

Comments:

Worksheet: **Dilution and Column Cleanup Worksheet**

Job Number	Sample ID	Sample: Initial Final Volume	Dilution Required	Sample Added mL	Solvent Added mL	Int Std Added uL	New Effective Final Volume	Initials and Date	Column Cleanup
COP6559	NTX 293-01 R	125 mL	5X	25 mL	-	150	125	CP3 2020-10-05	
			CP3 2020-10-05						

Worksheet Number: **6983448**

PFAS in water by SPE/LC-MS/MS - Water

ug/L

Parameter Name	Units	SPIKE	SPIKE Dup1	BLANK	DL	C0P6559 NTX293 ReWork	DL
Perfluorobutanoic acid (PFBA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluoropentanoic acid (PFPeA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorohexanoic acid (PFHxA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluoroheptanoic acid (PFHpA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorooctanoic acid (PFOA)	ug/L	104.02960	104.75232	N/A*******	0.02	N/A*******	0.1
Perfluorononanoic acid (PFNA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorodecanoic acid (PFDA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluoroundecanoic acid (PFUnA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorododecanoic acid (PFDoA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorotridecanoic acid (PFTRDA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorotetradecanoic acid(PFTEDA)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorobutanesulfonic acid (PFBS)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluoropentanesulfonic acid PFPes	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorohexanesulfonic acid(PFHxS)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluoroheptanesulfonic acid PFHpS	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorooctanesulfonic acid (PFOS)	ug/L	106.62064	103.86773	N/A*******	0.02	N/A*******	0.1
Perfluorononanesulfonic acid (PFNS)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorodecanesulfonic acid (PFDS)	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Perfluorooctane Sulfonamide (PFOSA)	ug/L	104.77717	107.64699	N/A*******	0.02	N/A*******	0.1
EtFOSA	ug/L	100.74353	106.46598	0	0.04	0	0.2
MeFOSA	ug/L	104.24364	108.17297	0	0.04	0	0.2
EtFOSE	ug/L	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.2
MeFOSE	ug/L	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.2
EtFOSAA	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
MeFOSAA	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
4:2 Fluorotelomer sulfonic acid	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
6:2 Fluorotelomer sulfonic acid	ug/L	104.67332	101.16713	N/A*******	0.02	N/A*******	0.1
8:2 Fluorotelomer sulfonic acid	ug/L	N/A*******	N/A*******	N/A*******	0.02	N/A*******	0.1
Hexafluoropropyleneoxide dimer acid	ug/L	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.2
4,8-Dioxa-3H-perfluorononanoic acid	ug/L	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.2
9Cl-PF3ONS (F-53B Major)	ug/L	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.2
11Cl-PF3OUdS (F-53B Minor)	ug/L	N/A*******	N/A*******	N/A*******	0.04	N/A*******	0.2
13C4-Perfluorobutanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C5-Perfluoropentanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-Perfluorohexanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C4-Perfluoroheptanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C4-Perfluorooctanoic acid	ug/L	92.2410380	92.8260391	N/A*******		N/A*******	
13C5-Perfluorononanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-Perfluorodecanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-Perfluoroundecanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-Perfluorododecanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-perfluorotetradecanoic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C3-Perfluorobutanesulfonic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
18O2-Perfluorohexanesulfonic acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C4-Perfluorooctanesulfonic acid	ug/L	88.9572649	91.5213675	N/A*******		N/A*******	
13C8-Perfluorooctane Sulfonamide	ug/L	79.7957425	85.1236618	N/A*******		N/A*******	
D5-EtFOSA	ug/L	68.0696384	73.0055481	!! 48.0581		!! 31.3181	
D3-MeFOSA	ug/L	64.0686922	67.3216644	!! 46.8956		!! 33.9167	
D9-EtFOSE	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
D7-MeFOSE	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
D5-EtFOSAA	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
D3-MeFOSAA	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-4:2-Fluorotelomersulfonic Acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C2-6:2-Fluorotelomersulfonic Acid	ug/L	89.5405304	94.3220022	N/A*******		N/A*******	
13C2-8:2-Fluorotelomersulfonic Acid	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	
13C3-HFPO-DA	ug/L	N/A*******	N/A*******	N/A*******		N/A*******	

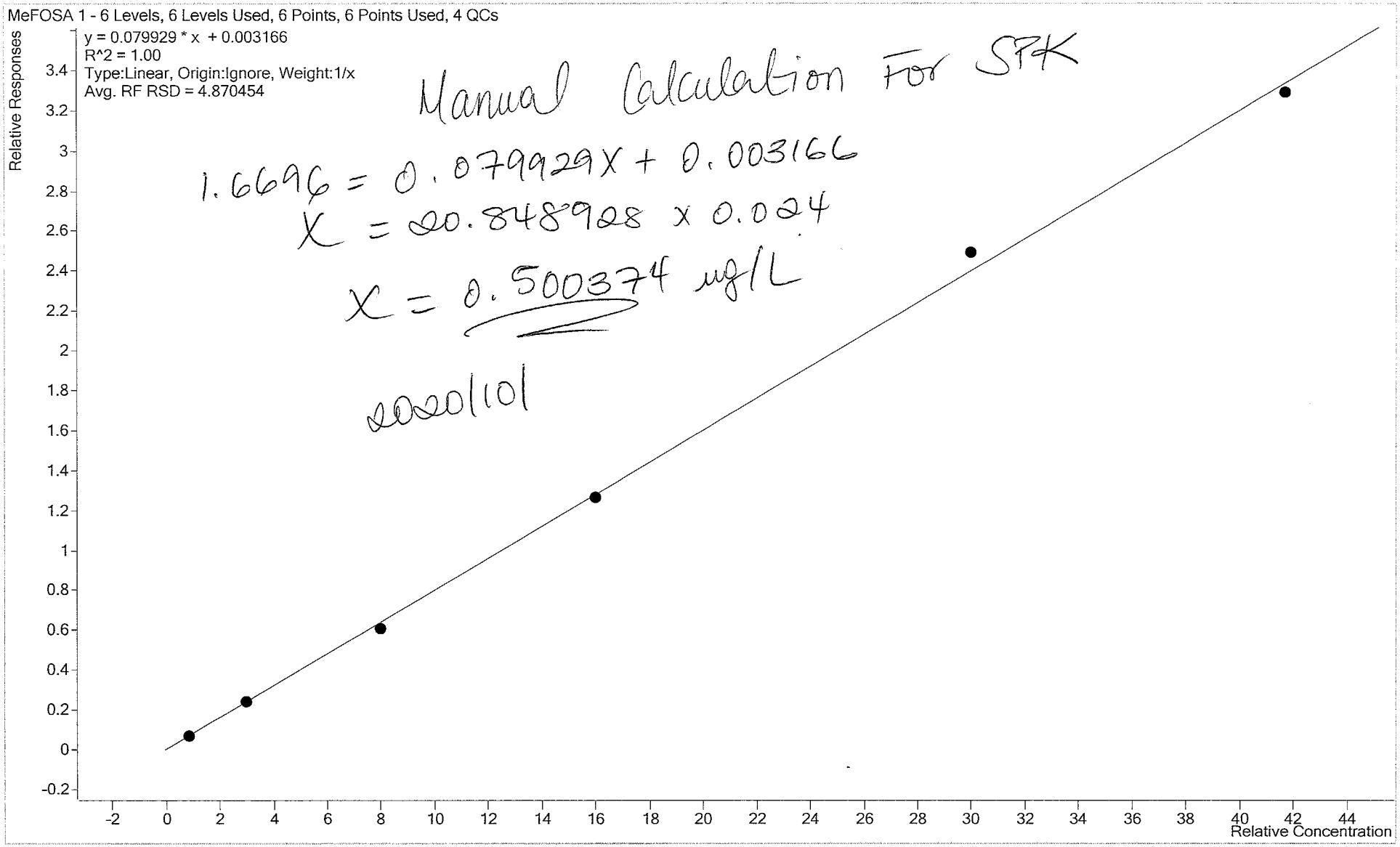
PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	RDL	MDL	IDL				
Perfluorobutanoic acid (PFBA)	0.02	0.0039	0				
Perfluoropentanoic acid (PFPeA)	0.02	0.0067	0				
Perfluorohexanoic acid (PFHxA)	0.02	0.0053	0				
Perfluoroheptanoic acid (PFHpA)	0.02	0.0067	0				
Perfluorooctanoic acid (PFOA)	0.02	0.005	0				
Perfluorononanoic acid (PFNA)	0.02	0.0051	0				
Perfluorodecanoic acid (PFDA)	0.02	0.0039	0				
Perfluoroundecanoic acid (PFUnA)	0.02	0.0062	0				
Perfluorododecanoic acid (PFDoA)	0.02	0.008	0				
Perfluorotridecanoic acid (PFTRDA)	0.02	0.0064	0				
Perfluorotetradecanoic acid(PFTEDA)	0.02	0.0068	0				
Perfluorobutanesulfonic acid (PFBS)	0.02	0.0056	0				
Perfluoropentanesulfonic acid PFPes	0.02	0.0055	0				
Perfluorohexanesulfonic acid(PFHxS)	0.02	0.0044	0				
Perfluoroheptanesulfonic acid PFHpS	0.02	0.0065	0				
Perfluorooctanesulfonic acid (PFOS)	0.02	0.0057	0				
Perfluorononanesulfonic acid (PFNS)	0.02	0.0072	0				
Perfluorodecanesulfonic acid (PFDS)	0.02	0.0064	0				
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.0036	0				
EtFOSA	0.04	0.007	0				
MeFOSA	0.04	0.0078	0				
EtFOSE	0.04	0.0071	0				
MeFOSE	0.04	0.007	0				
EtFOSAA	0.02	0.007	0				
MeFOSAA	0.02	0.008	0				
4:2 Fluorotelomer sulfonic acid	0.02	0.0054	0				
6:2 Fluorotelomer sulfonic acid	0.02	0.0065	0				
8:2 Fluorotelomer sulfonic acid	0.02	0.0067	0				
Hexafluoropropyleneoxide dimer acid	0.04	0.009	0				
4,8-Dioxa-3H-perfluorononanoic acid	0.04	0.0063	0				
9Cl-PF3ONS (F-53B Major)	0.04	0.0054	0				
11Cl-PF3OUdS (F-53B Minor)	0.04	0.0077	0				
13C4-Perfluorobutanoic acid							
13C5-Perfluoropentanoic acid							
13C2-Perfluorohexanoic acid							
13C4-Perfluoroheptanoic acid							
13C4-Perfluorooctanoic acid							
13C5-Perfluorononanoic acid							
13C2-Perfluorodecanoic acid							
13C2-Perfluoroundecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-perfluorotetradecanoic acid							
13C3-Perfluorobutanesulfonic acid							
18O2-Perfluorohexanesulfonic acid							
13C4-Perfluorooctanesulfonic acid							
13C8-Perfluorooctane Sulfonamide							
D5-EtFOSA							
D3-MeFOSA							
D9-EtFOSE							
D7-MeFOSE							
D5-EtFOSAA							
D3-MeFOSAA							
13C2-4:2-Fluorotelomersulfonic Acid							
13C2-6:2-Fluorotelomersulfonic Acid							
13C2-8:2-Fluorotelomersulfonic Acid							
13C3-HFPO-DA							

Calibration Curve Window

Agilent Technologies

Data Path	D:\MassHunter\Data\PFC\20201006\WS#6983448
Data File	WS#6983448_15.d
Acq Operator	
Acq. Date-Time	2020/10/06 2:03 PM
Instrument Name	LCMS04



Report Name: Worksheet - Parameter Lists
Report Date: 2020/10/05

Test Code: **PFCDOD-W**
Worksheet Number: **6983448**

Sample Number	Parameter Code	Parameter
NTX293-01	ETFOSA	EtFOSA
	MEFOSA	MeFOSA

WorkSheet 6983448 Instrument Sequences

1.	6983448:SPIKE	SPIKE
2.	6983448:SPIKE:D1	SPIKE :D1
3.	6983448:BLANK	BLANK
4.	6983448:NTX293-01	06-MW32-0920

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_201006_Water_Low_DOD.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\PFC\20201006\WS#6983448
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: No
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #452 MP A1:Solution #136 [FSRE19]
MP B1:Methanol, Sigma (SHBM0726)

lg 2020/10/06
verified by YPL 2020/10/06

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	MeOH RINSE	P1-A1	PFAS.m	WS#6983448_01.d	Sample		As Method	-
2	STD 1	P1-E1	PFAS.m	WS#6983448_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-E2	PFAS.m	WS#6983448_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-E3	PFAS.m	WS#6983448_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-E4	PFAS.m	WS#6983448_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-E5	PFAS.m	WS#6983448_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-E6	PFAS.m	WS#6983448_07.d	Calibration	STD 6	As Method	-
8	IB	P1-E7	PFAS.m	WS#6983448_08.d	Sample		As Method	-
9	ICV	P1-E8	PFAS.m	WS#6983448_09.d	QC	ICV	As Method	-
10	ISC	P1-E1	PFAS.m	WS#6983448_10.d	QC	STD 1	As Method	-
11	6983448:BLANK	P1-E9	PFAS.m	WS#6983448_11.d	Sample		As Method	-
12	6983448:SPIKE	P1-F1	PFAS.m	WS#6983448_12.d	QC	ICV	As Method	-
13	6983448:SPIKE:D1	P1-F2	PFAS.m	WS#6983448_13.d	QC	ICV	As Method	-
14	6983448:NTX293-01:5x	P1-F3	PFAS.m	WS#6983448_14.d	Sample		As Method	-

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
15	CCV	P1-E4	PFAS.m	WS#6983448_15.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.
STD 1	-	2020/10/06 12:33 PM	WS#6983448_02.d	PFAS.m	P1-E1
STD 2	-	2020/10/06 12:40 PM	WS#6983448_03.d	PFAS.m	P1-E2
STD 3	-	2020/10/06 12:47 PM	WS#6983448_04.d	PFAS.m	P1-E3
STD 4	-	2020/10/06 12:54 PM	WS#6983448_05.d	PFAS.m	P1-E4
STD 5	-	2020/10/06 1:01 PM	WS#6983448_06.d	PFAS.m	P1-E5
STD 6	-	2020/10/06 1:08 PM	WS#6983448_07.d	PFAS.m	P1-E6
IB	-	2020/10/06 1:15 PM	WS#6983448_08.d	PFAS.m	P1-E7
ICV	-	2020/10/06 1:22 PM	WS#6983448_09.d	PFAS.m	P1-E8
ISC	-	2020/10/06 1:29 PM	WS#6983448_10.d	PFAS.m	P1-E1
6983448:BLANK	-	2020/10/06 1:35 PM	WS#6983448_11.d	PFAS.m	P1-E9
6983448:SPIKE	-	2020/10/06 1:42 PM	WS#6983448_12.d	PFAS.m	P1-F1
6983448:SPIKE:D1	-	2020/10/06 1:49 PM	WS#6983448_13.d	PFAS.m	P1-F2
6983448:NTX293-01:5x	-	2020/10/06 1:56 PM	WS#6983448_14.d	PFAS.m	P1-F3
CCV	-	2020/10/06 2:03 PM	WS#6983448_15.d	PFAS.m	P1-E4

DoD Projects - Internal Data Validation Checklist

Run date: 2026/10/06

Worksheet # (s): PFC DOD-W (6985934)

Analysis: PFC DOD-W

	Primary review by the analyst - 1st 100 % analysis review	1st 100% review yes	no	n/a	*2nd 100% review
1	Sample analyses meet hold time criteria	✓			✓
2	Analysis set-up meets method criteria	✓			✓
3	Tuning and correct calibration used - criteria meets method criteria	✓			✓
4	SQC/Control Charts updated, analysis in statistical/method control	✓			✓
5	Internal area counts checked (if applicable)			✓	✓
6	LCS, SRM are within acceptance criteria	✓			✓
7	Surrogate Recovery(s) is within acceptance criteria		✓		✓
8	Method Blank meets acceptance criteria	✓			✓
9	Matrix Spike recovery(s) meets acceptance criteria			✓	✓
10	Duplicate precision meets acceptance criteria	✓			✓
11	QC is documented on the run logs	✓			✓
12	Runs checked for carryover	✓			✓
13	Prep log / worksheet(s) are present, signed / dated by a prep / instrument analysts	✓			✓
14	Initial weights, splits, impringer volumes (where applicable) are documented	✓			✓
15	Standards and reagents traceable to Certificates of Analysis	✓			✓
16	Samples above calibration range diluted and reanalyzed			✓	✓
17	Dilution factors (where justified) have been checked for correctness and entered			✓	✓
18	Analytical observations/anomalies documented in LIMS			✓	✓
19	Random calculation checked and in correct units	✓			✓
20	If corrective actions were applied they are documented, initialed & dated			✓	✓
21	Manual integration – before & after data with a reason included, initialed & dated			✓	✓
22	Transferred data is validated in LIMS for correctness	✓			✓
23	Data package assembled (where required)	✓			✓

Reviewed by: AHH Date: 2026/10/09

Comments:

	Secondary Supervisor/Qualified Data Review Staff - 2nd 100% verification review	yes	no	n/a
1	Repeats documented and referenced			✓
2	Method and sample deviations noted, anomalies described (if applicable)			✓
3	Data and QC validated in LIMS	✓		
4	Random calculation checked	✓		
5	Benchsheet (s) signed and dated	✓		
6	Data Package (if required) checked for completeness	✓		

Reviewed by: CM Date: 10/26/2026

Comments:

Note: 2nd 100% verification review documented by secondary qualified data review
Primary and Secondary Internal Data Review Check must be performed by a different person

Worksheet Data Validation Checklist - Extractable Organics

Worksheet # 6985934 | Testcode: PFA PFCDOD-W
CP3 2020-10-06

Sample Preparation

		yes	no	n/a
1	Samples extracted within hold time	✓		
2	Client sample ID verified against Lab ID (waters & oils)	✓		
3	Parameter list and Client comments reviewed, (Spiking solutions matched to parameter list)	✓		
4	Height of sediment or if sample was decanted, recorded on worksheet	✓		
5	Method required QC processed with samples, maximum batch size = 20 client samples.	✓		
6	Sample, duplicate, matrix spike appear similar, initial sample as well as final extract	✓		
7	Sample weight or initial volume and extract final volume, aliquot factor clearly recorded.	✓		
8	If performed any additional dilution clearly recorded			✓
9	Matrix spike / Duplicate performed on IOL samples if present			✓
10	Spiking solutions valid (haven't expired), ID and volume used clearly identified on worksheet	✓		
11	Spiking process witnessed and signed off	✓		
12	Extraction type recorded (N3A2B = neutral, 3 x acidic, 2 x basic)			✓
13	Sample prep deviations documented within CompliantPro as a Policy Deviation			✓
14	Job Remarks reviewed on 2nd page of worksheet.	✓		
15	Worksheet and reagent tracking record completed and authorized.	✓		

Reviewed by: CP3 | Date: 2020-10-06

Comments:

Worksheet Approval

		yes	no	n/a
1	Verified the position of the vials in autosampler against sequence list; signed off sequence list			
2	Calibration and CCV standards valid (haven't expired)			
3	Initial calibration curve and DFTPP tune (if applicable) acceptable			
4	Continuing and Final CCV and DFTPP tune (if applicable) acceptable			
5	System performance check acceptable (if applicable)			
6	Internal standard responses acceptable			
7	Method blank meets acceptance criteria			
8	Lab Control Samples recoveries meets acceptance criteria			
9	Duplicate RPD meets acceptance criteria			
10	Matrix spike recoveries meets acceptance criteria			
11	Surrogate recoveries meets acceptance criteria			
12	Appropriate control charts updated			
13	Samples above calibration range diluted and reanalyzed			
14	Dilutions clearly documented on tracking record, inst file and verified during data upload			
15	Samples following high level samples checked for carryover.			
16	Mass spectra ion ratios acceptable for positive results, hardcopy in file.			
17	Analytical observations / anomalies documented			
18	DQW comments entered in LIMS, hardcopy in file			
19	Sample Prep section (above) reviewed and verified.			
20	WS Approval performed in LIMS			

Reviewed by: | Date:

Comments:

Worksheet Validation

		yes	no	n/a
1	Calibration, QC and sample results reviewed and determined acceptable			
2	Manual integrations verified			
3	Random calculation checked			
4	Data and QC validated in LIMS			
5	Comments reviewed for appropriateness			
6	Reworks / relogs documented in file			
7	Worksheet signed and dated,			
8	Worksheet approved and validated within LIMS			

Reviewed by: | Date:

Comments:

WS# : 6985934

Page #: 1/2

Report Name : Worksheet - (Liquids and Solids)

Assignment Date : Tuesday, October 6, 2020

Assigned to : Chiragkumar patel

Test Code : PFCDOD-W

Instrument Id:

Test Description : Per- and Polyfluoroalkyl Substances (PFAS) in Water by SPE/LC-MS/MS

	Job Number	Sample Number	D	Sample ID	F	% Moisture	Wt (Segment) or (Vol) (cm)	Final Vol (mL)	DF or AF (mL)	# Cont	Expiry Date	Test DeadLine	Criteria	Extract Date
S-5		SPIKE	0	LL PFCDODW		<0.1	125	3.00	1X					2020/10/06
S-3		SPIKE	1	LL PFCDODW		<0.1	125	3.00	1X					2020/10/06
S-1		BLANK				<0.1	125	3.00	1X					2020/10/06
S-20	C0P6559	*NTX312-01R		HP12		<0.1	125	3.00	1X	2	2020/10/07	2020/10/15 23:00	DOD	2020/10/06
S-22	C0P6559	*NTX314-01R		QCFB-092220		<0.1	125	3.00	1X	2	2020/10/06	2020/10/15 23:00	DOD	2020/10/06
S-24	C0P6559	*NTX315-01R		QCFB-092320		<0.1	125	3.00	1X	2	2020/10/07	2020/10/15 23:00	DOD	2020/10/06
						CP3								
							2020-10-06							

Remarks: Manifold wedi: S PFOSALCM-W

Samples extracted by: Chiragkumar patel CP3 2020-10-06

Instrumentation performed by: AKH Date: 2020/10/06

Calculations performed by: AKH Date: 2020/10/09

Validated by: Date: 20/10/13

Job No.	Rep / Client Name / Remarks	Contact	Client Tier	National
GC0P6559	SP8 EMAX Laboratories Inc	Richard Beauvil	Tier 4 (Enviro.)	

DKN, nreg, PFCDOD-W MS/MSD required on NTX290 and NTX313 Level IV Data Package and NEDD EDD and EDF EDD required Project #: TREASURE ISLAND, IR SITE 6

Job	Sample	Lab Comments
	SPIKE	
	SPIKE	CP3 2020-10-06
	BLANK	
C0P6559	NTX312-01R	Centrifuged
C0P6559	NTX314-01R	
C0P6559	NTX315-01R	CP3 2020-10-06

20201006 (LCMSOU)

AH 10/5/20

LCMS Calibration Standard Preparation Sheet
Worksheet : 6985934 Intial CP3 Date: 2020-10-06 Witnessed by: DP8

PFOSALCM-W (SPE)

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	SIS-0015 CS15 Internal Standard A (uL) 125/250ng/mL
S1	2825	25	100 ng/mL	SPIK-0045 (212)	150
S2	2760	90			150
S3	2826	24	1 ug/mL	INT-0005 (313)	150
S4	2802	48			150
S5	2760	90			150
S6	2725	125			150
*ICV	2790	60	1 ug/mL	INT-008 (313)	150
IB	2850	NA			150

PFOSALCM-W (High)

Calib. Std.	Volume of MeOH (uL)	Volume of Water (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard A (uL) 125/250ng/mL
S1	480	0.75	20	30 ng/mL		100
S2	425	0.75	75			100
S3	477	0.75	23	300 ng/mL		100
S4	452	0.75	48			100
S5	473	0.75	27	1 ug/mL		100
S6	463	0.75	37.5			100
*ICV	482	0.75	18	1 ug/mL		100
IB	500	0.75	NA			100

PFOSALCM-S

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard A (uL) 125/250ng/mL
S1	1885	15	100 ng/mL		100
S2	1840	60			100
S3	1750	150			100
S4	1870	30	1 ug/mL		100
S5	1846	54			100
S6	1825	75			100
*ICV	1864	36	1 ug/mL		100
IB	1900	NA			100

PFOSLOW-W (SPE)

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard B (uL) 12.5/25ng/mL
S1	1475	25	100 ng/mL		1500
S2	1410	90			1500
S3	1476	24	1 ug/mL		1500
S4	1452	48			1500
S5	1410	90			1500
S6	1375	125			1500
*ICV	1440	60	1 ug/mL		1500
IB	1500	NA			1500

PFC-TI

Calib. Std.	Volume of MeOH (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard (uL)
S1	1890	10	100 ng/mL		100
S2	1880	20			100
S3	1840	60			100
S4	1885	15	1 ug/mL		100
S5	1870	30			100
S6	1850	50			100
*ICV	1875	25	1 ug/mL		100

MORPH-L

Calib. Std.	Volume of DI Water (mL)	Methanol (mL)	Solution Conc.	Solution ID#	Amount Spiked (uL)	Internal Standard (uL)
S1	1	1	200 ug/L		20	50
S2	1	1			50	50
S3	1	1	2500 ug/L		20	50
S4	1	1			80	50
S5	1	1			200	50
S6	1	1			400	50
*ICV	1	1	2500 ug/L		80	50

PFAADW-W

Calib. Std.	Volume of 96:4 (MeOH : Water) (uL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Surrogate (25/200 ng/mL)	Internal Standard (uL) 50/100/200 ng/mL
S1	780	20	6.25/25/50 ng/mL DWB		100	100
S2	728	72			100	100
S3	608	192			100	100
S4	762	38.4	62.5/250/500 ng/mL DWA		100	100
S5	728	72			100	100
S6	700	100			100	100
*ICV	752	48	62.5/250/500 ng/mL DWA		100	100
tPFOA	800	100	50 ng/mL		N/A	100

STERIL-S

Calib. Std.	Volume of 60: 40 Water : MEOH (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#	Internal Standard (uL)
S1	5	20	** Solution B		50
S2	5	30			50
S3	5	40			50
S4	5	80			50
S5	5	22	** Solution A		50
S6	5	40			50
*ICV	5	20	**		50

CLO4LCMS-W/ CLO4LCMS-S

Calib. Std.	Volume of Water (mL)	Amount Spiked (uL)	Solution Conc.	Solution ID#
S1	9.95	50	10ug/L	
S2	9.9	100		
S3	9.75	250		
S4	9.5	500		
S5	9	1000		
S6	8	2000		
*ICV	9	1000	10 ug/L	

* ICV are prepared using second source

** Concentration of Individual Parameters in Solution A & B Varies

PFAS worksheet reagent tracking sheet

Worksheet # PFCDOD-W Date : ~~2020-05-~~ 2020-10-06 CP3 2020-10-06 Spiked by: CP3

	Spiking Witness checklist	Yes	Initial
1	Verify that the Solution ID on the bottle matches the documented solution ID in the tracking sheet.	✓	DP 8
2	Verify that the syringe ID documented on the tracking sheet matches the syringe ID used for spiking.	✓	
3	Verify the volume spiking solution required matches the documented volume on the tracking sheet.	✓	
4	Observe each spiking event to ensure that the appropriate QC samples are spiked.	✓	
5	Was the spiking information such as solution ID, syringe ID and spike volume recorded before spiking event occurred?	✓	

Test code		Surrogate /Spike/IS solutions	Solution ID#	Conc.	Spike	MS	Sample	Syringe ID	Witness
PFOSALCM-W PFCDOD-W PFASBC-W	SPE	PFAS Second Source Solution A	INT-008(C3(3))	1ug/mL	60	60	N/A	Q365880	DP8
		PFAS Internal Standard Solution A	SIS-001(CSIS)	125/250 ng/mL	150	150	150	Q401086	
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSALCM-W	Dilution	PFAS Second Source Solution A		1ug/mL	18	18	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	100	100	100		
		PFAS Second Source Solution D		30 ng/mL	N/A	N/A	10		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSLOW-W PFASDOD-W PFCODW-W PFASLOBC-W	SPE	PFAS Second Source Solution C		100 ng/mL	60	60	N/A		
		PFAS Internal Standard Solution B		12.5/25 ng/mL	150	150	150		
		PFC Injection IS		100 ng/mL	15	15	15		
PFAADW-W	SPE	Second Source Spiking Solution DWB		6.25/25/50 ng/mL	40	40	N/A		
		Second Source Spiking Solution DWA		62.5/250/500 ng/mL	48/80	48/80	N/A		
		PFAA Internal Standard Solution		50/100/200 ng/mL	100	100	100		
		PFAA Surrogate solution		25/200 ng/mL	100	100	100		
PFOS_OX-W PFOS_OX-S	SPE	PFAS Internal Standard Solution A		125/250 ng/mL	150	150	150		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSALCM-S PFASDOD-S PFASBC-S	SPE	PFAS Second Source Solution A		1ug/mL	72	72	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	200	200	200		
		PFC Injection IS		100 ng/mL	20	20	20		
PFOSLOW-S	SPE	PFAS Second Source Solution C		100 ng/mL	72	72	N/A		
		PFAS Internal Standard Solution A		125/250 ng/mL	20	20	20		
		PFC Injection IS		100 ng/mL	15	15	15		

Solvent/Reagent	√	Lot No.	Date Opened	Solvent/Reagent	√	Lot No.	Date Opened/Prepared
0.2% NH_4OH in Methanol	✓	Q3 2020-10-06 PRLRE-143-~~217~~ 225		Blank Mat.			
0.5% NH_4OH in 70:30 Methanol:Water				Env. Carb.	✓	126486	2020-09-18
1% NH4OH in methanol				Leachate Fluid			
10mM KOH in Methanol				Methanol	✓	SHBM0926	2020-10-06
2% Formic Acid	✓	PRLRE-143-~~2020~~ 217 Q3 2020-10-06		Ottawa Sand			
60:40 Water: Methanol	✓	PRLRE-143-224		Reagent Water	✓	60184	2020-10-02
60:40 Water:Acetonitrile				Ref. Mat.			
96:4 Methanol: Water				Trizma			
0.2 % Formic Acid				Acid cleaner	✓	PRLRE-143-226	2020-10-06

Equipment & ID	√	Equipment	√	ID#	Bottle Tracking
Pipettor 0401085, 0365563 n220621, 0401085	✓	SPE Cartridge	✓	005039240A	Bottle# 23325
Thermometer ID &Temp		QC Balance ID			Cap# 23191
Dispenser EC-1	✓	Centrifuge	✓	42148683	Systems plus Lot# 20-09-29
Measuring cylinder 250mL		Sonicator			
Shaker					

Comments:

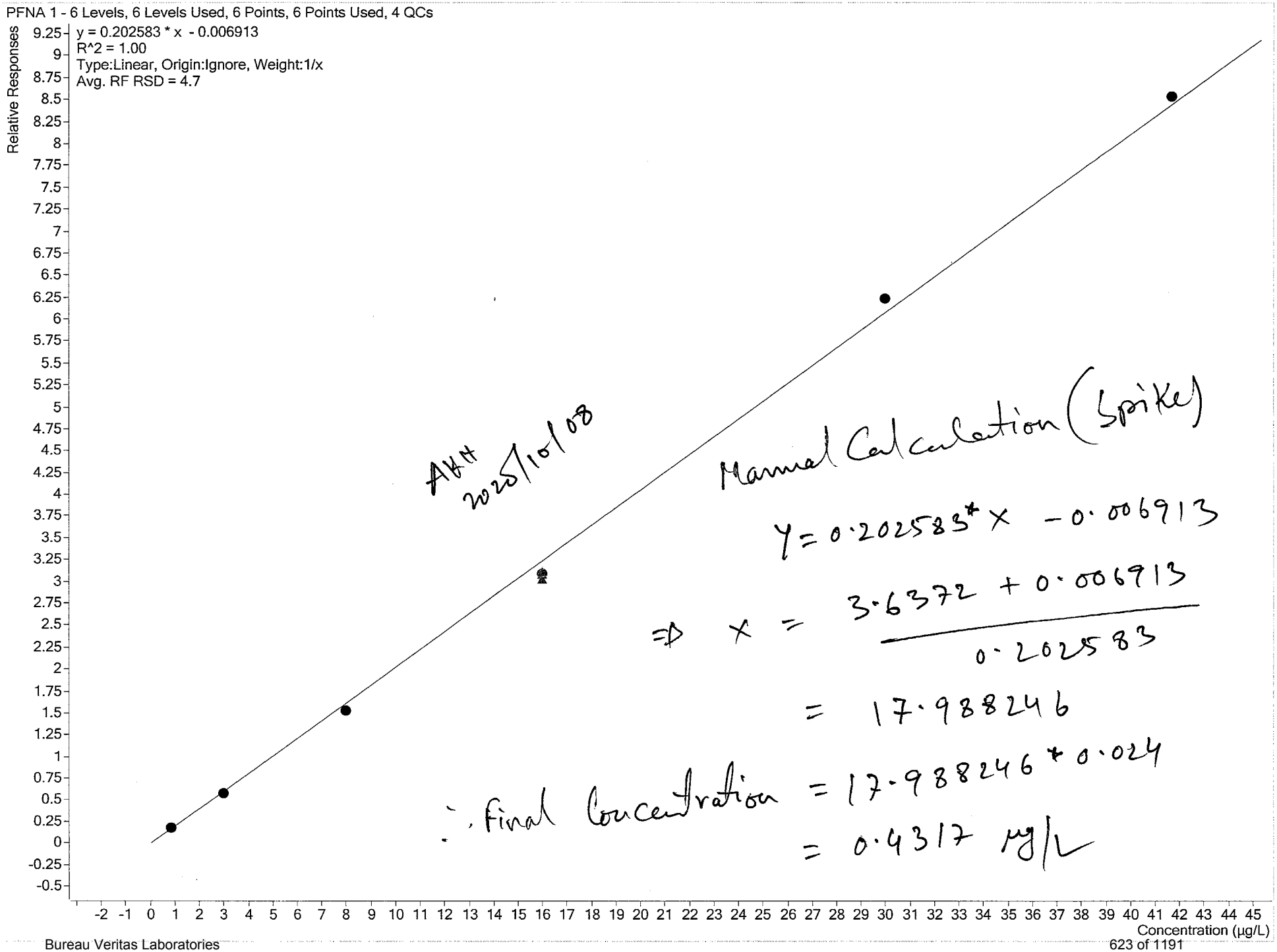
Worksheet Number: **6985934**

PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	Units	SPIKE	SPIKE Dup1	BLANK	C0P6559 NTX312 ReWork	C0P6559 NTX314 ReWork	C0P6559 NTX315 ReWork
Perfluorobutanoic acid (PFBA)	ug/L	90.53157	87.86158	0	N/A*******	N/A*******	N/A*******
Perfluoropentanoic acid (PFPeA)	ug/L	92.78546	88.96895	0	N/A*******	N/A*******	N/A*******
Perfluorohexanoic acid (PFHxA)	ug/L	90.34944	90.09733	0	N/A*******	0	N/A*******
Perfluoroheptanoic acid (PFHpA)	ug/L	91.57073	89.02510	0	N/A*******	0	N/A*******
Perfluorooctanoic acid (PFOA)	ug/L	90.59760	87.85239	0	N/A*******	0	N/A*******
Perfluorononanoic acid (PFNA)	ug/L	89.94064	86.77285	0	N/A*******	0	N/A*******
Perfluorodecanoic acid (PFDA)	ug/L	90.46753	92.07730	0	N/A*******	0	N/A*******
Perfluoroundecanoic acid (PFUnA)	ug/L	92.59390	89.10155	0	N/A*******	0	N/A*******
Perfluorododecanoic acid (PFDoA)	ug/L	88.59098	88.10738	0	N/A*******	0	N/A*******
Perfluorotridecanoic acid (PFTRDA)	ug/L	90.78688	90.19855	0	N/A*******	0	N/A*******
Perfluorotetradecanoic acid(PFTEDA)	ug/L	91.58891	90.71498	0	N/A*******	0	N/A*******
Perfluorobutanesulfonic acid (PFBS)	ug/L	90.49027	85.71476	0	N/A*******	0	0
Perfluoropentanesulfonic acid PFPes	ug/L	88.95733	88.14571	0	N/A*******	N/A*******	N/A*******
Perfluorohexanesulfonic acid(PFHxS)	ug/L	91.62745	85.31480	0	N/A*******	0	N/A*******
Perfluoroheptanesulfonic acid PFHpS	ug/L	90.39734	84.39588	0	N/A*******	N/A*******	N/A*******
Perfluorooctanesulfonic acid (PFOS)	ug/L	93.69968	89.81382	0	N/A*******	0	N/A*******
Perfluorononanesulfonic acid (PFNS)	ug/L	83.68267	82.65591	0	N/A*******	N/A*******	N/A*******
Perfluorodecanesulfonic acid (PFDS)	ug/L	79.39077	84.22211	0	N/A*******	N/A*******	N/A*******
Perfluorooctane Sulfonamide (PFOSA)	ug/L	92.17338	89.42337	0	N/A*******	N/A*******	N/A*******
EtFOSA	ug/L	90.89416	96.99808	0	0	0	N/A*******
MeFOSA	ug/L	94.58285	92.32651	0	0	0	N/A*******
EtFOSE	ug/L	95.19661	88.19681	0	N/A*******	N/A*******	N/A*******
MeFOSE	ug/L	87.81587	86.97753	0	N/A*******	N/A*******	N/A*******
EtFOSAA	ug/L	90.15483	85.62369	0	N/A*******	N/A*******	N/A*******
MeFOSAA	ug/L	88.63583	84.50921	0	N/A*******	N/A*******	N/A*******
4:2 Fluorotelomer sulfonic acid	ug/L	94.14420	92.77561	0	N/A*******	N/A*******	N/A*******
6:2 Fluorotelomer sulfonic acid	ug/L	89.44435	87.21767	0	N/A*******	N/A*******	N/A*******
8:2 Fluorotelomer sulfonic acid	ug/L	98.55056	94.01242	0	N/A*******	N/A*******	N/A*******
Hexafluoropropyleneoxide dimer acid	ug/L	95.34391	91.34743	0	N/A*******	N/A*******	N/A*******
4,8-Dioxa-3H-perfluorononanoic acid	ug/L	90.21158	87.15385	0	N/A*******	N/A*******	N/A*******
9Cl-PF3ONS (F-53B Major)	ug/L	85.51065	82.90192	0	N/A*******	N/A*******	N/A*******
11Cl-PF3OUdS (F-53B Minor)	ug/L	84.47639	82.84935	0	N/A*******	N/A*******	N/A*******
13C4-Perfluorobutanoic acid	ug/L	99.0384615	99.9428789	97.6580350	N/A*******	N/A*******	N/A*******
13C5-Perfluoropentanoic acid	ug/L	96.9620015	96.7268623	96.6139954	N/A*******	N/A*******	N/A*******
13C2-Perfluorohexanoic acid	ug/L	98.7839425	97.5264285	92.9385752	N/A*******	114.371588	N/A*******
13C4-Perfluoroheptanoic acid	ug/L	94.2461089	94.5914396	93.9785992	N/A*******	115.642023	N/A*******
13C4-Perfluorooctanoic acid	ug/L	98.7887463	99.7687606	97.4013103	N/A*******	120.552772	N/A*******
13C5-Perfluorononanoic acid	ug/L	97.7918531	97.7686094	92.8583880	N/A*******	122.366203	N/A*******
13C2-Perfluorodecanoic acid	ug/L	94.9974551	90.6638551	90.5475169	N/A*******	113.037155	N/A*******
13C2-Perfluoroundecanoic acid	ug/L	90.7231735	90.3227793	87.4584205	N/A*******	110.231612	N/A*******
13C2-Perfluorododecanoic acid	ug/L	90.9680383	88.2875523	84.3051158	N/A*******	103.900745	N/A*******
13C2-perfluorotetradecanoic acid	ug/L	85.9524164	83.2338902	79.5010441	N/A*******	96.2447792	N/A*******
13C3-Perfluorobutanesulfonic acid	ug/L	93.6640765	94.9193066	91.8111177	N/A*******	I 48.9539	83.8613269
18O2-Perfluorohexanesulfonic acid	ug/L	90.2439024	93.4451219	88.3384146	N/A*******	75.2286585	N/A*******
13C4-Perfluorooctanesulfonic acid	ug/L	91.7307692	92.6153846	93.0384615	N/A*******	90.9615384	N/A*******
13C8-Perfluorooctane Sulfonamide	ug/L	90.0944103	87.8915030	82.9162295	N/A*******	N/A*******	N/A*******
D5-EtFOSA	ug/L	76.7595307	68.6583577	67.3753665	58.2294721	76.2096774	N/A*******
D3-MeFOSA	ug/L	73.6366569	69.8451113	65.5372700	60.9874152	76.4278799	N/A*******
D9-EtFOSE	ug/L	77.6974416	77.9477196	73.9988876	N/A*******	N/A*******	N/A*******
D7-MeFOSE	ug/L	83.7276214	78.9641943	78.2608695	N/A*******	N/A*******	N/A*******
D5-EtFOSAA	ug/L	85.0049850	84.7856430	80.9770687	N/A*******	N/A*******	N/A*******
D3-MeFOSAA	ug/L	85.3495793	86.5100087	77.8938207	N/A*******	N/A*******	N/A*******
13C2-4:2-Fluorotelomersulfonic Acid	ug/L	100.813559	101.423728	111.830508	N/A*******	N/A*******	N/A*******
13C2-6:2-Fluorotelomersulfonic Acid	ug/L	97.2519628	97.4304068	101.213418	N/A*******	N/A*******	N/A*******
13C2-8:2-Fluorotelomersulfonic Acid	ug/L	88.1021897	91.5328467	92.9197080	N/A*******	N/A*******	N/A*******
13C3-HFPO-DA	ug/L	90.2761104	91.5966386	90.7563025	N/A*******	N/A*******	N/A*******

PFAS in water by SPE/LC-MS/MS - Water
ug/L

Parameter Name	DL	RDL	MDL	IDL			
Perfluorobutanoic acid (PFBA)	0.02	0.02	0.0039	0			
Perfluoropentanoic acid (PFPeA)	0.02	0.02	0.0067	0			
Perfluorohexanoic acid (PFHxA)	0.02	0.02	0.0053	0			
Perfluoroheptanoic acid (PFHpA)	0.02	0.02	0.0067	0			
Perfluorooctanoic acid (PFOA)	0.02	0.02	0.005	0			
Perfluorononanoic acid (PFNA)	0.02	0.02	0.0051	0			
Perfluorodecanoic acid (PFDA)	0.02	0.02	0.0039	0			
Perfluoroundecanoic acid (PFUnA)	0.02	0.02	0.0062	0			
Perfluorododecanoic acid (PFDoA)	0.02	0.02	0.008	0			
Perfluorotridecanoic acid (PFTRDA)	0.02	0.02	0.0064	0			
Perfluorotetradecanoic acid(PFTEDA)	0.02	0.02	0.0068	0			
Perfluorobutanesulfonic acid (PFBS)	0.02	0.02	0.0056	0			
Perfluoropentanesulfonic acid PFPes	0.02	0.02	0.0055	0			
Perfluorohexanesulfonic acid(PFHxS)	0.02	0.02	0.0044	0			
Perfluoroheptanesulfonic acid PFHpS	0.02	0.02	0.0065	0			
Perfluorooctanesulfonic acid (PFOS)	0.02	0.02	0.0057	0			
Perfluorononanesulfonic acid (PFNS)	0.02	0.02	0.0072	0			
Perfluorodecanesulfonic acid (PFDS)	0.02	0.02	0.0064	0			
Perfluorooctane Sulfonamide (PFOSA)	0.02	0.02	0.0036	0			
EtFOSA	0.04	0.04	0.007	0			
MeFOSA	0.04	0.04	0.0078	0			
EtFOSE	0.04	0.04	0.0071	0			
MeFOSE	0.04	0.04	0.007	0			
EtFOSAA	0.02	0.02	0.007	0			
MeFOSAA	0.02	0.02	0.008	0			
4:2 Fluorotelomer sulfonic acid	0.02	0.02	0.0054	0			
6:2 Fluorotelomer sulfonic acid	0.02	0.02	0.0065	0			
8:2 Fluorotelomer sulfonic acid	0.02	0.02	0.0067	0			
Hexafluoropropyleneoxide dimer acid	0.04	0.04	0.009	0			
4,8-Dioxa-3H-perfluorononanoic acid	0.04	0.04	0.0063	0			
9Cl-PF3ONS (F-53B Major)	0.04	0.04	0.0054	0			
11Cl-PF3OUdS (F-53B Minor)	0.04	0.04	0.0077	0			
13C4-Perfluorobutanoic acid							
13C5-Perfluoropentanoic acid							
13C2-Perfluorohexanoic acid							
13C4-Perfluoroheptanoic acid							
13C4-Perfluorooctanoic acid							
13C5-Perfluorononanoic acid							
13C2-Perfluorodecanoic acid							
13C2-Perfluoroundecanoic acid							
13C2-Perfluorododecanoic acid							
13C2-perfluorotetradecanoic acid							
13C3-Perfluorobutanesulfonic acid							
18O2-Perfluorohexanesulfonic acid							
13C4-Perfluorooctanesulfonic acid							
13C8-Perfluorooctane Sulfonamide							
D5-EtFOSA							
D3-MeFOSA							
D9-EtFOSE							
D7-MeFOSE							
D5-EtFOSAA							
D3-MeFOSAA							
13C2-4:2-Fluorotelomersulfonic Acid							
13C2-6:2-Fluorotelomersulfonic Acid							
13C2-8:2-Fluorotelomersulfonic Acid							
13C3-HFPO-DA							


PFNA 1 - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 4 QCs
y = 0.202583 * x - 0.006913
R^2 = 1.00
Type:Linear, Origin:Ignore, Weight:1/x
Avg. RF RSD = 4.7
Relative Responses
Concentration (µg/L)
AKH 2025/10/08
Manual Calculation (Spike)
Y = 0.202583 * X - 0.006913
⇒ X = 3.6372 + 0.006913 / 0.202583
= 17.988246
∴ Final Concentration = 17.988246 * 0.024
= 0.4317 µg/L

Report Name: Worksheet - Parameter Lists
Report Date: 2020/10/07

Test Code: **PFCDOD-W**
Worksheet Number: **6985934**

Sample Number	Parameter Code	Parameter
NTX312-01	ETFOSA	EtFOSA
	MEFOSA	MeFOSA
NTX314-01	PFHXA	Perfluorohexanoic acid (PFHxA)
	PFHPA	Perfluoroheptanoic acid (PFHpA)
	PFOA1	Perfluorooctanoic acid (PFOA)
	PFNA	Perfluorononanoic acid (PFNA)
	PFDA	Perfluorodecanoic acid (PFDA)
	PFUNA	Perfluoroundecanoic acid (PFUnA)
	PFDOA	Perfluorododecanoic acid (PFDoA)
	PFTRDA	Perfluorotridecanoic acid (PFTRDA)
	PFTEDA	Perfluorotetradecanoic acid (PFTEDA)
	PFBSA	Perfluorobutanesulfonic acid (PFBS)
	PFHXSA	Perfluorohexanesulfonic acid (PFHxS)
	PFOS2	Perfluorooctanesulfonic acid (PFOS)
	ETFOSA	EtFOSA
	MEFOSA	MeFOSA
NTX315-01	PFBSA	Perfluorobutanesulfonic acid (PFBS)

WorkSheet 6985934 Instrument Sequences

1.	6985934:SPIKE	SPIKE
2.	6985934:SPIKE:D1	SPIKE :D1
3.	6985934:BLANK	BLANK
4.	6985934:NTX312-01	HP12
5.	6985934:NTX314-01	QCFB-092220
6.	6985934:NTX315-01	QCFB-092320

Worklist Report

Agilent Technologies

Instrument Name: LCMS04 **Worklist Path:** D:\MassHunter\Worklists\PFCs\PFC_201006_Water_Low_DOD_A.wkl

Operator Name: ---
Run Type: Standard Start
Part of Method to Run: Acquisition Only
Execution of Acquisition-DA: Synchronous
Acquisition Method Path: D:\MassHunter\Acquisition Method
DA Method Path: D:\MassHunter\methods
Data File Path: D:\MassHunter\data\PFC\20201006\WS#6985934
Pre-Worklist Script: ---
Post-Worklist Script: SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script: ---
Overlapped Injection: No
Clear Sample Selection After Run: Yes
Wait Time for Ready(Min): 10
Threshold Disk Value(GB): 10
Comment: Column #452 MP A1:Solution #136 [FSRE19]
MP B1:Methanol, Sigma (SHBM0726)

AAH 2020/10/06 verified by ypb 2020/10/07

Plate Barcode:

Plate	Barcode
P1	

Worklist Table

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
1	MeOH RINSE	P1-A1	PFAS.m	WS#6985934_01.d	Sample		As Method	-
2	STD 1	P1-A2	PFAS.m	WS#6985934_02.d	Calibration	STD 1	As Method	-
3	STD 2	P1-A3	PFAS.m	WS#6985934_03.d	Calibration	STD 2	As Method	-
4	STD 3	P1-A4	PFAS.m	WS#6985934_04.d	Calibration	STD 3	As Method	-
5	STD 4	P1-A5	PFAS.m	WS#6985934_05.d	Calibration	STD 4	As Method	-
6	STD 5	P1-A6	PFAS.m	WS#6985934_06.d	Calibration	STD 5	As Method	-
7	STD 6	P1-A7	PFAS.m	WS#6985934_07.d	Calibration	STD 6	As Method	-
8	IB	P1-A8	PFAS.m	WS#6985934_08.d	Sample		As Method	-
9	ICV	P1-A9	PFAS.m	WS#6985934_09.d	QC	ICV	As Method	-
10	ISC	P1-A2	PFAS.m	WS#6985934_10.d	QC	STD 1	As Method	-
11	6985934:BLANK	P1-B1	PFAS.m	WS#6985934_11.d	Sample		As Method	-
12	6985934:SPIKE	P1-B2	PFAS.m	WS#6985934_12.d	QC	ICV	As Method	-
13	6985934:SPIKE:D1	P1-B3	PFAS.m	WS#6985934_13.d	QC	ICV	As Method	-
14	6985934:NTX312-01	P1-B4	PFAS.m	WS#6985934_14.d	Sample		As Method	-

	Sample Name	Sample Position	Method	Data File	Sample Type	Level Name	Inj Vol (µl)	Comment
15	6985934:NTX314-01	P1-B5	PFAS.m	WS#6985934_15.d	Sample		As Method	-
16	6985934:NTX315-01	P1-B6	PFAS.m	WS#6985934_16.d	Sample		As Method	-
17	CCV	P1-A5	PFAS.m	WS#6985934_17.d	ConCal	STD 4	As Method	-

FINAL INJECTION SEQUENCE

Sample					
Name	Comment	Acq. Date-Time	Data File	Acq. Method File	Pos.
STD 1	-	2020/10/07 1:21 PM	WS#6985934_02.d	PFAS.m	P1-A2
STD 2	-	2020/10/07 1:28 PM	WS#6985934_03.d	PFAS.m	P1-A3
STD 3	-	2020/10/07 1:34 PM	WS#6985934_04.d	PFAS.m	P1-A4
STD 4	-	2020/10/07 1:41 PM	WS#6985934_05.d	PFAS.m	P1-A5
STD 5	-	2020/10/07 1:48 PM	WS#6985934_06.d	PFAS.m	P1-A6
STD 6	-	2020/10/07 1:55 PM	WS#6985934_07.d	PFAS.m	P1-A7
IB	-	2020/10/07 2:02 PM	WS#6985934_08.d	PFAS.m	P1-A8
ICV	-	2020/10/07 2:09 PM	WS#6985934_09.d	PFAS.m	P1-A9
ISC	-	2020/10/07 2:16 PM	WS#6985934_10.d	PFAS.m	P1-A2
6985934:BLANK	-	2020/10/07 2:23 PM	WS#6985934_11.d	PFAS.m	P1-B1
6985934:SPIKE	-	2020/10/07 2:30 PM	WS#6985934_12.d	PFAS.m	P1-B2
6985934:SPIKE:D1	-	2020/10/07 2:37 PM	WS#6985934_13.d	PFAS.m	P1-B3
6985934:NTX312-01	-	2020/10/07 2:44 PM	WS#6985934_14.d	PFAS.m	P1-B4
6985934:NTX314-01	Re-injected to confirm recovery	2020/10/07 2:51 PM	WS#6985934_15.d	PFAS.m	P1-B5
6985934:NTX315-01	-	2020/10/07 2:58 PM	WS#6985934_16.d	PFAS.m	P1-B6
CCV	-	2020/10/07 3:05 PM	WS#6985934_17.d	PFAS.m	P1-A5
CCV	-	2020/10/07 8:14 PM	WS#6985934_R_02.d	PFAS.m	P1-A2
6985934:NTX314-01:R	Re-injection, reported	2020/10/07 8:21 PM	WS#6985934_R_03.d	PFAS.m	P1-A3
CCV	-	2020/10/07 8:28 PM	WS#6985934_R_04.d	PFAS.m	P1-A2

Supelco®

www.sigmaaldrich.com

Certificate of Analysis

Supelclean™ ENVI-Carb™

Catalog #: 57210-U

Supelco Lot #: 126486

Test Date: 02/07/2019

Test	Specification	Results
Atrazine Recovery	88 - 104%	94%
Flow Rate	>10 mL/min	23 mL/min
Fines Test	Proprietary	PASS

GSZ 2020/08/07
2X 50g
Shelf

Lot Approved: _____
Quality Manager

T509096(4)

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The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Received on 2020-08-26
TK4
12 Bottles.
Room temperature

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBM0726**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	17 MAR 2020
Expiration Date:	FEB 2025

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.32
UV Absorbance 205nm	≤ 1.00	0.62
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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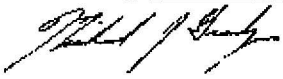
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBM0726**



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/09/02 - 12 bottles - TK4
Date Received: 2020/09/04 - 12 bottles - TK4
Date Received: 2020/09/09 - 12 bottles - TK4
Date Received: 2020/09/11 - 12 bottles - TK4
Date Received: 2020/09/17 - 12 bottles - TK4
Date Received: 2020/09/19 - 12 bottles - TK4

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REAGENT PREPARATION FORM

Reagent # 585 Replaced Reagent # 578 Analyst: GSZ

Reagent Name: 0.3% NH_4OH in MeOH Preparation date: 2020/08/10 Expiry date: Daily

Final Volume: 100mL Oven No. : — Temp. : — Final Conc.: 0.3% v/v

Balance ID: — Pipette/Syringe/Cylinder ID: K262507/14270 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH_4OH	0.3mL	2020/08/06	2020/08/07	Fisher	195946	2022/12/31
MeOH	99.7mL	2020/08/04	2020/08/09	Sigma	SHBL9921	2025/01/31
			GSZ 2020/08/10			

NOTES:

Reagent # 586 Replaced Reagent # 582 Analyst: LR

Reagent Name: 0.2% NH4OH in MeOH Preparation date: 2020/08/11 Expiry date: Daily

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 0.2%

Balance ID: — Pipette/Syringe/Cylinder ID: RS22904 14434 Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	998mL	2020/08/10	2020/08/10	Sigma	SHBL9921	2025/01/31
NH4OH	2mL	2020/08/08	2020/08/07	Fisher	195946	2022/12/31
			LR 2020/08/11			

NOTES:

HPLC P4
1 Bottle
Shelf
Received by: HB
2020|08|06

Certificate of Analysis
ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

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Catalog Number	A669	Quality Test / Release Date	01/08/2020
Lot Number	195946	Expiration Date	Dec/2022
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Comment	This product is free from genetically modified substances and is gluten free.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter.
ALUMINUM	ppm	<= 0.3	0.003
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.05
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	28.06
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.017
CARBON DIOXIDE	%	<= 0.002	<0.002
CHLORIDE	ppm	<= 0.5	<0.5
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.001
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2
PHOSPHATE (PO4)	ppm	<= 0.4	<0.4
POTASSIUM (K)	ppm	<= 0.3	0.003
RESIDUE AFTER IGNITION	ppm	<= 3	<3
SODIUM (Na)	ppm	>= 0	0.003

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.001

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
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*Based on suggested storage condition.

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBL9921**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	20 FEB 2020
Expiration Date:	JAN 2025

652 2020/07/29
8 X 4L
Shelf

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.00
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.05
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.16
UV Absorbance 210nm	≤ 0.60	0.35
UV Absorbance 205nm	≤ 1.00	0.66
Fluorescence 254nm	≤ 1.0 ppb	0.2 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.5 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 5 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBL9921**

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/08/04-8 bottles-GS2
Date Received: 2020/08/10-8 bottles-GS2
Date Received: 2020/08/19-8 bottles-GS2

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

REAGENT PREPARATION FORM

Reagent # 96 Replaced Reagent # 59 Analyst: GSZ

Reagent Name: 0.3% NH4OH in MeOH Preparation date: 2020/09/15 Expiry date: Daily

Final Volume: 100 mL Oven No. : - Temp. : - Final Conc.: 0.3% v/v

Balance ID: - Pipette/Syringe/Cylinder ID: K26250F/14270 Storage: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH_4OH	0.3 mL	2020/08/06	2020/08/07	Fisher	195946	2022/12/31
MeOH	99.7 mL	2020/09/11	2020/09/15	Sigma	SHBM0726	2025/02/28
		GSZ, 2020/09/15				

NOTES:

Reagent # 97 Replaced Reagent # 85 Analyst: TTM

Reagent Name: 60:40 (LCMS ~~MeOH~~ : MeOH) TTM 2020-09-16 Preparation date: 2020-09-16 Expiry date: 2020-11-16.

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: 60:40 (V/V)

Balance ID: - Pipette/Syringe/Cylinder ID: 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	400 mL	2020-09-11	2020-09-16	Sigma	SHBM0726	2025-02-28
LCMS water	600 mL	2020-09-09	2020-09-16	Omni	60155	2021-06-30
		TTM 2020-09-16				

NOTES:

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HPLC P4
1 Bottle
Shelf
Received by: HB
2020|08|06

Certificate of Analysis
ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

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Catalog Number	A669	Quality Test / Release Date	01/08/2020
Lot Number	195946	Expiration Date	Dec/2022
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Comment	This product is free from genetically modified substances and is gluten free.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter.
ALUMINUM	ppm	<= 0.3	0.003
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.05
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	28.06
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.017
CARBON DIOXIDE	%	<= 0.002	<0.002
CHLORIDE	ppm	<= 0.5	<0.5
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.001
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2
PHOSPHATE (PO4)	ppm	<= 0.4	<0.4
POTASSIUM (K)	ppm	<= 0.3	0.003
RESIDUE AFTER IGNITION	ppm	<= 3	<3
SODIUM (Na)	ppm	>= 0	0.003

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
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*Based on suggested storage condition.

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Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.001

Peter Yang - Quality Control Manager - Bridgewater

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*Based on suggested storage condition.

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Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Received on 2020-08-26
TK4
12 Bottles.
Room temperature

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBM0726**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	17 MAR 2020
Expiration Date:	FEB 2025

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.32
UV Absorbance 205nm	≤ 1.00	0.62
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBM0726**

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/09/02 - 12 bottles - TK4
Date Received: 2020/09/04 - 12 bottles - TK4
Date Received: 2020/09/09 - 12 bottles - TK4
Date Received: 2020/09/11 - 12 bottles - TK4

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

REAGENT PREPARATION FORM

Reagent # 102 Replaced Reagent # 98 Analyst: EG

Reagent Name: FMOC Preparation date: 20201091/16 Expiry date: Daily

Final Volume: 50 ml Oven No. : - Temp. : - Final Conc.: -

Balance ID: FC-1 Pipette/Syringe/Cylinder ID: _____ Storage: Dark Place

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
FMOC	0.075	2019/11/29	2020/05/26	AIDICH	WXBC6764V	2021-03-28
ACN	50 ml	2020/07/22	2020/08/18	Fisher	198807	2025/05/31
				EG 2020/09/16		

NOTES:

Reagent # 103 Replaced Reagent # 96 Analyst: EG

Reagent Name: 0.3% NH4OH in MeOH Preparation date: 2020/9/16 Expiry date: Daily

Final Volume: 100ml Oven No. : - Temp. : _____ Final Conc.: 0.3% v/v

Balance ID: - Pipette/Syringe/Cylinder ID: K2625OF/14270 Storage: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	0.3ml	2020/8/6	2020/8/7	Fisher	195946	2021/12/31
MeOH	99.7ml	2020/9/11	2020/9/16	Sigma	SZBBM 0726	2025/2/28
				EG 15ml 2020/9/16		

NOTES:

HPLC P4
1 Bottle
Shelf
Received by: HB
2020|08|06

Certificate of Analysis
ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

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Catalog Number	A669	Quality Test / Release Date	01/08/2020
Lot Number	195946	Expiration Date	Dec/2022
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Comment	This product is free from genetically modified substances and is gluten free.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter.
ALUMINUM	ppm	<= 0.3	0.003
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.05
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	28.06
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.017
CARBON DIOXIDE	%	<= 0.002	<0.002
CHLORIDE	ppm	<= 0.5	<0.5
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.001
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2
PHOSPHATE (PO4)	ppm	<= 0.4	<0.4
POTASSIUM (K)	ppm	<= 0.3	0.003
RESIDUE AFTER IGNITION	ppm	<= 3	<3
SODIUM (Na)	ppm	>= 0	0.003

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.001

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

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Website: www.sigmaaldrich.com
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Outside USA: eurtechserv@sial.com

Received on 2020-08-26
TK4
12 Bottles.
Room temperature

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBM0726**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	17 MAR 2020
Expiration Date:	FEB 2025

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.32
UV Absorbance 205nm	≤ 1.00	0.62
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

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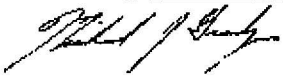
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBM0726**



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/09/02 - 12 bottles - TK4
Date Received: 2020/09/04 - 12 bottles - TK4
Date Received: 2020/09/09 - 12 bottles - TK4
Date Received: 2020/09/11 - 12 bottles - TK4
Date Received: 2020/09/17 - 12 bottles - TK4

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REAGENT PREPARATION FORM

Reagent # 108 Replaced Reagent # 98 Analyst: TTM

Reagent Name: 0.2% NH4OH in MeOH Preparation date: 2020-09-17 Expiry date: Daily.

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: 0.2%.

Balance ID: - Pipette/Syringe/Cylinder ID: N22062I 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	2mL	2020-08-06	2020-08-07	Fisher	195946	2022-12-31
MeOH	998mL	2020-09-11	2020-09-16	Sigma	SHBM0726	2025-02-28
	TTM 2020-09-17					

NOTES:

Reagent # 109 Replaced Reagent # 99 Analyst: TTM

Reagent Name: Acid water Preparation date: 2020-09-17 Expiry date: Daily

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: -

Balance ID: - Pipette/Syringe/Cylinder ID: 14439 Q287936 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
LCMS water	1L	2020-09-09	2020-09-16	Omni	B0155	2021-06-30
2% Formic Acid	800µL	← PRLRE-143-89			→	
	TTM	2020-09-17				

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REAGENT PREPARATION FORM

Reagent # 89 Replaced Reagent # 86 Analyst: KMI

Reagent Name: 2% Formic acid Preparation date: 2020.09.15 Expiry date: 2020.11.15

Final Volume: 1 L Oven No. : - Temp. : - Final Conc.: 2 %

Balance ID: - Pipette/Syringe/Cylinder ID: N22062 / 14489 Storage: shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
formic acid	20 mL	2020.07.07 ~~2020.09.11~~	2020.08.13 ~~2020.09.15~~	sigma	SHBM 18T1 ~~2021.04.5~~	2021.04.30 KMI 2020.09.15
water LCMS.	980 mL	2020.09.11	2020.09.15 KMI 2020.09.15	caruni	60155	2021.06.30
					KMI 2020.09.15	

NOTES:

Reagent # 90 Replaced Reagent # 77 (MeOH: LCMS H2O) Analyst: KMI

Reagent Name: 0.5% NH4OH in 70:30 Preparation date: 2020.09.15 Expiry date: 1 Daily

Final Volume: 100 mL Oven No. : - Temp. : - Final Conc.: 0.5%

Balance ID: - Pipette/Syringe/Cylinder ID: Q28 7930 / 14270 Storage: shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	0.5 mL	2020.08.06	2020.08.07	Fisher	195946	2022.12.31
70:30 (MeOH: LCMS H2O)	99.5 mL	—	—	PRLRE 148-76	—	—
				KMI 2020.09.15		

NOTES:

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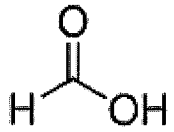
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Formic acid - reagent grade, ≥95%

Product Number:	**F0507**
Batch Number:	**SHBM1877**
Brand:	SIGALD
CAS Number:	64-18-6
MDL Number:	MFCD00003297
Formula:	CH2O2
Formula Weight:	46.03 g/mol
Quality Release Date:	01 MAY 2020
Expiration Date:	APR 2021



Rec'd: 2020-07-07
Q → 1
RAK 2020-07-07
shelf.

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.7 %
Expiration Date Period	----------	----------
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of Analysis

Received on:
2020-08-10
12 Bottles.
Storage: Shelf.

Date of Release:	6/2/2020
Name:	Water OmniSolv®, For LC/MS
Item No:	WX0001 all size codes
Lot / Batch No:	60155
Country of Origin:	USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			30-JUN-2021	
Evaporation residue		1	<0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.41	mAU
Gradient at 254 nm		0.5	0.23	mAU
LC/MS Purity (p-nitrophenol)		50	< 50	ppb
LC/MS Purity (reserpine)		50	< 50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Heather Sinn,

Quality Control Manager
This document has been produced electronically and is valid without a signature.

EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/08/26 - 12 bottles - SAD
Bureau Veritas Laboratories
Date Received: 2020/09/09 - 12 bottles - SAD
Date Received: 2020/09/11 - 12 bottles - SAD

REAGENT PREPARATION FORM

Reagent # 110 Replaced Reagent # 103 Analyst: SAD

Reagent Name: 0.3% NH4OH in MeOH Preparation date: 2020/9/17 Expiry date: Daily

Final Volume: 100mL Oven No. : — Temp. : — Final Conc.: 0.3% v/v

Balance ID: — Pipette/Syringe/Cylinder ID: K26280F Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	0.3mL	2020/6/10	2020/6/17	Fisher	195946	2022/12/31
MeOH	99.7mL	2020/9/11	2020/9/16	Sigma	SHBM 0726	2025/2/19

SAD 2020/9/17

NOTES:

Reagent # 111 Replaced Reagent # 104 Analyst: RAK

Reagent Name: 0.5% NH4OH Preparation date: 2020-09-17 Expiry date: Daily

Final Volume: 250mL Oven No. : — Temp. : — Final Conc.: 0.5%

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 N22062E Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	1.25mL	2020-08-06	2020-08-07	fisher	195946	2022/12-31
70:30 (MeOH : LCMS H_2O)	248.75mL	← PRLRE-143-76 →				
		RAK	2020-09-17			

NOTES:

HPLC P4
1 Bottle
Shelf
Received by: HB
2020|08|06

Certificate of Analysis
ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	01/08/2020
Lot Number	195946	Expiration Date	Dec/2022
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Comment	This product is free from genetically modified substances and is gluten free.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter.
ALUMINUM	ppm	<= 0.3	0.003
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.05
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	28.06
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.017
CARBON DIOXIDE	%	<= 0.002	<0.002
CHLORIDE	ppm	<= 0.5	<0.5
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.001
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2
PHOSPHATE (PO4)	ppm	<= 0.4	<0.4
POTASSIUM (K)	ppm	<= 0.3	0.003
RESIDUE AFTER IGNITION	ppm	<= 3	<3
SODIUM (Na)	ppm	>= 0	0.003

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.001

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Received on 2020-08-26
TK4
12 Bottles.
Room temperature

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBM0726**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	17 MAR 2020
Expiration Date:	FEB 2025

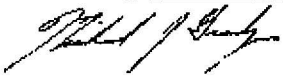
Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.32
UV Absorbance 205nm	≤ 1.00	0.62
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBM0726**



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/09/02 - 12 bottles - TK4
Date Received: 2020/09/04 - 12 bottles - TK4
Date Received: 2020/09/09 - 12 bottles - TK4
Date Received: 2020/09/11 - 12 bottles - TK4
Date Received: 2020/09/17 - 12 bottles - TK4

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

REAGENT PREPARATION FORM

Reagent # 122 Replaced Reagent # 115 Analyst: [redacted]

Reagent Name: DNPH Preparation date: 2020/9/18 Expiry date: Daily

Final Volume: 10ml Oven No. : — Temp. : — Final Conc.: [illegible]

Balance ID: EC-1 Pipette/Syringe/Cylinder ID: N2062L Storage: _____

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
DNPH	0.05 g	2016/11/15	2016/11/15	Sigma	ZEK02L2	2020/6/31
ACN	10ml	2019/11/19	2020/6/18	Fisher	198807	2025/5/31

NOTES: Reorganized On 2020/09/02

Reagent # 123 Replaced Reagent # 110 Analyst: GSZ

Reagent Name: 0.3% NH4OH in MeOH Preparation date: 2020/09/18 Expiry date: Daily

Final Volume: 500ml Oven No. : — Temp. : — Final Conc.: 0.3% N/V

Balance ID: — Pipette/Syringe/Cylinder ID: KZ6250F/5930 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	1.5 ml	2020/08/06	2020/08/07	Fisher	195946	2022/12/31
MeOH	498.5 ml	2020/09/11	2020/09/17	Sigma	SHBM0726	2025/02/28
			2020/09/18			
		GSZ				

NOTES:

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES, CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS.
ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.

HPLC P4
1 Bottle
Shelf
Received by: HB
2020|08|06

Certificate of Analysis
ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	01/08/2020
Lot Number	195946	Expiration Date	Dec/2022
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Comment	This product is free from genetically modified substances and is gluten free.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter.
ALUMINUM	ppm	<= 0.3	0.003
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.05
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	28.06
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.017
CARBON DIOXIDE	%	<= 0.002	<0.002
CHLORIDE	ppm	<= 0.5	<0.5
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.001
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2
PHOSPHATE (PO4)	ppm	<= 0.4	<0.4
POTASSIUM (K)	ppm	<= 0.3	0.003
RESIDUE AFTER IGNITION	ppm	<= 3	<3
SODIUM (Na)	ppm	>= 0	0.003

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.001

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Received on 2020-08-26
TK4
12 Bottles.
Room temperature

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBM0726**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	17 MAR 2020
Expiration Date:	FEB 2025

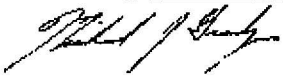
Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.32
UV Absorbance 205nm	≤ 1.00	0.62
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBM0726**



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/09/02 - 12 bottles - TK4
Date Received: 2020/09/04 - 12 bottles - TK4
Date Received: 2020/09/09 - 12 bottles - TK4
Date Received: 2020/09/11 - 12 bottles - TK4
Date Received: 2020/09/17 - 12 bottles - TK4

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

REAGENT PREPARATION FORM

Reagent # 202 Replaced Reagent # 183 Analyst: RAK

Reagent Name: 2% Formic Acid Preparation date: 2020-10-02 Expiry date: 2020-12-02

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 2% (v/v)

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 N22062I Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic Acid	20mL	2020-07-07	2020-08-13	Sigma	SHBM1877	2021-01-30
LCMS H_2O	980mL	2020-09-30	2020-10-01	Omni	60184	2021-07-31
			RAK 2020-10-02			

NOTES:

Reagent # 203 Replaced Reagent # 182 Analyst: RAK

Reagent Name: 60:40 (LCMS H_2O : MeOH) Preparation date: 2020-10-02 Expiry date: 2020-12-02

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 60:40 (v/v)

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 ~~N22062I~~ RAK 2020-10-02 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
LCMS H_2O	600mL	2020-09-30	2020-10-02	Omni	60184	2021-07-31
MeOH	400mL	2020-09-30	2020-10-01	Sigma	SHBM0126	2025-02-28
			RAK 2020-10-02			

NOTES:

SIGMA-ALDRICH®

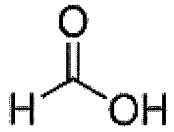
sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Formic acid - reagent grade, ≥95%

Product Number:	**F0507**
Batch Number:	**SHBM1877**
Brand:	SIGALD
CAS Number:	64-18-6
MDL Number:	MFCD00003297
Formula:	CH2O2
Formula Weight:	46.03 g/mol
Quality Release Date:	01 MAY 2020
Expiration Date:	APR 2021



Rec'd: 2020-07-07
Q → 1
RAK 2020-07-07
shelf.

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.7 %
Expiration Date Period	----------	----------
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of Analysis

MilliporeSigma

Date of Release: 6/29/2020

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001 all size codes

Lot / Batch No: 60184

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2021	
Evaporation residue		1	<1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	< 0.05	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	0.001	AU
UV Cut-off		190	186.3	nm

Heather Sinn,

Quality Control Manager
This document has been produced electronically and is valid without a signature.

GSZ 2020/09/04
4 x 4L
Shelf

EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/09/11 - 4x4L - GS2
Date Received: 2020/09/30 - 4x4L - GS2

REAGENT PREPARATION FORM

Reagent # 202 Replaced Reagent # 183 Analyst: RAK

Reagent Name: 2% Formic Acid Preparation date: 2020-10-02 Expiry date: 2020-12-02

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 2% (v/v)

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 N22062I Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic Acid	20mL	2020-07-07	2020-08-13	Sigma	SHBM1877	2021-01-30
LCMS H_2O	980mL	2020-09-30	2020-10-01	Omni	60184	2021-07-31
			RAK 2020-10-02			

NOTES:

Reagent # 203 Replaced Reagent # 182 Analyst: RAK

Reagent Name: 60:40 (LCMS H_2O : MeOH) Preparation date: 2020-10-02 Expiry date: 2020-12-02

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 60:40 (v/v)

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 ~~N22062I~~ RAK 2020-10-02 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
LCMS H_2O	600mL	2020-09-30	2020-10-02	Omni	60184	2021-07-31
MeOH	400mL	2020-09-30	2020-10-01	Sigma	SHBM0126	2025-02-28
			RAK 2020-10-02			

NOTES:

Certificate of Analysis

MilliPORE SiGMa

Date of Release: 6/29/2020

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001 all size codes

Lot / Batch No: 60184

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2021	
Evaporation residue		1	<1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	< 0.05	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	0.001	AU
UV Cut-off		190	186.3	nm

Heather Sinn,

Quality Control Manager
This document has been produced electronically and is valid without a signature.

GSZ 2020/09/04
4 x 4L
Shelf

EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/09/11 - 4x4L - GS2
Date Received: 2020/09/30 - 4x4L - GS2

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Received on 2020-08-26
TK4
12 Bottles.
Room temperature

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBM0726**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	17 MAR 2020
Expiration Date:	FEB 2025

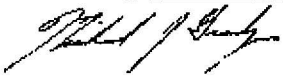
Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.32
UV Absorbance 205nm	≤ 1.00	0.62
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBM0726**



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/09/02 - 12 bottles - TK4
Date Received: 2020/09/04 - 12 bottles - TK4
Date Received: 2020/09/09 - 12 bottles - TK4
Date Received: 2020/09/11 - 12 bottles - TK4
Date Received: 2020/09/17 - 12 bottles - TK4
Date Received: 2020/09/19 - 12 bottles - TK4
Date Received: 2020/09/30 - 12 bottles - TK4

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REAGENT PREPARATION FORM

Reagent # 214 Replaced Reagent # PRIR6137-626 Analyst: CG1

Reagent Name: 4% Formic Acid Preparation date: 2020/10/04 Expiry date: 2020/12/04

Final Volume: 500 mL Oven No. : - Temp. : - Final Conc.: 4%

Balance ID: - Pipette/Syringe/Cylinder ID: _____ Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic Acid	20 mL	2020/07/07	2020/08/13	Sigma	SHBM1877	2021/04/30
ACN	480 mL	20201091 01	2020/09/08	Fisher	201353	2025/05/30
				SG 2020/10/09		

NOTES:

Reagent # 215 Replaced Reagent # 210 Analyst: TTM

Reagent Name: 0.2% NH4OH in MeOH Preparation date: 2020.10.04 Expiry date: Daily

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: 0.2%

Balance ID: - Pipette/Syringe/Cylinder ID: 14439 N220621 Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	2ml	2020.08.06	2020.08.07	Ashes	1959 46	2022.12.31
MeOH	998 ml	2020.09.30	2020.10.03	Sigma	SHBM0726	2025.02.28
	TTM 2020.10.04					
					2020.10.04	

NOTES:

HPLC P4
1 Bottle
Shelf
Received by: HB
2020|08|06

Certificate of Analysis
ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	01/08/2020
Lot Number	195946	Expiration Date	Dec/2022
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Comment	This product is free from genetically modified substances and is gluten free.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter.
ALUMINUM	ppm	<= 0.3	0.003
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.05
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	28.06
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.017
CARBON DIOXIDE	%	<= 0.002	<0.002
CHLORIDE	ppm	<= 0.5	<0.5
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.001
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2
PHOSPHATE (PO4)	ppm	<= 0.4	<0.4
POTASSIUM (K)	ppm	<= 0.3	0.003
RESIDUE AFTER IGNITION	ppm	<= 3	<3
SODIUM (Na)	ppm	>= 0	0.003

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.001

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Received on 2020-08-26
TK4
12 Bottles.
Room temperature

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBM0726**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	17 MAR 2020
Expiration Date:	FEB 2025

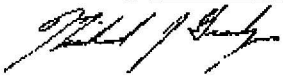
Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.32
UV Absorbance 205nm	≤ 1.00	0.62
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBM0726**



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/09/02 - 12 bottles - TK4
Date Received: 2020/09/04 - 12 bottles - TK4
Date Received: 2020/09/09 - 12 bottles - TK4
Date Received: 2020/09/11 - 12 bottles - TK4
Date Received: 2020/09/17 - 12 bottles - TK4
Date Received: 2020/09/19 - 12 bottles - TK4
Date Received: 2020/09/30 - 12 bottles - TK4

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REAGENT PREPARATION FORM

Reagent # ~~Acidwa~~ TTM 216 Replaced Reagent # 211 Analyst: TTM

Reagent Name: Acid water Preparation date: 2020-10-04 Expiry date: Daily.

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: —

Balance ID: — Pipette/Syringe/Cylinder ID: N22062E 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
N 2% Formic Acid	800µL	←	PRLRE-143-202			→
LCMS water	1L	2020-09-30	2020-10-04 ~~2020-10-04~~ TTM	Omni	60184	2021-07-31
			TTM 2020-10-04			

NOTES:

Reagent # 217 Replaced Reagent # 202 Analyst: TTM

Reagent Name: 2% Formic Acid Preparation date: 2020-10-05 Expiry date: 2020-12-05

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 2%

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 N22062E Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
BR TTM Formic Acid	20mL	2020-07-07	2020-08-13	Sigma	SHBM1877	2021-04-30
LCMS water	980mL	2020-09-30	2020-10-05	Omni	60184	2021-07-31
			TTM 2020-10-05			

NOTES:

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ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.

REAGENT PREPARATION FORM

Reagent # 202 Replaced Reagent # 183 Analyst: RAK

Reagent Name: 2% Formic Acid Preparation date: 2020-10-02 Expiry date: 2020-12-02

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 2% (v/v)

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 N22062I Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic Acid	20mL	2020-07-07	2020-08-13	Sigma	SHBM1877	2021-01-30
LCMS H_2O	980mL	2020-09-30	2020-10-01	Omni	60184	2021-07-31
			RAK 2020-10-02			

NOTES:

Reagent # 203 Replaced Reagent # 182 Analyst: RAK

Reagent Name: 60:40 (LCMS H_2O : MeOH) Preparation date: 2020-10-02 Expiry date: 2020-12-02

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 60:40 (v/v)

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 ~~N22062I~~ RAK 2020-10-02 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
LCMS H_2O	600mL	2020-09-30	2020-10-02	Omni	60184	2021-07-31
MeOH	400mL	2020-09-30	2020-10-01	Sigma	SHBM0126	2025-02-28
			RAK 2020-10-02			

NOTES:

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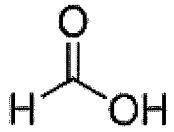
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Formic acid - reagent grade, ≥95%

Product Number:	**F0507**
Batch Number:	**SHBM1877**
Brand:	SIGALD
CAS Number:	64-18-6
MDL Number:	MFCD00003297
Formula:	CH2O2
Formula Weight:	46.03 g/mol
Quality Release Date:	01 MAY 2020
Expiration Date:	APR 2021



Rec'd: 2020-07-07
Q → 1
RAK 2020-07-07
shelf.

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.7 %
Expiration Date Period	----------	----------
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of Analysis

MilliPORE SiGMa

Date of Release: 6/29/2020

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001 all size codes

Lot / Batch No: 60184

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2021	
Evaporation residue		1	<1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	< 0.05	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	0.001	AU
UV Cut-off		190	186.3	nm

Heather Sinn,

Quality Control Manager
This document has been produced electronically and is valid without a signature.

GSZ 2020/09/04
4 x 4L
Shelf

EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/09/11 - 4x4L - GS2
Date Received: 2020/09/30 - 4x4L - GS2

REAGENT PREPARATION FORM

Reagent # ~~Acidwa~~ 216 TTM Replaced Reagent # 211 Analyst: TTM

Reagent Name: Acid water Preparation date: 2020-10-04 Expiry date: Daily.

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: —

Balance ID: — Pipette/Syringe/Cylinder ID: N22062E 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
N 2% Formic Acid	800µL	←	PRLRE-143-202			→
LCMS water	1L	2020-09-30	2020-10-04 ~~2020-10-04~~ TTH	Omni	60184	2021-07-31
		TTH 2020-10-04				

NOTES:

Reagent # 217 Replaced Reagent # 202 Analyst: TTM

Reagent Name: 2% Formic Acid Preparation date: 2020-10-05 Expiry date: 2020-12-05

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 2%

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 N22062E Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
BR TTH Formic Acid	20mL	2020-07-07	2020-08-13	Sigma	SHBH1877	2021-04-30
LCMS water	980mL	2020-09-30	2020-10-05	Omni	60184	2021-07-31
		TTH 2020-10-05				

NOTES:

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES, CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS.
ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.

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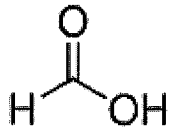
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Formic acid - reagent grade, ≥95%

Product Number:	**F0507**
Batch Number:	**SHBM1877**
Brand:	SIGALD
CAS Number:	64-18-6
MDL Number:	MFCD00003297
Formula:	CH2O2
Formula Weight:	46.03 g/mol
Quality Release Date:	01 MAY 2020
Expiration Date:	APR 2021



Rec'd: 2020-07-07
Q → 1
RAK 2020-07-07
shelf.

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.7 %
Expiration Date Period	----------	----------
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of Analysis

MilliporeSigma

Date of Release: 6/29/2020

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001 all size codes

Lot / Batch No: 60184

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2021	
Evaporation residue		1	<1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	< 0.05	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	0.001	AU
UV Cut-off		190	186.3	nm

Heather Sinn,

Quality Control Manager
This document has been produced electronically and is valid without a signature.

GSZ 2020/09/04
4 x 4L
Shelf

EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/09/11 - 4x4L - GS2
Date Received: 2020/09/30 - 4x4L - GS2

REAGENT PREPARATION FORM

Reagent # 218 Replaced Reagent # 215 Analyst: TTH

Reagent Name: 0.2% NH4OH in MeOH Preparation date: 2020-10-05 Expiry date: Daily.

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: 0.2%

Balance ID: - Pipette/Syringe/Cylinder ID: N220621 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	2mL	2020-08-06	2020-08-07	Fisher	195946	2022-12-31
MeOH	998mL	2020-09-30	2020-10-05	Sigma	SHBM0726	2025-02-28
	TTH	2020-10-05				

NOTES:

Reagent # 219 Replaced Reagent # 216 Analyst: TTH

Reagent Name: Acid water Preparation date: 2020-10-05 Expiry date: Daily.

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: -

Balance ID: - Pipette/Syringe/Cylinder ID: Q28793G 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
2% Formic Acid	←	PRLRE - 143 - 202				→
LCMS water	1L ~~2020-09-30~~	~~2020-09-30~~ 2020-10-04	2020-10-05 ~~Omni~~	Omni	6184	2021-07-31
	TTH	2020-10-05				
	TTH	2020-10-05				

NOTES:

HPLC P4
1 Bottle
Shelf
Received by: HB
2020|08|06

Certificate of Analysis
ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	01/08/2020
Lot Number	195946	Expiration Date	Dec/2022
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Comment	This product is free from genetically modified substances and is gluten free.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter.
ALUMINUM	ppm	<= 0.3	0.003
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.05
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	28.06
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.017
CARBON DIOXIDE	%	<= 0.002	<0.002
CHLORIDE	ppm	<= 0.5	<0.5
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.001
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2
PHOSPHATE (PO4)	ppm	<= 0.4	<0.4
POTASSIUM (K)	ppm	<= 0.3	0.003
RESIDUE AFTER IGNITION	ppm	<= 3	<3
SODIUM (Na)	ppm	>= 0	0.003

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.001

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Received on 2020-08-26
TK4
12 Bottles.
Room temperature

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBM0726**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	17 MAR 2020
Expiration Date:	FEB 2025

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.32
UV Absorbance 205nm	≤ 1.00	0.62
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

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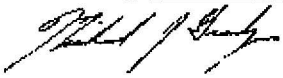
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBM0726**



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/09/02 - 12 bottles - TK4
Date Received: 2020/09/04 - 12 bottles - TK4
Date Received: 2020/09/09 - 12 bottles - TK4
Date Received: 2020/09/11 - 12 bottles - TK4
Date Received: 2020/09/17 - 12 bottles - TK4
Date Received: 2020/09/19 - 12 bottles - TK4
Date Received: 2020/09/25 - 12 bottles - TK4
Date Received: 2020/09/30 - 12 bottles - TK4
Date Received: 2020/10/07 - 12 bottles - ATN

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Maxxam Analytics
CAM FCD-01357/1
PRLRE: 143 PG: 111

REAGENT PREPARATION FORM

Reagent # 218 Replaced Reagent # 215 Analyst: TTH

Reagent Name: 0.2% NH4OH in MeOH Preparation date: 2020-10-05 Expiry date: Daily.

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: 0.2%

Balance ID: - Pipette/Syringe/Cylinder ID: N220621 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH4OH	2mL	2020-08-06	2020-08-07	Fisher	195946	2022-12-31
MeOH	998mL	2020-09-30	2020-10-05	Sigma	SHBM0726	2025-02-28
	TTH	2020-10-05				

NOTES:

Reagent # 219 Replaced Reagent # 216 Analyst: TTH

Reagent Name: Acid water Preparation date: 2020-10-05 Expiry date: Daily.

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: -

Balance ID: - Pipette/Syringe/Cylinder ID: Q28793G 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
2% Formic Acid	←	PRLRE - 143 -	202		→	
LCMS water	1L ~~2020-09-30~~	~~2020-10-04~~ 2020-09-30	~~Omni~~ 2020-10-05	Omni	6184	2021-07-31
	TTH	2020-10-05				
	TTH	2020-10-05				

NOTES:

REAGENT PREPARATION FORM

Reagent # 202 Replaced Reagent # 183 Analyst: RAK

Reagent Name: 2% Formic Acid Preparation date: 2020-10-02 Expiry date: 2020-12-02

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 2% (v/v)

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 N22062I Storage: shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Formic Acid	20mL	2020-07-07	2020-08-13	Sigma	SHBM1877	2021-01-30
LCMS H_2O	980mL	2020-09-30	2020-10-01	Omni	60184	2021-07-31
			RAK 2020-10-02			

NOTES:

Reagent # 203 Replaced Reagent # 182 Analyst: RAK

Reagent Name: 60:40 (LCMS H_2O : MeOH) Preparation date: 2020-10-02 Expiry date: 2020-12-02

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 60:40 (v/v)

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 ~~N22062I~~ RAK 2020-10-02 Storage: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
LCMS H_2O	600mL	2020-09-30	2020-10-02	Omni	60184	2021-07-31
MeOH	400mL	2020-09-30	2020-10-01	Sigma	SHBM0126	2025-02-28
			RAK 2020-10-02			

NOTES:

SIGMA-ALDRICH®

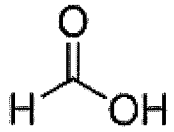
sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Formic acid - reagent grade, ≥95%

Product Number:	**F0507**
Batch Number:	**SHBM1877**
Brand:	SIGALD
CAS Number:	64-18-6
MDL Number:	MFCD00003297
Formula:	CH2O2
Formula Weight:	46.03 g/mol
Quality Release Date:	01 MAY 2020
Expiration Date:	APR 2021



Rec'd: 2020-07-07
Q → 1
RAK 2020-07-07
shelf.

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.7 %
Expiration Date Period	----------	----------
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

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Certificate of Analysis

MilliPORE SiGMa

Date of Release: 6/29/2020

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001 all size codes

Lot / Batch No: 60184

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2021	
Evaporation residue		1	<1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	< 0.05	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	0.001	AU
UV Cut-off		190	186.3	nm

Heather Sinn,

Quality Control Manager
This document has been produced electronically and is valid without a signature.

GSZ 2020/09/04
4 x 4L
Shelf

EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/09/11 - 4x4L - GS2
Date Received: 2020/09/30 - 4x4L - GS2

REAGENT PREPARATION FORM

Reagent # 224 Replaced Reagent # 203 Analyst: CP3

Reagent Name: Comb H_2O : MeOH (60:40) Preparation date: 2020.10.05 Expiry date: 2020.12.05

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 60:40 (V/V)

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 Storage: shelf.

2020.10.02 CP3 2020-10-05

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Comb H_2O	600 mL	2020.10.03	2020.10.05	Omni	60218	2021.08.31
MeOH	400 mL	2020.09.25	2020.10.04	Sigma	SHBM0726	2025.02.28
			CP3 2020-10-05			

NOTES:

Reagent # 225 Replaced Reagent # 218 Analyst: TTH

Reagent Name: 0.2% NH_4OH in MeOH Preparation date: 2020-10-06 Expiry date: Daily.

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 0.2%

Balance ID: — Pipette/Syringe/Cylinder ID: N220625 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	998 mL	2020-09-25	2020-10-05	Sigma	SHBM0726	2025-02-28
NH_4OH	2 mL	2020-08-06	2020-08-07	Fisher	195946	2022-12-31
		TTH 2020-10-06.				

NOTES:

DO NOT WRITE BENEATH ANY INSERTS OR PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL ENTRIES, CORRECTIONS AND INSERTS. INCLUDE ALL RELEVANT TRACEABLE REFERENCES ON ALL INSERTS.
ONLY CLASS A GLASSWARE IS USED FOR THE PREPARATION OF REAGENTS WHEN APPLICABLE.
Bureau Veritas Laboratories

Certificate of Analysis

MilliporeSigma

Date of Release: 8/5/2020

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001 all size codes

Lot / Batch No: 60218

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-AUG-2021	
Evaporation residue		1	<0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.17	mAU
Gradient at 254 nm		0.5	0.12	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			passes test	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Heather Sinn,

Quality Control Manager
This document has been produced electronically and is valid without a signature.

16 Bottles Received 2020/9/30

EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/10/03 - 16 bottles - ATN

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Received on 2020-08-26
TK4
12 Bottles.
Room temperature

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBM0726**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	17 MAR 2020
Expiration Date:	FEB 2025

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.32
UV Absorbance 205nm	≤ 1.00	0.62
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

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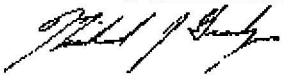
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBM0726**



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/09/02 - 12 bottles - TK4
Date Received: 2020/09/04 - 12 bottles - TK4
Date Received: 2020/09/09 - 12 bottles - TK4
Date Received: 2020/09/11 - 12 bottles - TK4
Date Received: 2020/09/17 - 12 bottles - TK4
Date Received: 2020/09/19 - 12 bottles - TK4
Date Received: 2020/09/25 - 12 bottles - TK4
Date Received: 2020/09/30 - 12 bottles - TK4

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REAGENT PREPARATION FORM

Reagent # 224 Replaced Reagent # 203 Analyst: CP3

Reagent Name: Comb H_2O : MeOH (60:40) Preparation date: 2020.10.05 Expiry date: 2020.12.05

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 60:40 (V/V)

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 Storage: shelf.

2020.10.02 CP3 2020-10-05

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Comb H_2O	600 mL	2020.10.03	2020.10.05	Omni	60218	2021.08.31
MeOH	400 mL	2020.09.25	2020.10.04	Sigma	SHBM0726	2025.02.28
			CP3 2020-10-05			

NOTES:

Reagent # 225 Replaced Reagent # 218 Analyst: TTH

Reagent Name: 0.2% NH_4OH in MeOH Preparation date: 2020-10-06 Expiry date: Daily.

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 0.2%

Balance ID: — Pipette/Syringe/Cylinder ID: N22062E 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
MeOH	998 mL	2020-09-25	2020-10-05	Sigma	SHBM0726	2025-02-28
NH_4OH	2 mL	2020-08-06	2020-08-07	Fisher	195946	2022-12-31
	TTH 2020-10-06.					

NOTES:

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Bureau Veritas Laboratories

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Received on 2020-08-26
TK4
12 Bottles.
Room temperature

Certificate of Analysis

Product Name:
Methanol - for HPLC, ≥99.9%

CH_3OH

Product Number:	**34860**
Batch Number:	**SHBM0726**
Brand:	SIGALD
CAS Number:	67-56-1
MDL Number:	MFCD00004595
Formula:	CH4O
Formula Weight:	32.04 g/mol
Quality Release Date:	17 MAR 2020
Expiration Date:	FEB 2025

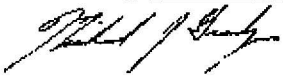
Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
UV Absorbance 400nm	≤ 0.01	< 0.01
UV Absorbance 280nm	≤ 0.01	< 0.01
UV Absorbance 260nm	≤ 0.04	0.01
UV Absorbance 240nm	≤ 0.10	0.03
UV Absorbance 235nm	≤ 0.10	0.04
UV Absorbance 230nm	≤ 0.20	0.07
UV Absorbance 220nm	≤ 0.30	0.15
UV Absorbance 210nm	≤ 0.60	0.32
UV Absorbance 205nm	≤ 1.00	0.62
Fluorescence 254nm	≤ 1.0 ppb	< 0.1 ppb
Fluorescence 365nm	≤ 1.0 ppb	0.1 ppb
Purity (GC)	≥ 99.90 %	100.00 %
Color Test	≤ 10 APHA	< 10 APHA
Water (by Karl Fischer)	≤ 0.03 %	< 0.01 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %
Expiration Date Period 1800 Days	----------	----------

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Number: **34860**
Batch Number: **SHBM0726**



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Date Received: 2020/09/02 - 12 bottles - TK4
Date Received: 2020/09/04 - 12 bottles - TK4
Date Received: 2020/09/09 - 12 bottles - TK4
Date Received: 2020/09/11 - 12 bottles - TK4
Date Received: 2020/09/17 - 12 bottles - TK4
Date Received: 2020/09/19 - 12 bottles - TK4
Date Received: 2020/09/25 - 12 bottles - TK4
Date Received: 2020/09/30 - 12 bottles - TK4

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HPLC P4
1 Bottle
Shelf
Received by: HB
2020|08|06

Certificate of Analysis
ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A669	Quality Test / Release Date	01/08/2020
Lot Number	195946	Expiration Date	Dec/2022
Description	AMMONIUM HYDROXIDE, CERTIFIED A.C.S. PLUS		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product does not contain and is not manufactured with raw material ingredients derived from any animal products, including countries where Bovine Spongiform Encephalopathy (BSE) is known to exist.		
Comment	This product is free from genetically modified substances and is gluten free.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless and free from suspended matter.
ALUMINUM	ppm	<= 0.3	0.003
ARSENIC AND ANTIMONY	ppm	<= 0.05	<0.05
ASSAY	w/w %	Inclusive Between 28.0 - 30.0	28.06
BORON (B)	ppm	<= 0.1	0.001
CALCIUM (Ca)	ppm	<= 0.3	0.017
CARBON DIOXIDE	%	<= 0.002	<0.002
CHLORIDE	ppm	<= 0.5	<0.5
CHROMIUM (Cr)	ppm	<= 0.2	0.001
COPPER (Cu)	ppm	<= 0.1	0.001
GOLD (Au)	ppm	<= 0.3	0.001
HEAVY METALS (as Pb)	ppm	<= 0.5	<0.5
IRON (Fe)	ppm	<= 0.1	0.001
LEAD (Pb)	ppm	<= 0.2	0.001
MAGNESIUM (Mg)	ppm	<= 0.3	0.001
MANGANESE (Mn)	ppm	<= 0.2	0.001
NICKEL (Ni)	ppm	<= 0.1	0.001
NITRATE (NO3)	ppm	<= 2	<2
PHOSPHATE (PO4)	ppm	<= 0.4	<0.4
POTASSIUM (K)	ppm	<= 0.3	0.003
RESIDUE AFTER IGNITION	ppm	<= 3	<3
SODIUM (Na)	ppm	>= 0	0.003

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 2	<2
TIN (Sn)	ppm	<= 0.3	0.001
TITANIUM (Ti)	ppm	<= 0.3	0.001
ZINC (Zn)	ppm	<= 0.3	0.001

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

REAGENT PREPARATION FORM

Reagent # 226 Replaced Reagent # 219 Analyst: TTM

Reagent Name: Acid water Preparation date: 2020-10-06 Expiry date: Daily

Final Volume: 1L Oven No. : - Temp. : - Final Conc.: -

Balance ID: - Pipette/Syringe/Cylinder ID: Q28793G 14439 Storage: Shelf

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
LCMS water	1L	2020-09-30	2020-10-06	Omni	60184	2021-07-31
2% Formic Acid	800µL	← PRURE-143-217				
		TTM 2020-10-06				

NOTES:

Reagent # 227 Replaced Reagent # 205 Analyst: GSZ

Reagent Name: 0.3% NH_4OH in MeOH Preparation date: 2020/10/06 Expiry date: Daily

Final Volume: 250mL Oven No. : - Temp. : - Final Conc.: 0.3% v/v

Balance ID: - Pipette/Syringe/Cylinder ID: K26250F/6076 Storage: -

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
NH_4OH	0.75mL	2020/08/06	2020/08/07	Fisher	195946	2022/12/31
MeOH	249.25mL	2020/09/25	2020/10/05	Sigma	SHBM0726	2025/02/28
		GSZ	2020/10/06			

NOTES:

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REAGENT PREPARATION FORM

Reagent # ~~Acidwa~~ TTM 216 Replaced Reagent # 211 Analyst: TTM

Reagent Name: Acid water Preparation date: 2020-10-04 Expiry date: Daily.

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: —

Balance ID: — Pipette/Syringe/Cylinder ID: N22062E 14439 Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
N 2% Formic Acid	800µL	←	PRLRE-143-202			→
LCMS water	1L	2020-09-30	2020-10-04 ~~2020-10-04~~ TTM	Omni	60184	2021-07-31
			TTM 2020-10-04			

NOTES:

Reagent # 217 Replaced Reagent # 202 Analyst: TTM

Reagent Name: 2% Formic Acid Preparation date: 2020-10-05 Expiry date: 2020-12-05

Final Volume: 1L Oven No. : — Temp. : — Final Conc.: 2%

Balance ID: — Pipette/Syringe/Cylinder ID: 14439 N22062E Storage: Shelf.

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
BR TTM Formic Acid	20mL	2020-07-07	2020-08-13	Sigma	STBH1877	2021-04-30
LCMS water	980mL	2020-09-30	2020-10-05	Omni	60184	2021-07-31
			TTM 2020-10-05			

NOTES:

SIGMA-ALDRICH®

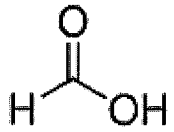
sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Formic acid - reagent grade, ≥95%

Product Number:	**F0507**
Batch Number:	**SHBM1877**
Brand:	SIGALD
CAS Number:	64-18-6
MDL Number:	MFCD00003297
Formula:	CH2O2
Formula Weight:	46.03 g/mol
Quality Release Date:	01 MAY 2020
Expiration Date:	APR 2021



Rec'd: 2020-07-07
Q → 1
RAK 2020-07-07
shelf.

Test	Specification	Result
Appearance (Turbidity)	Clear	Clear
Appearance (Color)	Colorless to Very Faint Yellow	Colorless
Appearance (Form)	Liquid	Liquid
Proton NMR Spectrum	Conforms to Structure	Conforms
Solvent Content	≤ 1.0 %	< 0.1 %
Acetic Acid by NMR		
Water (by Karl Fischer)	2.0 - 2.5 %	2.1 %
Titration with NaOH	≥ 95.0 %	97.7 %
Expiration Date Period	----------	----------
1 Year		

Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of Analysis

MilliporeSigma

Date of Release: 6/29/2020

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001 all size codes

Lot / Batch No: 60184

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2021	
Evaporation residue		1	<1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	< 0.05	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	0.001	AU
UV Cut-off		190	186.3	nm

Heather Sinn,

Quality Control Manager
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GSZ 2020/09/04
4 x 4L
Shelf

EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/09/11 - 4x4L - GS2
Date Received: 2020/09/30 - 4x4L - GS2

REAGENT PREPARATION FORM

SOLUTION # 135 REAGENT NAME: (95/5) ACN / 0.1 % Formic Acid

ANALYST: J DATE PREPARED: 2020/09/14 EXPIRY DATE: 2020/11/14

STORAGE: R.T. BALANCE ID: — PIPET/SYRINGE ID: 036588 D

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
ACN	950	2020/07/29	2020/09/14	Fisher	198807	2025/05/31
Formic Acid	50mL	2020/03/31	2020/04/01	Sigma	SHBL7977	2020/12/31
Milli-Q H2O	50mL	—	—	in-house	—	—
		J 2020/09/14				

NOTES:

SOLUTION # 136 REAGENT NAME: 20mM Ammonium Acetate

ANALYST: PP7 DATE PREPARED: 2020/09/15 EXPIRY DATE: 2020/09/21

STORAGE: R.T. BALANCE ID: FC1 PIPET/SYRINGE ID: N/A

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium Acetate	6.164 g.	2020/06/09	2020/06/30	Sigma	BCCC4924	2021/11/30
LCMS Water	4 L	2020/09/09	2020/09/15	OmniSolv	60155	2021/06/30
		PP7 2020/09/15				

NOTES:

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SIGMA-ALDRICH®

3050 Spruce Street, Saint Louis, MO 63103 USA
Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:	Ammonium acetate reagent grade, >= 98 %
Product Number:	A7262
Batch Number:	BCCC4924
Brand:	Sigma-Aldrich
CAS Number:	631-61-8
Formula:	$CH_3CO_2NH_4$
Formula Weight:	77.08
Storage Temperature:	2-8 C
Quality Release Date:	17 DEC 2019
Recommended Retest Date:	NOV 2021

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	WHITE	WHITE
APPEARANCE (FORM)	MOIST CRYSTALS	MOIST CRYSTALS
TITRATION	≥ 98 %	99.5 %
TITRATION (METHOD)	TITRATION WITH NAOH	TITRATION WITH NAOH
SOLUBILITY (COLOR)	COLORLESS	COLORLESS
SOLUBILITY (TURBIDITY)	CLEAR	CLEAR
SOLUBILITY (METHOD)	1 G/ML, H2O	1 G/ML,H2O

Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland

GSZ 2020/06/09
1 x 500g
FRIDGE

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Certificate of Analysis

Received on:
2020-08-10
12 Bottles.
Storage: Shelf.

Date of Release:	6/2/2020
Name:	Water OmniSolv®, For LC/MS
Item No:	WX0001 all size codes
Lot / Batch No:	60155
Country of Origin:	USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			30-JUN-2021	
Evaporation residue		1	<0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.41	mAU
Gradient at 254 nm		0.5	0.23	mAU
LC/MS Purity (p-nitrophenol)		50	< 50	ppb
LC/MS Purity (reserpine)		50	< 50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Heather Sinn,

Quality Control Manager
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EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/08/26 - 12 bottles - SAD
Bureau Veritas Laboratories
Date Received: 2020/09/09 - 12 bottles - SAD
Date Received: 2020/09/11 - 12 bottles - SAD

REAGENT PREPARATION FORM

SOLUTION # 139 REAGENT NAME: 25mM Ammonium Bicarbonate (pH 10)

ANALYST: YPL DATE PREPARED: 2020/09/28 EXPIRY DATE: 2020/10/28

STORAGE: R.T. BALANCE ID: S/N: 0234308623 PIPET/SYRINGE ID: —

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium Bicarbonate	3.9821	2019/11/27	2019/11/28	Sigma	SLBV1392	2021/03/31
RODi-H2O	2L	—	—	IN-HOUSE	—	—
Ammonium Hydroxide.	Dropwise to pH 10	2020/08/06	2020/08/07	Fisher	195946	2022/12/31
		YPL 2020/09/28.				

NOTES: pH meter. ORION STAR A111 S/N: J15241 YPL 2020/09/28

SOLUTION # 140 REAGENT NAME: 20mM Ammonium acetate

ANALYST: YPL DATE PREPARED: 2020/09/30 EXPIRY DATE: 2020/10/30

STORAGE: YPL 2020/09/30 Shelf. R.T BALANCE ID: FC-1 PIPET/SYRINGE ID: — YPL 2020/09/30

CHEMICAL NAME	VOLUME/ WEIGHT	DATE RECEIVED	DATE OPENED	SUPPLIER	LOT NUMBER	EXPIRY DATE
Ammonium acetate	6.192 gm	2019/10/17	2019/11/07	Sigma	BCB25836	2020/10/31
LCMS H2O	4L	2020/09/30	2020/09/30	omni Solv	60218	2021/08/31
			YPL 2020/09/30			

NOTES:

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SIGMA-ALDRICH®

3050 Spruce Street, Saint Louis, MO 63103 USA
Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:	AMMONIUM ACETATE reagent grade, >= 98 %
Product Number:	A7262
Batch Number:	BCBZ5836
Brand:	Sigma-Aldrich
CAS Number:	631-61-8
Formula:	$CH_3CO_2NH_4$
Formula Weight:	77.08
Storage Temperature:	2-8 C
Quality Release Date:	06 NOV 2018
Recommended Retest Date:	OCT 2020

Date received
2019/10/17
LR
1X500 gm

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	WHITE	WHITE
APPEARANCE (FORM)	MOIST CRYSTALS	MOIST CRYSTALS
TITRATION	≥ 98 %	99.8 %
TITRATION (METHOD)	TITRATION WITH NAOH	TITRATION WITH NAOH
SOLUBILITY (COLOR)	COLORLESS	COLORLESS
SOLUBILITY (TURBIDITY)	CLEAR	CLEAR
SOLUBILITY (METHOD)	1 G/ML, H2O	1 G/ML,H2O

Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland

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Certificate of Analysis

MilliporeSigma

Date of Release: 8/5/2020

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001 all size codes

Lot / Batch No: 60218

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-AUG-2021	
Evaporation residue		1	<0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.17	mAU
Gradient at 254 nm		0.5	0.12	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			passes test	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Heather Sinn,

Quality Control Manager
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16 Bottles
Received
2020/9/30

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EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Certificate of Analysis

MilliPORE SiGMa

Date of Release: 6/29/2020

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001 all size codes

Lot / Batch No: 60184

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-JUL-2021	
Evaporation residue		1	<1	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	< 0.05	mAU
Gradient at 254 nm		0.5	0.07	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			Conforms	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	0.001	AU
UV Cut-off		190	186.3	nm

Heather Sinn,

Quality Control Manager
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GSZ 2020/09/04
4 x 4L
Shelf

EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/09/11 - 4x4L - GS2
Date Received: 2020/09/30 - 4x4L - GS2

Certificate of Analysis

MilliporeSigma

Date of Release: 8/5/2020

Name: Water
OmniSolv®, For LC/MS

Item No: WX0001 all size codes

Lot / Batch No: 60218

Country of Origin: USA

Characteristic	Requirement		Results	Units
	Min.	Max.		
#Expiration date			31-AUG-2021	
Evaporation residue		1	<0.5	ppm
Filtered through 0.2 µm filter			Passes test	
Fluorescence as quinine at 254 nm		1	< 1	ppb
Fluorescence as quinine at 365 nm		1	< 1	ppb
Gradient at 210 nm		2	0.17	mAU
Gradient at 254 nm		0.5	0.12	mAU
LC/MS Purity (p-nitrophenol)		50	<50	ppb
LC/MS Purity (reserpine)		50	<50	ppb
Metals, suitable for LC/MS			passes test	
UV Abs. at 200 nm		0.01	< 0.001	AU
UV Abs. at 210 nm		0.01	< 0.001	AU
UV Abs. at 220 nm		0.01	< 0.001	AU
UV Abs. at 230 nm		0.01	< 0.001	AU
UV Abs. at 240 nm		0.01	< 0.001	AU
UV Abs. at 250 nm		0.005	< 0.001	AU
UV Abs. at 270 nm		0.005	< 0.001	AU
UV Abs. at 400-280 nm		0.005	< 0.001	AU
UV Cut-off		190	<190	nm

Heather Sinn,

Quality Control Manager
This document has been produced electronically and is valid without a signature.

16 Bottles
Received
2020/9/30

EMD Millipore is a division of Merck KGaA,Darmstadt, Germany
EMD Millipore Corporation
400 Summit Drive,
Burlington, MA 01803
U.S.A

Date Received: 2020/10/03 - 16 bottles - ATN

PRLST 141 PG. 06

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

Solution No.: INT-0008 Date: 2020/09/15 Expiry Date: 2021/09/15 Discard Date: _____

Replaces Solution No.: I-6075 Replaced by Solution: _____ Chemist: GSZ

Compound(s)/Solution Name: PFAS SECOND SOURCE SPIKING SOLUTION A

Number of Parent Solution(s): See attached sheet

Concentration of Parent Solution(s): See attached sheet (mg, ug)/mL

Aliquot of Parent Solution(s): See attached sheet mL / uL

Pippette/Syringe ID Q287936 / ~~R406416~~ GSZ 2020/09/15

Dilution Solvent: 0.3% NH4OH in MeOH Dilution Volume: 20 mL

Final Concentration(s): 1.0 (mg, (ug)/mL)

Solution derivatized (as methyl ester): - As Other (specify): -

Solution Contains Surrogate Compounds: - For mix refer to table on page: -

Solution used for: PFAS Volumetric Flask: Class A 20mL (92812)
(identify by serial number or other unique ID)

Solvent Supplier: PRLRE143-96 Lot No.: PRLRE143-96

Date Opened: PRLRE143-96

Storage Location: FZ11 One time Use, Not Stored: -

Ampule Supplier: Wellington Date Opened: _____

Mix Name: -

Catalogue No.: - Ampule expiry Date: See attached sheet

Lot No.: See attached sheet

Date Received: See attached sheet

Notes/Comments:

Compound Name	ID#	Conc. (ug/mL)	Vol. of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	STO0008-1	50	400	1	2024/11/15
L-PFBS	STO0008-2	44.4	450	1	2024/11/22
PFPeA	STO0008-3	50	400	1	2025/04/03
L-PFPeS	STO0008-4	47	426	1	2025/05/13
PFHxA	STO0008-5	50	400	1	2024/12/31
br-PFHxSk	STO0008-6	45.7	438	1	2024/10/23
PFHpA	STO0008-7	50	400	1	2025/07/09
L-PFHpS	STO0008-8	47.7	420	1	2025/01/21
PFOA	STO0008-9	50	400	1	2025/07/22
brPFOSK	STO0008-10	46.5	430	1	2025/01/16
PFNA	STO0008-11	50	400	1	2024/12/23
L-PFNS	STO0008-12	48.1	416	1	2024/11/14
PFDA	STO0008-13	50	400	1	2024/11/14
L-PFDS	STO0008-14	48.2	414	1	2024/11/14
PFUdA	STO0008-15	50	400	1	2024/10/30
PFDoA	STO0008-16	50	400	1	2025/05/14
PFTrDA	STO0008-17	50	400	1	2025/05/14
PFTeDA	STO0008-18	50	400	1	2024/11/14
PFOSA (FOSA-I)	STO0008-19	50	400	1	2025/04/15
N-MeFOSA-M	STO0008-20	50	400	1	2024/12/24
N-EtFOSA-M	STO0008-21	50	400	1	2025/02/21
N-MeFOSE-M	STO0008-22	50	400	1	2025/01/06
N-EtFOSE-M	STO0008-23	50	400	1	2025/01/06
br-NMeFOSAA	STO0008-24	50	400	1	2024/12/02
br-NEtFOSAA	STO0008-25	50	400	1	2024/08/20
4:2FTS	STO0008-26	46.9	426	1	2025/07/31
6:2FTS	STO0008-27	47.6	420	1	2025/04/21
8:2FTS	STO0008-28	48	416	1	2025/05/08
HFPO-DA	STO0008-29	50	400	1	2023/07/09
NaDONA	STO0008-30	47.3	422	1	2025/07/09
9Cl-PF3ONS	STO0008-31	46.7	428	1	2025/04/21
11Cl-PF3OUdS	STO0008-32	47.2	424	1	2025/03/25

GSZ, 2020/09/15

DO NOT WRITE BENEATH ANY INSERTS ON THIS PAGE. DO NOT PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL INSERTS. LOGBOOK, PAGE AND APPROPRIATE SOLUTION NUMBER REFERENCES MUST BE WRITTEN ON ALL INSERTS.

PRLST 139 PG 06

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: STO - 0008 Date: 2020/09/15 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

STO - 0008 (PRLST 139 pg. 06)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
STO0008-1	PFBA	PFBA1119	2020/09/11	2024/11/15	S4875-1		50	MeOH	FZ-11
STO0008-2	L-PFBS	LPFBS1119	2020/09/11	2024/11/22	S4875-2		44.4	MeOH	FZ-11
STO0008-3	PFPeA	PFPeA0420	2020/09/11	2025/04/03	S4875-3		50	MeOH	FZ-11
STO0008-4	L-PFPeS	LPFPeS0520	2020/09/14	2025/05/13	S4875-4		47	MeOH	FZ-11
STO0008-5	PFHxA	PFHxA1219	2020/09/11	2024/12/31	S4875-5		50	MeOH	FZ-11
STO0008-6	br-PFHxSk	brPFHxSK1019	2020/09/13	2024/10/23	S4875-6		45.7	MeOH	FZ-11
STO0008-7	PFHpA	PFHpA0620	2020/09/11	2025/07/09	S4875-7		50	MeOH	FZ-11
STO0008-8	L-PFHpS	LPFHpS0120	2020/09/13	2025/01/21	S4875-8		47.7	MeOH	FZ-11
STO0008-9	PFOA	PFOA0720	2020/09/11	2025/07/22	S4875-9		50	MeOH	FZ-11
STO0008-10	brPFOSK	brPFOSK1119	2020/09/13	2025/01/16	S4875-10		46.5	MeOH	FZ-11
STO0008-11	PFNA	PFNA1219	2020/09/11	2024/12/23	S4875-11		50	MeOH	FZ-11
STO0008-12	L-PFNS	LPFNS1119	2020/09/14	2024/11/14	S4875-12		48.1	MeOH	FZ-11
STO0008-13	PFDA	PFDA1119	2020/09/11	2024/11/14	S4875-13		50	MeOH	FZ-11
STO0008-14	L-PFDS	LPFDS1119	2020/09/13	2024/11/14	S4875-14		48.2	MeOH	FZ-11
STO0008-15	PFUdA	PFUdA1019	2020/09/11	2024/10/30	S4875-15		50	MeOH	FZ-11
STO0008-16	PFDoA	PFDoA0520	2020/09/11	2025/05/14	S4875-16		50	MeOH	FZ-11
STO0008-17	PFTrDA	PFTrDA0520	2020/09/14	2025/05/14	S4875-17		50	MeOH	FZ-11
STO0008-18	PFTeDA	PFTeDA1119	2020/09/14	2024/11/14	S4875-18		50	MeOH	FZ-11
STO0008-19	PFOSA (FOSA-I)	FOSA0420I	2020/09/13	2025/04/15	S4875-19		50	IPA	FD-59
STO0008-20	N-MeFOSA-M	NMeFOSA1219M	2020/09/13	2024/12/24	S4875-20		50	MeOH	FZ-11
STO0008-21	N-EtFOSA-M	NEtFOSA0220M	2020/09/13	2025/02/21	S4875-21		50	MeOH	FZ-11
STO0008-22	N-MeFOSE-M	NMeFOSE1219M	2020/09/13	2025/01/06	S4875-22		50	MeOH	FZ-11
STO0008-23	N-EtFOSE-M	NEtFOSE1219M	2020/09/13	2025/01/06	S4875-23		50	MeOH	FZ-11
STO0008-24	br-NMeFOSAA	br-NMeFOSAA1119	2020/09/14	2024/12/02	S4875-24		50	MeOH	FD-59
STO0008-25	br-NEtFOSAA	br-NEtFOSAA0819	2020/09/14	2024/08/20	S4875-25		50	MeOH	FD-59
STO0008-26	4:2FTS	42FTS0720	2020/09/14	2025/07/31	S4875-26		46.9	MeOH	FD-59
STO0008-27	6:2FTS	62FTS0420	2020/09/13	2025/04/21	S4875-27		47.6	MeOH	FD-59
STO0008-28	8:2FTS	82FTS0520	2020/09/13	2025/05/08	S4875-28		48	MeOH	FD-59
STO0008-29	HFPO-DA	HFPODA0720	2020/09/14	2023/07/09	S4875-29		50	MeOH	FD-59
STO0008-30	NaDONA	NaDONA0620	2020/09/14	2025/07/09	S4875-30		47.3	MeOH	FZ-11
STO0008-31	9Cl-PF3ONS	9ClPF3ONS0420	2020/09/14	2025/04/21	S4875-31		46.7	MeOH	FZ-11
STO0008-32	11Cl-PF3OUdS	11Cl-PF3OUdS0320	2020/09/14	2025/03/25	S4875-32		47.2	MeOH	FZ-11
Date Opened (All compounds): 2020/09/15			Supplier (All compounds) : Wellington				Chemist: GSZ		

Notes/Comments

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WELLINGTON LABORATORIES

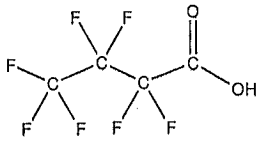
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA1119

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/15/2019
EXPIRY DATE: (mm/dd/yyyy) 11/15/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EG1

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

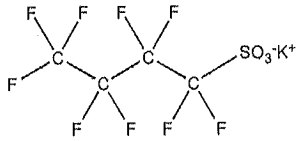
Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFBS
LOT NUMBER: LPFBS1119
COMPOUND: Potassium perfluoro-1-butanesulfonate

STRUCTURE:
CAS #: 29420-49-3



MOLECULAR FORMULA:	$C_4F_9SO_3K$	**MOLECULAR WEIGHT:**	338.19
CONCENTRATION:	50.0 ± 2.5 µg/ml (K salt) 44.2 ± 2.2 µg/ml (PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/22/2019		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

4 Ampoules
20201091111
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of sodium perfluoro-1-nonanesulfonate (L-PFNS).

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Certified By: _____ **Date:** 11/28/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

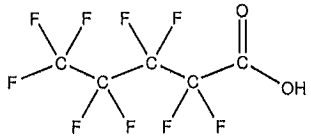
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFPeA
COMPOUND: Perfluoro-n-pentanoic acid

LOT NUMBER: PFPeA0420

STRUCTURE:

CAS #: 2706-90-3



MOLECULAR FORMULA: $C_5HF_9O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 264.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/03/2020
EXPIRY DATE: (mm/dd/yyyy) 04/03/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
EGI
HPLC

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/06/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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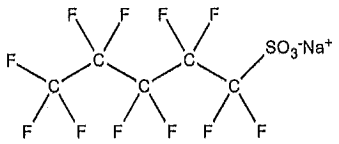
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFPeS
COMPOUND: Sodium perfluoro-1-pentanesulfonate

LOT NUMBER: LPFPeS0520

STRUCTURE:



CAS #: 630402-22-1

Received on: 20201019 14
CP3
2 4 ampoules
CP3
FZ 11

MOLECULAR FORMULA:	$C_5F_{11}SO_3Na$
MOLECULAR WEIGHT:	372.09
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.0 ± 2.3 µg/ml (PFPeS acid) 46.9 ± 2.3 µg/ml (PFPeS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	05/13/2020
EXPIRY DATE: (mm/dd/yyyy)	05/13/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.3% of sodium perfluoro-1-nonanesulfonate (L-PFNS).

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Certified By: _____ **Date:** 05/29/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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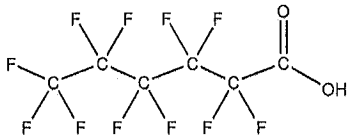
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHxA
LOT NUMBER: PFHxA1219
COMPOUND: Perfluoro-n-hexanoic acid

STRUCTURE:



CAS #: 307-24-4

MOLECULAR FORMULA: $C_6HF_{11}O_2$
MOLECULAR WEIGHT: 314.05
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/31/2019
EXPIRY DATE: (mm/dd/yyyy) 12/31/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
2020/09/11
HPLC
EG

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 01/13/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK1019
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	10/21/2019
LAST TESTED: (mm/dd/yyyy)	10/23/2019
EXPIRY DATE: (mm/dd/yyyy)	10/23/2024
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

KMI
2020.09.13
KMI
2020.09.13
2.4 ampoules.
FZ-11

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.3% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-1-pentanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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WELLINGTON LABORATORIES

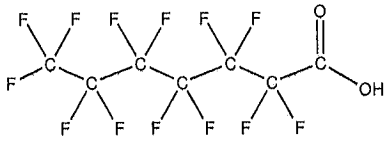
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHpA
COMPOUND: Perfluoro-n-heptanoic acid

LOT NUMBER: PFHpA0620

STRUCTURE:

CAS #: 375-85-9



MOLECULAR FORMULA: $C_7HF_{13}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 364.06
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/09/2020
EXPIRY DATE: (mm/dd/yyyy) 07/09/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/22/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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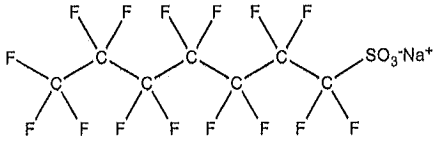
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFHpS
LOT NUMBER: LPFHpS0120
COMPOUND: Sodium perfluoro-1-heptanesulfonate

STRUCTURE:

CAS #: 21934-50-9



MOLECULAR FORMULA:	$C_7F_{15}SO_3Na$
MOLECULAR WEIGHT:	472.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.7 ± 2.4 µg/ml (PFHpS acid) 47.6 ± 2.4 µg/ml (PFHpS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	01/21/2020
EXPIRY DATE: (mm/dd/yyyy)	01/21/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

KM1
2020.09.15
KM1
2020.09.15 4 x 1 Ampoules.
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 02/05/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

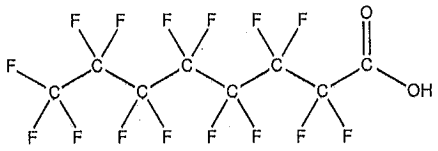
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFOA
COMPOUND: Perfluoro-n-octanoic acid

LOT NUMBER: PFOA0720

STRUCTURE:

CAS #: 335-67-1



MOLECULAR FORMULA: $C_8HF_{15}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 414.07
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/22/2020
EXPIRY DATE: (mm/dd/yyyy) 07/22/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 08/11/2020 (mm/dd/yyyy)
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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK1119
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt) 46.5 ± 2.3 µg/ml (total PFOS acid) 46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	11/25/2019
LAST TESTED: (mm/dd/yyyy)	01/16/2020
EXPIRY DATE: (mm/dd/yyyy)	01/16/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

KM1
2020.09.13
4 - Ampoules.
FZ-11

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

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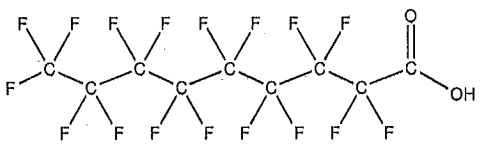
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFNA
COMPOUND: Perfluoro-n-nonanoic acid

LOT NUMBER: PFNA1219

STRUCTURE:

CAS #: 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 464.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/23/2019
EXPIRY DATE: (mm/dd/yyyy) 12/23/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x A — pack 5
2020/09/11
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-octanoic acid (PFOA), < 0.1% of perfluoro-n-heptanoic acid (PFHpA), and < 0.1% of perfluoro-n-undecanoic acid (PFUdA).

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Certified By: _____ **Date:** 01/06/2020 (mm/dd/yyyy)
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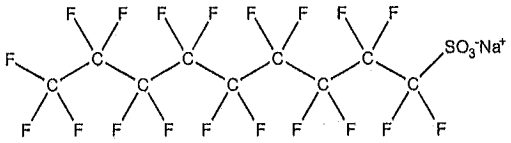
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFNS
COMPOUND: Sodium perfluoro-1-nonanesulfonate

LOT NUMBER: LPFNS1119

STRUCTURE:



CAS #: 98789-57-2

Received on: 2020-09-14
CP3
4 ampoules
FZ11

MOLECULAR FORMULA:	$C_9F_{19}SO_3Na$	**MOLECULAR WEIGHT:**	572.12
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.0 ± 2.4 µg/ml (PFNS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/14/2019		
EXPIRY DATE: (mm/dd/yyyy)	11/14/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/28/2019 (mm/dd/yyyy)
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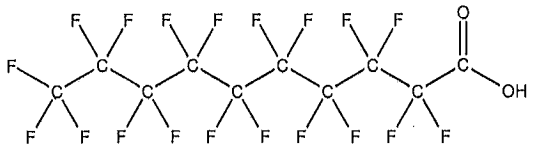
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFDA
LOT NUMBER: PFDA1119
COMPOUND: Perfluoro-n-decanoic acid

STRUCTURE:



CAS #: 335-76-2

4 x Ampoules
20201091111
HPLC
EG1

MOLECULAR FORMULA: $C_{10}HF_{19}O_2$
MOLECULAR WEIGHT: 514.08
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/14/2019
EXPIRY DATE: (mm/dd/yyyy) 11/14/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-nonanoic acid (PFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)
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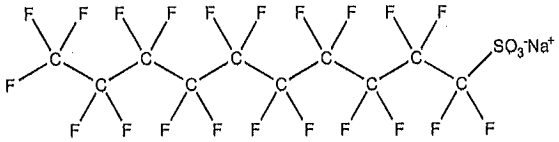
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFDS
LOT NUMBER: LPFDS1119
COMPOUND: Sodium perfluoro-1-decanesulfonate

STRUCTURE:
CAS #: 2806-15-7



MOLECULAR FORMULA:	$C_{10}F_{21}SO_3Na$
MOLECULAR WEIGHT:	622.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.2 ± 2.4 µg/ml (PFDS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	11/14/2019
EXPIRY DATE: (mm/dd/yyyy)	11/14/2024
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

KMI
2020.09.18
2. Ampoules. +2 Ampoules.
F2-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDoS).

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Certified By: _____ **Date:** 11/20/2019 (mm/dd/yyyy)
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WELLINGTON LABORATORIES

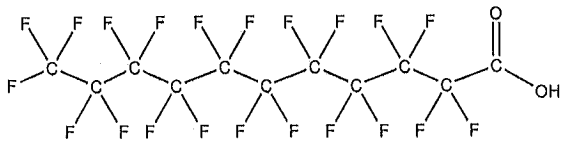
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA1019

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA: $C_{11}HF_{21}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 564.09
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 10/30/2019
EXPIRY DATE: (mm/dd/yyyy) 10/30/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
EGI
HPLC

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-dodecanoic acid (PFDoA).

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Certified By: _____ **Date:** 08/06/2020 (mm/dd/yyyy)
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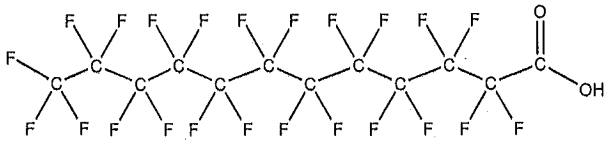
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFDoA
COMPOUND: Perfluoro-n-dodecanoic acid

LOT NUMBER: PFDoA0520

STRUCTURE:

CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$
MOLECULAR WEIGHT: 614.10
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/14/2020
EXPIRY DATE: (mm/dd/yyyy) 05/14/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EG1

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/26/2020 (mm/dd/yyyy)
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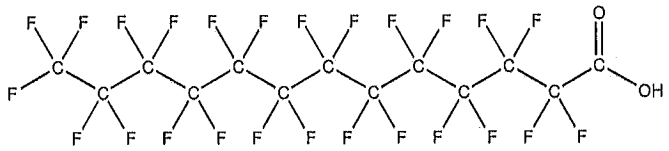
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTrDA
LOT NUMBER: PFTrDA0520
COMPOUND: Perfluoro-n-tridecanoic acid

STRUCTURE:
CAS #: 72629-94-8



Received on: 2020-09-14
CP3
4 ampoules.
F211

MOLECULAR FORMULA:	$C_{13}HF_{25}O_2$	**MOLECULAR WEIGHT:**	664.11
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/14/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/14/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUdA ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

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Certified By: _____ **Date:** 05/27/2020 (mm/dd/yyyy)
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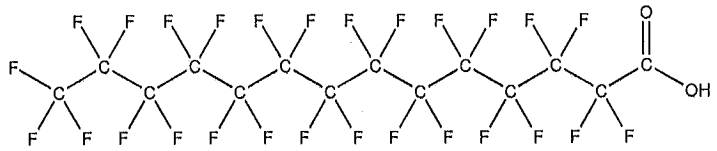
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTeDA
LOT NUMBER: PFTeDA1119
COMPOUND: Perfluoro-n-tetradecanoic acid

STRUCTURE:



CAS #: 376-06-7

Received on: 2020-09-14
CP3
4 ampoules.
F211

MOLECULAR FORMULA: $C_{14}HF_{27}O_2$
MOLECULAR WEIGHT: 714.11
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/14/2019
EXPIRY DATE: (mm/dd/yyyy) 11/14/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of PFDoA ($C_{12}HF_{23}O_2$), ~ 0.1% of PFTrDA ($C_{13}HF_{25}O_2$), and ~ 0.1% of PFHxDA ($C_{16}HF_{31}O_2$).

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Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)
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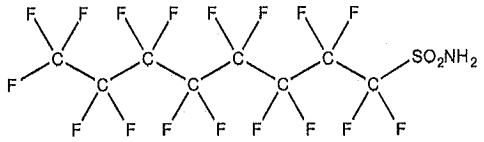
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: FOSA-I
COMPOUND: Perfluoro-1-octanesulfonamide

LOT NUMBER: FOSA0420I

STRUCTURE:

CAS #: 754-91-6



MOLECULAR FORMULA:	$C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	499.14
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/15/2020		
EXPIRY DATE: (mm/dd/yyyy)	04/15/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

KMI
2020.09.15.
4. Ampoules.
FD-59.

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 04/28/2020 (mm/dd/yyyy)
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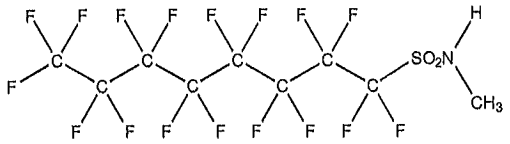
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M
LOT NUMBER: NMeFOSA1219M
COMPOUND: N-methylperfluoro-1-octanesulfonamide

STRUCTURE:
CAS #: 31506-32-8



MOLECULAR FORMULA:	$C_9H_4F_{17}NO_2S$	**MOLECULAR WEIGHT:**	513.17
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	12/24/2019		
EXPIRY DATE: (mm/dd/yyyy)	12/24/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

KMI
2020.09.15
4. Ampoules.
PZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 01/02/2020 (mm/dd/yyyy)
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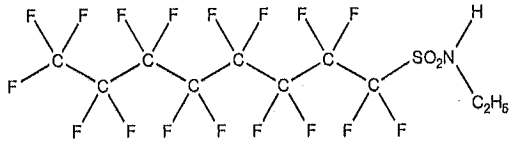
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEtFOSA0220M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA:	$C_{10}H_6F_{17}NO_2S$	**MOLECULAR WEIGHT:**	527.20
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	02/21/2020		
EXPIRY DATE: (mm/dd/yyyy)	02/21/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

KM1
2020.09.18
4 - Ampoules.
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% branched isomers of N-ethylperfluorooctanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 02/24/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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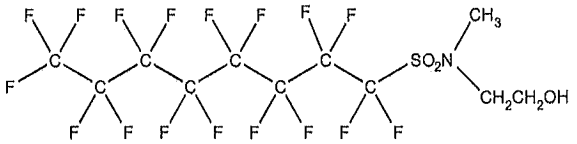
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M **LOT NUMBER:** NMeFOSE1219M

COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 24448-09-7



MOLECULAR FORMULA:	$C_{11}H_8F_{17}NO_3S$	**MOLECULAR WEIGHT:**	557.22
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	01/06/2020 (HRGC/LRMS) 12/27/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	01/06/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

KMI
2020.09.13
4- Ampoules.
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 01/07/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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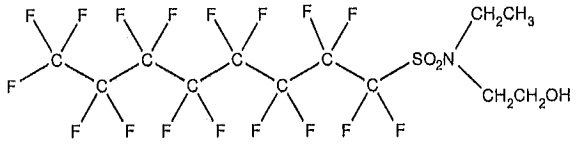
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-EtFOSE-M **LOT NUMBER:** NEtFOSE1219M

COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA:	$C_{12}H_{10}F_{17}NO_3S$	**MOLECULAR WEIGHT:**	571.25
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	01/06/2020 (HRGC/LRMS) 12/27/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	01/06/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

KMI
2020.09.18
4 - Ampoules.
FZ-11

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

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Certified By: _____ **Date:** 01/07/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NMeFOSAA

N-Methylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-NMeFOSAA
LOT NUMBER:	brNMeFOSAA1119
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	11/27/2019
LAST TESTED: (mm/dd/yyyy)	12/02/2019
EXPIRY DATE: (mm/dd/yyyy)	12/02/2024
RECOMMENDED STORAGE:	Refrigerate ampoule

Received on: 2020/09/14
CP3

4 ampoules
CP3

FD59

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-methylperfluorooctanesulfonamidoacetic acid (linear and branched isomers). The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NEtFOSAA

N-Ethylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

Received on: 2020/09/14
CP3
4 ampoules.
CP3
FD 59

PRODUCT CODE:	br-NEtFOSAA
LOT NUMBER:	brNEtFOSAA0819
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	08/20/2019
LAST TESTED: (mm/dd/yyyy)	08/20/2019
EXPIRY DATE: (mm/dd/yyyy)	08/20/2024
RECOMMENDED STORAGE:	Refrigerate ampoule

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-ethylperfluorooctanesulfonamidoacetic acid (linear and branched isomers). The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

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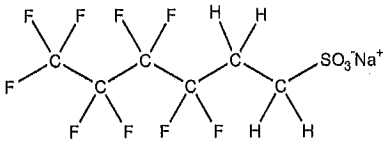
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 4:2FTS
LOT NUMBER: 42FTS0720
COMPOUND: Sodium 1H,1H,2H,2H-perfluorohexanesulfonate

STRUCTURE:



CAS #: 27619-93-8

Received on: 2020/09/14
CP3
~~2~~ 4 ampoules.
CP3
FD 59

MOLECULAR FORMULA:	$C_6H_4F_9SO_3Na$		**MOLECULAR WEIGHT:**	350.13
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	46.9 ± 2.3 µg/ml	(4:2FTS acid)		
	46.7 ± 2.3 µg/ml	(4:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	07/31/2020			
EXPIRY DATE: (mm/dd/yyyy)	07/31/2025			
RECOMMENDED STORAGE:	Refrigerate ampoule			

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/17/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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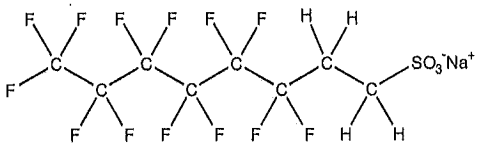
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0420

COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctanesulfonate

STRUCTURE: **CAS #:** 27619-94-9



MOLECULAR FORMULA: $C_8H_4F_{13}SO_3Na$ **MOLECULAR WEIGHT:** 450.15

CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
47.6 ± 2.4 µg/ml (6:2FTS acid)
47.4 ± 2.4 µg/ml (6:2FTS anion)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 04/21/2020

EXPIRY DATE: (mm/dd/yyyy) 04/21/2025

RECOMMENDED STORAGE: Refrigerate ampoule

KM1
2020.09.13
2. Ampoules.
FD-59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 08/25/2020 (mm/dd/yyyy)
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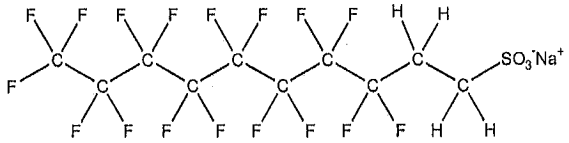
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 8:2FTS **LOT NUMBER:** 82FTS0520

COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecanesulfonate

STRUCTURE: **CAS #:** 27619-96-1



MOLECULAR FORMULA:	$C_{10}H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	550.16
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml (8:2FTS anion)		
	48.0 ± 2.4 µg/ml (8:2FTS acid)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/08/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/08/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

KMI
2020.09.13
KMI 4
2020.09.13. 4 Ampoules.
FD-59.

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 08/25/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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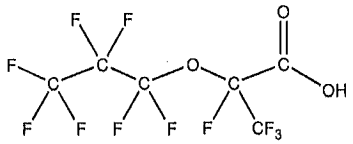
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: HFPO-DA **LOT NUMBER:** HFPODA0720

COMPOUND: 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid

STRUCTURE:



CAS #: 13252-13-6

Received on: 2020-09-14
CP3
FD 59
4 ampoules

MOLECULAR FORMULA:	$C_6HF_{11}O_3$	**MOLECULAR WEIGHT:**	330.05
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/09/2020		
EXPIRY DATE: (mm/dd/yyyy)	07/09/2023		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/16/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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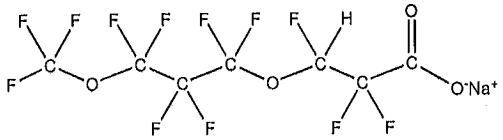
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NaDONA **LOT NUMBER:** NaDONA0620

COMPOUND: Sodium dodecafluoro-3H-4,8-dioxanonanoate

STRUCTURE:



CAS #: 958445-44-8
(ammonium salt)

Recieved on: 2020-09-14
ATN

4 ampoules
FZ-11

MOLECULAR FORMULA:	$C_7HF_{12}O_4Na$	**MOLECULAR WEIGHT:**	400.05
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na Salt)	**SOLVENT(S):**	Methanol
	47.2 ± 2.4 µg/ml (NaDONA acid)		Water (<1%)
	47.1 ± 2.4 µg/ml (NaDONA anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/09/2020		
EXPIRY DATE: (mm/dd/yyyy)	07/09/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Product is commercially known as ADONA.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/16/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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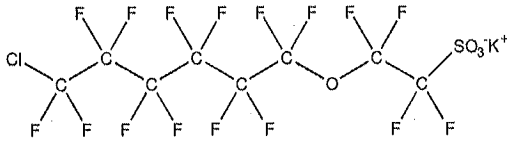
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 9Cl-PF3ONS **LOT NUMBER:** 9ClPF3ONS0420

COMPOUND: Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate

STRUCTURE: **CAS #:** 73606-19-6



Received on: 20201091114
CP3
4 ampoules.
CP3 FZ11

MOLECULAR FORMULA:	$C_8F_{16}ClSO_4K$	**MOLECULAR WEIGHT:**	570.67
CONCENTRATION:	50.0 ± 2.5 µg/ml (K Salt)	**SOLVENT(S):**	Methanol
	46.7 ± 2.3 µg/ml (9Cl-PF3ONS acid)		
	46.6 ± 2.3 µg/ml (9Cl-PF3ONS anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/21/2020		
EXPIRY DATE: (mm/dd/yyyy)	04/21/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- This compound is the major component of the commercial formulation known as F-53B.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/24/2020 (mm/dd/yyyy)

B.G. Chittim, General Manager

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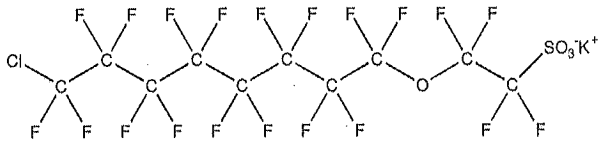
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 11Cl-PF3OUdS **LOT NUMBER:** 11ClPF3OUdS0320

COMPOUND: Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate

STRUCTURE: **CAS #:** 83329-89-9



Received on: 2020-09-14 CP3
4 ampoules.
FZ11

MOLECULAR FORMULA:	$C_{10}F_{20}ClSO_4K$	**MOLECULAR WEIGHT:**	670.69
CONCENTRATION:	50.0 ± 2.5 µg/ml (K Salt)	**SOLVENT(S):**	Methanol
	47.2 ± 2.4 µg/ml (11Cl-PF3OUdS acid)		
	47.1 ± 2.4 µg/ml (11Cl-PF3OUdS anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	03/25/2020		
EXPIRY DATE: (mm/dd/yyyy)	03/25/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- This compound is a minor component of the commercial formulation known as F-53B.

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Certified By: _____ **Date:** 04/15/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

PRLST 141 PG. 07

Solution No.: INT-0009 Date: 2009/9/16 Expiry Date: 2011/9/16 Discard Date: _____

Replaces Solution No.: _____ Replaced by Solution: _____ Chemist: SA

Compound(s)/Solution Name: PFAS FIRST SOURCE SPIKING SOLUTION A

Number of Parent Solution(s): See Attached Sheet

Concentration of Parent Solution(s): See Attached Sheet (mg, ug)/mL

Aliquot of Parent Solution(s): See Attached Sheet mL / uL

Pippette/Syringe ID 9287936

Dilution Solvent: 0.3% NH4OH in MeOH Dilution Volume: 20 mL

Final Concentration(s): 1.0 (mg, ug)/mL

Solution derivatized (as methyl ester): — As Other (specify): _____

Solution Contains Surrogate Compounds: — For mix refer to table on page: _____

Solution used for: PFAS Volumetric Flask: Class A Some (9286)
(identify by serial number or other unique ID)

Solvent Supplier: PRURE 143-103 Lot No.: PRURE143-103

Date Opened: PRURE143-103

Storage Location: FZ-11 One time Use, Not Stored: —

Ampule Supplier: Wellington Date Opened: _____

Mix Name: —

Catalogue No.: — Ampule expiry Date: See Attachement

Lot No.: See Attached Sheet

Date Received: See Attached Sheet

Compound Name	ID#	Conc. (ug/mL)	Vol. of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	STO0009-01	50	400	1	2024/11/15
L-PFBS	STO0009-02	44.4	450	1	2024/11/22
PFPeA	STO0009-03	50	400	1	2025/04/03
L-PFPeS	STO0009-04	47	426	1	2025/05/13
PFHxA	STO0009-05	50	400	1	2024/12/31
br-PFHxSk	STO0009-06	45.7	438	1	2024/10/23
PFHpA	STO0009-07	50	400	1	2025/07/09
L-PFHpS	STO0009-08	47.7	420	1	2025/01/21
PFOA	STO0009-09	50	400	1	2025/07/22
brPFOSK	STO0009-10	46.5	430	1	2025/01/16
PFNA	STO0009-11	50	400	1	2024/12/23
L-PFNS	STO0009-12	48.1	416	1	2024/11/14
PFDA	STO0009-13	50	400	1	2024/11/14
L-PFDS	STO0009-14	48.2	414	1	2024/11/14
PFUdA	STO0009-15	50	400	1	2024/10/30
PFDoA	STO0009-16	50	400	1	2025/05/14
PFTrDA	STO0009-17	50	400	1	2025/05/14
PFTeDA	STO0009-18	50	400	1	2024/11/14
PFOSA (FOSA-I)	STO0009-19	50	400	1	2025/04/15
N-MeFOSA-M	STO0009-20	50	400	1	2024/12/24
N-EtFOSA-M	STO0009-21	50	400	1	2025/02/21
N-MeFOSE-M	STO0009-22	50	400	1	2025/01/06
N-EtFOSE-M	STO0009-23	50	400	1	2025/01/06
br-NMeFOSAA	STO0009-24	50	400	1	2024/12/02
br-NEtFOSAA	STO0009-25	50	400	1	2024/08/20
4:2FTS	STO0009-26	46.9	426	1	2025/07/31
6:2FTS	STO0009-27	47.6	420	1	2025/04/21
8:2FTS	STO0009-28	48	416	1	2025/05/08
HFPO-DA	STO0009-29	50	400	1	2023/07/09
NaDONA	STO0009-30	47.3	422	1	2025/07/09
9Cl-PF3ONS	STO0009-31	46.7	428	1	2025/04/21
11Cl-PF3OUdS	STO0009-32	47.2	424	1	2025/03/25

SA 2009/9/16

DO NOT WRITE BENEATH ANY INSERTS ON THIS PAGE. DO NOT PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE.
INITIAL AND DATE ALL INSERTS. LOGBOOK, PAGE AND APPROPRIATE SOLUTION NUMBER REFERENCES MUST BE WRITTEN ON ALL INSERTS.

PRLST 139 PG 07

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: STO-0009 Date: 2020-9-16 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: [illegible]

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
STO0009-01	PFBA	PFBA1119	2020/09/11	2024/11/15	S4876-1		50	MeOH	FZ-11
STO0009-02	L-PFBS	LPFBS1119	2020/09/11	2024/11/22	S4876-2		44.4	MeOH	FZ-11
STO0009-03	PFPeA	PFPeA0420	2020/09/11	2025/04/03	S4876-3		50	MeOH	FZ-11
STO0009-04	L-PFPeS	LPFPeS0520	2020/09/14	2025/05/13	S4876-4		47	MeOH	FZ-11
STO0009-05	PFHxA	PFHxA1219	2020/09/11	2024/12/31	S4876-5		50	MeOH	FZ-11
STO0009-06	br-PFHxSk	brPFHxSK1019	2020/09/13	2024/10/23	S4876-6		45.7	MeOH	FZ-11
STO0009-07	PFHpA	PFHpA0620	2020/09/11	2025/07/09	S4876-7		50	MeOH	FZ-11
STO0009-08	L-PFHpS	LPFHpS0120	2020/09/13	2025/01/21	S4876-8		47.7	MeOH	FZ-11
STO0009-09	PFOA	PFOA0720	2020/09/11	2025/07/22	S4876-9		50	MeOH	FZ-11
STO0009-10	brPFOSK	brPFOSK1119	2020/09/13	2025/01/16	S4876-10		46.5	MeOH	FZ-11
STO0009-11	PFNA	PFNA1219	2020/09/11	2024/12/23	S4876-11		50	MeOH	FZ-11
STO0009-12	L-PFNS	LPFNS1119	2020/09/14	2024/11/14	S4876-12		48.1	MeOH	FZ-11
STO0009-13	PFDA	PFDA1119	2020/09/11	2024/11/14	S4876-13		50	MeOH	FZ-11
STO0009-14	L-PFDS	LPFDS1119	2020/09/13	2024/11/14	S4876-14		48.2	MeOH	FZ-11
STO0009-15	PFUdA	PFUdA1019	2020/09/11	2024/10/30	S4876-15		50	MeOH	FZ-11
STO0009-16	PFDoA	PFDoA0520	2020/09/11	2025/05/14	S4876-16		50	MeOH	FZ-11
STO0009-17	PFTrDA	PFTrDA0520	2020/09/14	2025/05/14	S4876-17		50	MeOH	FZ-11
STO0009-18	PFTeDA	PFTeDA1119	2020/09/14	2024/11/14	S4876-18		50	MeOH	FZ-11
STO0009-19	PFOSA (FOSA-I)	FOSA0420I	2020/09/13	2025/04/15	S4876-19		50	IPA	FD-59
STO0009-20	N-MeFOSA-M	NMeFOSA1219M	2020/09/13	2024/12/24	S4876-20		50	MeOH	FZ-11
STO0009-21	N-EtFOSA-M	NEtFOSA0220M	2020/09/13	2025/02/21	S4876-21		50	MeOH	FZ-11
STO0009-22	N-MeFOSE-M	NMeFOSE1219M	2020/09/13	2025/01/06	S4876-22		50	MeOH	FZ-11
STO0009-23	N-EtFOSE-M	NEtFOSE1219M	2020/09/13	2025/01/06	S4876-23		50	MeOH	FZ-11
STO0009-24	br-NMeFOSAA	br-NMeFOSAA1119	2020/09/14	2024/12/02	S4876-24		50	MeOH	FD-59
STO0009-25	br-NEtFOSAA	br-NEtFOSAA0819	2020/09/14	2024/08/20	S4876-25		50	MeOH	FD-59
STO0009-26	4:2FTS	42FTS0720	2020/09/14	2025/07/31	S4876-26		46.9	MeOH	FD-59
STO0009-27	6:2FTS	62FTS0420	2020/09/13	2025/04/21	S4876-27		47.6	MeOH	FD-59
STO0009-28	8:2FTS	82FTS0520	2020/09/13	2025/05/08	S4876-28		48	MeOH	FD-59
STO0009-29	HFPO-DA	HFPODA0720	2020/09/14	2023/07/09	S4876-29		50	MeOH	FD-59
STO0009-30	NaDONA	NaDONA0620	2020/09/14	2025/07/09	S4876-30		47.3	MeOH	FZ-11
STO0009-31	9Cl-PF3ONS	9ClPF3ONS0420	2020/09/14	2025/04/21	S4876-31		46.7	MeOH	FZ-11
STO0009-32	11Cl-PF3OUdS	11Cl-PF3OUdS0320	2020/09/14	2025/03/25	S4876-32		47.2	MeOH	FZ-11
Date Opened (All compounds):			Supplier (All compounds) : Wellington				Chemist:		

Notes/Comments

DO NOT WRITE BENEATH ANY INSERTS ON THIS PAGE. DO NOT PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL

WELLINGTON LABORATORIES

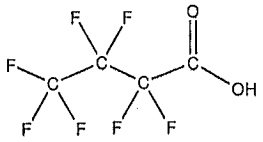
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA1119

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/15/2019
EXPIRY DATE: (mm/dd/yyyy) 11/15/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EG1

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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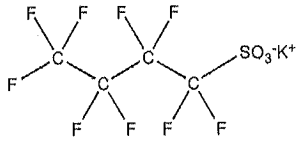
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFBS
LOT NUMBER: LPFBS1119
COMPOUND: Potassium perfluoro-1-butanesulfonate

STRUCTURE:
CAS #: 29420-49-3



MOLECULAR FORMULA:	$C_4F_9SO_3K$	**MOLECULAR WEIGHT:**	338.19
CONCENTRATION:	50.0 ± 2.5 µg/ml (K salt) 44.2 ± 2.2 µg/ml (PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/22/2019		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

4 Ampoules
20201091111
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of sodium perfluoro-1-nonanesulfonate (L-PFNS).

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Certified By: _____ **Date:** 11/28/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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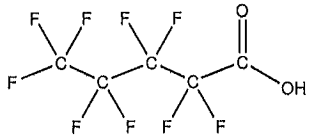
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFPeA
COMPOUND: Perfluoro-n-pentanoic acid

LOT NUMBER: PFPeA0420

STRUCTURE:

CAS #: 2706-90-3



MOLECULAR FORMULA: $C_5HF_9O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 264.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/03/2020
EXPIRY DATE: (mm/dd/yyyy) 04/03/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
EGI
HPLC

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 05/06/2020 (mm/dd/yyyy)
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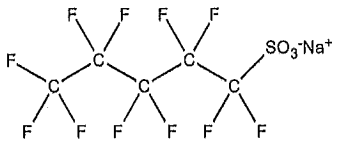
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFPeS
COMPOUND: Sodium perfluoro-1-pentanesulfonate

LOT NUMBER: LPFPeS0520

STRUCTURE:

CAS #: 630402-22-1



Received on: 20201019 14
CP3
2 of 4 ampoules
CP3
FZ 11

MOLECULAR FORMULA:	$C_5F_{11}SO_3Na$	**MOLECULAR WEIGHT:**	372.09
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.0 ± 2.3 µg/ml (PFPeS acid) 46.9 ± 2.3 µg/ml (PFPeS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/13/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/13/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.3% of sodium perfluoro-1-nonanesulfonate (L-PFNS).

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Certified By: _____ **Date:** 05/29/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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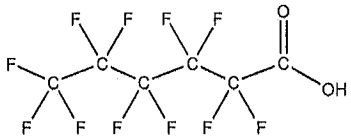
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHxA
LOT NUMBER: PFHxA1219
COMPOUND: Perfluoro-n-hexanoic acid

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA: $C_6HF_{11}O_2$
MOLECULAR WEIGHT: 314.05
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/31/2019
EXPIRY DATE: (mm/dd/yyyy) 12/31/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
2020/09/11
HPLC
EG

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 01/13/2020 (mm/dd/yyyy)
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CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK1019
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	10/21/2019
LAST TESTED: (mm/dd/yyyy)	10/23/2019
EXPIRY DATE: (mm/dd/yyyy)	10/23/2024
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

KMI
2020.09.13
KMI
2020.09.13
2.4 ampoules.
FZ-11

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.3% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-1-pentanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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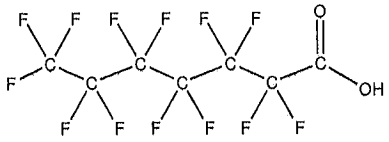
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHpA
COMPOUND: Perfluoro-n-heptanoic acid

LOT NUMBER: PFHpA0620

STRUCTURE:

CAS #: 375-85-9



MOLECULAR FORMULA: $C_7HF_{13}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 364.06
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/09/2020
EXPIRY DATE: (mm/dd/yyyy) 07/09/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 07/22/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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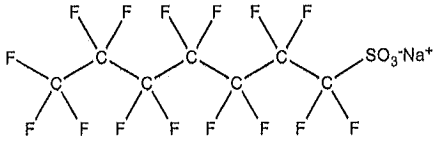
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFHpS
LOT NUMBER: LPFHpS0120
COMPOUND: Sodium perfluoro-1-heptanesulfonate

STRUCTURE:

CAS #: 21934-50-9



MOLECULAR FORMULA:	$C_7F_{15}SO_3Na$
MOLECULAR WEIGHT:	472.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.7 ± 2.4 µg/ml (PFHpS acid) 47.6 ± 2.4 µg/ml (PFHpS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	01/21/2020
EXPIRY DATE: (mm/dd/yyyy)	01/21/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

KM1
2020.09.15
KM1
2020.09.15 4 x 1 Ampoules.
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 02/05/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

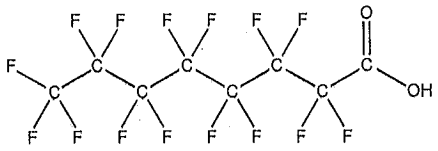
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFOA
COMPOUND: Perfluoro-n-octanoic acid

LOT NUMBER: PFOA0720

STRUCTURE:

CAS #: 335-67-1



MOLECULAR FORMULA: $C_8HF_{15}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 414.07
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/22/2020
EXPIRY DATE: (mm/dd/yyyy) 07/22/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/11/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK1119
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	46.5 ± 2.3 µg/ml (total PFOS acid)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	11/25/2019
LAST TESTED: (mm/dd/yyyy)	01/16/2020
EXPIRY DATE: (mm/dd/yyyy)	01/16/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

KM1
2020.09.13
4 - Ampoules.
FZ-11

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

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WELLINGTON LABORATORIES

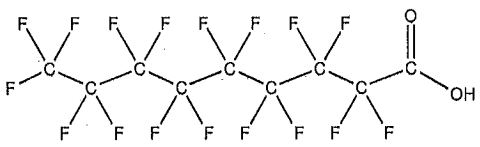
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFNA
COMPOUND: Perfluoro-n-nonanoic acid

LOT NUMBER: PFNA1219

STRUCTURE:

CAS #: 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 464.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/23/2019
EXPIRY DATE: (mm/dd/yyyy) 12/23/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x A — pack 5
20201091 11
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-octanoic acid (PFOA), < 0.1% of perfluoro-n-heptanoic acid (PFHpA), and < 0.1% of perfluoro-n-undecanoic acid (PFUdA).

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Certified By: _____ **Date:** 01/06/2020 (mm/dd/yyyy)
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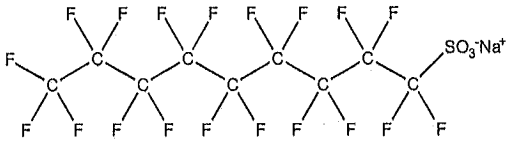
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFNS
COMPOUND: Sodium perfluoro-1-nonanesulfonate

LOT NUMBER: LPFNS1119

STRUCTURE:



CAS #: 98789-57-2

Received on: 2020-09-14
CP3
4 ampoules
FZ11

MOLECULAR FORMULA: $C_9F_{19}SO_3Na$
MOLECULAR WEIGHT: 572.12
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
48.0 ± 2.4 µg/ml (PFNS anion)
SOLVENT(S): Methanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/14/2019
EXPIRY DATE: (mm/dd/yyyy) 11/14/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/28/2019 (mm/dd/yyyy)
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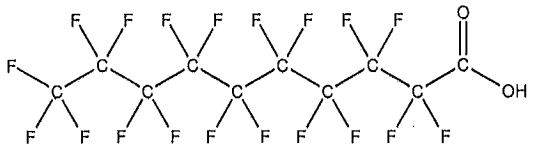
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFDA
COMPOUND: Perfluoro-n-decanoic acid

LOT NUMBER: PFDA1119

STRUCTURE:

CAS #: 335-76-2



4 x Ampoules
20201091111
HPLC
EG1

MOLECULAR FORMULA:	$C_{10}HF_{19}O_2$	**MOLECULAR WEIGHT:**	514.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/14/2019		
EXPIRY DATE: (mm/dd/yyyy)	11/14/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-nonanoic acid (PFNA).

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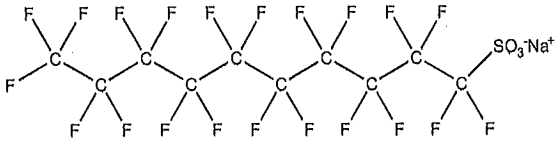
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFDS
LOT NUMBER: LPFDS1119
COMPOUND: Sodium perfluoro-1-decanesulfonate

STRUCTURE:
CAS #: 2806-15-7



MOLECULAR FORMULA:	$C_{10}F_{21}SO_3Na$
MOLECULAR WEIGHT:	622.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.2 ± 2.4 µg/ml (PFDS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	11/14/2019
EXPIRY DATE: (mm/dd/yyyy)	11/14/2024
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

KMI
2020.09.18
2. Ampoules. +2 Ampoules.
F2-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDoS).

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Certified By: _____ **Date:** 11/20/2019 (mm/dd/yyyy)
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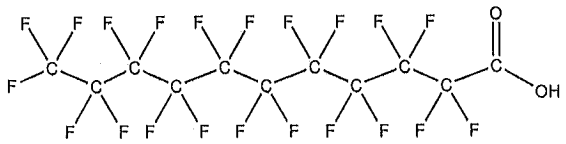
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA1019

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA: $C_{11}HF_{21}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 564.09
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 10/30/2019
EXPIRY DATE: (mm/dd/yyyy) 10/30/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
EGI
HPLC

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-dodecanoic acid (PFDoA).

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Certified By: _____ **Date:** 08/06/2020 (mm/dd/yyyy)
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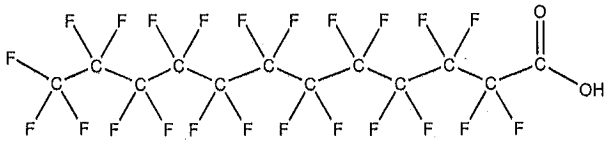
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFDoA
COMPOUND: Perfluoro-n-dodecanoic acid

LOT NUMBER: PFDoA0520

STRUCTURE:

CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$
MOLECULAR WEIGHT: 614.10
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/14/2020
EXPIRY DATE: (mm/dd/yyyy) 05/14/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EG1

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 05/26/2020 (mm/dd/yyyy)
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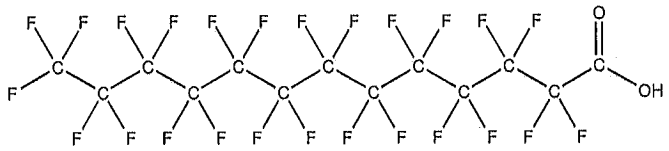
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTrDA
LOT NUMBER: PFTrDA0520
COMPOUND: Perfluoro-n-tridecanoic acid

STRUCTURE:
CAS #: 72629-94-8



Received on: 2020-09-14
CP3
4 ampoules.
F211

MOLECULAR FORMULA:	$C_{13}HF_{25}O_2$	**MOLECULAR WEIGHT:**	664.11
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/14/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/14/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUdA ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

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Certified By: _____ **Date:** 05/27/2020 (mm/dd/yyyy)
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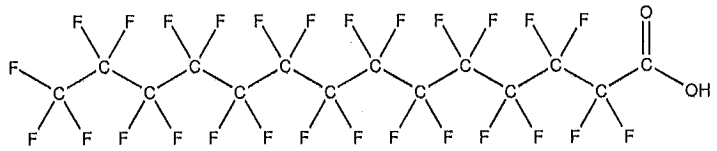
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTeDA
LOT NUMBER: PFTeDA1119
COMPOUND: Perfluoro-n-tetradecanoic acid

STRUCTURE:

CAS #: 376-06-7



Received on: 2020-09-14
CP3
4 ampoules.
F211

MOLECULAR FORMULA:	$C_{14}HF_{27}O_2$	**MOLECULAR WEIGHT:**	714.11
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/14/2019		
EXPIRY DATE: (mm/dd/yyyy)	11/14/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of PFDoA ($C_{12}HF_{23}O_2$), ~ 0.1% of PFTrDA ($C_{13}HF_{25}O_2$), and ~ 0.1% of PFHxDA ($C_{16}HF_{31}O_2$).

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Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)
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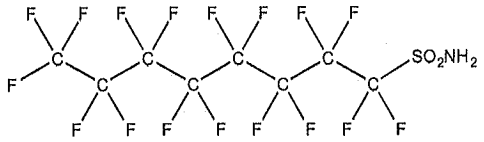
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: FOSA-I
COMPOUND: Perfluoro-1-octanesulfonamide

LOT NUMBER: FOSA0420I

STRUCTURE:

CAS #: 754-91-6



MOLECULAR FORMULA:	$C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	499.14
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/15/2020		
EXPIRY DATE: (mm/dd/yyyy)	04/15/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

KMI
2020.09.15.
4. Ampoules.
FD-59.

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 04/28/2020 (mm/dd/yyyy)
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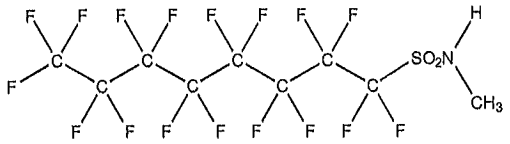
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M
LOT NUMBER: NMeFOSA1219M
COMPOUND: N-methylperfluoro-1-octanesulfonamide

STRUCTURE:
CAS #: 31506-32-8



MOLECULAR FORMULA:	$C_9H_4F_{17}NO_2S$	**MOLECULAR WEIGHT:**	513.17
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	12/24/2019		
EXPIRY DATE: (mm/dd/yyyy)	12/24/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

KMI
2020.09.15
4. Ampoules.
PZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 01/02/2020 (mm/dd/yyyy)
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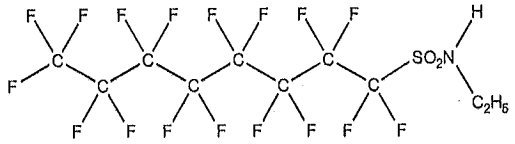
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEtFOSA0220M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA:	$C_{10}H_6F_{17}NO_2S$	**MOLECULAR WEIGHT:**	527.20
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	02/21/2020		
EXPIRY DATE: (mm/dd/yyyy)	02/21/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

KM)
2020.09.18
4 - Ampoules.
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% branched isomers of N-ethylperfluorooctanesulfonamide.

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Certified By: _____ **Date:** 02/24/2020 (mm/dd/yyyy)
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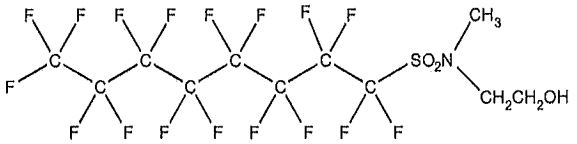
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M **LOT NUMBER:** NMeFOSE1219M

COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 24448-09-7



MOLECULAR FORMULA: $C_{11}H_8F_{17}NO_3S$ **MOLECULAR WEIGHT:** 557.22

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 01/06/2020 (HRGC/LRMS)
12/27/2019 (LC/MS)

EXPIRY DATE: (mm/dd/yyyy) 01/06/2025

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

KM1
2020.09.13
4- Ampoules.
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

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Certified By: _____ **Date:** 01/07/2020 (mm/dd/yyyy)
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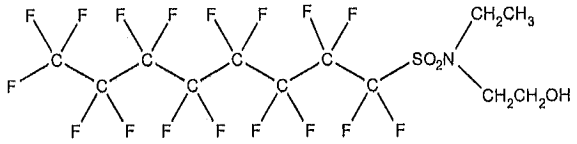
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-EtFOSE-M **LOT NUMBER:** NEtFOSE1219M

COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA:	$C_{12}H_{10}F_{17}NO_3S$	**MOLECULAR WEIGHT:**	571.25
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	01/06/2020 (HRGC/LRMS) 12/27/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	01/06/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

KMI
2020.09.18
4 - Ampoules.
FZ-11

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

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Certified By: _____ **Date:** 01/07/2020 (mm/dd/yyyy)
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CERTIFICATE OF ANALYSIS DOCUMENTATION

br-NMeFOSAA

N-Methylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-NMeFOSAA
LOT NUMBER:	brNMeFOSAA1119
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	11/27/2019
LAST TESTED: (mm/dd/yyyy)	12/02/2019
EXPIRY DATE: (mm/dd/yyyy)	12/02/2024
RECOMMENDED STORAGE:	Refrigerate ampoule

Received on: 2020/09/14
CP3
4 ampoules
CP3
FD59

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-methylperfluorooctanesulfonamidoacetic acid (linear and branched isomers). The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

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CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NEtFOSAA

N-Ethylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

Received on: 2020/09/14
CP3
4 ampoules.
CP3
FD59

PRODUCT CODE:	br-NEtFOSAA
LOT NUMBER:	brNEtFOSAA0819
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	08/20/2019
LAST TESTED: (mm/dd/yyyy)	08/20/2019
EXPIRY DATE: (mm/dd/yyyy)	08/20/2024
RECOMMENDED STORAGE:	Refrigerate ampoule

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-ethylperfluorooctanesulfonamidoacetic acid (linear and branched isomers). The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

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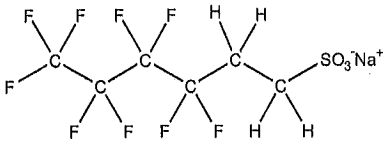
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 4:2FTS **LOT NUMBER:** 42FTS0720

COMPOUND: Sodium 1H,1H,2H,2H-perfluorohexanesulfonate

STRUCTURE:



CAS #: 27619-93-8

Received on: 20201091'4
CP3
~~2~~ 4 ampoules.
CP3
FD 59

MOLECULAR FORMULA:	$C_6H_4F_9SO_3Na$		**MOLECULAR WEIGHT:**	350.13
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	46.9 ± 2.3 µg/ml	(4:2FTS acid)		
	46.7 ± 2.3 µg/ml	(4:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	07/31/2020			
EXPIRY DATE: (mm/dd/yyyy)	07/31/2025			
RECOMMENDED STORAGE:	Refrigerate ampoule			

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/17/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

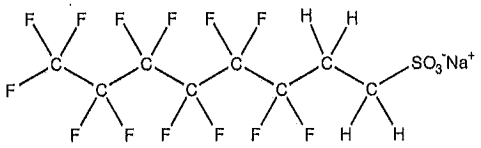
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0420

COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctanesulfonate

STRUCTURE: **CAS #:** 27619-94-9



MOLECULAR FORMULA: $C_8H_4F_{13}SO_3Na$ **MOLECULAR WEIGHT:** 450.15

CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt) **SOLVENT(S):** Methanol
47.6 ± 2.4 µg/ml (6:2FTS acid)
47.4 ± 2.4 µg/ml (6:2FTS anion)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 04/21/2020

EXPIRY DATE: (mm/dd/yyyy) 04/21/2025

RECOMMENDED STORAGE: Refrigerate ampoule

KM1
2020.09.13
2. Ampoules.
FD-59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/25/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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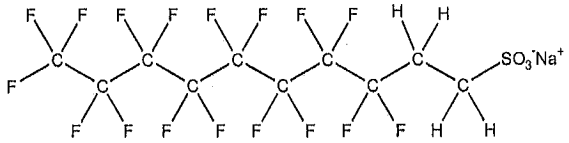
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 8:2FTS **LOT NUMBER:** 82FTS0520

COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecanesulfonate

STRUCTURE: **CAS #:** 27619-96-1



MOLECULAR FORMULA:	$C_{10}H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	550.16
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml (8:2FTS anion)		
	48.0 ± 2.4 µg/ml (8:2FTS acid)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/08/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/08/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

KMI
2020.09.13
KMI 4
2020.09.13. 4 Ampoules.
FD-59.

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/25/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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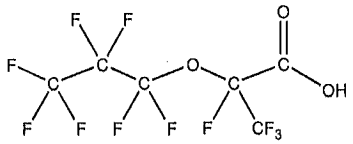
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: HFPO-DA **LOT NUMBER:** HFPODA0720

COMPOUND: 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid

STRUCTURE:



CAS #: 13252-13-6

Received on: 2020-09-14
CP3

FD 59
4 ampoules

MOLECULAR FORMULA:	$C_6HF_{11}O_3$	**MOLECULAR WEIGHT:**	330.05
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/09/2020		
EXPIRY DATE: (mm/dd/yyyy)	07/09/2023		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/16/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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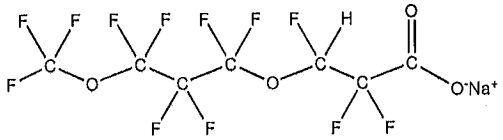
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NaDONA **LOT NUMBER:** NaDONA0620

COMPOUND: Sodium dodecafluoro-3H-4,8-dioxanonanoate

STRUCTURE:



CAS #: 958445-44-8
(ammonium salt)

Recieved on: 2020-09-14
ATN

4 ampoules
FZ-11

MOLECULAR FORMULA:	$C_7HF_{12}O_4Na$	**MOLECULAR WEIGHT:**	400.05
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na Salt)	**SOLVENT(S):**	Methanol
	47.2 ± 2.4 µg/ml (NaDONA acid)		Water (<1%)
	47.1 ± 2.4 µg/ml (NaDONA anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/09/2020		
EXPIRY DATE: (mm/dd/yyyy)	07/09/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Product is commercially known as ADONA.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/16/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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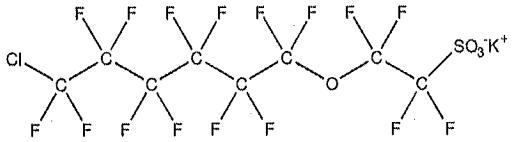
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 9Cl-PF3ONS
LOT NUMBER: 9ClPF3ONS0420
COMPOUND: Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate

STRUCTURE:



CAS #: 73606-19-6

Received on: 20201091114
CP3
4 ampoules.
CP3 FZ11

MOLECULAR FORMULA:	$C_8F_{16}ClSO_4K$
MOLECULAR WEIGHT:	570.67
CONCENTRATION:	50.0 ± 2.5 µg/ml (K Salt) 46.7 ± 2.3 µg/ml (9Cl-PF3ONS acid) 46.6 ± 2.3 µg/ml (9Cl-PF3ONS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	04/21/2020
EXPIRY DATE: (mm/dd/yyyy)	04/21/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- This compound is the major component of the commercial formulation known as F-53B.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/24/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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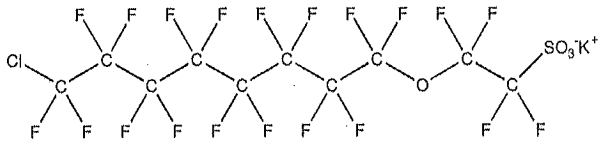
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 11Cl-PF3OUdS **LOT NUMBER:** 11ClPF3OUdS0320

COMPOUND: Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate

STRUCTURE: **CAS #:** 83329-89-9



Received on: 2020-09-14
CP3
4 ampoules.
FZ11

MOLECULAR FORMULA:	$C_{10}F_{20}ClSO_4K$	**MOLECULAR WEIGHT:**	670.69
CONCENTRATION:	50.0 ± 2.5 µg/ml (K Salt)	**SOLVENT(S):**	Methanol
	47.2 ± 2.4 µg/ml (11Cl-PF3OUdS acid)		
	47.1 ± 2.4 µg/ml (11Cl-PF3OUdS anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	03/25/2020		
EXPIRY DATE: (mm/dd/yyyy)	03/25/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- This compound is a minor component of the commercial formulation known as F-53B.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/15/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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166 PG 88

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SI-8177 Prep'n Date: 2020/08/10 Expiry Date: 2020/12/25 Discard Date: —
Replaces Solution No.: SI-8167 Replaced by Solution: — Chemist: DMY
Sol'n. Name: O-xylene
Solution Used As: Internal Std: — Surrogate Spike: yes
Spike Volume: 0.25 uL or mL (for I.S. uL per mL) For Instrument/Analysis: GC/PID
Solvent(s): methanol Supplier(s): J.T.Baker Lot No(s).: 0000229971
Date Solvent Opened: 2020/08/10
Volumetric Flask Used: class-A Syringe ID: G1356766U
Storage Location and Conditions: FZ-28
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL /uL)	Dilution Volume (mL)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)
O-xylene	PH-I-215	2000	1000	1000	2.0	500
			DMY 2020/08/10			

Notes:

Solution No.: SI-8178 Prep'n Date: 2020/08/10 Expiry Date: 2021/08/10 Discard Date:
Replaces Solution No.: SI-7696 Replaced by Solution: Chemist: GSZ
Sol'n. Name: INJ. I.S.
Solution Used As: Internal Std: / Surrogate Spike:
Spike Volume: 20 (uL) or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS/MS
Solvent(s): 0.3% NH_4OH in MeOH Supplier(s): PRLRE 137-585 Lot No(s).: PRLRE 137-585
Date Solvent Opened: PRLRE 137-585
Volumetric Flask Used: 100mL Class A (5640) Syringe ID: Pipette MA1011F
Storage Location and Conditions: FZ11
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL (uL))	Dilution Volume (mL)	Final Conc'n. ng/mL (ug/mL)	Absolute Amount Spiked (ug / ng)
$^{13}C_9$ PFDA	S-4530	50	200	100	100	—
$^{13}C_6$ PFHxA	S-4531	50	200	100	100	—
			GSZ 2020/08/10			

Notes:

DO NOT WRITE BENEATH ANY INSERTS ON THIS PAGE. DO NOT PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL INSERTS. LOGBOOK, PAGE AND APPROPRIATE SOLUTION NUMBER REFERENCES MUST BE WRITTEN ON ALL INSERTS.

PRLST 151 PG 77

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4529 Date: 2019/03/05 Expiry Date: 2020/03/05 Discard Date: _____

Replaces Solution: S-4345 Replaced by Solution: _____ Chemist: JYO

Compound: p-Terphenyl-d14 Purity: 98.5%

Date Received: 2018/5/16 Expiry Date: 2021/5/16 Lot No.: EB2136

Supplier: Aldrich

Date Opened: 2019/03/05

Final Gross Weight: _____ g/mg Dilution Volume: 250 mL

Tare Weight* : _____ g/mg Volumetric Flask: CLASS 'A'

Net Weight: 0.5083 (g)/mg **Concentration:** 2000 (ug/mL), mg/mL

Adjusted Net Weight**: 507 mg Solvent(s): _____

Balance Used: Mettler Toledo XPE 204. Serial # B438836405
(specify model and serial no.)

Solvent Used: DCM

Solvent Supplier: Fisher Lot No(s).: 186810

Date Opened: 2019/03/05

Storage Location / Conditions: FZ11, FZ-35

Notes/Comments

Solution No.: S-4530 Date: 2019/03/05 Expiry Date: 2028/10/30 Discard Date: _____

Replaces Solution: S-4460 Replaced by Solution: _____ Chemist: GSZ

Compound: $^{13}C_8$ PFDA Purity: -

Date Received: 2018/11/06 Expiry Date: 2028/10/30 Lot No.: SPIA-007

Supplier: CIL

Date Opened: 2019/03/05

Final Gross Weight: - g/mg Dilution Volume: - mL

Tare Weight* : - g/mg Volumetric Flask: -

Net Weight: - g/mg **Concentration:** 50 ug/mL

Adjusted Net Weight** : - mg Solvent(s): MeOH

Balance Used: -
(specify model and serial no.)

Solvent Used: -

Solvent Supplier: - Lot No(s).: -

Date Opened: -

Storage Location / Conditions: FZ11

Notes/Comments Received as solution in ampule.

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PRLST 151 PG 78

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: S-4531 Date: 2019/03/05 Expiry Date: 2028/10/23 Discard Date: _____

Replaces Solution: S-4461 Replaced by Solution: _____ Chemist: GSZ

Compound: $^{13}C_6$ PFHxA Purity: –

Date Received: 2018/11/06 Expiry Date: 2028/10/23 Lot No.: SDIB-018

Supplier: CIL

Date Opened: 2019/03/05

Final Gross Weight: – g/mg Dilution Volume: – mL

Tare Weight* : – g/mg Volumetric Flask: –

Net Weight: – g/mg **Concentration:** 50 (ug/mL), mg/mL

Adjusted Net Weight** : – mg Solvent(s): MeOH

Balance Used: –
(specify model and serial no.)

Solvent Used: –

Solvent Supplier: – Lot No(s).: –

Date Opened: –

Storage Location / Conditions: FZ11

Notes/Comments

Received as solution in ampule.

Solution No.: S-4532 Date: 2019/03/07 Expiry Date: 2020/03/07 Discard Date: _____

Replaces Solution: S-4331 Replaced by Solution: S-4547 Chemist: GSZ

Compound: ATRAZINE Purity: 99.9

Date Received: 2018/04/09 Expiry Date: 2021/01/20 Lot No.: BCBR6277V

Supplier: SIGMA

Date Opened: 2018/04/10

Final Gross Weight: 0.0120 (g)/mg Dilution Volume: 10 mL

Tare Weight* : – g/mg Volumetric Flask: 10mL Class A (5630)

Net Weight: – g/mg **Concentration:** 1199 ug/mL

Adjusted Net Weight** : 0.01199 g mg Solvent(s): ACN

Balance Used: FC-1
(specify model and serial no.)

Solvent Used: ACN

Solvent Supplier: Fisher Lot No(s).: 171209

Date Opened: 2019/02/14

Storage Location / Conditions: FZ11

Notes/Comments

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Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Product Name: (Isotopic Label & Enrichment Specification)	PERFLUORODECANOIC ACID (13C9, 99%) 50 UG/ML IN METHANOL
Lot Number:	SDIA-007
Catalog Number:	CLM-8172-S

Product Information

Chemical Purity Specification:	≥ 98%
MW*: * For isotopically labeled compounds, MW listed is for the fully enriched product.	523.02
Labeled CAS Number:	NA
Unlabeled CAS Number:	335-76-2
Chemical Formula:	CF3(*CF2)8*CO2H
Storage:	Store at room temperature away from light and moisture.
Stability:	See storage and expiration date.

Date received
2018/11/06
HPLC
1 X Ampule
LR

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated. CIL Certificates of Analysis are occasionally updated with new data following recertification. We recommend checking the website for the latest version.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NSCL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number . Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -10, or -0.1.

Approved by: Sashi Sivendran-Basak

Sashi Sivendran-Basak, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	10/30/2018
Expiration Date	10/30/2028
Concentration Based on Gravimetry	50.0 ± 0.8 µg/mL (k=2)
Chemical Purity of Neat Material(s)	100.0%
Mass Spectrometry for Concentration	47.4 ± 0.7 µg/mL (k=2)

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Product Name: PERFLUOROHEXANOIC ACID, SODIUM SALT (13C6, 99%) 50 UG/ML IN METHANOL
(Isotopic Label & Enrichment Specification)

Lot Number: SDIB-018

Catalog Number: CLM-8340-S

Product Information

Chemical Purity Specification:	≥98%
MW*: * For isotopically labeled compounds, MW listed for the fully enriched product	341.99
Labeled CAS Number:	NA
Unlabeled CAS Number:	2923-26-4
Chemical Formula:	*C6F11NaO2
Storage:	Store at room temperature away from ligh: and moisture.
Stability:	See storage and expiration date.

Date received
2018/11/06
HPLC
1 Ampoule
LR

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated. CIL Certificates of Analysis are occasionally updated with new data following recertification. We recommend checking the website for the latest version.

Volumetric measurements were made with Class A glassware. Gravimetry is traceable to the NIST through calibrated balances and certified, calibrated, standard weights. The calibrations are traceable to the NIST under Test No. 822/270236-04. The calibrations also meet specifications outlined in ISO 9001, ISO/IEC 17025, ANSI/NSCL Z540-1-1994, NCR Document 10CFR50 Appendix B, and applicable subdocuments.

This COA references the bulk catalog number before packaging. The COA also applies to the CIL finished good catalog number . Some possible packaging sizes and their corresponding suffix are -1.2, -1, -0.5, -10, or -0.1.

Approved by: Sashi Sivendran-Basak

Sashi Sivendran-Basak, Ph.D., Quality Review

Quality Control Tests and Results

QC Release Date	10/23/2018
Expiration Date	10/23/2028
Concentration Based on Gravimetry	50.0 ± 0.8 µg/mL (k=2)
Chemical Purity of Neat Material(s)	100.0%
LC/MS for Concentration	48.2 ± 0.7 µg/mL (k=2)

PRLST 138 PG 025

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SIS-0008 Prep'n Date: 2020/9/10 Expiry Date: 2023/5/13 Discard Date: _____
Replaces Solution No.: SI 8193 Replaced by Solution: _____ Chemist: SAP
Sol'n. Name: PFAS Spiking Solution A
Solution Used As: Internal Std: — Surrogate Spike: _____
Spike Volume: — uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS/MS SAP 2020/9/10
Solvent(s): 0.3% NH4OH in MeOH Supplier(s): DRURE 143-59 Lot No(s).: DRURE ~~143~~ 143-59 9/10
Date Solvent Opened: DRURE 143-59
Volumetric Flask Used: Class A 200 (5640) Syringe ID: Pipette K26250F
Storage Location and Conditions: FZ-11
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

SIS-0008

Compound Name	ID#	Conc. (ug/mL)	Vol. of Stock standard (uL)	Dilution volume (mL)	Final Conc. (ng/mL)	Exp. date
MPFBA	STO-0004-1	50	500	200	125	2025/05/13
M3PFBS	STO-0004-2	50	500	200	125	2025/03/17
M5PFPeA	STO-0004-3	50	500	200	125	2025/01/22
MPFHxA	STO-0004-4	50	500	200	125	2025/04/03
MPFHxS	STO-0004-5	50	500	200	125	2025/01/22
M4PFHpA	STO-0004-6	50	500	200	125	2025/01/08
MPFOA	STO-0004-7	50	500	200	125	2025/05/08
MPFOS	STO-0004-8	50	500	200	125	2025/04/15
MPFNA	STO-0004-9	50	500	200	125	2024/12/02
MPFDA	STO-0004-10	50	500	200	125	2025/03/24
MPFUdA	STO-0004-11	50	500	200	125	2024/12/04
MPFDoA	STO-0004-12	50	500	200	125	2024/11/22
M2PFTeDA	STO-0004-13	50	500	200	125	2025/07/09
MPFOSA	STO-0004-14	50	500	200	125	2025/02/28
D3-N-MeFOSAA	STO-0004-15	50	500	200	125	2024/12/02
D5-N-EtFOSAA	STO-0004-16	50	500	200	125	2025/05/20
M3HFPO-DA	STO-0004-17	50	500	200	125	2023/05/13
D-N-MeFOSA-M	STO-0004-18	50	1000	200	250	2025/08/06
D-N-EtFOSA-M	STO-0004-19	50	1000	200	250	2025/05/20
D7-N-MeFOSE-M	STO-0004-20	50	1000	200	250	2024/12/16
D9-N-EtFOSE-M	STO-0004-21	50	1000	200	250	2024/12/16
M2-4:2FTS	STO-0004-22	50	1000	200	250	2025/04/16
M2-6:2FTS	STO-0004-23	50	1000	200	250	2025/05/20
M2-8:2FTS	STO-0004-24	50	1000	200	250	2025/03/18

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SAP 2020/09/10

DO NOT WRITE BENEATH ANY INSERTS ON THIS PAGE. DO NOT PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL INSERTS. LOGBOOK, PAGE AND APPROPRIATE SOLUTION NUMBER REFERENCES MUST BE WRITTEN ON ALL INSERTS.

PRLST 139 PG 03

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: STO-0004 Date: 2020/9/10 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: SAD

Compound: PFAS IS SPIKING STOCK SOLUTION Purity: _____

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
STO-0004-1	MPFBA	MPFBA0420	2020/08/20	2025/05/13	S4868-1		50	MeOH	FZ-11
STO-0004-2	M3PFBS	M3PFBS1019	2020/08/20	2025/03/17	S4868-2		50	MeOH	FZ-11
STO-0004-3	M5PFPeA	M5PFPeA0120	2020/08/20	2025/01/22	S4868-3		50	MeOH	FZ-11
STO-0004-4	MPFHxA	MPFHxA0320	2020/08/20	2025/04/03	S4868-4		50	MeOH	FZ-11
STO-0004-5	MPFHxS	MPFHxS0120	2020/08/20	2025/01/22	S4868-5		50	MeOH	FZ-11
STO-0004-6	M4PFHpA	M4PFHpA0120	2020/08/20	2025/01/08	S4868-6		50	MeOH	FZ-11
STO-0004-7	MPFOA	MPFOA0420	2020/08/20	2025/05/08	S4868-7		50	MeOH	FZ-11
STO-0004-8	MPFOS	MPFOS0420	2020/08/20	2025/04/15	S4868-8		50	MeOH	FZ-11
STO-0004-9	MPFNA	MPFNA1119	2020/08/20	2024/12/02	S4868-9		50	MeOH	FZ-11
STO-0004-10	MPFDA	MPFDA0320	2020/08/20	2025/03/24	S4868-10		50	MeOH	FZ-11
STO-0004-11	MPFUdA	MPFUdA1219	2020/08/20	2024/12/04	S4868-11		50	MeOH	FZ-11
STO-0004-12	MPFDoA	MPFDoA1119	2020/08/20	2024/11/22	S4868-12		50	MeOH	FZ-11
STO-0004-13	M2PFTeDA	M2PFTeDA0620	2020/08/20	2025/07/09	S4868-13		50	MeOH	FZ-11
STO-0004-14	MPFOSA (M8-FOSA-I)	M8FOSA0220I	2020/08/20	2025/02/28	S4868-14		50	IPA	FD-59
STO-0004-15	D3-N-MeFOSAA	d3NMeFOSAA1119	2020/08/20	2024/12/02	S4868-15		50	MeOH	FD-59
STO-0004-16	D5-N-EtFOSAA	d5NEtFOSAA0520	2020/08/20	2025/05/20	S4868-16		50	MeOH	FD-59
STO-0004-17	M3HFPO-DA	M3HFPODA0520	2020/08/20	2023/05/13	S4868-17		50	MeOH	FD-59
STO-0004-18	D-N-MeFOSA-M	dNMeFOSA0820M	2020/08/20	2025/08/06	S4868-18		50	MeOH	FZ-11
STO-0004-19	D-N-EtFOSA-M	dNEtFOSA0520M	2020/08/20	2025/05/20	S4868-19		50	MeOH	FZ-11
STO-0004-20	D7-N-MeFOSE-M	d7NMeFOSE1119M	2020/08/20	2024/12/16	S4868-20		50	MeOH	FZ-11
STO-0004-21	D9-N-EtFOSE-M	d9NEtFOSE1119M	2020/08/20	2024/12/16	S4868-21		50	MeOH	FZ-11
STO-0004-22	M2-4:2FTS	M242FTS0420	2020/08/20	2025/04/16	S4868-22		50	MeOH	FD-59
STO-0004-23	M2-6:2FTS	M262FTS0520	2020/08/20	2025/05/20	S4868-23		50	MeOH	FD-59
STO-0004-24	M2-8:2FTS	M282FTS0320	2020/09/09	2025/03/18	S4868-24		50	MeOH	FD-59
Date opened (All compounds): 2020/09/10			Supplier: Wellington			Chemist: SAD			

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SAD 2020/9/10

Notes/Comments

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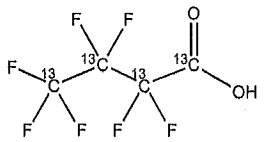
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFBA	**LOT NUMBER:**	MPFBA0420
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4HF_7O_2$	**MOLECULAR WEIGHT:**	218.01
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4$-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	05/13/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/13/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/20/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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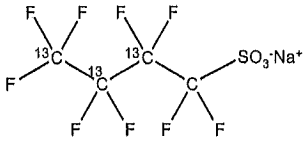
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBS **LOT NUMBER:** M3PFBS1019

COMPOUND: Sodium perfluoro-1-[2,3,4-$^{13}C_3$]butanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CF_9SO_3Na$	**MOLECULAR WEIGHT:**	325.06
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	46.6 ± 2.3 µg/ml (M3PFBS acid)		
	46.5 ± 2.3 µg/ml (M3PFBS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($2,3,4\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	03/17/2020		
EXPIRY DATE: (mm/dd/yyyy)	03/17/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains < 0.1% of perfluoro-1-butanesulfonate.

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Certified By: _____ **Date:** 03/18/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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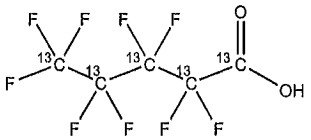
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M5PFPeA
COMPOUND: Perfluoro-n-[$^{13}C_5$]pentanoic acid

LOT NUMBER: M5PFPeA0120

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_5HF_9O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 269.01
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 01/22/2020
EXPIRY DATE: (mm/dd/yyyy) 01/22/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C ($^{13}C_5$)

1 ampule
GSZ 2020/08/20
FZ 11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.25% of perfluoro-n-pentanoic acid.

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Certified By: _____ **Date:** 01/24/2020 (mm/dd/yyyy)
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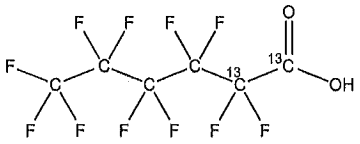
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFHxA
LOT NUMBER: MPFHxA0320
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_4HF_{11}O_2$
MOLECULAR WEIGHT: 316.04
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 04/03/2020
EXPIRY DATE: (mm/dd/yyyy) 04/03/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 04/03/2020 (mm/dd/yyyy)
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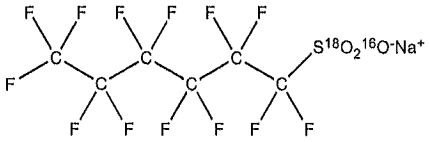
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxS
LOT NUMBER: MPFHxS0120
COMPOUND: Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate

STRUCTURE:



CAS #: 1585941-14-5

MOLECULAR FORMULA:	$C_6F_{13}S^{18}O_2{}^{16}ONa$	**MOLECULAR WEIGHT:**	426.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.4 ± 2.4 µg/ml (MPFHxS acid) 47.3 ± 2.4 µg/ml (MPFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	>94% ($^{18}O_2$)
LAST TESTED: (mm/dd/yyyy)	01/22/2020		
EXPIRY DATE: (mm/dd/yyyy)	01/22/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS ($C_6F_{13}S^{18}O_2{}^{16}O^-$) has been observed to be up to 10% lower than for PFHxS ($C_6F_{13}S^{16}O_3^-$) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 0.6% of sodium perfluoro-1-octane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFOS) and ~ 0.3% of sodium perfluoro-1-heptane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFHpS).
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

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Certified By: _____ **Date:** 02/05/2020 (mm/dd/yyyy)
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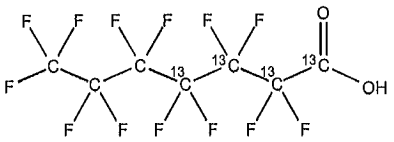
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M4PFHpA
LOT NUMBER: M4PFHpA0120
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_4{}^{12}C_3HF_{13}O_2$
MOLECULAR WEIGHT: 368.03
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2,3,4\text{-}^{13}C_4$)
LAST TESTED: (mm/dd/yyyy) 01/08/2020
EXPIRY DATE: (mm/dd/yyyy) 01/08/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampoule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.03% of perfluoro-n-heptanoic acid.

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Certified By: _____ **Date:** 01/24/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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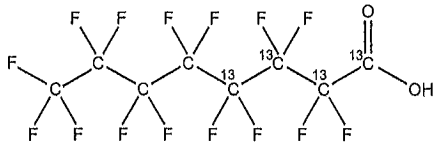
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFOA
LOT NUMBER: MPFOA0420
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]octanoic acid

STRUCTURE:
CAS #: 960315-48-4



MOLECULAR FORMULA: $^{13}C_4{}^{12}C_4HF_{16}O_2$
MOLECULAR WEIGHT: 418.04
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2,3,4\text{-}^{13}C_4$)
LAST TESTED: (mm/dd/yyyy) 05/08/2020
EXPIRY DATE: (mm/dd/yyyy) 05/08/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of native perfluoro-n-octanoic acid (PFOA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/15/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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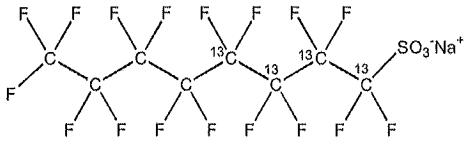
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS0420

COMPOUND: Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate

STRUCTURE: **CAS #:** 960315-53-1



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	526.08
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.9 ± 2.4 µg/ml (MPFOS acid) 47.8 ± 2.4 µg/ml (MPFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4$-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	04/15/2020		
EXPIRY DATE: (mm/dd/yyyy)	04/15/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 ampules
652 2020/08/20
FZ11

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.3% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/20/2020 (mm/dd/yyyy)

B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

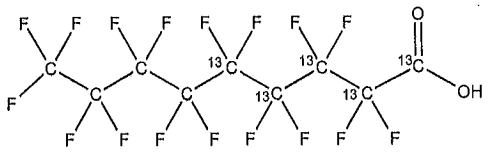
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFNA
COMPOUND: Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid

LOT NUMBER: MPFNA1119

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_5{}^{12}C_4HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 469.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/02/2019
EXPIRY DATE: (mm/dd/yyyy) 12/02/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4,5-$^{13}C_5$)

1 ampule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-[1,2,3,4-$^{13}C_4$]octanoic acid (MPFOA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/05/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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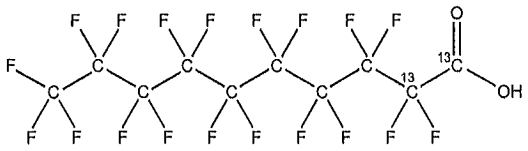
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFDA
LOT NUMBER: MPFDA0320
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_8HF_{19}O_2$
MOLECULAR WEIGHT: 516.07
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 03/24/2020
EXPIRY DATE: (mm/dd/yyyy) 03/24/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
GSZ 2020/08/20
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/06/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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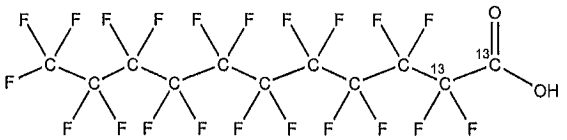
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFUdA
LOT NUMBER: MPFUdA1219
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_9HF_{21}O_2$	**MOLECULAR WEIGHT:**	566.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	12/04/2019		
EXPIRY DATE: (mm/dd/yyyy)	12/04/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampule
652 2020/08/20
FZ 11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of $1\text{-}^{13}C_1$-PFUdA and $2\text{-}^{13}C_1$-PFUdA (~0.6% total; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/06/2019 (mm/dd/yyyy)
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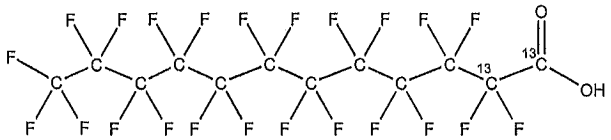
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDoA
LOT NUMBER: MPFDoA1119
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2\,^{12}C_{10}HF_{23}O_2$
MOLECULAR WEIGHT: 616.08
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 11/22/2019
EXPIRY DATE: (mm/dd/yyyy) 11/22/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/27/2019 (mm/dd/yyyy)
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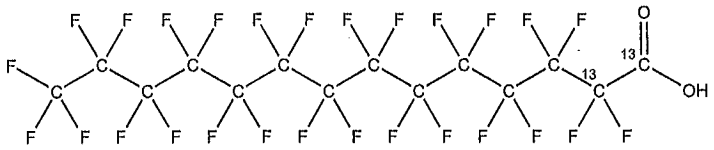
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2PFTeDA
LOT NUMBER: M2PFTeDA0620
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_{12}HF_{27}O_2$
MOLECULAR WEIGHT: 716.10
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 07/09/2020
EXPIRY DATE: (mm/dd/yyyy) 07/09/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampoule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-tetradecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/13/2020 (mm/dd/yyyy)
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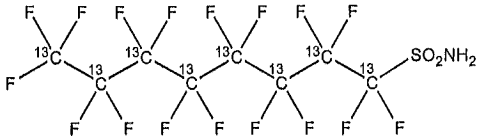
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M8FOSA-I
COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide

LOT NUMBER: M8FOSA0220I

STRUCTURE:

CAS #: 1365803-60-6



MOLECULAR FORMULA:	$^{13}C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	507.09
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	02/28/2020		
EXPIRY DATE: (mm/dd/yyyy)	02/28/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

1 ampule
652 2020/08/20
FP59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.2% of perfluoro-1-[$^{13}C_4$]octanesulfonamide and ~ 0.03% of perfluoro-1-[$^{13}C_7$]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/03/2020 (mm/dd/yyyy)
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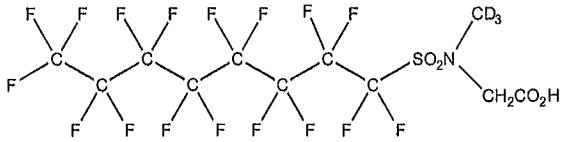
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA1119

COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 1400690-70-1



MOLECULAR FORMULA:	$C_{11}D_3H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	574.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	12/02/2019		
EXPIRY DATE: (mm/dd/yyyy)	12/02/2024		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

1 ampule
GSA 2020/08/20
FD59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)

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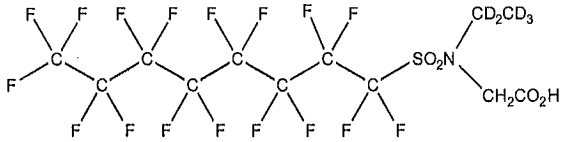
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEtFOSAA0520

COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}D_5H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	590.26
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	05/20/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/20/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

1 ampoule
652 2020/08/20
FD 59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/22/2020 (mm/dd/yyyy)

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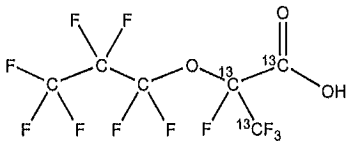
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M3HFPO-DA **LOT NUMBER:** M3HFPODA0520

COMPOUND: 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-$^{13}C_3$-propanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_3HF_{11}O_3$	**MOLECULAR WEIGHT:**	333.03
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	05/13/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/13/2023		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

1 ampule
GSZ 2020/08/20
FD59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.9% of the linear M3HFPO-DA isomer.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/22/2020 (mm/dd/yyyy)

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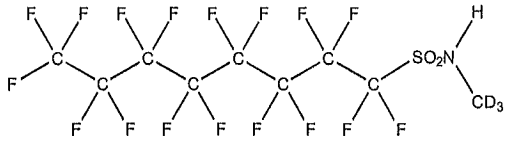
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d-N-MeFOSA-M
LOT NUMBER: dNMeFOSA0820M
COMPOUND: N-methyl-d_3-perfluoro-1-octanesulfonamide

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_9D_3HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	516.19
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	08/06/2020		
EXPIRY DATE: (mm/dd/yyyy)	08/06/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

2 ampules
652 2020/08/20
FZ 11

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 08/07/2020 (mm/dd/yyyy)
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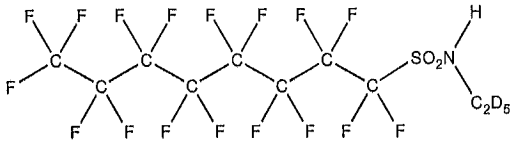
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d-N-EtFOSA-M
COMPOUND: N-ethyl-d_5-perfluoro-1-octanesulfonamide

LOT NUMBER: dNEtFOSA0520M

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_{10}D_5HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	532.23
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	05/20/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/20/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

2 ampules
652 2020/08/20
FZ 11

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/21/2020 (mm/dd/yyyy)
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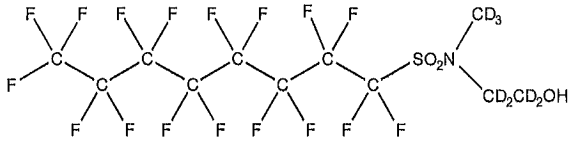
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d7-N-MeFOSE-M **LOT NUMBER:** d7NMeFOSE1119M

COMPOUND: 2-(N-methyl-d3-perfluoro-1-octanesulfonamido)ethan-d4-ol

STRUCTURE: **CAS #:** 1265205-95-5



MOLECULAR FORMULA:	$C_{11}D_7HF_{17}NO_3S$	**MOLECULAR WEIGHT:**	564.27
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_7$
LAST TESTED: (mm/dd/yyyy)	12/16/2019 (HRGC/LRMS) 12/03/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	12/16/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

2 ampules
GSZ 2020/08/20
FZ 11

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/18/2019 (mm/dd/yyyy)

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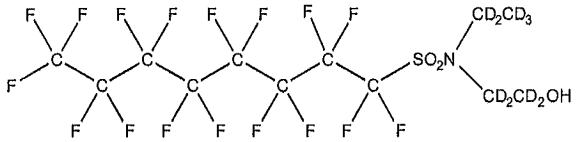
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d9-N-EtFOSE-M **LOT NUMBER:** d9NEtFOSE1119M

COMPOUND: 2-(N-ethyl-d5-perfluoro-1-octanesulfonamido)ethan-d4-ol

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}D_9HF_{17}NO_3S$	**MOLECULAR WEIGHT:**	580.31
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_9$
LAST TESTED: (mm/dd/yyyy)	12/16/2019 (HRGC/LRMS) 12/03/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	12/16/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

2 ampules
GSZ 2020/08/20
FZ 11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/18/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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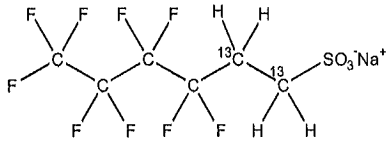
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-4:2FTS **LOT NUMBER:** M242FTS0420

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]hexane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_4H_4F_9SO_3Na$		**MOLECULAR WEIGHT:**	352.12
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	46.9 ± 2.3 µg/ml	(M2-4:2FTS acid)		
	46.7 ± 2.3 µg/ml	(M2-4:2FTS anion)		
CHEMICAL PURITY:	>98%		**ISOTOPIC PURITY:**	≥99% ^{13}C
LAST TESTED: (mm/dd/yyyy)	04/16/2020			(1,2-$^{13}C_2$)
EXPIRY DATE: (mm/dd/yyyy)	04/16/2025			
RECOMMENDED STORAGE:	Refrigerate ampoule			

2 ampoules
GSZ 2020/08/20
FD 59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 4:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 4:2FTS and M2-4:2FTS will produce signals in the m/z 329 to m/z 309 channel during SRM analysis. We recommend using the m/z 329 to m/z 81 transition to monitor for M2-4:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/20/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

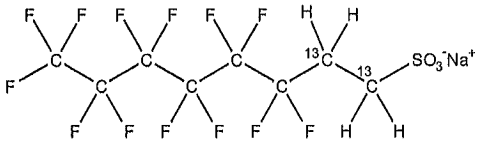
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS0520

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	452.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.6 ± 2.4 µg/ml (M2-6:2FTS acid)		
	47.5 ± 2.4 µg/ml (M2-6:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	05/20/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/20/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

2 ampoules
652 2020/08/20
FD59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/02/2020 (mm/dd/yyyy)

B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

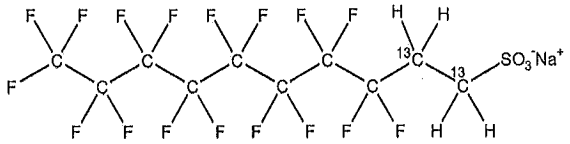
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0320

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$		**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	48.0 ± 2.4 µg/ml	(M2-8:2FTS acid)		
	47.9 ± 2.4 µg/ml	(M2-8:2FTS anion)		
CHEMICAL PURITY:	>98%		**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	03/18/2020			
EXPIRY DATE: (mm/dd/yyyy)	03/18/2025			
RECOMMENDED STORAGE:	Refrigerate ampoule			

2020/09/09
~~2020/9/10~~ /09
2 Ampules received.

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/18/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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PRLST 138 PG 06

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SIS-0009 Prep'n Date: 2020/09/10 Expiry Date: 2023/05/13 Discard Date: _____
Replaces Solution No.: SI-8213 Replaced by Solution: _____ Chemist: GSZ
Sol'n. Name: PFAS I-S. SPIKING SOLN B
Solution Used As: Internal Std: ✓ Surrogate Spike: _____
Spike Volume: _____ uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS/MS
Solvent(s): 0.3% NH4OH in MeOH Supplier(s): PRLRE143-59 Lot No(s).: PRLRE143-59
Date Solvent Opened: PRLRE143-59
Volumetric Flask Used: 200mL Class A (5640) Syringe ID: Pipette N220627
Storage Location and Conditions: FZ11
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL/uL)	Dilution Volume (mL)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)
PFAS I-S. SPIKING SOLN A	SIS-0008	125/250 ng/mL	20	200	12.5/25 ng/mL	–

GSZ, 2020/09/10

Notes:

Solution No.: SIS-0010 Prep'n Date: 2020/09/13 Expiry Date: Daily Discard Date: –
Replaces Solution No.: SIS-0007 Replaced by Solution: SIS-0012 Chemist: ATN
Sol'n. Name: Acrylamide IS. Working
Solution Used As: Internal Std: ✓ Surrogate Spike: –
Spike Volume: – uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS MS
Solvent(s): DI H_2O Supplier(s): In house Lot No(s).: –
Date Solvent Opened: –
Volumetric Flask Used: Class A (10mL) Syringe ID: R406416
Storage Location and Conditions: –
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (mL/uL)	Dilution Volume (mL)	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug / ng)
Acrylamide IS stock	S-4864	1009.8	24.8	10	2.5	

ATN 2020/09/13

Notes:

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PRLST 138 PG 025

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SIS-0008 Prep'n Date: 2020/9/10 Expiry Date: 2023/5/13 Discard Date: _____
Replaces Solution No.: SI 8193 Replaced by Solution: _____ Chemist: SAP
Sol'n. Name: PFAS Spiking Solution A
Solution Used As: Internal Std: — Surrogate Spike: _____
Spike Volume: — uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS/MS SAP 2020/9/10
Solvent(s): 0.3% NH4OH in MeOH Supplier(s): DRURE 143-59 Lot No(s).: DRURE ~~143~~ 143-59
Date Solvent Opened: DRURE 143-59
Volumetric Flask Used: Class A 200 (5640) Syringe ID: Pipette K26250F
Storage Location and Conditions: FZ-11
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

SIS-0008

Compound Name	ID#	Conc. (ug/mL)	Vol. of Stock standard (uL)	Dilution volume (mL)	Final Conc. (ng/mL)	Exp. date
MPFBA	STO-0004-1	50	500	200	125	2025/05/13
M3PFBS	STO-0004-2	50	500	200	125	2025/03/17
M5PFPeA	STO-0004-3	50	500	200	125	2025/01/22
MPFHxA	STO-0004-4	50	500	200	125	2025/04/03
MPFHxS	STO-0004-5	50	500	200	125	2025/01/22
M4PFHpA	STO-0004-6	50	500	200	125	2025/01/08
MPFOA	STO-0004-7	50	500	200	125	2025/05/08
MPFOS	STO-0004-8	50	500	200	125	2025/04/15
MPFNA	STO-0004-9	50	500	200	125	2024/12/02
MPFDA	STO-0004-10	50	500	200	125	2025/03/24
MPFUdA	STO-0004-11	50	500	200	125	2024/12/04
MPFDoA	STO-0004-12	50	500	200	125	2024/11/22
M2PFTeDA	STO-0004-13	50	500	200	125	2025/07/09
MPFOSA	STO-0004-14	50	500	200	125	2025/02/28
D3-N-MeFOSAA	STO-0004-15	50	500	200	125	2024/12/02
D5-N-EtFOSAA	STO-0004-16	50	500	200	125	2025/05/20
M3HFPO-DA	STO-0004-17	50	500	200	125	2023/05/13
D-N-MeFOSA-M	STO-0004-18	50	1000	200	250	2025/08/06
D-N-EtFOSA-M	STO-0004-19	50	1000	200	250	2025/05/20
D7-N-MeFOSE-M	STO-0004-20	50	1000	200	250	2024/12/16
D9-N-EtFOSE-M	STO-0004-21	50	1000	200	250	2024/12/16
M2-4:2FTS	STO-0004-22	50	1000	200	250	2025/04/16
M2-6:2FTS	STO-0004-23	50	1000	200	250	2025/05/20
M2-8:2FTS	STO-0004-24	50	1000	200	250	2025/03/18

No Writing on Bottom Page.

SAP 2020/09/10

DO NOT WRITE BENEATH ANY INSERTS ON THIS PAGE. DO NOT PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL INSERTS. LOGBOOK, PAGE AND APPROPRIATE SOLUTION NUMBER REFERENCES MUST BE WRITTEN ON ALL INSERTS.

PRLST 139 PG 03

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: STO-0004 Date: 2020/9/10 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: SAD

Compound: PFAS IS SPIKING STOCK SOLUTION Purity: _____

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
STO-0004-1	MPFBA	MPFBA0420	2020/08/20	2025/05/13	S4868-1		50	MeOH	FZ-11
STO-0004-2	M3PFBS	M3PFBS1019	2020/08/20	2025/03/17	S4868-2		50	MeOH	FZ-11
STO-0004-3	M5PFPeA	M5PFPeA0120	2020/08/20	2025/01/22	S4868-3		50	MeOH	FZ-11
STO-0004-4	MPFHxA	MPFHxA0320	2020/08/20	2025/04/03	S4868-4		50	MeOH	FZ-11
STO-0004-5	MPFHxS	MPFHxS0120	2020/08/20	2025/01/22	S4868-5		50	MeOH	FZ-11
STO-0004-6	M4PFHpA	M4PFHpA0120	2020/08/20	2025/01/08	S4868-6		50	MeOH	FZ-11
STO-0004-7	MPFOA	MPFOA0420	2020/08/20	2025/05/08	S4868-7		50	MeOH	FZ-11
STO-0004-8	MPFOS	MPFOS0420	2020/08/20	2025/04/15	S4868-8		50	MeOH	FZ-11
STO-0004-9	MPFNA	MPFNA1119	2020/08/20	2024/12/02	S4868-9		50	MeOH	FZ-11
STO-0004-10	MPFDA	MPFDA0320	2020/08/20	2025/03/24	S4868-10		50	MeOH	FZ-11
STO-0004-11	MPFUdA	MPFUdA1219	2020/08/20	2024/12/04	S4868-11		50	MeOH	FZ-11
STO-0004-12	MPFDoA	MPFDoA1119	2020/08/20	2024/11/22	S4868-12		50	MeOH	FZ-11
STO-0004-13	M2PFTeDA	M2PFTeDA0620	2020/08/20	2025/07/09	S4868-13		50	MeOH	FZ-11
STO-0004-14	MPFOSA (M8-FOSA-I)	M8FOSA0220I	2020/08/20	2025/02/28	S4868-14		50	IPA	FD-59
STO-0004-15	D3-N-MeFOSAA	d3NMeFOSAA1119	2020/08/20	2024/12/02	S4868-15		50	MeOH	FD-59
STO-0004-16	D5-N-EtFOSAA	d5NEtFOSAA0520	2020/08/20	2025/05/20	S4868-16		50	MeOH	FD-59
STO-0004-17	M3HFPO-DA	M3HFPODA0520	2020/08/20	2023/05/13	S4868-17		50	MeOH	FD-59
STO-0004-18	D-N-MeFOSA-M	dNMeFOSA0820M	2020/08/20	2025/08/06	S4868-18		50	MeOH	FZ-11
STO-0004-19	D-N-EtFOSA-M	dNEtFOSA0520M	2020/08/20	2025/05/20	S4868-19		50	MeOH	FZ-11
STO-0004-20	D7-N-MeFOSE-M	d7NMeFOSE1119M	2020/08/20	2024/12/16	S4868-20		50	MeOH	FZ-11
STO-0004-21	D9-N-EtFOSE-M	d9NEtFOSE1119M	2020/08/20	2024/12/16	S4868-21		50	MeOH	FZ-11
STO-0004-22	M2-4:2FTS	M242FTS0420	2020/08/20	2025/04/16	S4868-22		50	MeOH	FD-59
STO-0004-23	M2-6:2FTS	M262FTS0520	2020/08/20	2025/05/20	S4868-23		50	MeOH	FD-59
STO-0004-24	M2-8:2FTS	M282FTS0320	2020/09/09	2025/03/18	S4868-24		50	MeOH	FD-59
Date opened (All compounds): 2020/09/10			Supplier: Wellington			Chemist: SAD			

No writing on Bottom of the Page

SAD 2020/9/10

Notes/Comments

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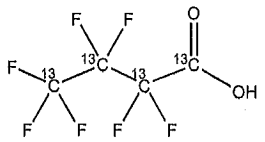
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFBA
LOT NUMBER: MPFBA0420
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA:	$^{13}C_4HF_7O_2$	**MOLECULAR WEIGHT:**	218.01
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	05/13/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/13/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
GSL 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/20/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

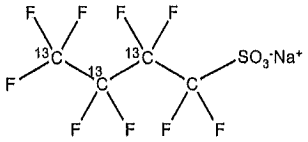
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBS **LOT NUMBER:** M3PFBS1019

COMPOUND: Sodium perfluoro-1-[2,3,4-$^{13}C_3$]butanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CF_9SO_3Na$	**MOLECULAR WEIGHT:**	325.06
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 46.6 ± 2.3 µg/ml (M3PFBS acid) 46.5 ± 2.3 µg/ml (M3PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($2,3,4\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	03/17/2020		
EXPIRY DATE: (mm/dd/yyyy)	03/17/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains < 0.1% of perfluoro-1-butanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/18/2020 (mm/dd/yyyy)

B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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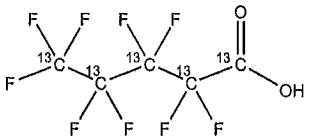
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M5PFPeA
LOT NUMBER: M5PFPeA0120
COMPOUND: Perfluoro-n-[$^{13}C_5$]pentanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_5HF_9O_2$
MOLECULAR WEIGHT: 269.01
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($^{13}C_5$)
LAST TESTED: (mm/dd/yyyy) 01/22/2020
EXPIRY DATE: (mm/dd/yyyy) 01/22/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
GSZ 2020/08/20
FZ 11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.25% of perfluoro-n-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 01/24/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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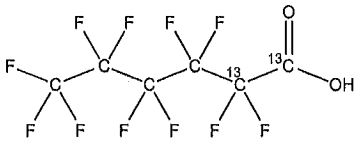
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxA
LOT NUMBER: MPFHxA0320
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_4HF_{11}O_2$
MOLECULAR WEIGHT: 316.04
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 04/03/2020
EXPIRY DATE: (mm/dd/yyyy) 04/03/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/03/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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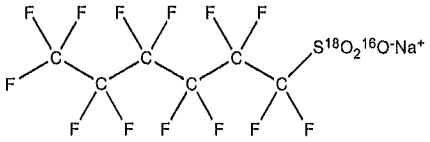
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxS
LOT NUMBER: MPFHxS0120
COMPOUND: Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate

STRUCTURE:



CAS #: 1585941-14-5

MOLECULAR FORMULA:	$C_6F_{13}S^{18}O_2{}^{16}ONa$	**MOLECULAR WEIGHT:**	426.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.4 ± 2.4 µg/ml (MPFHxS acid) 47.3 ± 2.4 µg/ml (MPFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	>94% ($^{18}O_2$)
LAST TESTED: (mm/dd/yyyy)	01/22/2020		
EXPIRY DATE: (mm/dd/yyyy)	01/22/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS ($C_6F_{13}S^{18}O_2{}^{16}O^-$) has been observed to be up to 10% lower than for PFHxS ($C_6F_{13}S^{16}O_3^-$) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 0.6% of sodium perfluoro-1-octane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFOS) and ~ 0.3% of sodium perfluoro-1-heptane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFHpS).
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

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Certified By: _____ **Date:** 02/05/2020 (mm/dd/yyyy)
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WELLINGTON LABORATORIES

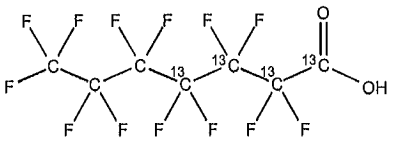
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M4PFHpA
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid

LOT NUMBER: M4PFHpA0120

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_4{}^{12}C_3HF_{13}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 368.03
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 01/08/2020
EXPIRY DATE: (mm/dd/yyyy) 01/08/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C ($1,2,3,4\text{-}^{13}C_4$)

1 ampule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.03% of perfluoro-n-heptanoic acid.

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Certified By: B.G. Chittim, General Manager **Date:** 01/24/2020 (mm/dd/yyyy)

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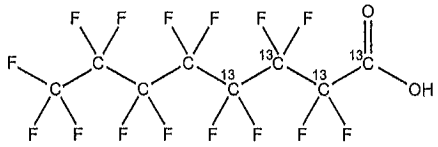
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFOA
LOT NUMBER: MPFOA0420
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]octanoic acid

STRUCTURE:
CAS #: 960315-48-4



MOLECULAR FORMULA: $^{13}C_4{}^{12}C_4HF_{16}O_2$
MOLECULAR WEIGHT: 418.04
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy) 05/08/2020
EXPIRY DATE: (mm/dd/yyyy) 05/08/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of native perfluoro-n-octanoic acid (PFOA).

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Certified By: _____ **Date:** 05/15/2020 (mm/dd/yyyy)
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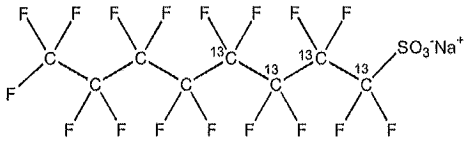
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS0420

COMPOUND: Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate

STRUCTURE: **CAS #:** 960315-53-1



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	526.08
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.9 ± 2.4 µg/ml (MPFOS acid) 47.8 ± 2.4 µg/ml (MPFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4$-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	04/15/2020		
EXPIRY DATE: (mm/dd/yyyy)	04/15/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 ampules
652 2020/08/20
FZ11

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.3% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

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Certified By: _____ **Date:** 04/20/2020 (mm/dd/yyyy)

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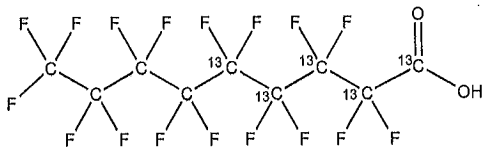
DOCUMENTATION

PRODUCT CODE: MPFNA
COMPOUND: Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid

LOT NUMBER: MPFNA1119

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_5{}^{12}C_4HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 469.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/02/2019
EXPIRY DATE: (mm/dd/yyyy) 12/02/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99%^{13}C (1,2,3,4,5-$^{13}C_5$)

1 ampule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-[1,2,3,4-$^{13}C_4$]octanoic acid (MPFOA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/05/2019 (mm/dd/yyyy)
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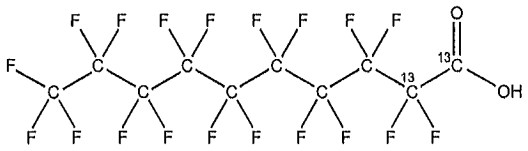
PRODUCT CODE: MPFDA
LOT NUMBER: MPFDA0320
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_8HF_{19}O_2$
MOLECULAR WEIGHT: 516.07
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 03/24/2020
EXPIRY DATE: (mm/dd/yyyy) 03/24/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
652 2020/08/20
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 04/06/2020 (mm/dd/yyyy)
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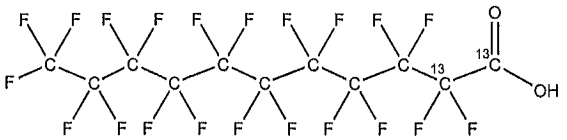
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFUdA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid

LOT NUMBER: MPFUdA1219

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_9HF_{21}O_2$	**MOLECULAR WEIGHT:**	566.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	12/04/2019		
EXPIRY DATE: (mm/dd/yyyy)	12/04/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampule
652 2020/08/20
FZ 11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of $1\text{-}^{13}C_1$-PFUdA and $2\text{-}^{13}C_1$-PFUdA (~0.6% total; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

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Certified By: _____ **Date:** 12/06/2019 (mm/dd/yyyy)
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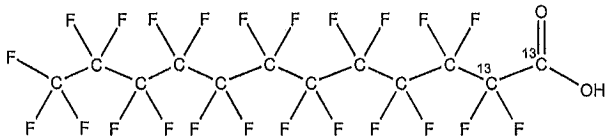
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFDoA
LOT NUMBER: MPFDoA1119
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2\,^{12}C_{10}HF_{23}O_2$
MOLECULAR WEIGHT: 616.08
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 11/22/2019
EXPIRY DATE: (mm/dd/yyyy) 11/22/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 11/27/2019 (mm/dd/yyyy)
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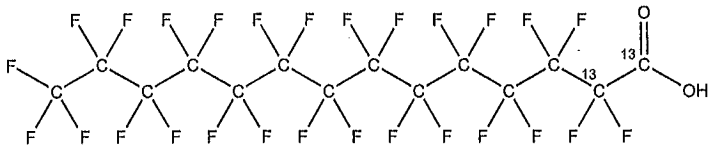
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2PFTeDA
LOT NUMBER: M2PFTeDA0620
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{12}HF_{27}O_2$	**MOLECULAR WEIGHT:**	716.10
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	07/09/2020		
EXPIRY DATE: (mm/dd/yyyy)	07/09/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-tetradecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/13/2020 (mm/dd/yyyy)
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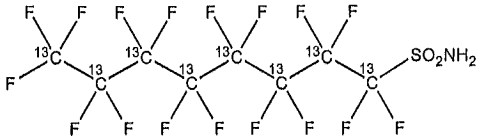
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M8FOSA-I
COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide

LOT NUMBER: M8FOSA0220I

STRUCTURE:

CAS #: 1365803-60-6



MOLECULAR FORMULA:	$^{13}C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	507.09
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	02/28/2020		
EXPIRY DATE: (mm/dd/yyyy)	02/28/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

1 ampule
652 2020/08/20
FP59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.2% of perfluoro-1-[$^{13}C_4$]octanesulfonamide and ~ 0.03% of perfluoro-1-[$^{13}C_7$]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/03/2020 (mm/dd/yyyy)
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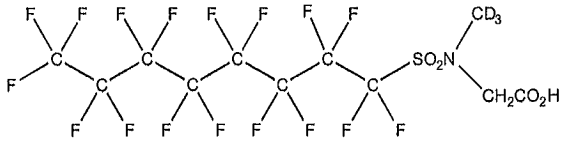
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA1119

COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 1400690-70-1



MOLECULAR FORMULA:	$C_{11}D_3H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	574.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	12/02/2019		
EXPIRY DATE: (mm/dd/yyyy)	12/02/2024		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

1 ampoule
652 2020/08/20
FD59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)

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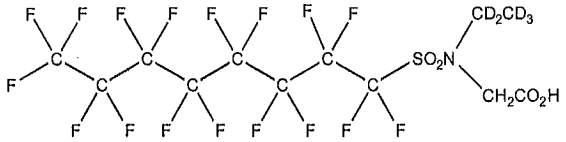
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEtFOSAA0520

COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_{12}D_5H_3F_{17}NO_4S$ **MOLECULAR WEIGHT:** 590.26

CONCENTRATION: 50.0 ± 2.5 µg/ml **SOLVENT(S):** Methanol, Water (<1%)

CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98% $^2H_5$

LAST TESTED: (mm/dd/yyyy) 05/20/2020

EXPIRY DATE: (mm/dd/yyyy) 05/20/2025

RECOMMENDED STORAGE: Refrigerate ampoule

1 ampoule
652 2020/08/20
FD 59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/22/2020 (mm/dd/yyyy)

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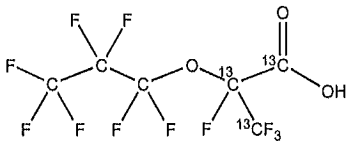
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M3HFPO-DA **LOT NUMBER:** M3HFPODA0520

COMPOUND: 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-$^{13}C_3$-propanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_3HF_{11}O_3$	**MOLECULAR WEIGHT:**	333.03
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	05/13/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/13/2023		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

1 ampule
GSZ 2020/08/20
FD59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.9% of the linear M3HFPO-DA isomer.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/22/2020 (mm/dd/yyyy)

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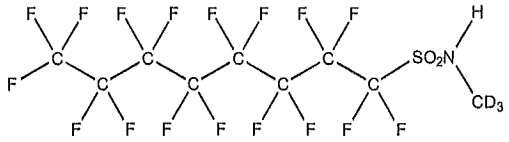
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d-N-MeFOSA-M
LOT NUMBER: dNMeFOSA0820M
COMPOUND: N-methyl-d_3-perfluoro-1-octanesulfonamide

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_9D_3HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	516.19
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	08/06/2020		
EXPIRY DATE: (mm/dd/yyyy)	08/06/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

2 ampules
652 2020/08/20
FZ 11

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/07/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

WELLINGTON LABORATORIES

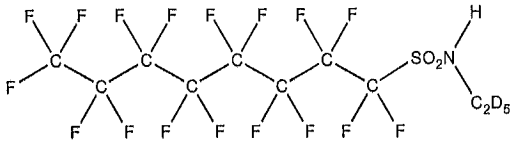
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d-N-EtFOSA-M
COMPOUND: N-ethyl-d_5-perfluoro-1-octanesulfonamide

LOT NUMBER: dNEtFOSA0520M

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_{10}D_5HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	532.23
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	05/20/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/20/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

2 ampules
652 2020/08/20
FZ 11

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/21/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

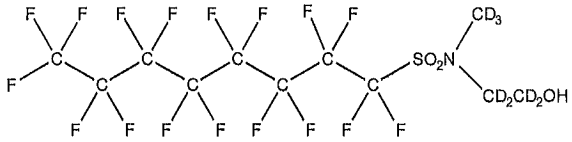
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d7-N-MeFOSE-M **LOT NUMBER:** d7NMeFOSE1119M

COMPOUND: 2-(N-methyl-d3-perfluoro-1-octanesulfonamido)ethan-d4-ol

STRUCTURE: **CAS #:** 1265205-95-5



MOLECULAR FORMULA:	$C_{11}D_7HF_{17}NO_3S$	**MOLECULAR WEIGHT:**	564.27
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_7$
LAST TESTED: (mm/dd/yyyy)	12/16/2019 (HRGC/LRMS) 12/03/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	12/16/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

2 ampules
GSZ 2020/08/20
FZ 11

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/18/2019 (mm/dd/yyyy)

B.G. Chittim, General Manager

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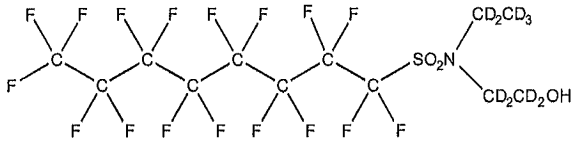
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d9-N-EtFOSE-M **LOT NUMBER:** d9NEtFOSE1119M

COMPOUND: 2-(N-ethyl-d5-perfluoro-1-octanesulfonamido)ethan-d4-ol

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}D_9HF_{17}NO_3S$	**MOLECULAR WEIGHT:**	580.31
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_9$
LAST TESTED: (mm/dd/yyyy)	12/16/2019 (HRGC/LRMS) 12/03/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	12/16/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

2 ampules
GSZ 2020/08/20
FZ 11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/18/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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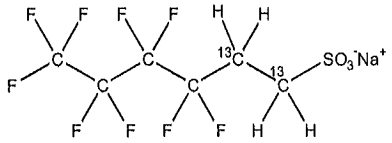
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-4:2FTS **LOT NUMBER:** M242FTS0420

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]hexane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_4H_4F_9SO_3Na$		**MOLECULAR WEIGHT:**	352.12
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	46.9 ± 2.3 µg/ml	(M2-4:2FTS acid)		
	46.7 ± 2.3 µg/ml	(M2-4:2FTS anion)		
CHEMICAL PURITY:	>98%		**ISOTOPIC PURITY:**	≥99% ^{13}C
LAST TESTED: (mm/dd/yyyy)	04/16/2020			(1,2-$^{13}C_2$)
EXPIRY DATE: (mm/dd/yyyy)	04/16/2025			
RECOMMENDED STORAGE:	Refrigerate ampoule			

2 ampoules
GSZ 2020/08/20
FD 59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 4:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 4:2FTS and M2-4:2FTS will produce signals in the m/z 329 to m/z 309 channel during SRM analysis. We recommend using the m/z 329 to m/z 81 transition to monitor for M2-4:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

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Certified By: _____ **Date:** 04/20/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

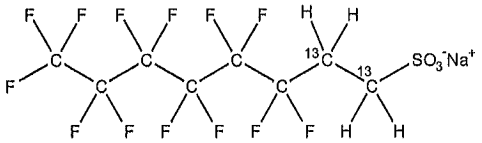
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS0520

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	452.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.6 ± 2.4 µg/ml (M2-6:2FTS acid)		
	47.5 ± 2.4 µg/ml (M2-6:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	05/20/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/20/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

2 ampules
652 2020/08/20
FD59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/02/2020 (mm/dd/yyyy)

B.G. Chittim, General Manager

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

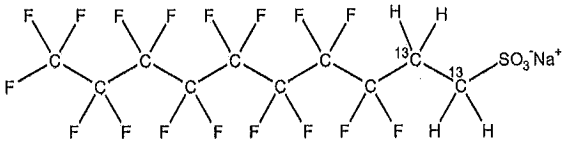
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0320

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$		**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	48.0 ± 2.4 µg/ml	(M2-8:2FTS acid)		
	47.9 ± 2.4 µg/ml	(M2-8:2FTS anion)		
CHEMICAL PURITY:	>98%		**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	03/18/2020			
EXPIRY DATE: (mm/dd/yyyy)	03/18/2025			
RECOMMENDED STORAGE:	Refrigerate ampoule			

2020/09/09
~~2020/9/10~~ /09
2 Ampules received.

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/18/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

PRLST 138 PG 09

PREPARATION OF SURROGATE / INTERNAL STANDARD SPIKING SOLUTION

Solution No.: SIS-0015 Prep'n Date: 2020/09/18 Expiry Date: 2023/05/13 Discard Date: _____
Replaces Solution No.: SIS-0008 Replaced by Solution: _____ Chemist: GSZ
Sol'n. Name: PFAS I.S. SPIKING SOLUTION A
Solution Used As: Internal Std: ✓ Surrogate Spike: _____
Spike Volume: – uL or mL (for I.S. uL per mL) For Instrument/Analysis: LCMS/MS
Solvent(s): 0.3% NH4OH in MeOH Supplier(s): PRLRE 143-123 Lot No(s).: PRLRE 143-123
Date Solvent Opened: PRLRE 143-123
Volumetric Flask Used: Class A 200mL (5640) Syringe ID: Pipette Q287936
Storage Location and Conditions: FZ11
Ampule supplier; Mix Name; Catalogue No.; Lot No.; Date Rec'd.; Date Opened, Ampule Expiry Date:

SIS-0015 (PRLST 138 pg. 9)

Compound Name	ID#	Conc. (ug/mL)	Vol. of Stock standard (uL)	Dilution volume (mL)	Final Conc. (ng/mL)	Exp. date
MPFBA	STO0004-1	50	500	200	125	2025/05/13
M3PFBS	STO0004-2	50	500	200	125	2025/03/17
M5PFPeA	STO0004-3	50	500	200	125	2025/01/22
MPFHxA	STO0004-4	50	500	200	125	2025/04/03
MPFHxS	STO0004-5	50	500	200	125	2025/01/22
M4PFHpA	STO0004-6	50	500	200	125	2025/01/08
MPFOA	STO0004-7	50	500	200	125	2025/05/08
MPFOS	STO0004-8	50	500	200	125	2025/04/15
MPFNA	STO0004-9	50	500	200	125	2024/12/02
MPFDA	STO0004-10	50	500	200	125	2025/03/24
MPFUdA	STO0004-11	50	500	200	125	2024/12/04
MPFDoA	STO0004-12	50	500	200	125	2024/11/22
M2PFTeDA	STO0004-13	50	500	200	125	2025/07/09
MPFOSA	STO0004-14	50	500	200	125	2025/02/28
D3-N-MeFOSAA	STO0004-15	50	500	200	125	2024/12/02
D5-N-EtFOSAA	STO0004-16	50	500	200	125	2025/05/20
M3HFPO-DA	STO0004-17	50	500	200	125	2023/05/13
D-N-MeFOSA-M	STO0010-1	50	1000	200	250	2025/08/06
D-N-EtFOSA-M	STO0010-2	50	1000	200	250	2025/05/20
D7-N-MeFOSE-M	STO0010-3	50	1000	200	250	2024/12/16
D9-N-EtFOSE-M	STO0010-4	50	1000	200	250	2024/12/16
M2-4:2FTS	STO0010-5	50	1000	200	250	2025/04/16
M2-6:2FTS	STO0010-6	50	1000	200	250	2025/05/20
M2-8:2FTS	STO0010-7	50	1000	200	250	2025/03/18

GSZ, 2020/09/18

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PRLST 139 PG 03

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: STO-0004 Date: 2020/9/10 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: SAD

Compound: PFAS IS SPIKING STOCK SOLUTION Purity: _____

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
STO-0004-1	MPFBA	MPFBA0420	2020/08/20	2025/05/13	S4868-1		50	MeOH	FZ-11
STO-0004-2	M3PFBS	M3PFBS1019	2020/08/20	2025/03/17	S4868-2		50	MeOH	FZ-11
STO-0004-3	M5PFPeA	M5PFPeA0120	2020/08/20	2025/01/22	S4868-3		50	MeOH	FZ-11
STO-0004-4	MPFHxA	MPFHxA0320	2020/08/20	2025/04/03	S4868-4		50	MeOH	FZ-11
STO-0004-5	MPFHxS	MPFHxS0120	2020/08/20	2025/01/22	S4868-5		50	MeOH	FZ-11
STO-0004-6	M4PFHpA	M4PFHpA0120	2020/08/20	2025/01/08	S4868-6		50	MeOH	FZ-11
STO-0004-7	MPFOA	MPFOA0420	2020/08/20	2025/05/08	S4868-7		50	MeOH	FZ-11
STO-0004-8	MPFOS	MPFOS0420	2020/08/20	2025/04/15	S4868-8		50	MeOH	FZ-11
STO-0004-9	MPFNA	MPFNA1119	2020/08/20	2024/12/02	S4868-9		50	MeOH	FZ-11
STO-0004-10	MPFDA	MPFDA0320	2020/08/20	2025/03/24	S4868-10		50	MeOH	FZ-11
STO-0004-11	MPFUdA	MPFUdA1219	2020/08/20	2024/12/04	S4868-11		50	MeOH	FZ-11
STO-0004-12	MPFDoA	MPFDoA1119	2020/08/20	2024/11/22	S4868-12		50	MeOH	FZ-11
STO-0004-13	M2PFTeDA	M2PFTeDA0620	2020/08/20	2025/07/09	S4868-13		50	MeOH	FZ-11
STO-0004-14	MPFOSA (M8-FOSA-I)	M8FOSA0220I	2020/08/20	2025/02/28	S4868-14		50	IPA	FD-59
STO-0004-15	D3-N-MeFOSAA	d3NMeFOSAA1119	2020/08/20	2024/12/02	S4868-15		50	MeOH	FD-59
STO-0004-16	D5-N-EtFOSAA	d5NEtFOSAA0520	2020/08/20	2025/05/20	S4868-16		50	MeOH	FD-59
STO-0004-17	M3HFPO-DA	M3HFPODA0520	2020/08/20	2023/05/13	S4868-17		50	MeOH	FD-59
STO-0004-18	D-N-MeFOSA-M	dNMeFOSA0820M	2020/08/20	2025/08/06	S4868-18		50	MeOH	FZ-11
STO-0004-19	D-N-EtFOSA-M	dNEtFOSA0520M	2020/08/20	2025/05/20	S4868-19		50	MeOH	FZ-11
STO-0004-20	D7-N-MeFOSE-M	d7NMeFOSE1119M	2020/08/20	2024/12/16	S4868-20		50	MeOH	FZ-11
STO-0004-21	D9-N-EtFOSE-M	d9NEtFOSE1119M	2020/08/20	2024/12/16	S4868-21		50	MeOH	FZ-11
STO-0004-22	M2-4:2FTS	M242FTS0420	2020/08/20	2025/04/16	S4868-22		50	MeOH	FD-59
STO-0004-23	M2-6:2FTS	M262FTS0520	2020/08/20	2025/05/20	S4868-23		50	MeOH	FD-59
STO-0004-24	M2-8:2FTS	M282FTS0320	2020/09/09	2025/03/18	S4868-24		50	MeOH	FD-59
Date opened (All compounds): 2020/09/10			Supplier: Wellington			Chemist: SAD			

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SAD 2020/9/10

Notes/Comments

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PRLST 139 PG 08

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: STO-0010 Date: 2020/09/18 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: GSZ

STO-0010 (PRLST 139 p. 8)

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc (ug/mL)	Solvent	Storage
STO0010-1	D-N-MeFOSA-M	dNMeFOSA0820M	2020/08/20	2025/08/06	STO0004-18		50	MeOH	FZ-11
STO0010-2	D-N-EtFOSA-M	dNEtFOSA0520M	2020/08/20	2025/05/20	STO0004-19		50	MeOH	FZ-11
STO0010-3	D7-N-MeFOSE-M	d7NMeFOSE1119M	2020/08/20	2024/12/16	STO0004-20		50	MeOH	FZ-11
STO0010-4	D9-N-EtFOSE-M	d9NEtFOSE1119M	2020/08/20	2024/12/16	STO0004-21		50	MeOH	FZ-11
STO0010-5	M2-4:2FTS	M242FTS0420	2020/08/20	2025/04/16	STO0004-22		50	MeOH	FD-59
STO0010-6	M2-6:2FTS	M262FTS0520	2020/08/20	2025/05/20	STO0004-23		50	MeOH	FD-59
STO0010-7	M2-8:2FTS	M282FTS0320	2020/09/09	2025/03/18	STO0004-24		50	MeOH	FD-59
Date opened (All compounds): 2020/09/18			Supplier: Wellington			Chemist: GSZ 2020/09/18			

Notes/Comments

Solution No.: STO-0011 Date: 2020/09/21 Expiry Date: 2020/11/21 Discard Date: _____

Replaces Solution: S-4864 Replaced by Solution: _____ Chemist: GSZ

Compound: ACRYLAMIDE I.S. 2,3,3-d3 STOCK Purity: 99.1 %

Date Received: 2018/10/23 Expiry Date: 2021/10/19 Lot No.: DE-114

Supplier: CDN ISOTOPES

Date Opened: 2018/11/08

Final Gross Weight: 0.0123 g/mg Dilution Volume: 10 mL

Tare Weight* : _____ g/mg Volumetric Flask: Class A 28014

Net Weight: _____ g/mg **Concentration:** 1218.9 ug/mL

Adjusted Net Weight** : 12.189 (mg) Solvent(s): MeOH

Balance Used: FC-1
(specify model and serial no.)

Solvent Used: MeOH

Solvent Supplier: Sigma Lot No(s).: SHBM0726

Date Opened: 2020/09/21

Storage Location / Conditions: FZ11

Notes/Comments

DO NOT WRITE BENEATH ANY INSERTS ON THIS PAGE. DO NOT PLACE ANY INSERTS ON TOP OF ANY RAW DATA ENTERED ON THIS PAGE. INITIAL AND DATE ALL INSERTS. LOGBOOK, PAGE AND APPROPRIATE SOLUTION NUMBER REFERENCES MUST BE WRITTEN ON ALL INSERTS.

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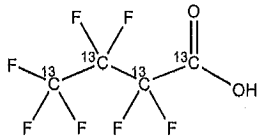
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFBA
LOT NUMBER: MPFBA0420
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA:	$^{13}C_4HF_7O_2$	**MOLECULAR WEIGHT:**	218.01
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	05/13/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/13/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 05/20/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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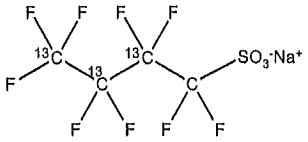
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBS **LOT NUMBER:** M3PFBS1019

COMPOUND: Sodium perfluoro-1-[2,3,4-$^{13}C_3$]butanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CF_9SO_3Na$	**MOLECULAR WEIGHT:**	325.06
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 46.6 ± 2.3 µg/ml (M3PFBS acid) 46.5 ± 2.3 µg/ml (M3PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($2,3,4\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	03/17/2020		
EXPIRY DATE: (mm/dd/yyyy)	03/17/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains < 0.1% of perfluoro-1-butanesulfonate.

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Certified By: _____ **Date:** 03/18/2020 (mm/dd/yyyy)
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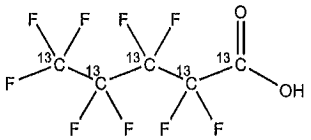
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M5PFPeA
LOT NUMBER: M5PFPeA0120
COMPOUND: Perfluoro-n-[$^{13}C_5$]pentanoic acid
STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_5HF_9O_2$
MOLECULAR WEIGHT: 269.01
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($^{13}C_5$)
LAST TESTED: (mm/dd/yyyy) 01/22/2020
EXPIRY DATE: (mm/dd/yyyy) 01/22/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
GSZ 2020/08/20
FZ 11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.25% of perfluoro-n-pentanoic acid.

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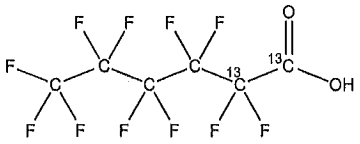
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFHxA
LOT NUMBER: MPFHxA0320
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_4HF_{11}O_2$
MOLECULAR WEIGHT: 316.04
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 04/03/2020
EXPIRY DATE: (mm/dd/yyyy) 04/03/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 04/03/2020 (mm/dd/yyyy)
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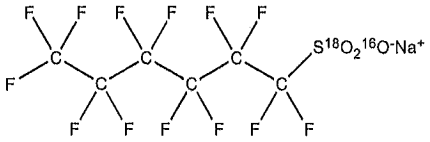
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxS
LOT NUMBER: MPFHxS0120
COMPOUND: Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate

STRUCTURE:



CAS #: 1585941-14-5

MOLECULAR FORMULA:	$C_6F_{13}S^{18}O_2{}^{16}ONa$	**MOLECULAR WEIGHT:**	426.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.4 ± 2.4 µg/ml (MPFHxS acid) 47.3 ± 2.4 µg/ml (MPFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	>94% ($^{18}O_2$)
LAST TESTED: (mm/dd/yyyy)	01/22/2020		
EXPIRY DATE: (mm/dd/yyyy)	01/22/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampoule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS ($C_6F_{13}S^{18}O_2{}^{16}O^-$) has been observed to be up to 10% lower than for PFHxS ($C_6F_{13}S^{16}O_3^-$) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 0.6% of sodium perfluoro-1-octane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFOS) and ~ 0.3% of sodium perfluoro-1-heptane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFHpS).
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

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Certified By: _____ **Date:** 02/05/2020 (mm/dd/yyyy)
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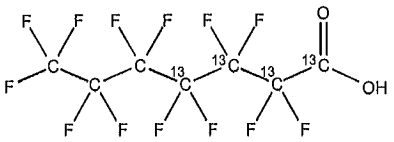
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M4PFHpA
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid

LOT NUMBER: M4PFHpA0120

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_4{}^{12}C_3HF_{13}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 368.03
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 01/08/2020
EXPIRY DATE: (mm/dd/yyyy) 01/08/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C ($1,2,3,4\text{-}^{13}C_4$)

1 ampoule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.03% of perfluoro-n-heptanoic acid.

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Certified By: B.G. Chittim, General Manager **Date:** 01/24/2020 (mm/dd/yyyy)

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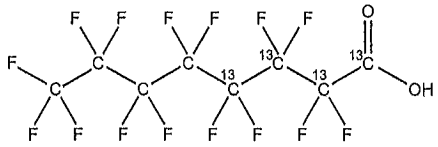
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOA
LOT NUMBER: MPFOA0420
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]octanoic acid

STRUCTURE:
CAS #: 960315-48-4



MOLECULAR FORMULA: $^{13}C_4{}^{12}C_4HF_{16}O_2$
MOLECULAR WEIGHT: 418.04
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy) 05/08/2020
EXPIRY DATE: (mm/dd/yyyy) 05/08/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of native perfluoro-n-octanoic acid (PFOA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/15/2020 (mm/dd/yyyy)
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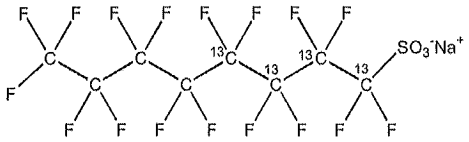
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS0420

COMPOUND: Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate

STRUCTURE: **CAS #:** 960315-53-1



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	526.08
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.9 ± 2.4 µg/ml (MPFOS acid) 47.8 ± 2.4 µg/ml (MPFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4$-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	04/15/2020		
EXPIRY DATE: (mm/dd/yyyy)	04/15/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

1 ampules
652 2020/08/20
FZ11

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.3% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

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Certified By: _____ **Date:** 04/20/2020 (mm/dd/yyyy)

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WELLINGTON LABORATORIES

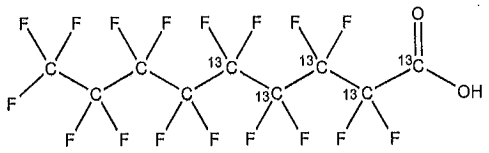
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFNA
COMPOUND: Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid

LOT NUMBER: MPFNA1119

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_5{}^{12}C_4HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 469.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/02/2019
EXPIRY DATE: (mm/dd/yyyy) 12/02/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99%^{13}C (1,2,3,4,5-$^{13}C_5$)

1 ampule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-[1,2,3,4-$^{13}C_4$]octanoic acid (MPFOA).

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Certified By: _____ **Date:** 12/05/2019 (mm/dd/yyyy)
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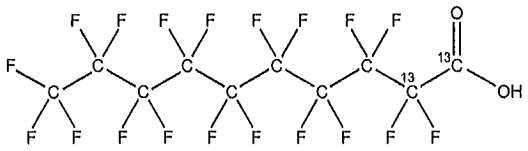
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFDA
LOT NUMBER: MPFDA0320
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_8HF_{19}O_2$
MOLECULAR WEIGHT: 516.07
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 03/24/2020
EXPIRY DATE: (mm/dd/yyyy) 03/24/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
652 2020/08/20
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 04/06/2020 (mm/dd/yyyy)
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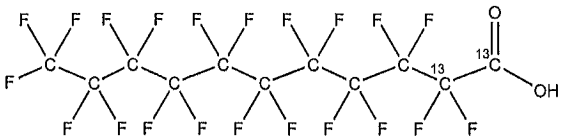
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFUdA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid

LOT NUMBER: MPFUdA1219

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_9HF_{21}O_2$	**MOLECULAR WEIGHT:**	566.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	12/04/2019		
EXPIRY DATE: (mm/dd/yyyy)	12/04/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

1 ampule
652 2020/08/20
FZ 11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of 1-$^{13}C_1$-PFUdA and 2-$^{13}C_1$-PFUdA (~0.6% total; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/06/2019 (mm/dd/yyyy)
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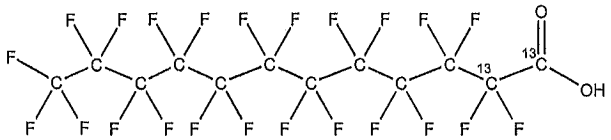
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFDoA
LOT NUMBER: MPFDoA1119
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2\,^{12}C_{10}HF_{23}O_2$
MOLECULAR WEIGHT: 616.08
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 11/22/2019
EXPIRY DATE: (mm/dd/yyyy) 11/22/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampule
652 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 11/27/2019 (mm/dd/yyyy)
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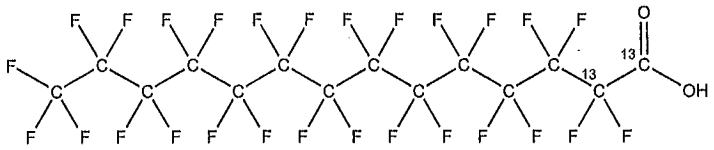
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2PFTeDA
LOT NUMBER: M2PFTeDA0620
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_{12}HF_{27}O_2$
MOLECULAR WEIGHT: 716.10
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 07/09/2020
EXPIRY DATE: (mm/dd/yyyy) 07/09/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

1 ampoule
GSZ 2020/08/20
FZ11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-tetradecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/13/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

WELLINGTON LABORATORIES

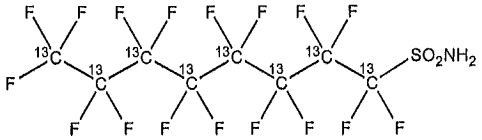
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M8FOSA-I
COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide

LOT NUMBER: M8FOSA0220I

STRUCTURE:

CAS #: 1365803-60-6



MOLECULAR FORMULA:	$^{13}C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	507.09
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	02/28/2020		
EXPIRY DATE: (mm/dd/yyyy)	02/28/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

1 ampule
652 2020/08/20
FP59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.2% of perfluoro-1-[$^{13}C_4$]octanesulfonamide and ~ 0.03% of perfluoro-1-[$^{13}C_7$]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/03/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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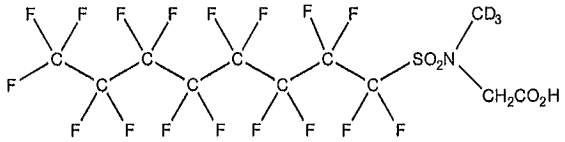
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA1119

COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 1400690-70-1



MOLECULAR FORMULA:	$C_{11}D_3H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	574.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	12/02/2019		
EXPIRY DATE: (mm/dd/yyyy)	12/02/2024		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

1 ampoule
GSA 2020/08/20
FD59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)

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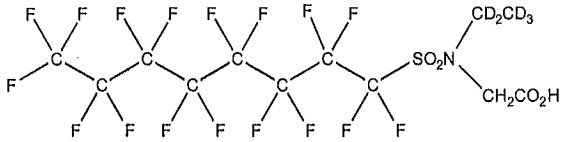
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEtFOSAA0520

COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}D_5H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	590.26
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	05/20/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/20/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

1 ampoule
652 2020/08/20
FD 59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/22/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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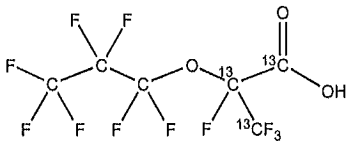
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M3HFPO-DA **LOT NUMBER:** M3HFPODA0520

COMPOUND: 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-$^{13}C_3$-propanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_3HF_{11}O_3$	**MOLECULAR WEIGHT:**	333.03
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	05/13/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/13/2023		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

1 ampule
GSZ 2020/08/20
FD59

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.9% of the linear M3HFPO-DA isomer.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/22/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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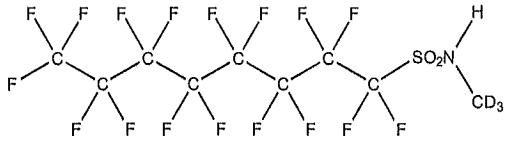
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d-N-MeFOSA-M
LOT NUMBER: dNMeFOSA0820M
COMPOUND: N-methyl-d_3-perfluoro-1-octanesulfonamide

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_9D_3HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	516.19
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	08/06/2020		
EXPIRY DATE: (mm/dd/yyyy)	08/06/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

2 ampules
652 2020/08/20
FZ 11

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 08/07/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

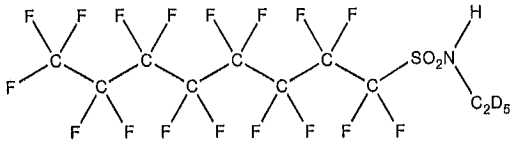
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d-N-EtFOSA-M
COMPOUND: N-ethyl-d_5-perfluoro-1-octanesulfonamide

LOT NUMBER: dNEtFOSA0520M

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_{10}D_5HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	532.23
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	05/20/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/20/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

2 ampules
652 2020/08/20
FZ 11

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/21/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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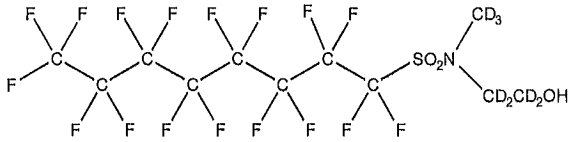
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d7-N-MeFOSE-M **LOT NUMBER:** d7NMeFOSE1119M

COMPOUND: 2-(N-methyl-d3-perfluoro-1-octanesulfonamido)ethan-d4-ol

STRUCTURE: **CAS #:** 1265205-95-5



MOLECULAR FORMULA:	$C_{11}D_7HF_{17}NO_3S$	**MOLECULAR WEIGHT:**	564.27
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_7$
LAST TESTED: (mm/dd/yyyy)	12/16/2019 (HRGC/LRMS) 12/03/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	12/16/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

2 ampules
GSZ 2020/08/20
FZ 11

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/18/2019
(mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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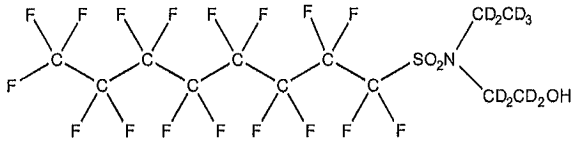
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d9-N-EtFOSE-M **LOT NUMBER:** d9NEtFOSE1119M

COMPOUND: 2-(N-ethyl-d5-perfluoro-1-octanesulfonamido)ethan-d4-ol

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}D_9HF_{17}NO_3S$	**MOLECULAR WEIGHT:**	580.31
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_9$
LAST TESTED: (mm/dd/yyyy)	12/16/2019 (HRGC/LRMS) 12/03/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	12/16/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

2 ampules
GSZ 2020/08/20
FZ 11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/18/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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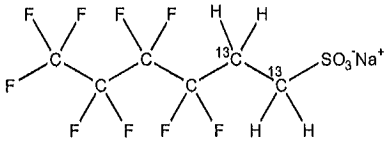
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-4:2FTS
LOT NUMBER: M242FTS0420
COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]hexane sulfonate

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_4H_4F_9SO_3Na$		**MOLECULAR WEIGHT:**	352.12
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	46.9 ± 2.3 µg/ml	(M2-4:2FTS acid)		
	46.7 ± 2.3 µg/ml	(M2-4:2FTS anion)		
CHEMICAL PURITY:	>98%		**ISOTOPIC PURITY:**	≥99% ^{13}C
LAST TESTED: (mm/dd/yyyy)	04/16/2020			(1,2-$^{13}C_2$)
EXPIRY DATE: (mm/dd/yyyy)	04/16/2025			
RECOMMENDED STORAGE:	Refrigerate ampoule			

2 ampoules
GSZ 2020/08/20
FD 59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 4:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 4:2FTS and M2-4:2FTS will produce signals in the m/z 329 to m/z 309 channel during SRM analysis. We recommend using the m/z 329 to m/z 81 transition to monitor for M2-4:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

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Certified By: _____ **Date:** 04/20/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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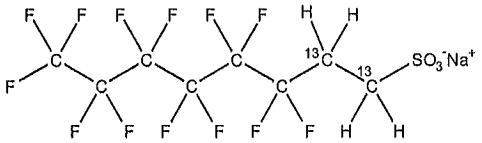
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS0520

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	452.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.6 ± 2.4 µg/ml (M2-6:2FTS acid)		
	47.5 ± 2.4 µg/ml (M2-6:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	05/20/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/20/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

2 ampoules
652 2020/08/20
FD59

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/02/2020 (mm/dd/yyyy)

B.G. Chittim, General Manager

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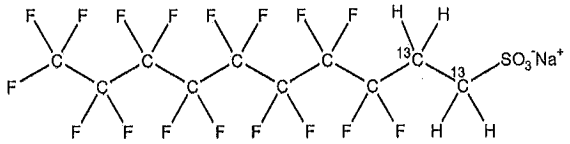
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0320

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$		**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	48.0 ± 2.4 µg/ml	(M2-8:2FTS acid)		
	47.9 ± 2.4 µg/ml	(M2-8:2FTS anion)		
CHEMICAL PURITY:	>98%		**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	03/18/2020			
EXPIRY DATE: (mm/dd/yyyy)	03/18/2025			
RECOMMENDED STORAGE:	Refrigerate ampoule			

2020/09/09
~~2020/9/10~~ /09
2 Ampules received.

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/18/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

PREPARATION OF SPIKING STANDARD SOLUTION

Solution No.: SPK-0045 Prep'n Date: 2020/9/17 Expiry Date: 2021/9/17 Discard Date: _____

Replaces Solution No.: SPK9946 Replaced by Solution: _____ Chemist: SAP

Solution Name: Comp. PFAS working Soln C Solvent(s): 0.3% NH4OH in MeOH

Solvent Supplier(s): PRIME143-110 Solvent Lot No(s): PRIME143-110

Date Opened: PRIME143-110

Volumetric Flask Used: Class A 5035 Volume: 10 mL **Spike Volume:** — uL / mL *

Syringe ID: Pipette ID 287936

Storage Location and Conditions: F2-11

For extended mix of compounds, refer to table on: —

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL mL) *	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng) *
Comp. PFAS Working Soln A	INT0009	1.0	1.0	100ng/mL	—
			2020/9/17		

Notes:

Solution No.: SPK-0046 Prep'n Date: 2020/09/17 Expiry Date: Daily Discard Date: —

Replaces Solution No.: SPK-0040 Replaced by Solution: SPK-0053 Chemist: ATN

Solution Name: Acrylamide ICV working Solvent(s): DI H2O

Solvent Supplier(s): In house Solvent Lot No(s): —

Date Opened: —

Volumetric Flask Used: Class A Volume: 5 mL **Spike Volume:** — uL / mL *

Syringe ID: ~~036588D~~ 036588D
ATN 2020/09/17

Storage Location and Conditions: —

For extended mix of compounds, refer to table on: —

Compound	Parent Solution No.	Parent Solution Conc'n. (ug/mL)	Aliquot Volume (uL mL) *	Final Conc'n. (ug/mL)	Absolute Amount Spiked (ug ng) *
Acrylamide ICV stock	STO-0003	1000	50	10	—
		ATN 2020/09/17			

Notes:

* = Specify Units

Do not write beneath any inserts or place any inserts on top of any raw data entered on this page. Initial and date all entries, corrections and inserts. Include ALL relevant tracking references on ALL inserts.

PREPARATION OF STANDARDS OF INTERMEDIARY CONCENTRATION

PRLST 141 PG. 07

Solution No.: INT-0009 Date: 2009/9/16 Expiry Date: 2011/9/16 Discard Date: _____

Replaces Solution No.: _____ Replaced by Solution: _____ Chemist: SAD

Compound(s)/Solution Name: PFAS FIRST SOURCE SPIKING SOLUTION A

Number of Parent Solution(s): See Attached Sheet

Concentration of Parent Solution(s): See Attached Sheet (mg, ug)/mL

Aliquot of Parent Solution(s): See Attached Sheet mL / uL

Pippette/Syringe ID 9287936

Dilution Solvent: 0.3% NH4OH in MeOH Dilution Volume: 20 mL

Final Concentration(s): 1.0 (mg, ug)/mL

Solution derivatized (as methyl ester): — As Other (specify): _____

Solution Contains Surrogate Compounds: — For mix refer to table on page: _____

Solution used for: PFAS Volumetric Flask: Class A Some (9286) (identify by serial number or other unique ID)

Solvent Supplier: PRURE 143-103 Lot No.: PRURE143-103

Date Opened: PRURE143-103

Storage Location: FZ-11 One time Use, Not Stored: —

Ampule Supplier: Wellington Date Opened: _____

Mix Name: —

Catalogue No.: — Ampule expiry Date: See Attachement

Lot No.: See Attached Sheet

Date Received: See Attached Sheet

Compound Name	ID#	Conc. (ug/mL)	Vol. of Stock standard (uL)	Final Conc. (ug/mL)	Exp. date
PFBA	STO0009-01	50	400	1	2024/11/15
L-PFBS	STO0009-02	44.4	450	1	2024/11/22
PFPeA	STO0009-03	50	400	1	2025/04/03
L-PFPeS	STO0009-04	47	426	1	2025/05/13
PFHxA	STO0009-05	50	400	1	2024/12/31
br-PFHxSk	STO0009-06	45.7	438	1	2024/10/23
PFHpA	STO0009-07	50	400	1	2025/07/09
L-PFHpS	STO0009-08	47.7	420	1	2025/01/21
PFOA	STO0009-09	50	400	1	2025/07/22
brPFOSK	STO0009-10	46.5	430	1	2025/01/16
PFNA	STO0009-11	50	400	1	2024/12/23
L-PFNS	STO0009-12	48.1	416	1	2024/11/14
PFDA	STO0009-13	50	400	1	2024/11/14
L-PFDS	STO0009-14	48.2	414	1	2024/11/14
PFUdA	STO0009-15	50	400	1	2024/10/30
PFDoA	STO0009-16	50	400	1	2025/05/14
PFTrDA	STO0009-17	50	400	1	2025/05/14
PFTeDA	STO0009-18	50	400	1	2024/11/14
PFOSA (FOSA-I)	STO0009-19	50	400	1	2025/04/15
N-MeFOSA-M	STO0009-20	50	400	1	2024/12/24
N-EtFOSA-M	STO0009-21	50	400	1	2025/02/21
N-MeFOSE-M	STO0009-22	50	400	1	2025/01/06
N-EtFOSE-M	STO0009-23	50	400	1	2025/01/06
br-NMeFOSAA	STO0009-24	50	400	1	2024/12/02
br-NEtFOSAA	STO0009-25	50	400	1	2024/08/20
4:2FTS	STO0009-26	46.9	426	1	2025/07/31
6:2FTS	STO0009-27	47.6	420	1	2025/04/21
8:2FTS	STO0009-28	48	416	1	2025/05/08
HFPO-DA	STO0009-29	50	400	1	2023/07/09
NaDONA	STO0009-30	47.3	422	1	2025/07/09
9Cl-PF3ONS	STO0009-31	46.7	428	1	2025/04/21
11Cl-PF3OUdS	STO0009-32	47.2	424	1	2025/03/25

SAD 2009/9/16

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INITIAL AND DATE ALL INSERTS. LOGBOOK, PAGE AND APPROPRIATE SOLUTION NUMBER REFERENCES MUST BE WRITTEN ON ALL INSERTS.

PRLST 139 PG 07

PREPARATION OF CONCENTRATED STOCK STANDARDS

Solution No.: STO-0009 Date: 2020-9-16 Expiry Date: See Below Discard Date: _____

Replaces Solution: _____ Replaced by Solution: _____ Chemist: [illegible]

Solution ID#	Compound Name	Lot#	Received date	Exp. date	Replaces Solution	Replaced by Solution	Conc. (ug/mL)	Solvent	Storage
STO0009-01	PFBA	PFBA1119	2020/09/11	2024/11/15	S4876-1		50	MeOH	FZ-11
STO0009-02	L-PFBS	LPFBS1119	2020/09/11	2024/11/22	S4876-2		44.4	MeOH	FZ-11
STO0009-03	PFPeA	PFPeA0420	2020/09/11	2025/04/03	S4876-3		50	MeOH	FZ-11
STO0009-04	L-PFPeS	LPFPeS0520	2020/09/14	2025/05/13	S4876-4		47	MeOH	FZ-11
STO0009-05	PFHxA	PFHxA1219	2020/09/11	2024/12/31	S4876-5		50	MeOH	FZ-11
STO0009-06	br-PFHxSk	brPFHxSK1019	2020/09/13	2024/10/23	S4876-6		45.7	MeOH	FZ-11
STO0009-07	PFHpA	PFHpA0620	2020/09/11	2025/07/09	S4876-7		50	MeOH	FZ-11
STO0009-08	L-PFHpS	LPFHpS0120	2020/09/13	2025/01/21	S4876-8		47.7	MeOH	FZ-11
STO0009-09	PFOA	PFOA0720	2020/09/11	2025/07/22	S4876-9		50	MeOH	FZ-11
STO0009-10	brPFOSK	brPFOSK1119	2020/09/13	2025/01/16	S4876-10		46.5	MeOH	FZ-11
STO0009-11	PFNA	PFNA1219	2020/09/11	2024/12/23	S4876-11		50	MeOH	FZ-11
STO0009-12	L-PFNS	LPFNS1119	2020/09/14	2024/11/14	S4876-12		48.1	MeOH	FZ-11
STO0009-13	PFDA	PFDA1119	2020/09/11	2024/11/14	S4876-13		50	MeOH	FZ-11
STO0009-14	L-PFDS	LPFDS1119	2020/09/13	2024/11/14	S4876-14		48.2	MeOH	FZ-11
STO0009-15	PFUdA	PFUdA1019	2020/09/11	2024/10/30	S4876-15		50	MeOH	FZ-11
STO0009-16	PFDoA	PFDoA0520	2020/09/11	2025/05/14	S4876-16		50	MeOH	FZ-11
STO0009-17	PFTrDA	PFTrDA0520	2020/09/14	2025/05/14	S4876-17		50	MeOH	FZ-11
STO0009-18	PFTeDA	PFTeDA1119	2020/09/14	2024/11/14	S4876-18		50	MeOH	FZ-11
STO0009-19	PFOSA (FOSA-I)	FOSA0420I	2020/09/13	2025/04/15	S4876-19		50	IPA	FD-59
STO0009-20	N-MeFOSA-M	NMeFOSA1219M	2020/09/13	2024/12/24	S4876-20		50	MeOH	FZ-11
STO0009-21	N-EtFOSA-M	NEtFOSA0220M	2020/09/13	2025/02/21	S4876-21		50	MeOH	FZ-11
STO0009-22	N-MeFOSE-M	NMeFOSE1219M	2020/09/13	2025/01/06	S4876-22		50	MeOH	FZ-11
STO0009-23	N-EtFOSE-M	NEtFOSE1219M	2020/09/13	2025/01/06	S4876-23		50	MeOH	FZ-11
STO0009-24	br-NMeFOSAA	br-NMeFOSAA1119	2020/09/14	2024/12/02	S4876-24		50	MeOH	FD-59
STO0009-25	br-NEtFOSAA	br-NEtFOSAA0819	2020/09/14	2024/08/20	S4876-25		50	MeOH	FD-59
STO0009-26	4:2FTS	42FTS0720	2020/09/14	2025/07/31	S4876-26		46.9	MeOH	FD-59
STO0009-27	6:2FTS	62FTS0420	2020/09/13	2025/04/21	S4876-27		47.6	MeOH	FD-59
STO0009-28	8:2FTS	82FTS0520	2020/09/13	2025/05/08	S4876-28		48	MeOH	FD-59
STO0009-29	HFPO-DA	HFPODA0720	2020/09/14	2023/07/09	S4876-29		50	MeOH	FD-59
STO0009-30	NaDONA	NaDONA0620	2020/09/14	2025/07/09	S4876-30		47.3	MeOH	FZ-11
STO0009-31	9Cl-PF3ONS	9ClPF3ONS0420	2020/09/14	2025/04/21	S4876-31		46.7	MeOH	FZ-11
STO0009-32	11Cl-PF3OUdS	11Cl-PF3OUdS0320	2020/09/14	2025/03/25	S4876-32		47.2	MeOH	FZ-11
Date Opened (All compounds):			Supplier (All compounds) : Wellington				Chemist:		

Notes/Comments

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WELLINGTON LABORATORIES

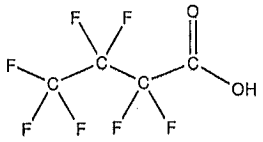
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA1119

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/15/2019
EXPIRY DATE: (mm/dd/yyyy) 11/15/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EG1

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

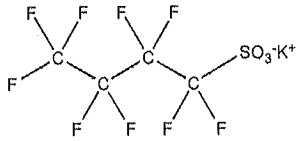
Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFBS
LOT NUMBER: LPFBS1119
COMPOUND: Potassium perfluoro-1-butanesulfonate
STRUCTURE:
CAS #: 29420-49-3



MOLECULAR FORMULA: $C_4F_9SO_3K$
MOLECULAR WEIGHT: 338.19
CONCENTRATION: 50.0 ± 2.5 µg/ml (K salt)
44.2 ± 2.2 µg/ml (PFBS anion)
SOLVENT(S): Methanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/22/2019
EXPIRY DATE: (mm/dd/yyyy) 11/22/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 Ampoules
20201091111
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of sodium perfluoro-1-nonanesulfonate (L-PFNS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/28/2019 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

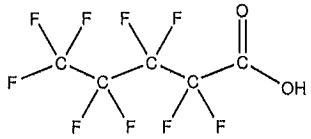
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFPeA
COMPOUND: Perfluoro-n-pentanoic acid

LOT NUMBER: PFPeA0420

STRUCTURE:

CAS #: 2706-90-3



MOLECULAR FORMULA: $C_5HF_9O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 264.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/03/2020
EXPIRY DATE: (mm/dd/yyyy) 04/03/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
EGI
HPLC

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 05/06/2020 (mm/dd/yyyy)
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WELLINGTON LABORATORIES

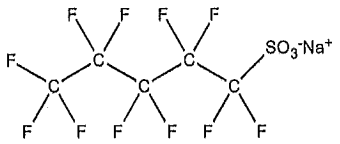
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFPeS
COMPOUND: Sodium perfluoro-1-pentanesulfonate

LOT NUMBER: LPFPeS0520

STRUCTURE:

CAS #: 630402-22-1



Received on: 20201019/14
CP3
2 x 4 ampoules
CP3
FZ 11

MOLECULAR FORMULA:	$C_5F_{11}SO_3Na$	**MOLECULAR WEIGHT:**	372.09
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.0 ± 2.3 µg/ml (PFPeS acid) 46.9 ± 2.3 µg/ml (PFPeS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/13/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/13/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.3% of sodium perfluoro-1-nonanesulfonate (L-PFNS).

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Certified By: _____ **Date:** 05/29/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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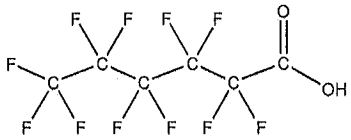
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHxA
LOT NUMBER: PFHxA1219
COMPOUND: Perfluoro-n-hexanoic acid

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA: $C_6HF_{11}O_2$
MOLECULAR WEIGHT: 314.05
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/31/2019
EXPIRY DATE: (mm/dd/yyyy) 12/31/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091 1
HPLC
EG1

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 01/13/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK1019
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	10/21/2019
LAST TESTED: (mm/dd/yyyy)	10/23/2019
EXPIRY DATE: (mm/dd/yyyy)	10/23/2024
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

KMI
2020.09.13
KMI
2020.09.13
2.4 ampoules.
FZ-11

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.3% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-1-pentanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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WELLINGTON LABORATORIES

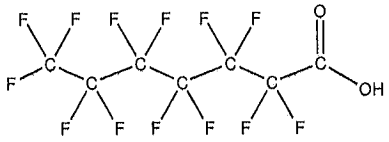
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHpA
COMPOUND: Perfluoro-n-heptanoic acid

LOT NUMBER: PFHpA0620

STRUCTURE:

CAS #: 375-85-9



MOLECULAR FORMULA: $C_7HF_{13}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 364.06
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/09/2020
EXPIRY DATE: (mm/dd/yyyy) 07/09/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/22/2020
(mm/dd/yyyy)
B.G. Chittim, General Manager

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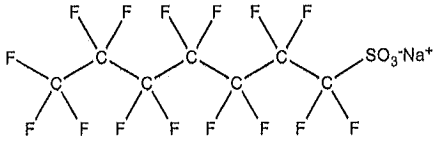
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFHpS
LOT NUMBER: LPFHpS0120
COMPOUND: Sodium perfluoro-1-heptanesulfonate

STRUCTURE:

CAS #: 21934-50-9



MOLECULAR FORMULA:	$C_7F_{15}SO_3Na$
MOLECULAR WEIGHT:	472.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.7 ± 2.4 µg/ml (PFHpS acid) 47.6 ± 2.4 µg/ml (PFHpS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	01/21/2020
EXPIRY DATE: (mm/dd/yyyy)	01/21/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

KM1
2020.09.15
KM1
2020.09.15 4 x 1 Ampoules.
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 02/05/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

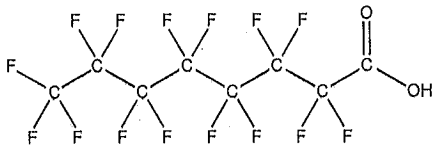
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFOA
COMPOUND: Perfluoro-n-octanoic acid

LOT NUMBER: PFOA0720

STRUCTURE:

CAS #: 335-67-1



MOLECULAR FORMULA: $C_8HF_{15}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 414.07
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/22/2020
EXPIRY DATE: (mm/dd/yyyy) 07/22/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/11/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK1119
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	46.5 ± 2.3 µg/ml (total PFOS acid)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	11/25/2019
LAST TESTED: (mm/dd/yyyy)	01/16/2020
EXPIRY DATE: (mm/dd/yyyy)	01/16/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

KM1
2020.09.13
4 - Ampoules.
FZ-11

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

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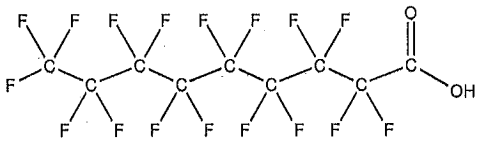
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFNA
COMPOUND: Perfluoro-n-nonanoic acid

LOT NUMBER: PFNA1219

STRUCTURE:

CAS #: 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 464.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/23/2019
EXPIRY DATE: (mm/dd/yyyy) 12/23/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x A — pack 5
20201091 11
HPLC
EGI

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-octanoic acid (PFOA), < 0.1% of perfluoro-n-heptanoic acid (PFHpA), and < 0.1% of perfluoro-n-undecanoic acid (PFUdA).

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Certified By: _____ **Date:** 01/06/2020 (mm/dd/yyyy)
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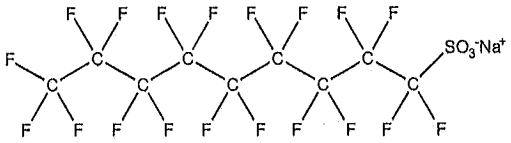
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFNS
COMPOUND: Sodium perfluoro-1-nonanesulfonate

LOT NUMBER: LPFNS1119

STRUCTURE:



CAS #: 98789-57-2

Received on: 2020-09-14
CP3
4 ampoules
FZ11

MOLECULAR FORMULA:	$C_9F_{19}SO_3Na$	**MOLECULAR WEIGHT:**	572.12
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.0 ± 2.4 µg/ml (PFNS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/14/2019		
EXPIRY DATE: (mm/dd/yyyy)	11/14/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/28/2019 (mm/dd/yyyy)
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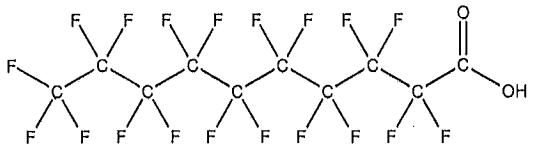
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFDA
COMPOUND: Perfluoro-n-decanoic acid

LOT NUMBER: PFDA1119

STRUCTURE:

CAS #: 335-76-2



4 x Ampoules
20201091111
HPLC
EG1

MOLECULAR FORMULA: $C_{10}HF_{19}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 514.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/14/2019
EXPIRY DATE: (mm/dd/yyyy) 11/14/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-nonanoic acid (PFNA).

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Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)
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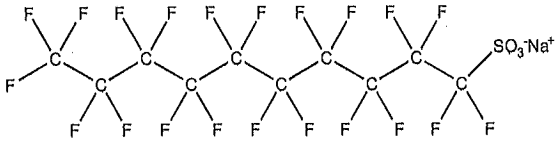
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFDS
LOT NUMBER: LPFDS1119
COMPOUND: Sodium perfluoro-1-decanesulfonate

STRUCTURE:
CAS #: 2806-15-7



MOLECULAR FORMULA:	$C_{10}F_{21}SO_3Na$
MOLECULAR WEIGHT:	622.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.2 ± 2.4 µg/ml (PFDS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	11/14/2019
EXPIRY DATE: (mm/dd/yyyy)	11/14/2024
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

KMI
2020.09.18
2. Ampoules. +2 Ampoules.
F2-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDoS).

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Certified By: _____ **Date:** 11/20/2019 (mm/dd/yyyy)
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WELLINGTON LABORATORIES

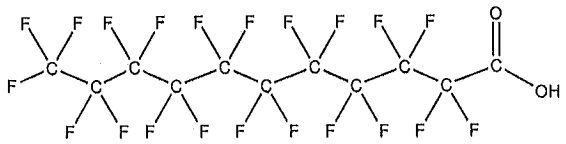
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA1019

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA: $C_{11}HF_{21}O_2$
CONCENTRATION: 50.0 ± 2.5 µg/ml

MOLECULAR WEIGHT: 564.09
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 10/30/2019
EXPIRY DATE: (mm/dd/yyyy) 10/30/2024
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
EGI
HPLC

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-dodecanoic acid (PFDoA).

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Certified By: _____ **Date:** 08/06/2020 (mm/dd/yyyy)
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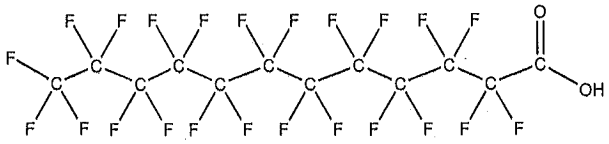
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFDoA
COMPOUND: Perfluoro-n-dodecanoic acid

LOT NUMBER: PFDoA0520

STRUCTURE:

CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$
MOLECULAR WEIGHT: 614.10
CONCENTRATION: 50.0 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/14/2020
EXPIRY DATE: (mm/dd/yyyy) 05/14/2025
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

4 x Ampoules
20201091111
HPLC
EG1

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: _____ **Date:** 05/26/2020 (mm/dd/yyyy)
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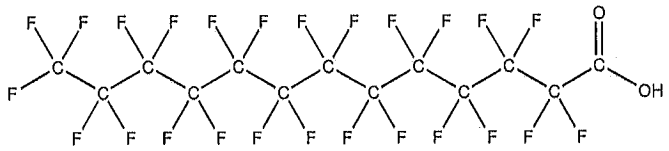
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTrDA
COMPOUND: Perfluoro-n-tridecanoic acid

LOT NUMBER: PFTrDA0520

STRUCTURE:

CAS #: 72629-94-8



Received on: 2020-09-14
CP3
4 ampoules.
F211

MOLECULAR FORMULA:	$C_{13}HF_{25}O_2$	**MOLECULAR WEIGHT:**	664.11
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/14/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/14/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUdA ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

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Certified By: _____ **Date:** 05/27/2020 (mm/dd/yyyy)
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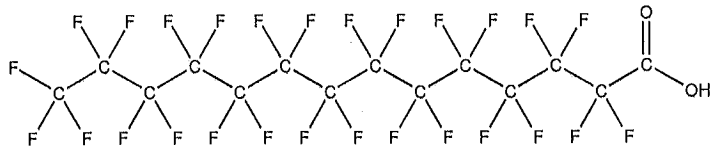
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTeDA
LOT NUMBER: PFTeDA1119
COMPOUND: Perfluoro-n-tetradecanoic acid

STRUCTURE:



CAS #: 376-06-7

Received on: 2020-09-14
CP3
4 ampoules.
F211

MOLECULAR FORMULA:	$C_{14}HF_{27}O_2$	**MOLECULAR WEIGHT:**	714.11
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/14/2019		
EXPIRY DATE: (mm/dd/yyyy)	11/14/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of PFDoA ($C_{12}HF_{23}O_2$), ~ 0.1% of PFTrDA ($C_{13}HF_{25}O_2$), and ~ 0.1% of PFHxDA ($C_{16}HF_{31}O_2$).

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Certified By: _____ **Date:** 12/04/2019 (mm/dd/yyyy)
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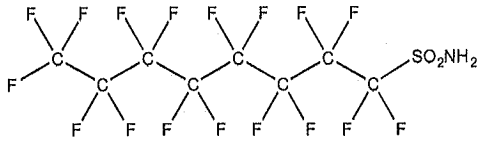
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FOSA-I
COMPOUND: Perfluoro-1-octanesulfonamide

LOT NUMBER: FOSA0420I

STRUCTURE:

CAS #: 754-91-6



MOLECULAR FORMULA:	$C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	499.14
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/15/2020		
EXPIRY DATE: (mm/dd/yyyy)	04/15/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

KMI
2020.09.15.
4. Ampoules.
FD-59.

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 04/28/2020 (mm/dd/yyyy)
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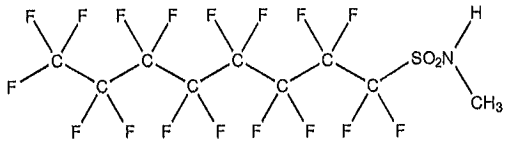
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	N-MeFOSA-M	**LOT NUMBER:**	NMeFOSA1219M
COMPOUND:	N-methylperfluoro-1-octanesulfonamide		
STRUCTURE:		**CAS #:**	31506-32-8



MOLECULAR FORMULA:	$C_9H_4F_{17}NO_2S$	**MOLECULAR WEIGHT:**	513.17
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	12/24/2019		
EXPIRY DATE: (mm/dd/yyyy)	12/24/2024		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

KMI
2020.09.15
4. Ampoules.
PZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 01/02/2020 (mm/dd/yyyy)
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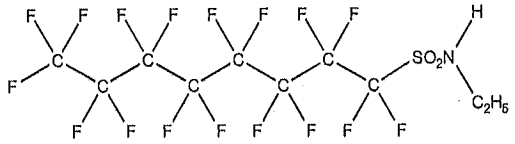
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEtFOSA0220M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA:	$C_{10}H_6F_{17}NO_2S$	**MOLECULAR WEIGHT:**	527.20
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	02/21/2020		
EXPIRY DATE: (mm/dd/yyyy)	02/21/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

KM)
2020.09.18
4 - Ampoules.
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% branched isomers of N-ethylperfluorooctanesulfonamide.

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Certified By: _____ **Date:** 02/24/2020 (mm/dd/yyyy)
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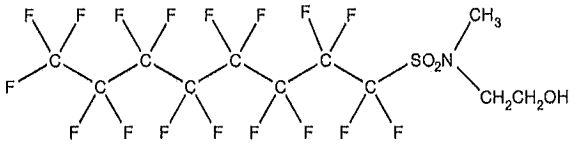
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M **LOT NUMBER:** NMeFOSE1219M

COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 24448-09-7



MOLECULAR FORMULA:	$C_{11}H_8F_{17}NO_3S$	**MOLECULAR WEIGHT:**	557.22
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	01/06/2020 (HRGC/LRMS) 12/27/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	01/06/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

KMI
2020.09.13
4- Ampoules.
FZ-11

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 01/07/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

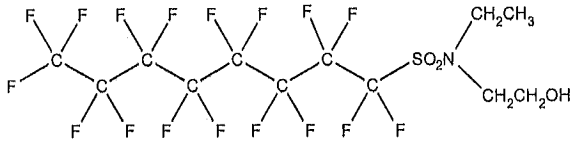
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSE-M **LOT NUMBER:** NEtFOSE1219M

COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA:	$C_{12}H_{10}F_{17}NO_3S$	**MOLECULAR WEIGHT:**	571.25
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	01/06/2020 (HRGC/LRMS) 12/27/2019 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	01/06/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

KMI
2020.09.18
4 - Ampoules.
FZ-11

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 01/07/2020 (mm/dd/yyyy)

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NMeFOSAA

N-Methylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-NMeFOSAA
LOT NUMBER:	brNMeFOSAA1119
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	11/27/2019
LAST TESTED: (mm/dd/yyyy)	12/02/2019
EXPIRY DATE: (mm/dd/yyyy)	12/02/2024
RECOMMENDED STORAGE:	Refrigerate ampoule

Received on: 2020/09/14
CP3

4 ampoules
CP3

FD59

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-methylperfluorooctanesulfonamidoacetic acid (linear and branched isomers). The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NEtFOSAA

N-Ethylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

Received on: 2020/09/14
CP3
4 ampoules.
CP3
FD59

PRODUCT CODE:	br-NEtFOSAA
LOT NUMBER:	brNEtFOSAA0819
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	08/20/2019
LAST TESTED: (mm/dd/yyyy)	08/20/2019
EXPIRY DATE: (mm/dd/yyyy)	08/20/2024
RECOMMENDED STORAGE:	Refrigerate ampoule

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-ethylperfluorooctanesulfonamidoacetic acid (linear and branched isomers). The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

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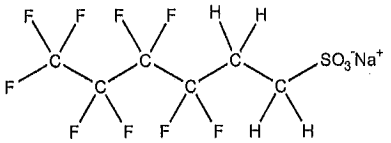
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 4:2FTS **LOT NUMBER:** 42FTS0720

COMPOUND: Sodium 1H,1H,2H,2H-perfluorohexanesulfonate

STRUCTURE:



CAS #: 27619-93-8

Received on: 20201091'4
CP3
~~2~~ 4 ampoules.
CP3
FD 59

MOLECULAR FORMULA:	$C_6H_4F_9SO_3Na$		**MOLECULAR WEIGHT:**	350.13
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	46.9 ± 2.3 µg/ml	(4:2FTS acid)		
	46.7 ± 2.3 µg/ml	(4:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	07/31/2020			
EXPIRY DATE: (mm/dd/yyyy)	07/31/2025			
RECOMMENDED STORAGE:	Refrigerate ampoule			

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 08/17/2020 (mm/dd/yyyy)
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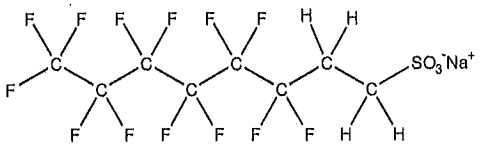
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0420

COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctanesulfonate

STRUCTURE: **CAS #:** 27619-94-9



MOLECULAR FORMULA:	$C_8H_4F_{13}SO_3Na$		**MOLECULAR WEIGHT:**	450.15
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	47.6 ± 2.4 µg/ml	(6:2FTS acid)		
	47.4 ± 2.4 µg/ml	(6:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	04/21/2020			
EXPIRY DATE: (mm/dd/yyyy)	04/21/2025			
RECOMMENDED STORAGE:	Refrigerate ampoule			

KM1
2020.09.13
2. Ampoules.
FD-59

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 08/25/2020 (mm/dd/yyyy)

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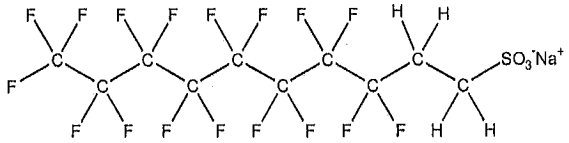
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 8:2FTS **LOT NUMBER:** 82FTS0520

COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecanesulfonate

STRUCTURE: **CAS #:** 27619-96-1



MOLECULAR FORMULA:	$C_{10}H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	550.16
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml (8:2FTS anion)		
	48.0 ± 2.4 µg/ml (8:2FTS acid)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/08/2020		
EXPIRY DATE: (mm/dd/yyyy)	05/08/2025		
RECOMMENDED STORAGE:	Refrigerate ampoule		

KMI
2020.09.13
KMI 4 Ampoules.
2020.09.13
FD-59.

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 08/25/2020 (mm/dd/yyyy)
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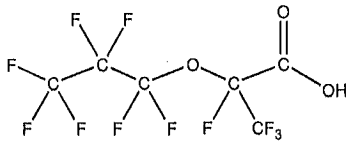
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: HFPO-DA **LOT NUMBER:** HFPODA0720

COMPOUND: 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid

STRUCTURE:



CAS #: 13252-13-6

Received on: 2020-09-14
CP3
FD 59
4 ampoules

MOLECULAR FORMULA:	$C_6HF_{11}O_3$	**MOLECULAR WEIGHT:**	330.05
CONCENTRATION:	50.0 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/09/2020		
EXPIRY DATE: (mm/dd/yyyy)	07/09/2023		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/16/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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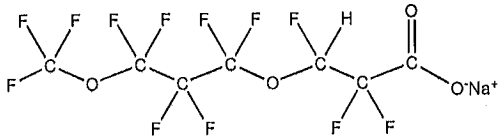
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: NaDONA
LOT NUMBER: NaDONA0620
COMPOUND: Sodium dodecafluoro-3H-4,8-dioxanonanoate

STRUCTURE:



CAS #: 958445-44-8
(ammonium salt)

Recieved on: 2020-09-14
ATN

4 ampoules
FZ-11

MOLECULAR FORMULA:	$C_7HF_{12}O_4Na$
MOLECULAR WEIGHT:	400.05
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na Salt) 47.2 ± 2.4 µg/ml (NaDONA acid) 47.1 ± 2.4 µg/ml (NaDONA anion)
SOLVENT(S):	Methanol Water (<1%)
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	07/09/2020
EXPIRY DATE: (mm/dd/yyyy)	07/09/2025
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Product is commercially known as ADONA.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/16/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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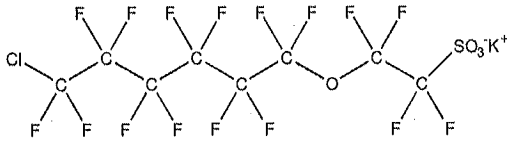
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 9Cl-PF3ONS **LOT NUMBER:** 9ClPF3ONS0420

COMPOUND: Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate

STRUCTURE: **CAS #:** 73606-19-6



Received on: 20201091114
CP3
4 ampoules.
CP3 FZ11

MOLECULAR FORMULA:	$C_8F_{16}ClSO_4K$	**MOLECULAR WEIGHT:**	570.67
CONCENTRATION:	50.0 ± 2.5 µg/ml (K Salt)	**SOLVENT(S):**	Methanol
	46.7 ± 2.3 µg/ml (9Cl-PF3ONS acid)		
	46.6 ± 2.3 µg/ml (9Cl-PF3ONS anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/21/2020		
EXPIRY DATE: (mm/dd/yyyy)	04/21/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- This compound is the major component of the commercial formulation known as F-53B.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/24/2020 (mm/dd/yyyy)

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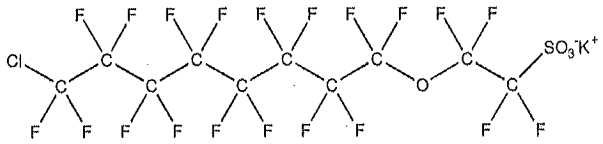
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 11Cl-PF3OUdS **LOT NUMBER:** 11ClPF3OUdS0320

COMPOUND: Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate

STRUCTURE: **CAS #:** 83329-89-9



Received on: 2020-09-14 CP3
4 ampoules.
FZ11

MOLECULAR FORMULA:	$C_{10}F_{20}ClSO_4K$	**MOLECULAR WEIGHT:**	670.69
CONCENTRATION:	50.0 ± 2.5 µg/ml (K Salt)	**SOLVENT(S):**	Methanol
	47.2 ± 2.4 µg/ml (11Cl-PF3OUdS acid)		
	47.1 ± 2.4 µg/ml (11Cl-PF3OUdS anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	03/25/2020		
EXPIRY DATE: (mm/dd/yyyy)	03/25/2025		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- This compound is a minor component of the commercial formulation known as F-53B.

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Certified By: _____ **Date:** 04/15/2020 (mm/dd/yyyy)
B.G. Chittim, General Manager

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QQQ Autotune Report

Agilent Technologies

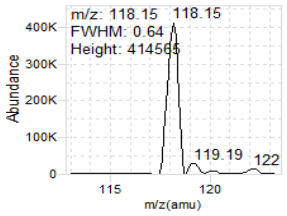
Instrument Name	LCMS04
MS Model	G6470A
MS Instrument Serial	SG1611G001
Software_Firmware Version	B.08.00.B8023.5 SP1, FW: A.00.08.24
Tune Date & Time	09:01:20 09:33:21
Data Path	D:\MassHunter\Tune\QQQ\G6470A\atunes.TUNE.XML
Ion Source	AJS ESI
Ionization Mode	AJS ESI
Tuned Resolution	All
Vacuum Pressure	1.07E+0[R]; 2.59E-5[H]

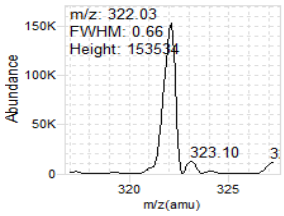
Source Parameters

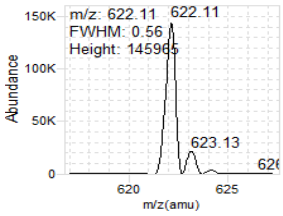
Parameter	Value
Gas Temp	300
Gas Flow	8
Nebulizer	15
Capillary	4000
Nozzle Voltage	1500
Sheath Gas Temp	250
Sheath Gas Flow	7

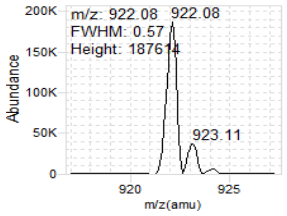
Positive Results

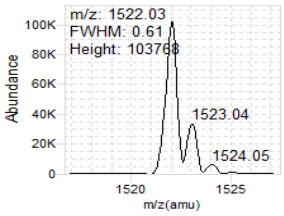
Analyzer: MS1 **Polarity: Positive** **Width: Unit**

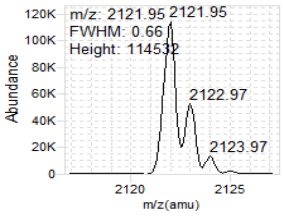


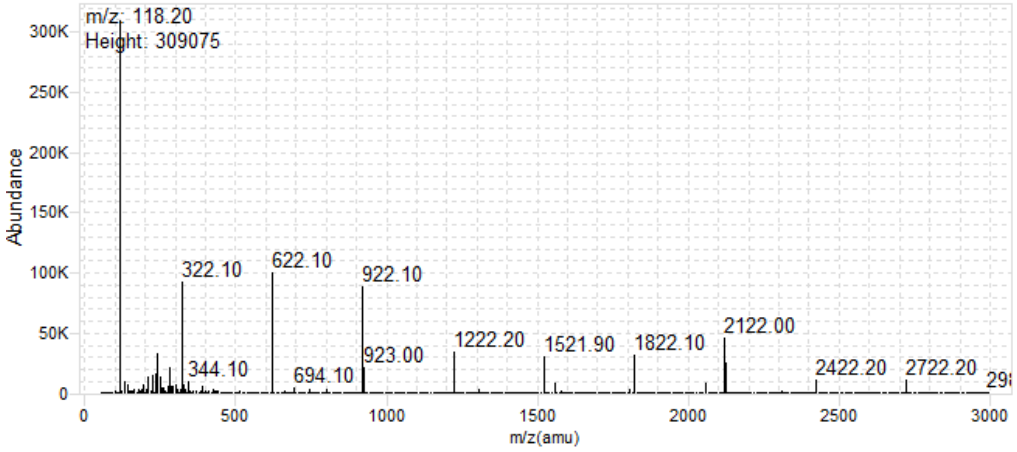






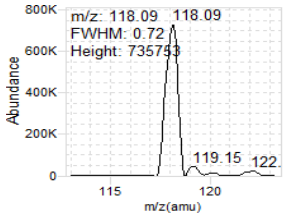


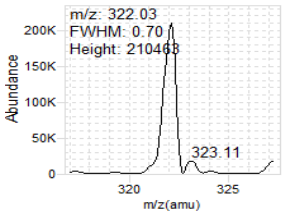


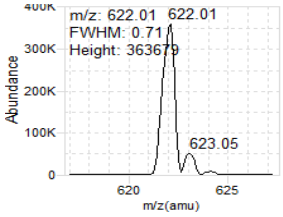


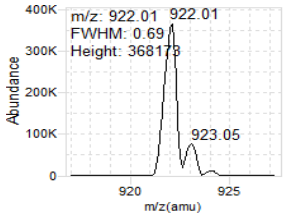
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
118.15	118.09	0.64	0.70	414565
322.03	322.05	0.66	0.70	153534
622.11	622.03	0.56	0.70	145965
922.08	922.01	0.57	0.70	187614
1522.03	1521.97	0.61	0.70	103768
2121.96	2121.93	0.66	0.70	114532

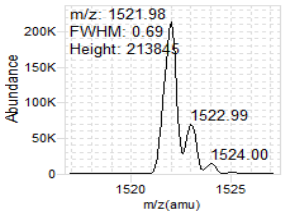
Analyzer: MS2 **Polarity: Positive** **Width: Unit**

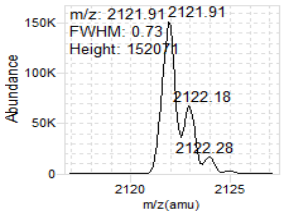


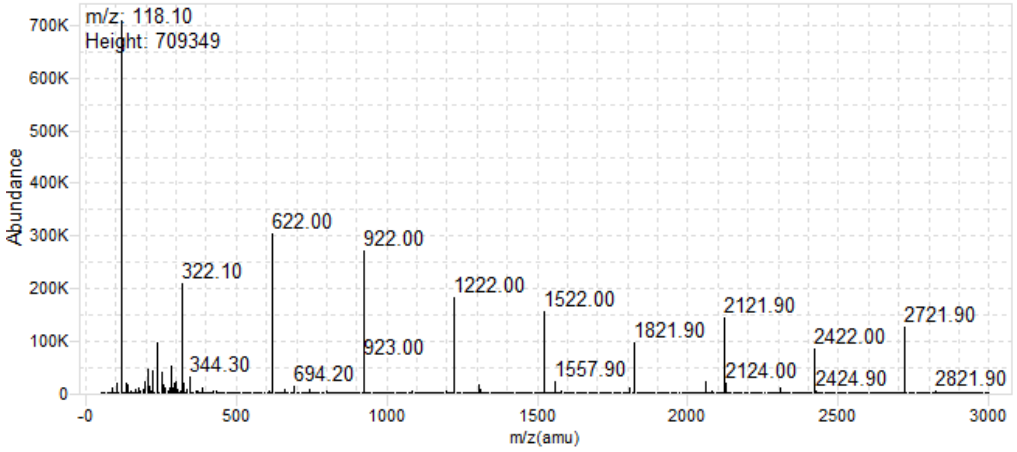






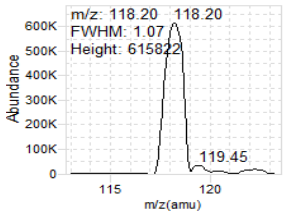


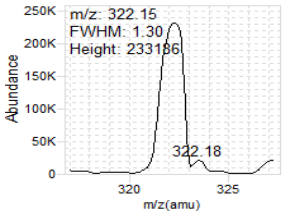


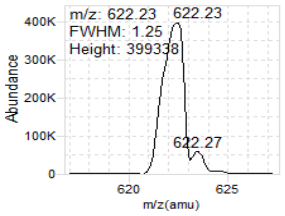


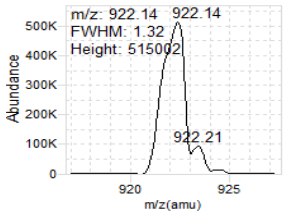
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
58.15	58.07	0.65	0.70	175278
118.09	118.09	0.72	0.70	735753
322.03	322.05	0.70	0.70	210463
622.01	622.03	0.71	0.70	363679
922.01	922.01	0.69	0.70	368173
1521.97	1521.97	0.69	0.70	213845
2121.91	2121.93	0.73	0.70	152071

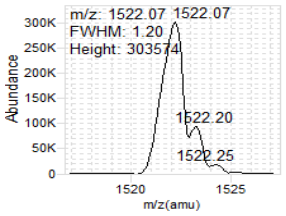
Analyzer: MS1 **Polarity: Positive** **Width: Wide**

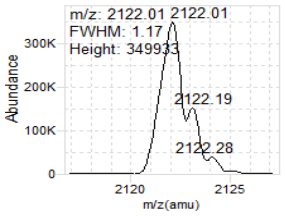






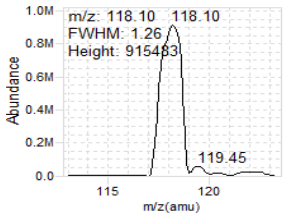


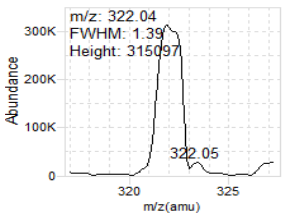


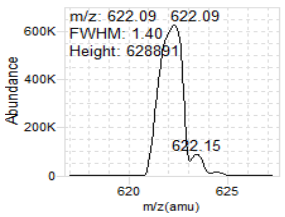


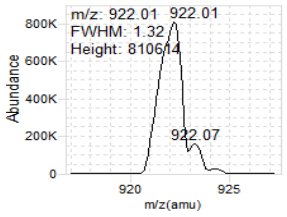
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
118.20	118.09	1.07	1.20	615822
322.15	322.05	1.30	1.20	233186
622.22	622.03	1.25	1.20	399338
922.14	922.01	1.32	1.20	515002
1522.06	1521.97	1.20	1.20	303574
2122.02	2121.93	1.17	1.20	349933

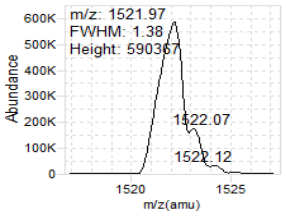
Analyzer: MS2 **Polarity: Positive** **Width: Wide**

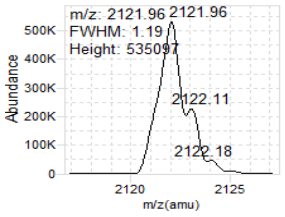






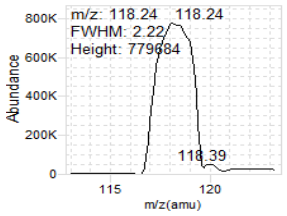


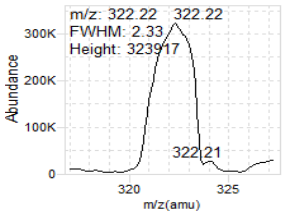


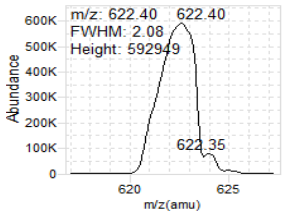


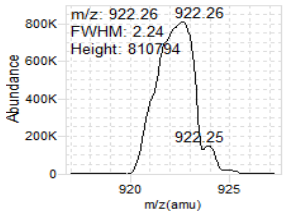
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
58.15	58.07	1.15	1.20	219636
118.10	118.09	1.26	1.20	915483
322.04	322.05	1.39	1.20	315097
622.09	622.03	1.40	1.20	628891
922.01	922.01	1.32	1.20	810614
1521.97	1521.97	1.38	1.20	590367
2121.97	2121.93	1.19	1.20	535097

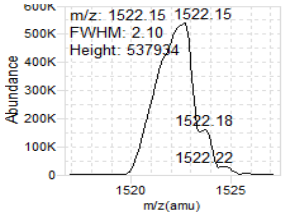
Analyzer: MS1 **Polarity: Positive** **Width: Widest**

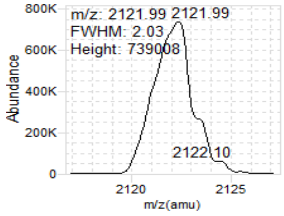






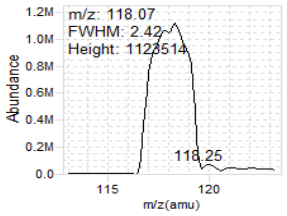


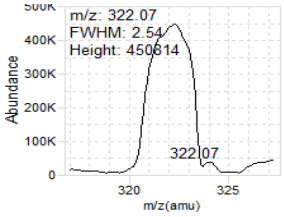


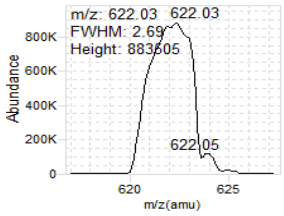


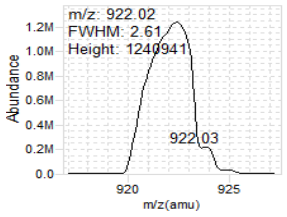
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
118.24	118.09	2.22	2.50	779684
322.22	322.05	2.33	2.50	323917
622.40	622.03	2.08	2.50	592949
922.25	922.01	2.24	2.50	810794
1522.15	1521.97	2.10	2.50	537934
2122.00	2121.93	2.03	2.50	739008

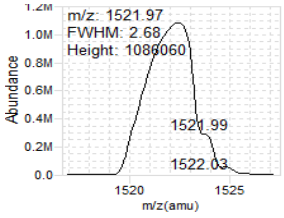
Analyzer: MS2 **Polarity: Positive** **Width: Widest**

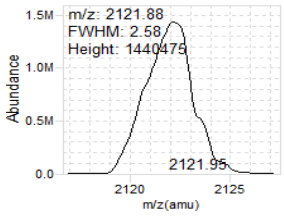












m/z	m/z Expected	FWHM	FWHM Expected	Abundance
58.19	58.07	2.28	2.50	281299
118.07	118.09	2.42	2.50	1123514
322.07	322.05	2.54	2.50	450814
622.03	622.03	2.69	2.50	883505
922.01	922.01	2.61	2.50	1240941
1521.97	1521.97	2.67	2.50	1086060
2121.88	2121.93	2.58	2.50	1440475

Positive Results

Tune Parameters

Parameters	Setting
Fragmentor	135
Skimmer	15
Octopole DC	5
Octopole RF	600
Lens 1	3.50
MS1 PreFilter	-20
MS1 DC	3.00
MS1 PostFilter	2.00
MS1 Axis Offset	0.93
MS1 Axis Gain	-18.15
MS1 Width Offset	0.13
MS1 Width Gain	7
MS1 Heater	100
MS2 DC	-10
MS2 PreFilter	-30
MS2 Axis Offset	0.92
MS2 Axis Gain	19
MS2 Width Offset	0.06
MS2 Width Gain	-28
MS2 Heater	100
Cell Entry	1
Hexapole DC	0.00
Hexapole RF	500
Hexapole Accel	5
Cell Exit	-7
Collision Gas	1
Iris	-150
HED	-10
EMV	1340
Collision Energy	0
Lens 1[MS2]	3.80
MS1 PreFilter[MS2]	2.40

Dynamic Ramp Tables

MS1 PreFilter

m/z	Setting
118.09	-13.4
322.05	-12.6
622.03	-11.6
922.01	-19.8
1521.97	-12
2121.93	-19.4

MS1 Axis Offset

m/z	Setting
118.09	0.932
322.05	1.027
622.03	1.164
922.01	1.188
1521.97	1.077
2121.93	0.932

MS1 Width Offset

m/z	Setting
118.09	0.13
322.05	-0.02
622.03	-0.18
922.01	-0.17
1521.97	-0.04
2121.93	0.13

MS2 PreFilter

m/z	Setting
79	-21.4
117.97	-30
118	-12.82353
154	-16
290	-28

MS2 Axis Offset

m/z	Setting
118.09	0.916
322.05	0.979
622.03	0.991
922.01	1.006
1521.97	0.971
2121.93	0.916

MS2 Width Offset

m/z	Setting
118.09	0.06
322.05	-0.04
622.03	-0.07
922.01	-0.06
1521.97	-0.05
2121.93	0.06

MS1 Calibrations

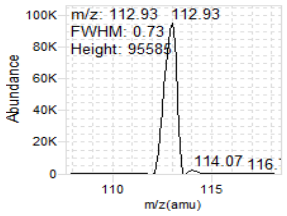
Resolution	Mass Gain	Mass Offset	Width Gain	Width Offset
Unit	-18.15	0.932	7.2	0.13
Wide	-18.3	1.128	7.6	0.52
Widest	-18.75	1.546	7.7	1.49

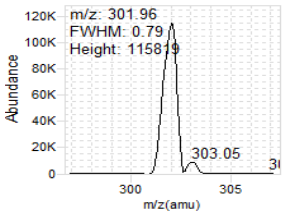
MS2 Calibrations

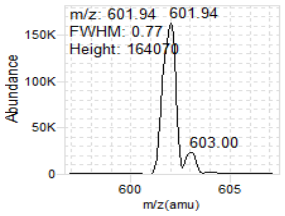
Resolution	Mass Gain	Mass Offset	Width Gain	Width Offset
Unit	19	0.916	-28	0.06
Wide	18.85	1.1	-27.5	0.48
Widest	18.5	1.494	-26.6	1.37

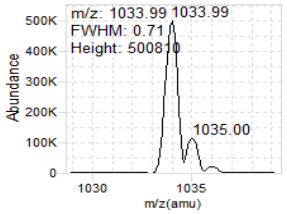
Negative Results

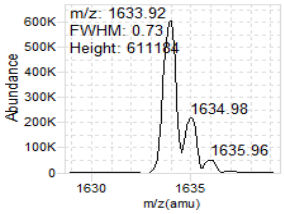
Analyzer: MS1 **Polarity: Negative** **Width: Unit**

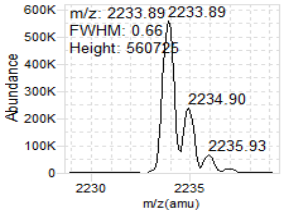


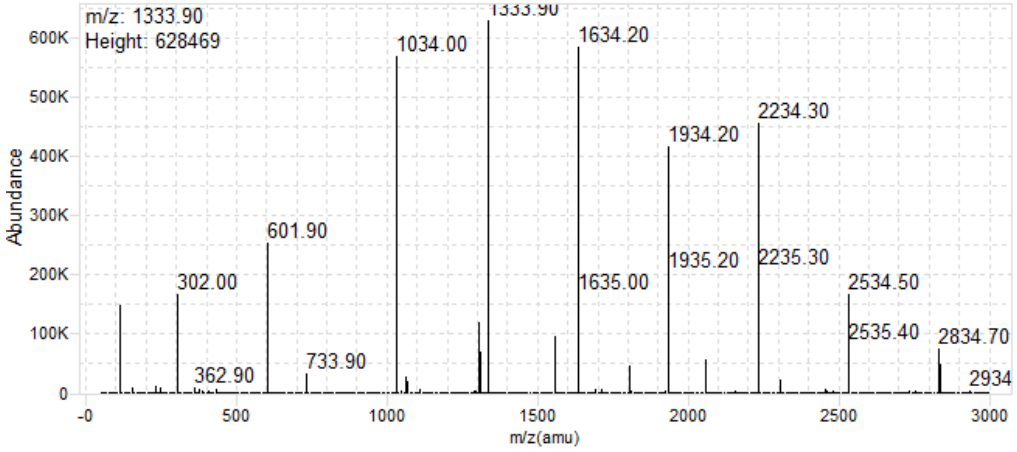






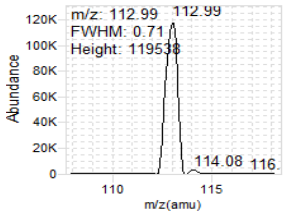


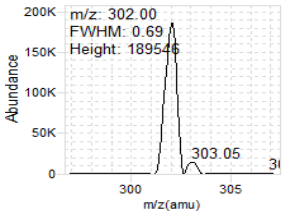


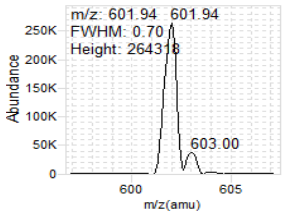


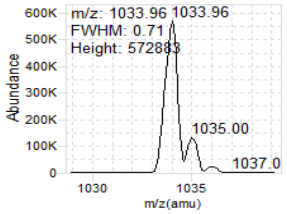
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
112.93	112.99	0.73	0.70	95585
301.96	302.00	0.79	0.70	115819
601.94	601.98	0.77	0.70	164070
1033.98	1033.99	0.71	0.70	500810
1633.92	1633.95	0.73	0.70	611184
2233.90	2233.91	0.66	0.70	560725

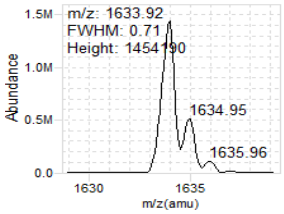
Analyzer: MS2 **Polarity: Negative** **Width: Unit**

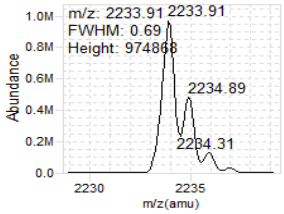


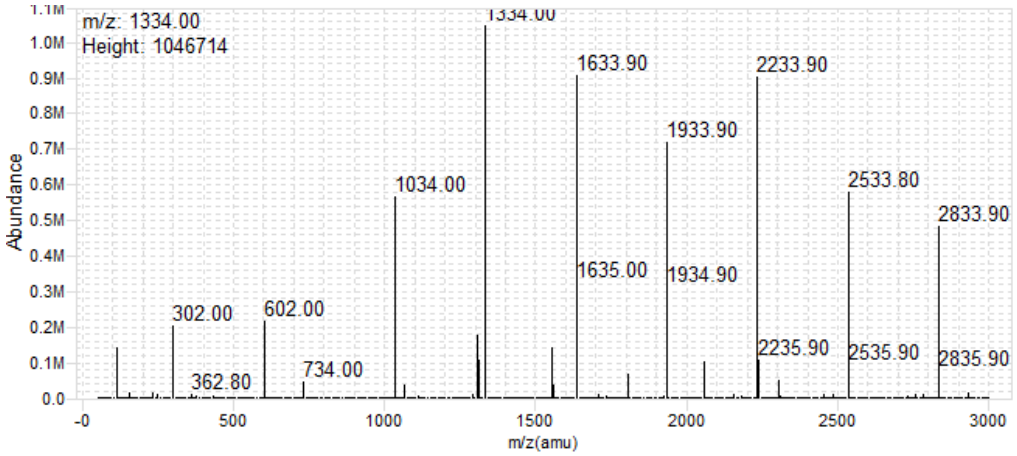






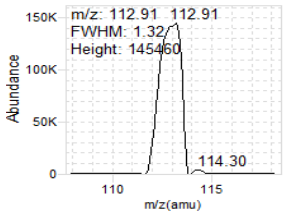


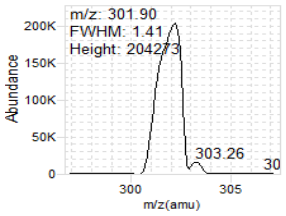


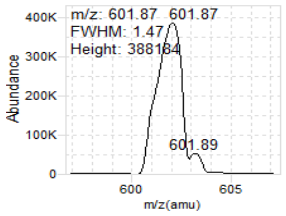


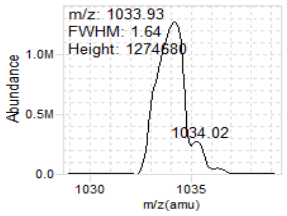
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
69.06	69.00	0.62	0.70	21787
112.99	112.99	0.71	0.70	119538
302.00	302.00	0.69	0.70	189546
601.94	601.98	0.70	0.70	264318
1033.96	1033.99	0.71	0.70	572883
1633.92	1633.95	0.71	0.70	1454190
2233.91	2233.91	0.69	0.70	974868

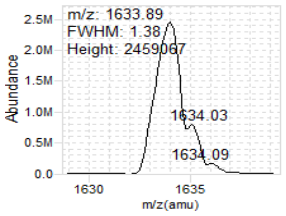
Analyzer: MS1 **Polarity: Negative** **Width: Wide**

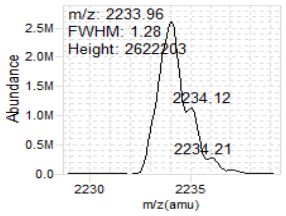






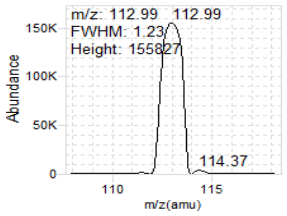


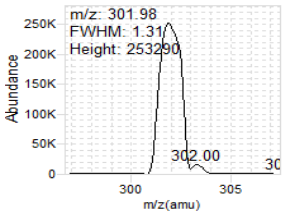


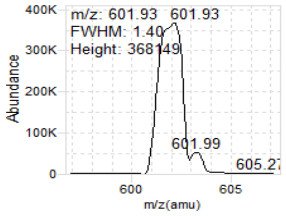


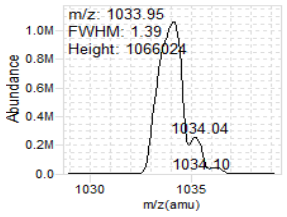
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
112.91	112.99	1.32	1.20	145460
301.90	302.00	1.41	1.20	204273
601.86	601.98	1.47	1.20	388184
1033.93	1033.99	1.64	1.20	1274680
1633.89	1633.95	1.38	1.20	2459067
2233.97	2233.91	1.28	1.20	2622203

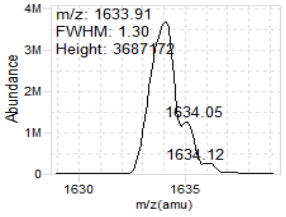
Analyzer: MS2 **Polarity: Negative** **Width: Wide**

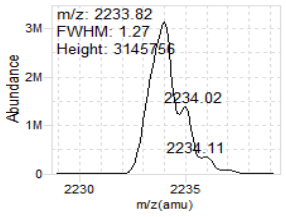






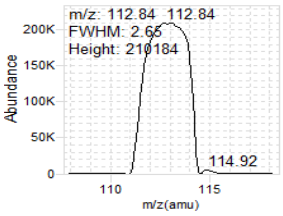


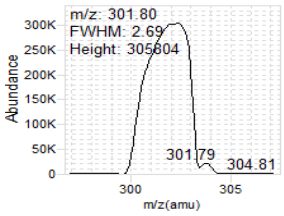


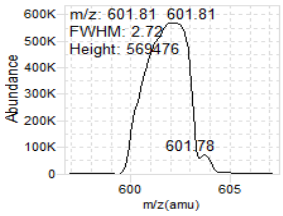


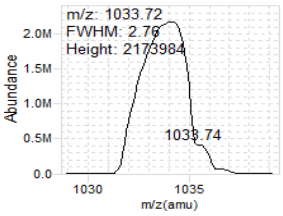
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
69.07	69.00	1.16	1.20	27720
112.99	112.99	1.23	1.20	155827
301.98	302.00	1.31	1.20	253290
601.93	601.98	1.40	1.20	368149
1033.95	1033.99	1.39	1.20	1066024
1633.91	1633.95	1.30	1.20	3687172
2233.83	2233.91	1.27	1.20	3145756

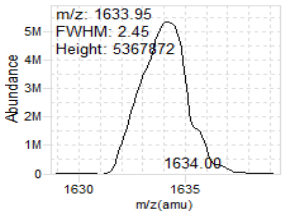
Analyzer: MS1 **Polarity: Negative** **Width: Widest**

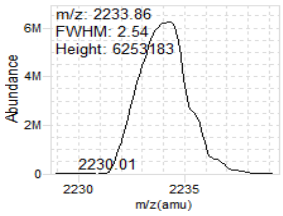






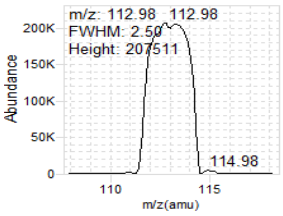


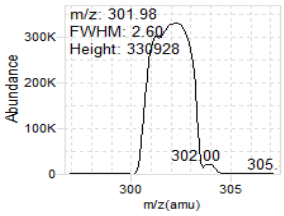


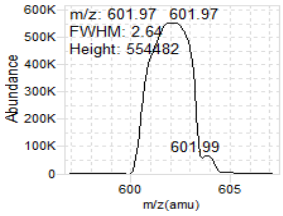


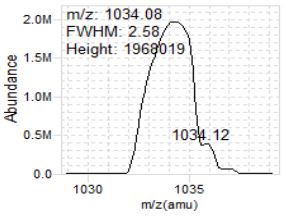
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
112.84	112.99	2.65	2.50	210184
301.80	302.00	2.69	2.50	305804
601.81	601.98	2.72	2.50	569476
1033.72	1033.99	2.76	2.50	2173984
1633.95	1633.95	2.45	2.50	5367872
2233.87	2233.91	2.54	2.50	6253183

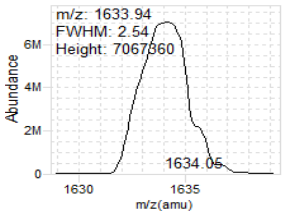
Analyzer: MS2 **Polarity: Negative** **Width: Widest**

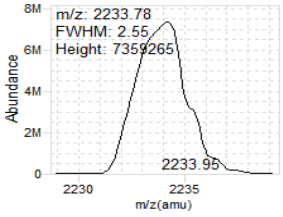












m/z	m/z Expected	FWHM	FWHM Expected	Abundance
69.05	69.00	2.41	2.50	34250
112.98	112.99	2.50	2.50	207511
301.98	302.00	2.60	2.50	330928
601.97	601.98	2.64	2.50	554482
1034.08	1033.99	2.58	2.50	1968019
1633.94	1633.95	2.54	2.50	7067360
2233.78	2233.91	2.55	2.50	7359264

Negative Results

Tune Parameters

Parameters	Setting
Fragmentor	115
Skimmer	15
Octopole DC	5
Octopole RF	600
Lens 1	-3.50
MS1 PreFilter	33
MS1 DC	-3.00
MS1 PostFilter	-2.00
MS1 Axis Offset	0.81
MS1 Axis Gain	-19
MS1 Width Offset	0.29
MS1 Width Gain	7
MS1 Heater	100
MS2 DC	10
MS2 PreFilter	30
MS2 Axis Offset	0.91
MS2 Axis Gain	19.05
MS2 Width Offset	-0.03
MS2 Width Gain	-28
MS2 Heater	100
Cell Entry	0
Hexapole DC	0.00
Hexapole RF	500
Hexapole Accel	5
Cell Exit	7.00
Collision Gas	1
Iris	150
HED	18
EMV	1320
Collision Energy	0
Lens 1[MS2]	-3.60
MS1 PreFilter[MS2]	-2.80

Dynamic Ramp Tables

MS1 PreFilter

m/z	Setting
112.99	9
302	9.6
601.98	11.6
1033.99	20.1
1633.95	27.1
2233.91	33.1

MS1 Axis Offset

m/z	Setting
112.99	0.814
302	0.998
601.98	1.098
1033.99	1.122
1633.95	0.985
2233.91	0.814

MS1 Width Offset

m/z	Setting
112.99	0.29
302	0.24
601.98	0.09
1033.99	0.05
1633.95	0.2
2233.91	0.29

MS2 PreFilter

m/z	Setting
69	16.6
112.97	30
113	10.89361
207	21.63093
232	24.4866
302	32.48248

MS2 Axis Offset

m/z	Setting
112.99	0.91
302	0.99
601.98	1
1033.99	0.993
1633.95	0.95
2233.91	0.91

MS2 Width Offset

m/z	Setting
112.99	-0.03
302	-0.07
601.98	-0.11
1033.99	-0.12
1633.95	-0.07
2233.91	-0.03

MS1 Calibrations

Resolution	Mass Gain	Mass Offset	Width Gain	Width Offset
Unit	-18.5	0.814	6.9	0.29
Wide	-18.55	0.978	7.4	0.75
Widest	-18.85	1.386	7.8	1.71

MS2 Calibrations

Resolution	Mass Gain	Mass Offset	Width Gain	Width Offset
Unit	19.05	0.91	-27.8	-0.03
Wide	18.75	1.118	-27.5	0.41
Widest	18.45	1.532	-27.1	1.38

QQQ Check Tune Report

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Instrument Name	LCMS04
MS Model	G6470A
MS Instrument Serial	SG1611G001
Software_Firmware Version	B.08.00.B8023.5 SP1, FW: A.00.08.24
Tune Date & Time	09:01:20 09:33:21
Data Path	D:\MassHunter\Tune\QQQ\G6470A\atunes.TUNE.XML
Ion Source	AJS ESI
Ionization Mode	AJS ESI
Tuned Resolution	All
Vacuum Pressure	1.07E+0[R]; 2.59E-5[H]

Source Parameters

Parameter	Value
Gas Temp	300
Gas Flow	8
Nebulizer	15
Capillary	4000
Nozzle Voltage	1500
Sheath Gas Temp	250
Sheath Gas Flow	7

Positive Results

Analyzer: MS1 Polarity: Positive Width: Unit

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
118.09	118.15	0.06	Pass	0.70	0.64	-0.06	Pass	414565
322.05	322.03	-0.02	Pass	0.70	0.66	-0.04	Pass	153534
622.03	622.11	0.08	Pass	0.70	0.56	-0.14	Pass	145965
922.01	922.08	0.07	Pass	0.70	0.57	-0.13	Pass	187614
1521.97	1522.03	0.06	Pass	0.70	0.61	-0.09	Pass	103768
2121.93	2121.96	0.03	Pass	0.70	0.66	-0.04	Pass	114532

Analyzer: MS2 Polarity: Positive Width: Unit

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
58.07	58.15	0.08	Pass	0.70	0.65	-0.05	Pass	175278
118.09	118.09	0.00	Pass	0.70	0.72	0.02	Pass	735753
322.05	322.03	-0.02	Pass	0.70	0.70	0.00	Pass	210463
622.03	622.01	-0.02	Pass	0.70	0.71	0.01	Pass	363679
922.01	922.01	0.00	Pass	0.70	0.69	-0.01	Pass	368173
1521.97	1521.97	0.00	Pass	0.70	0.69	-0.01	Pass	213845
2121.93	2121.91	-0.02	Pass	0.70	0.73	0.03	Pass	152071

Analyzer: MS1 Polarity: Positive Width: Wide

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
118.09	118.20	0.11	Pass	1.20	1.07	-0.13	Pass	615822
322.05	322.15	0.10	Pass	1.20	1.30	0.10	Pass	233186
622.03	622.22	0.19	Pass	1.20	1.25	0.05	Pass	399338
922.01	922.14	0.13	Pass	1.20	1.32	0.12	Pass	515002
1521.97	1522.06	0.09	Pass	1.20	1.20	0.00	Pass	303574
2121.93	2122.02	0.09	Pass	1.20	1.17	-0.03	Pass	349933

Analyzer: MS2 Polarity: Positive Width: Wide

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
58.07	58.15	0.08	Pass	1.20	1.15	-0.05	Pass	219636
118.09	118.10	0.01	Pass	1.20	1.26	0.06	Pass	915483
322.05	322.04	-0.01	Pass	1.20	1.39	0.19	Pass	315097
622.03	622.09	0.06	Pass	1.20	1.40	0.20	Pass	628891
922.01	922.01	0.00	Pass	1.20	1.32	0.12	Pass	810614
1521.97	1521.97	0.00	Pass	1.20	1.38	0.18	Pass	590367
2121.93	2121.97	0.04	Pass	1.20	1.19	-0.01	Pass	535097

Analyzer: MS1 Polarity: Positive Width: Widest

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
118.09	118.24	0.15	Pass	2.50	2.22	-0.28	Pass	779684
322.05	322.22	0.17	Pass	2.50	2.33	-0.17	Pass	323917
622.03	622.40	0.37	Pass	2.50	2.08	-0.42	Pass	592949
922.01	922.25	0.24	Pass	2.50	2.24	-0.26	Pass	810794
1521.97	1522.15	0.18	Pass	2.50	2.10	-0.40	Pass	537934
2121.93	2122.00	0.07	Pass	2.50	2.03	-0.47	Pass	739008

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Analyzer: MS2 Polarity: Positive Width: Widest

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
58.07	58.19	0.12	Pass	2.50	2.28	-0.22	Pass	281299
118.09	118.07	-0.02	Pass	2.50	2.42	-0.08	Pass	1123514
322.05	322.07	0.02	Pass	2.50	2.54	0.04	Pass	450814
622.03	622.03	0.00	Pass	2.50	2.69	0.19	Pass	883505
922.01	922.01	0.00	Pass	2.50	2.61	0.11	Pass	1240941
1521.97	1521.97	0.00	Pass	2.50	2.67	0.17	Pass	1086060
2121.93	2121.88	-0.05	Pass	2.50	2.58	0.08	Pass	1440475

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Negative Results

Analyzer: MS1 Polarity: Negative Width: Unit

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
112.99	112.93	-0.06	Pass	0.70	0.73	0.03	Pass	95585
302.00	301.96	-0.04	Pass	0.70	0.79	0.09	Pass	115819
601.98	601.94	-0.04	Pass	0.70	0.77	0.07	Pass	164070
1033.99	1033.98	-0.01	Pass	0.70	0.71	0.01	Pass	500810
1633.95	1633.92	-0.03	Pass	0.70	0.73	0.03	Pass	611184
2233.91	2233.90	-0.01	Pass	0.70	0.66	-0.04	Pass	560725

Analyzer: MS2 Polarity: Negative Width: Unit

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
69.00	69.06	0.06	Pass	0.70	0.62	-0.08	Pass	21787
112.99	112.99	0.00	Pass	0.70	0.71	0.01	Pass	119538
302.00	302.00	0.00	Pass	0.70	0.69	-0.01	Pass	189546
601.98	601.94	-0.04	Pass	0.70	0.70	0.00	Pass	264318
1033.99	1033.96	-0.03	Pass	0.70	0.71	0.01	Pass	572883
1633.95	1633.92	-0.03	Pass	0.70	0.71	0.01	Pass	1454190
2233.91	2233.91	0.00	Pass	0.70	0.69	-0.01	Pass	974868

Analyzer: MS1 Polarity: Negative Width: Wide

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
112.99	112.91	-0.08	Pass	1.20	1.32	0.12	Pass	145460
302.00	301.90	-0.10	Pass	1.20	1.41	0.21	Pass	204273
601.98	601.86	-0.12	Pass	1.20	1.47	0.27	Pass	388184
1033.99	1033.93	-0.06	Pass	1.20	1.64	0.44	Pass	1274680
1633.95	1633.89	-0.06	Pass	1.20	1.38	0.18	Pass	2459067
2233.91	2233.97	0.06	Pass	1.20	1.28	0.08	Pass	2622203

Analyzer: MS2 Polarity: Negative Width: Wide

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
69.00	69.07	0.07	Pass	1.20	1.16	-0.04	Pass	27720
112.99	112.99	0.00	Pass	1.20	1.23	0.03	Pass	155827
302.00	301.98	-0.02	Pass	1.20	1.31	0.11	Pass	253290
601.98	601.93	-0.05	Pass	1.20	1.40	0.20	Pass	368149
1033.99	1033.95	-0.04	Pass	1.20	1.39	0.19	Pass	1066024
1633.95	1633.91	-0.04	Pass	1.20	1.30	0.10	Pass	3687172
2233.91	2233.83	-0.08	Pass	1.20	1.27	0.07	Pass	3145756

Analyzer: MS1 Polarity: Negative Width: Widest

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
112.99	112.84	-0.15	Pass	2.50	2.65	0.15	Pass	210184
302.00	301.80	-0.20	Pass	2.50	2.69	0.19	Pass	305804
601.98	601.81	-0.17	Pass	2.50	2.72	0.22	Pass	569476
1033.99	1033.72	-0.27	Pass	2.50	2.76	0.26	Pass	2173984
1633.95	1633.95	0.00	Pass	2.50	2.45	-0.05	Pass	5367872
2233.91	2233.87	-0.04	Pass	2.50	2.54	0.04	Pass	6253183

Analyzer: MS2 Polarity: Negative Width: Widest

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
69.00	69.05	0.05	Pass	2.50	2.41	-0.09	Pass	34250
112.99	112.98	-0.01	Pass	2.50	2.50	0.00	Pass	207511
302.00	301.98	-0.02	Pass	2.50	2.60	0.10	Pass	330928
601.98	601.97	-0.01	Pass	2.50	2.64	0.14	Pass	554482
1033.99	1034.08	0.09	Pass	2.50	2.58	0.08	Pass	1968019
1633.95	1633.94	-0.01	Pass	2.50	2.54	0.04	Pass	7067360
2233.91	2233.78	-0.13	Pass	2.50	2.55	0.05	Pass	7359264

QQQ Autotune Report

Agilent | Trusted Answers

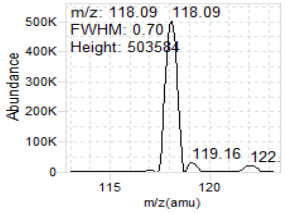
Instrument Name	LCMS05
MS Model	G6470A
MS Instrument Serial	SG1939G108
Software_Firmware Version	10.0.127, FW: A.00.08.100
Tune Date & Time	28 August 2020 09:32:16
Data Path	D:\MassHunter\Tune\QQQ\G6470A\atunes.TUNE.XML
Ion Source	AJS ESI
Ionization Mode	AJS ESI
Tuned Resolution	All
Vacuum Pressure	1.63E+0 [R] (Torr); 3.81E-5 [H] (Torr)

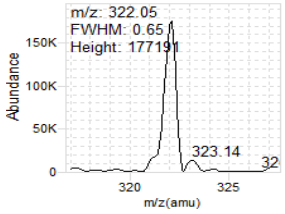
Source Parameters

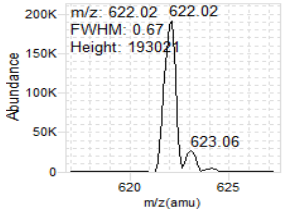
Parameter	Value
Gas Temp (°C)	300
Gas Flow (l/min)	8
Nebulizer (psi)	15
Capillary (V)	4000
Nozzle Voltage (V)	1500
Sheath Gas Temp (°C)	250
Sheath Gas Flow (l/min)	7

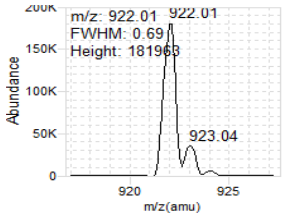
Positive Results

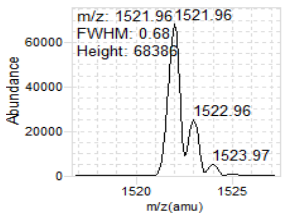
Analyzer: MS1 **Polarity: Positive** **Width: Unit**

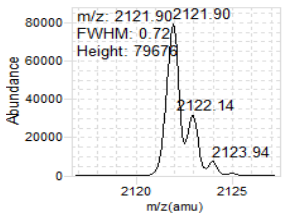


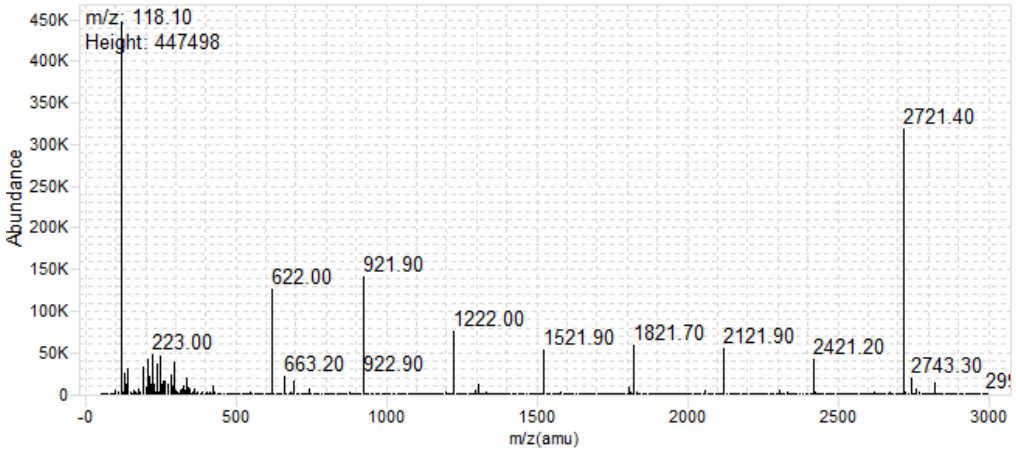






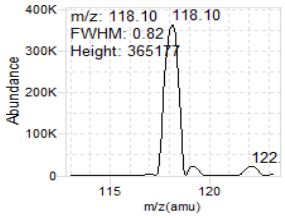


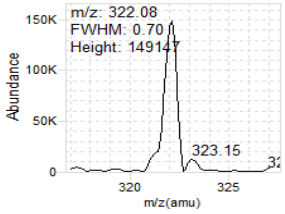


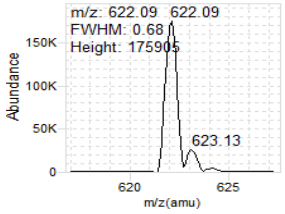


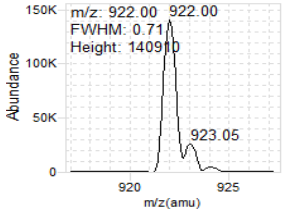
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
118.09	118.09	0.70	0.70	503584
322.05	322.05	0.65	0.70	177191
622.02	622.03	0.67	0.70	193021
922.00	922.01	0.69	0.70	181963
1521.96	1521.97	0.68	0.70	68386
2121.91	2121.93	0.73	0.70	79676

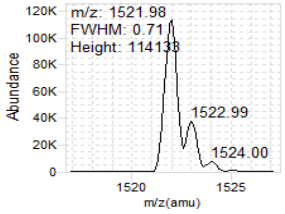
Analyzer: MS2 **Polarity: Positive** **Width: Unit**

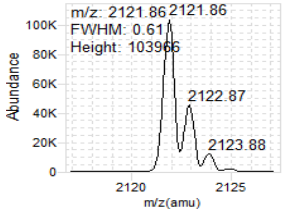


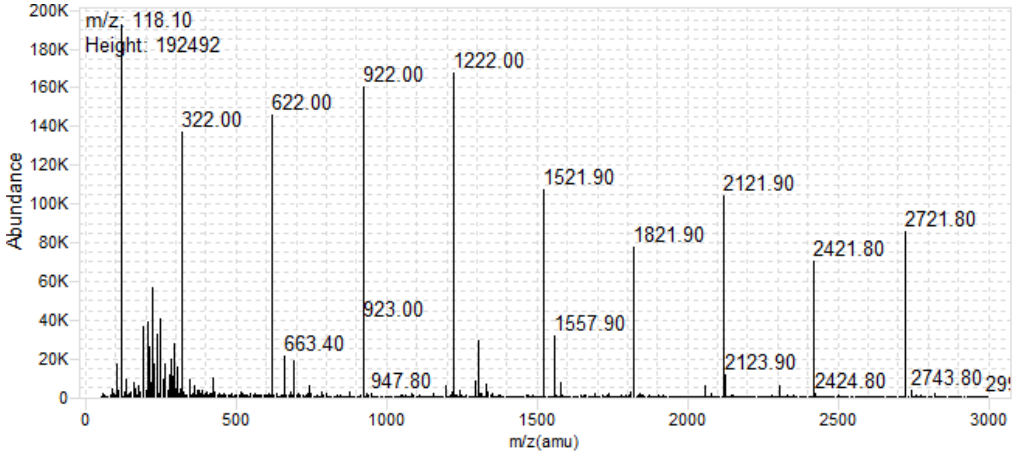






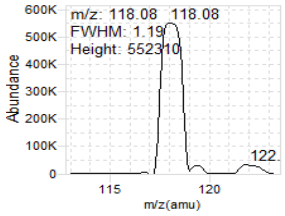


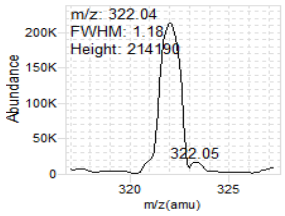


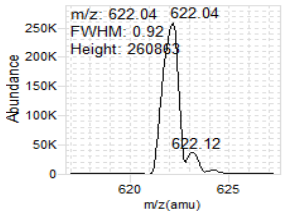


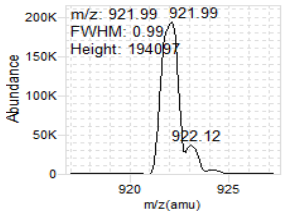
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
58.19	58.07	0.74	0.70	148150
118.10	118.09	0.82	0.70	365177
322.08	322.05	0.70	0.70	149147
622.08	622.03	0.68	0.70	175905
922.00	922.01	0.71	0.70	140910
1521.98	1521.97	0.71	0.70	114133
2121.87	2121.93	0.61	0.70	103966

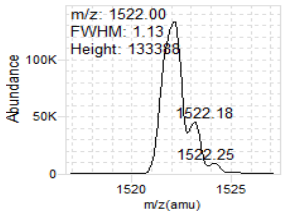
Analyzer: MS1 **Polarity: Positive** **Width: Wide**

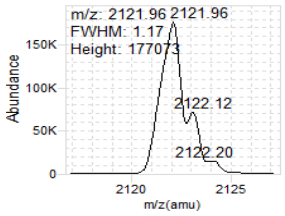






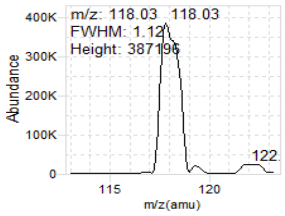


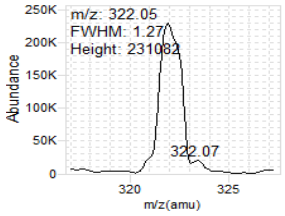


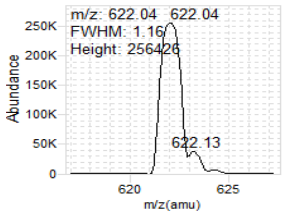


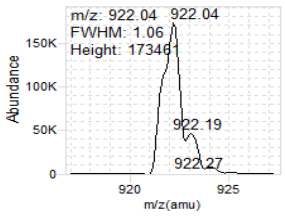
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
118.08	118.09	1.19	1.20	552310
322.04	322.05	1.18	1.20	214190
622.04	622.03	0.92	1.20	260863
921.99	922.01	0.99	1.20	194097
1522.00	1521.97	1.13	1.20	133388
2121.96	2121.93	1.17	1.20	177073

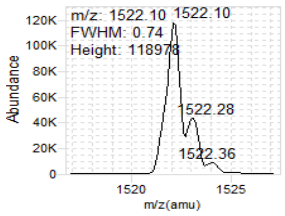
Analyzer: MS2 **Polarity: Positive** **Width: Wide**

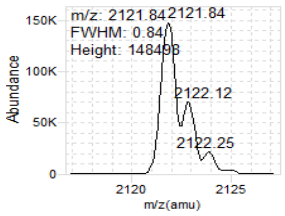






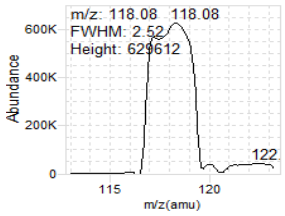


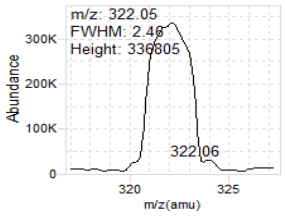


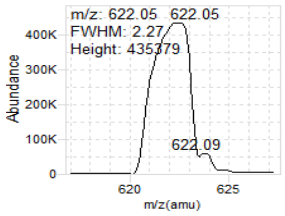


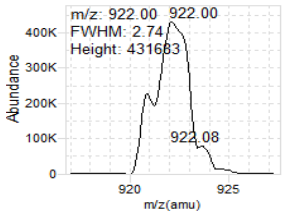
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
58.13	58.07	1.06	1.20	159359
118.03	118.09	1.12	1.20	387196
322.05	322.05	1.27	1.20	231082
622.04	622.03	1.16	1.20	256426
922.04	922.01	1.06	1.20	173461
1522.10	1521.97	0.74	1.20	118978
2121.84	2121.93	0.84	1.20	148498

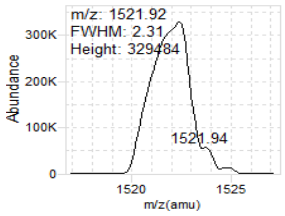
Analyzer: MS1 **Polarity: Positive** **Width: Widest**

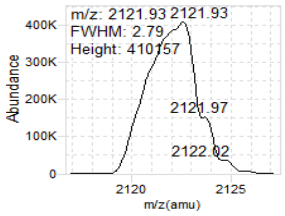






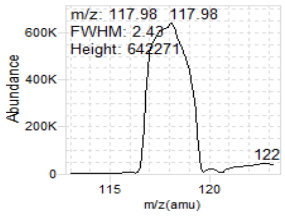


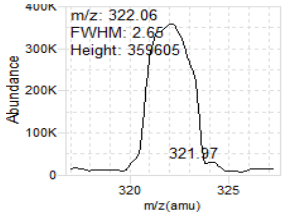


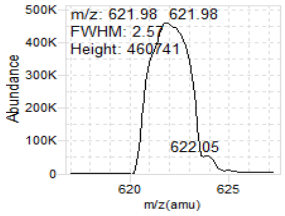


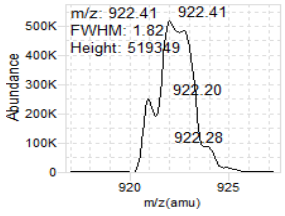
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
118.08	118.09	2.52	2.50	629612
322.05	322.05	2.46	2.50	336805
622.05	622.03	2.27	2.50	435379
921.99	922.01	2.74	2.50	431683
1521.92	1521.97	2.31	2.50	329484
2121.94	2121.93	2.79	2.50	410157

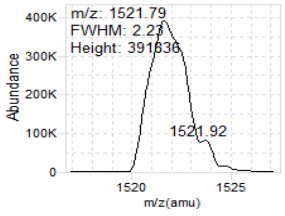
Analyzer: MS2 **Polarity: Positive** **Width: Widest**

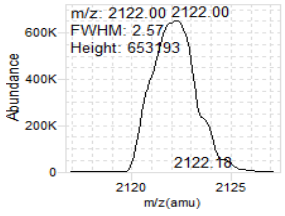












m/z	m/z Expected	FWHM	FWHM Expected	Abundance
58.14	58.07	2.47	2.50	236646
117.98	118.09	2.43	2.50	642271
322.06	322.05	2.65	2.50	359605
621.98	622.03	2.57	2.50	460741
922.41	922.01	1.82	2.50	519349
1521.79	1521.97	2.23	2.50	391836
2122.00	2121.93	2.57	2.50	653193

Positive Results

Tune Parameters

Parameters	Setting
Fragmentor	135
Skimmer	15
Octopole DC	5
Octopole RF	600
Lens 1	3.50
MS1 PreFilter	-30
MS1 DC	3.00
MS1 PostFilter	2.00
MS1 Axis Offset	1.10
MS1 Axis Gain	32.35
MS1 Width Offset	-0.06
MS1 Width Gain	-17
MS1 Heater	100
MS2 DC	-10
MS2 PreFilter	-30
MS2 Axis Offset	1.13
MS2 Axis Gain	10.15
MS2 Width Offset	-0.05
MS2 Width Gain	-16
MS2 Heater	100
Cell Entry	1
Hexapole DC	0.00
Hexapole RF	500
Hexapole Accel	5
Cell Exit	-7
Collision Gas	1
Iris	-150
HED	-10
EMV	1390
Collision Energy	0
Lens 1[MS2]	1.70
MS1 PreFilter[MS2]	2.20

Dynamic Ramp Tables

MS1 PreFilter

m/z	Setting
118.09	-12.4
322.05	-8.4
622.03	-11
922.01	-34.8
1521.97	-28.8
2121.93	-15.4

MS1 Axis Offset

m/z	Setting
118.09	1.098
322.05	1.044
622.03	0.915
922.01	0.895
1521.97	1.023
2121.93	1.098

MS1 Width Offset

m/z	Setting
118.09	-0.06
322.05	-0.08
622.03	0.09
922.01	0.12
1521.97	0.01
2121.93	-0.06

MS2 PreFilter

m/z	Setting
58	-16
79	-22
117.97	-30
118	-15
154	-16.4
290	-34.8

MS2 Axis Offset

m/z	Setting
118.09	1.134
322.05	1.217
622.03	1.224
922.01	1.118
1521.97	1.117
2121.93	1.134

MS2 Width Offset

m/z	Setting
118.09	-0.05
322.05	-0.24
622.03	-0.15
922.01	0.01
1521.97	0.13
2121.93	-0.05

MS1 Calibrations

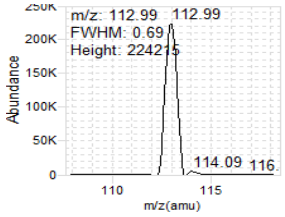
Resolution	Mass Gain	Mass Offset	Width Gain	Width Offset
Unit	32.35	1.098	-16.9	-0.06
Wide	32.25	1.252	-16.6	0.29
Widest	32.15	1.662	-15.7	1.26

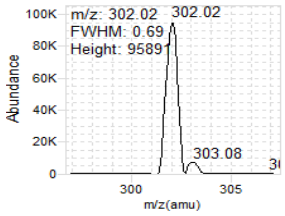
MS2 Calibrations

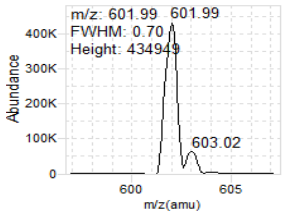
Resolution	Mass Gain	Mass Offset	Width Gain	Width Offset
Unit	10.15	1.134	-16.2	-0.05
Wide	10.05	1.228	-16.1	0.23
Widest	10.2	1.696	-15.4	1.33

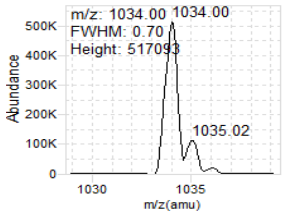
Negative Results

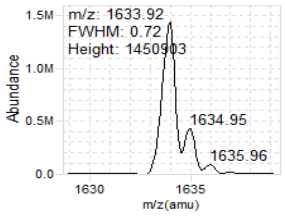
Analyzer: MS1 **Polarity: Negative** **Width: Unit**

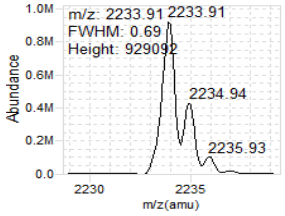


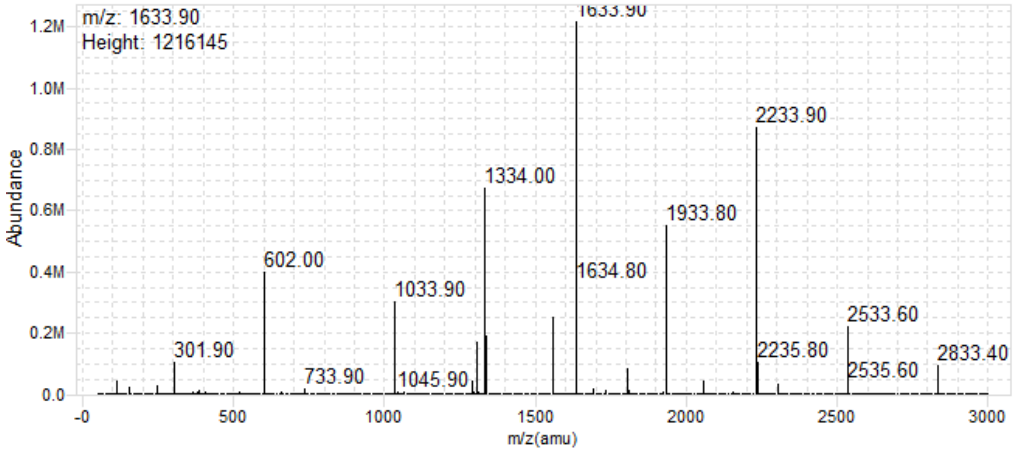






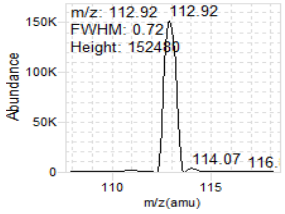


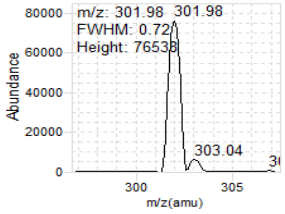


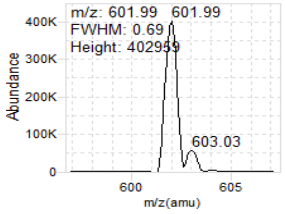


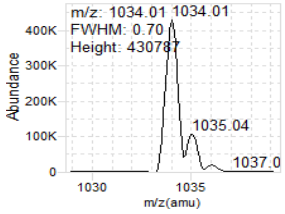
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
112.99	112.99	0.69	0.70	224215
302.02	302.00	0.69	0.70	95891
601.98	601.98	0.70	0.70	434949
1034.00	1033.99	0.70	0.70	517093
1633.92	1633.95	0.72	0.70	1450903
2233.92	2233.91	0.69	0.70	929092

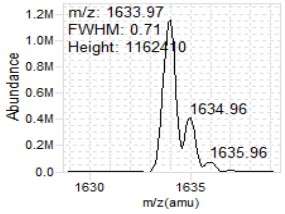
Analyzer: MS2 **Polarity: Negative** **Width: Unit**

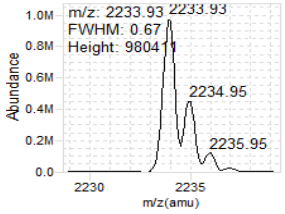


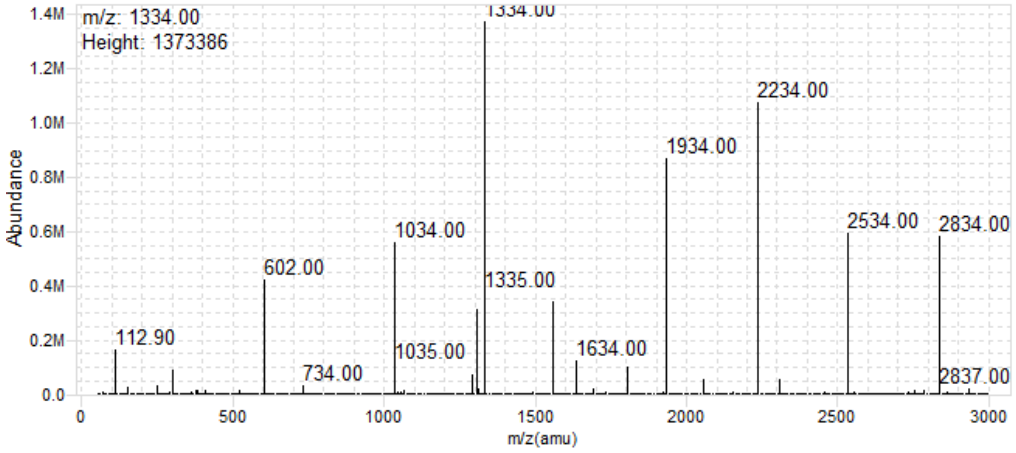






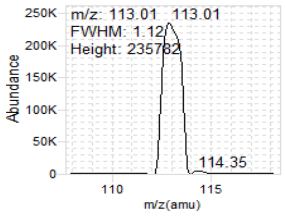


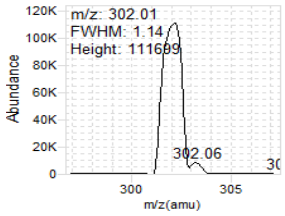


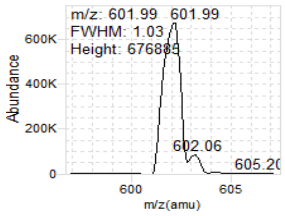


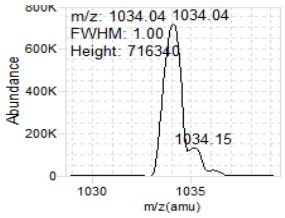
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
69.04	69.00	0.64	0.70	52852
112.92	112.99	0.72	0.70	152480
301.98	302.00	0.72	0.70	76538
601.99	601.98	0.69	0.70	402959
1034.01	1033.99	0.70	0.70	430787
1633.97	1633.95	0.71	0.70	1162410
2233.93	2233.91	0.67	0.70	980411

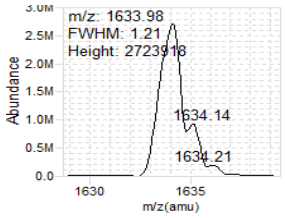
Analyzer: MS1 **Polarity: Negative** **Width: Wide**

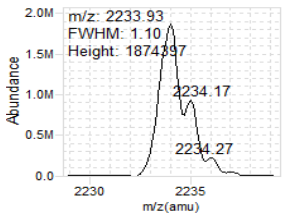






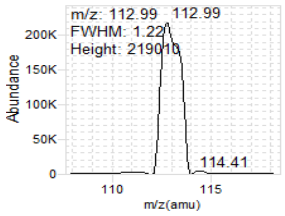


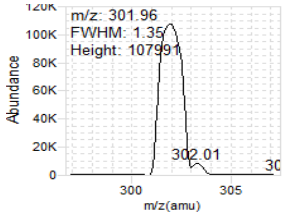


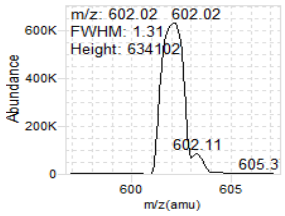


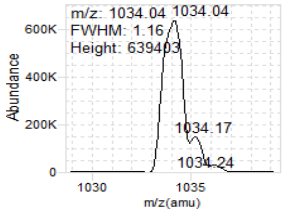
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
113.01	112.99	1.12	1.20	235782
302.02	302.00	1.14	1.20	111699
601.98	601.98	1.03	1.20	676885
1034.04	1033.99	1.00	1.20	716340
1633.98	1633.95	1.21	1.20	2723918
2233.93	2233.91	1.11	1.20	1874397

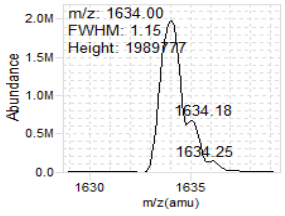
Analyzer: MS2 **Polarity: Negative** **Width: Wide**

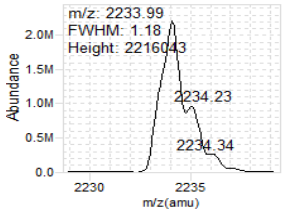






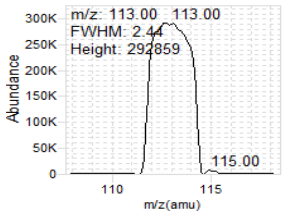


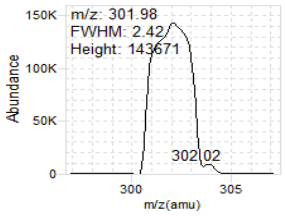


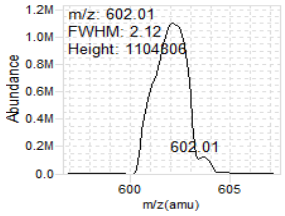


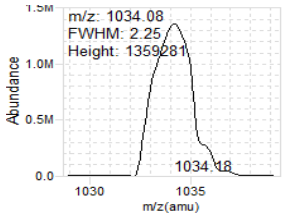
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
69.09	69.00	1.15	1.20	75373
112.99	112.99	1.22	1.20	219010
301.96	302.00	1.35	1.20	107991
602.02	601.98	1.31	1.20	634102
1034.04	1033.99	1.16	1.20	639403
1633.99	1633.95	1.15	1.20	1989777
2233.99	2233.91	1.19	1.20	2216043

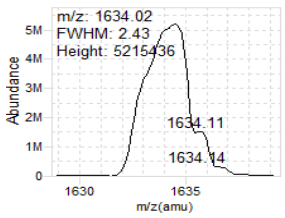
Analyzer: MS1 **Polarity: Negative** **Width: Widest**

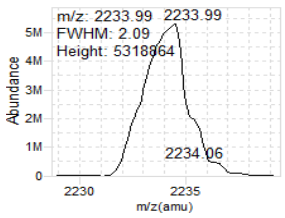






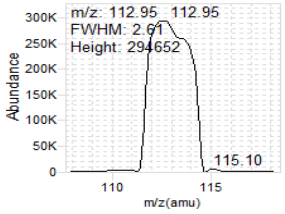


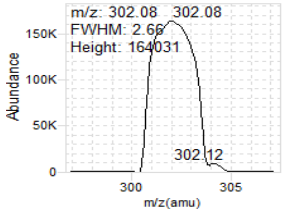


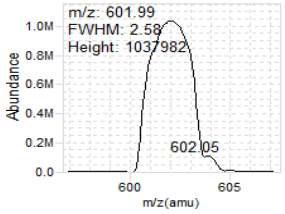


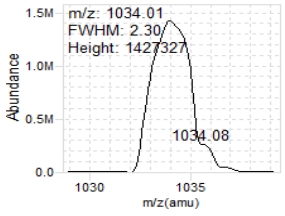
m/z	m/z Expected	FWHM	FWHM Expected	Abundance
113.00	112.99	2.44	2.50	292859
301.98	302.00	2.42	2.50	143671
602.00	601.98	2.12	2.50	1104806
1034.07	1033.99	2.25	2.50	1359281
1634.02	1633.95	2.43	2.50	5215436
2234.00	2233.91	2.09	2.50	5318864

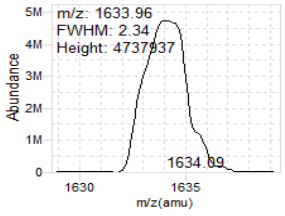
Analyzer: MS2 **Polarity: Negative** **Width: Widest**

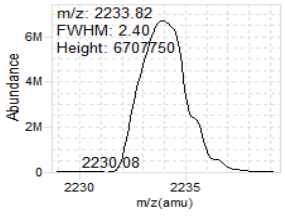












m/z	m/z Expected	FWHM	FWHM Expected	Abundance
68.98	69.00	2.51	2.50	100404
112.95	112.99	2.61	2.50	294652
302.08	302.00	2.66	2.50	164031
601.98	601.98	2.58	2.50	1037982
1034.01	1033.99	2.30	2.50	1427327
1633.96	1633.95	2.34	2.50	4737937
2233.83	2233.91	2.40	2.50	6707749

Negative Results

Tune Parameters

Parameters	Setting
Fragmentor	115
Skimmer	15
Octopole DC	5
Octopole RF	600
Lens 1	-3.50
MS1 PreFilter	18
MS1 DC	-3.00
MS1 PostFilter	-2.00
MS1 Axis Offset	1.08
MS1 Axis Gain	32
MS1 Width Offset	-0.17
MS1 Width Gain	-19
MS1 Heater	100
MS2 DC	10
MS2 PreFilter	30
MS2 Axis Offset	1.05
MS2 Axis Gain	10.25
MS2 Width Offset	-0.23
MS2 Width Gain	-16
MS2 Heater	100
Cell Entry	1
Hexapole DC	0.00
Hexapole RF	500
Hexapole Accel	5
Cell Exit	7.00
Collision Gas	1
Iris	150
HED	18
EMV	1405
Collision Energy	0
Lens 1[MS2]	-4.00
MS1 PreFilter[MS2]	-3.80

Dynamic Ramp Tables

MS1 PreFilter

m/z	Setting
112.99	10.4
302	8.4
601.98	9.6
1033.99	35
1633.95	11.7
2233.91	16.3

MS1 Axis Offset

m/z	Setting
112.99	1.08
302	1.062
601.98	0.881
1033.99	0.857
1633.95	0.987
2233.91	1.08

MS1 Width Offset

m/z	Setting
112.99	-0.17
302	-0.19
601.98	-0.11
1033.99	-0.08
1633.95	-0.24
2233.91	-0.17

MS2 PreFilter

m/z	Setting
69	18.2
112.97	30
113	10
207	21.4
232	22
302	35.2

MS2 Axis Offset

m/z	Setting
112.99	1.052
302	1.178
601.98	1.134
1033.99	1.03
1633.95	0.993
2233.91	1.052

MS2 Width Offset

m/z	Setting
112.99	-0.23
302	-0.32
601.98	-0.27
1033.99	-0.11
1633.95	-0.07
2233.91	-0.23

MS1 Calibrations

Resolution	Mass Gain	Mass Offset	Width Gain	Width Offset
Unit	32.2	1.08	-19	-0.17
Wide	32.05	1.26	-18.8	0.15
Widest	31.7	1.694	-18.5	1.16

MS2 Calibrations

Resolution	Mass Gain	Mass Offset	Width Gain	Width Offset
Unit	10.25	1.052	-16	-0.23
Wide	10.1	1.306	-15.8	0.21
Widest	9.65	1.772	-15.7	1.29

QQQ Check Tune Report

Agilent | Trusted Answers

Instrument Name	LCMS05
MS Model	G6470A
MS Instrument Serial	SG1939G108
Software_Firmware Version	10.0.127, FW: A.00.08.100
Tune Date & Time	28 August 2020 09:32:16
Data Path	D:\MassHunter\Tune\QQQ\G6470A\atunes.TUNE.XML
Ion Source	AJS ESI
Ionization Mode	AJS ESI
Tuned Resolution	All
Vacuum Pressure	1.63E+0 [R] (Torr); 3.81E-5 [H] (Torr)

Source Parameters

Parameter	Value
Gas Temp (°C)	300
Gas Flow (l/min)	8
Nebulizer (psi)	15
Capillary (V)	4000
Nozzle Voltage (V)	1500
Sheath Gas Temp (°C)	250
Sheath Gas Flow (l/min)	7

Positive Results

Analyzer: MS1 Polarity: Positive Width: Unit

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
118.09	118.09	0.00	Pass	0.70	0.70	0.00	Pass	503584
322.05	322.05	0.00	Pass	0.70	0.65	-0.05	Pass	177191
622.03	622.02	-0.01	Pass	0.70	0.67	-0.03	Pass	193021
922.01	922.00	-0.01	Pass	0.70	0.69	-0.01	Pass	181963
1521.97	1521.96	-0.01	Pass	0.70	0.68	-0.02	Pass	68386
2121.93	2121.91	-0.02	Pass	0.70	0.73	0.03	Pass	79676

Analyzer: MS2 Polarity: Positive Width: Unit

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
58.07	58.19	0.12	Pass	0.70	0.74	0.04	Pass	148150
118.09	118.10	0.01	Pass	0.70	0.82	0.12	Pass	365177
322.05	322.08	0.03	Pass	0.70	0.70	0.00	Pass	149147
622.03	622.08	0.05	Pass	0.70	0.68	-0.02	Pass	175905
922.01	922.00	-0.01	Pass	0.70	0.71	0.01	Pass	140910
1521.97	1521.98	0.01	Pass	0.70	0.71	0.01	Pass	114133
2121.93	2121.87	-0.06	Pass	0.70	0.61	-0.09	Pass	103966

Analyzer: MS1 Polarity: Positive Width: Wide

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
118.09	118.08	-0.01	Pass	1.20	1.19	-0.01	Pass	552310
322.05	322.04	-0.01	Pass	1.20	1.18	-0.02	Pass	214190
622.03	622.04	0.01	Pass	1.20	0.92	-0.28	Pass	260863
922.01	921.99	-0.02	Pass	1.20	0.99	-0.21	Pass	194097
1521.97	1522.00	0.03	Pass	1.20	1.13	-0.07	Pass	133388
2121.93	2121.96	0.03	Pass	1.20	1.17	-0.03	Pass	177073

Analyzer: MS2 Polarity: Positive Width: Wide

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
58.07	58.13	0.06	Pass	1.20	1.06	-0.14	Pass	159359
118.09	118.03	-0.06	Pass	1.20	1.12	-0.08	Pass	387196
322.05	322.05	0.00	Pass	1.20	1.27	0.07	Pass	231082
622.03	622.04	0.01	Pass	1.20	1.16	-0.04	Pass	256426
922.01	922.04	0.03	Pass	1.20	1.06	-0.14	Pass	173461
1521.97	1522.10	0.13	Pass	1.20	0.74	-0.46	Pass	118978
2121.93	2121.84	-0.09	Pass	1.20	0.84	-0.36	Pass	148498

Analyzer: MS1 Polarity: Positive Width: Widest

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
118.09	118.08	-0.01	Pass	2.50	2.52	0.02	Pass	629612
322.05	322.05	0.00	Pass	2.50	2.46	-0.04	Pass	336805
622.03	622.05	0.02	Pass	2.50	2.27	-0.23	Pass	435379
922.01	921.99	-0.02	Pass	2.50	2.74	0.24	Pass	431683
1521.97	1521.92	-0.05	Pass	2.50	2.31	-0.19	Pass	329484
2121.93	2121.94	0.01	Pass	2.50	2.79	0.29	Pass	410157

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Analyzer: MS2 Polarity: Positive Width: Widest

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
58.07	58.14	0.07	Pass	2.50	2.47	-0.03	Pass	236646
118.09	117.98	-0.11	Pass	2.50	2.43	-0.07	Pass	642271
322.05	322.06	0.01	Pass	2.50	2.65	0.15	Pass	359605
622.03	621.98	-0.05	Pass	2.50	2.57	0.07	Pass	460741
922.01	922.41	0.40	Pass	2.50	1.82	-0.68	Pass	519349
1521.97	1521.79	-0.18	Pass	2.50	2.23	-0.27	Pass	391836
2121.93	2122.00	0.07	Pass	2.50	2.57	0.07	Pass	653193

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Negative Results

Analyzer: MS1 Polarity: Negative Width: Unit

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
112.99	112.99	0.00	Pass	0.70	0.69	-0.01	Pass	224215
302.00	302.02	0.02	Pass	0.70	0.69	-0.01	Pass	95891
601.98	601.98	0.00	Pass	0.70	0.70	0.00	Pass	434949
1033.99	1034.00	0.01	Pass	0.70	0.70	0.00	Pass	517093
1633.95	1633.92	-0.03	Pass	0.70	0.72	0.02	Pass	1450903
2233.91	2233.92	0.01	Pass	0.70	0.69	-0.01	Pass	929092

Analyzer: MS2 Polarity: Negative Width: Unit

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
69.00	69.04	0.04	Pass	0.70	0.64	-0.06	Pass	52852
112.99	112.92	-0.07	Pass	0.70	0.72	0.02	Pass	152480
302.00	301.98	-0.02	Pass	0.70	0.72	0.02	Pass	76538
601.98	601.99	0.01	Pass	0.70	0.69	-0.01	Pass	402959
1033.99	1034.01	0.02	Pass	0.70	0.70	0.00	Pass	430787
1633.95	1633.97	0.02	Pass	0.70	0.71	0.01	Pass	1162410
2233.91	2233.93	0.02	Pass	0.70	0.67	-0.03	Pass	980411

Analyzer: MS1 Polarity: Negative Width: Wide

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
112.99	113.01	0.02	Pass	1.20	1.12	-0.08	Pass	235782
302.00	302.02	0.02	Pass	1.20	1.14	-0.06	Pass	111699
601.98	601.98	0.00	Pass	1.20	1.03	-0.17	Pass	676885
1033.99	1034.04	0.05	Pass	1.20	1.00	-0.20	Pass	716340
1633.95	1633.98	0.03	Pass	1.20	1.21	0.01	Pass	2723918
2233.91	2233.93	0.02	Pass	1.20	1.11	-0.09	Pass	1874397

Analyzer: MS2 Polarity: Negative Width: Wide

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
69.00	69.09	0.09	Pass	1.20	1.15	-0.05	Pass	75373
112.99	112.99	0.00	Pass	1.20	1.22	0.02	Pass	219010
302.00	301.96	-0.04	Pass	1.20	1.35	0.15	Pass	107991
601.98	602.02	0.04	Pass	1.20	1.31	0.11	Pass	634102
1033.99	1034.04	0.05	Pass	1.20	1.16	-0.04	Pass	639403
1633.95	1633.99	0.04	Pass	1.20	1.15	-0.05	Pass	1989777
2233.91	2233.99	0.08	Pass	1.20	1.19	-0.01	Pass	2216043

Analyzer: MS1 Polarity: Negative Width: Widest

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
112.99	113.00	0.01	Pass	2.50	2.44	-0.06	Pass	292859
302.00	301.98	-0.02	Pass	2.50	2.42	-0.08	Pass	143671
601.98	602.00	0.02	Pass	2.50	2.12	-0.38	Pass	1104806
1033.99	1034.07	0.08	Pass	2.50	2.25	-0.25	Pass	1359281
1633.95	1634.02	0.07	Pass	2.50	2.43	-0.07	Pass	5215436
2233.91	2234.00	0.09	Pass	2.50	2.09	-0.41	Pass	5318864

Analyzer: MS2 Polarity: Negative Width: Widest

m/z Expected	m/z Measured	Delta	Result	FWHM Expected	FWHM Measured	Delta	Result	Abundance
69.00	68.98	-0.02	Pass	2.50	2.51	0.01	Pass	100404
112.99	112.95	-0.04	Pass	2.50	2.61	0.11	Pass	294652
302.00	302.08	0.08	Pass	2.50	2.66	0.16	Pass	164031
601.98	601.98	0.00	Pass	2.50	2.58	0.08	Pass	1037982
1033.99	1034.01	0.02	Pass	2.50	2.30	-0.20	Pass	1427327
1633.95	1633.96	0.01	Pass	2.50	2.34	-0.16	Pass	4737937
2233.91	2233.83	-0.08	Pass	2.50	2.40	-0.10	Pass	6707749

5. Initial Calibration

Bureau Veritas Canada (2019)
Inc.
6740 Campobello Rd.
Mississauga, Ontario, Canada
L5N 2L8
1-800-668-0639
www.bvlabs.com

Quantitative Analysis Report

Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	STD 1	**Data File**	WS#6981801_02.d
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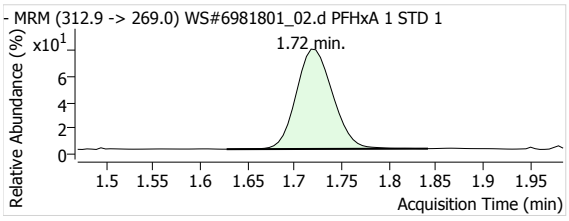
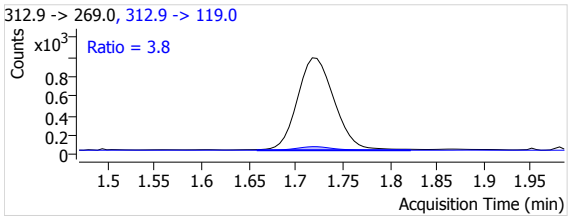
Acq. Method File	PFAS.m	**Position**	P1-A2
Acq. Date-Time	2020/10/05 12:50:37 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	0.830	0.8376	100.9	2561	1.72	38	0.1667	98	1.72	40	3.8
PFHpA 1	µg/L	0.830	0.7952	95.8	2839	2.16	62	0.2210	466	2.17	60	16.4
PFOA 1	µg/L	0.830	0.8229	99.1	1979	2.63	22	0.1444	528	2.63	153	26.7
PFNA 1	µg/L	0.830	0.8400	101.2	1961	3.07	46	0.1702	311	3.06	91	15.9
PFDA 1	µg/L	0.830	0.8476	102.1	1595	3.45	57	0.1603	266	3.45	44	16.7
PFUnA 1	µg/L	0.830	0.8408	101.3	1875	3.79	47	0.1684	291	3.78	90	15.5
PFDoA 1	µg/L	0.830	0.8504	102.5	1833	4.09	37	0.1630	269	4.09	37	14.7
PFTrDA 1	µg/L	0.830	0.8287	99.8	1713	4.35	49	0.1863	186	4.35	36	10.9
PFTeDA 1	µg/L	0.830	0.8048	97.0	1527	4.58	48	0.1661	106	4.58	62	6.9
PFBS 1	µg/L	0.830	0.8155	98.3	870	1.40	103	0.1710	330	1.40	67	37.9
PFHxS 1	µg/L	0.830	0.8134	98.0	480	2.08	71	0.1912	237	2.07	35	49.4
PFOS 1	µg/L	0.830	0.8080	97.3	463	2.88	57	0.1708	245	2.88	103	52.9
MeFOSA 1	µg/L	0.830	0.8058	97.1	329	5.23	39	0.0896	245	5.23	54	74.5
EtFOSA 1	µg/L	0.830	0.8320	100.2	312	5.36	11	0.0737	287	5.36	150	92.0
13C2-PFHxA	µg/L	100.000	104.5445	104.5	15367	1.72	1150		--	--	--	--
13C4-PFHpA	µg/L	100.000	102.8670	102.9	12845	2.16	1137		--	--	--	--
13C4-PFOA	µg/L	100.000	100.5428	100.5	13706	2.63	1733		--	--	--	--
13C5-PFNA	µg/L	100.000	104.0076	104.0	11523	3.07	1317		--	--	--	--
13C2-PFDA	µg/L	100.000	101.2514	101.3	9952	3.45	572		--	--	--	--
13C2-PFUnA	µg/L	100.000	104.7220	104.7	11133	3.79	664		--	--	--	--
13C2-PFDoA	µg/L	100.000	102.0325	102.0	11245	4.09	898		--	--	--	--
13C2-PFTeDA	µg/L	100.000	102.0991	102.1	9193	4.58	1037		--	--	--	--
13C3-PFBS	µg/L	100.000	100.6727	100.7	5088	1.40	935		--	--	--	--
18O2-PFHxS	µg/L	100.000	98.8198	98.8	2512	2.12	1122		--	--	--	--
13C4-PFOS	µg/L	100.000	101.4596	101.5	2711	2.93	481		--	--	--	--
D3-MeFOSA	µg/L	100.000	104.2910	104.3	3670	5.24	184		--	--	--	--
D5-EtFOSA	µg/L	100.000	101.3404	101.3	4234	5.36	82		--	--	--	--

PFHxA 1





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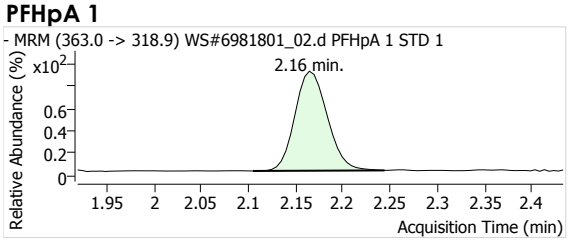

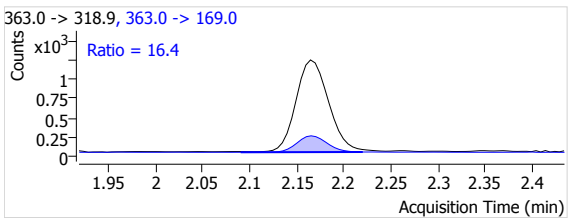

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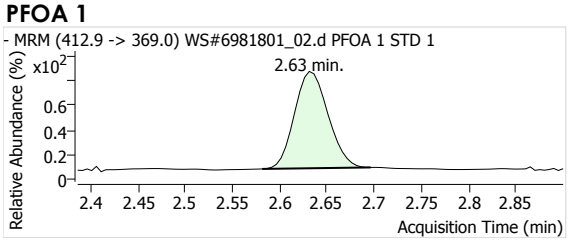

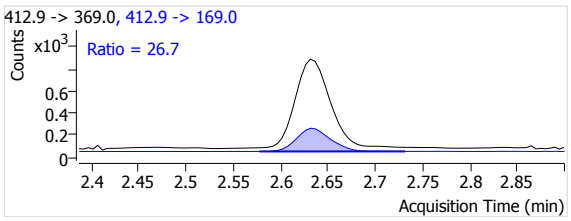

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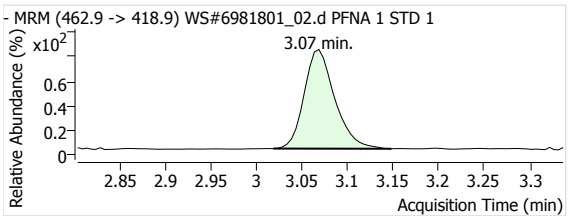

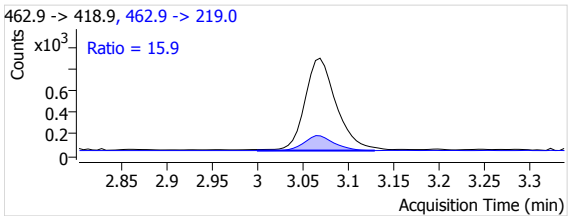

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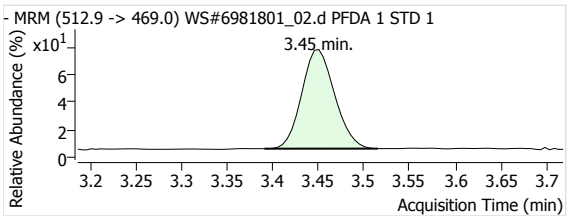

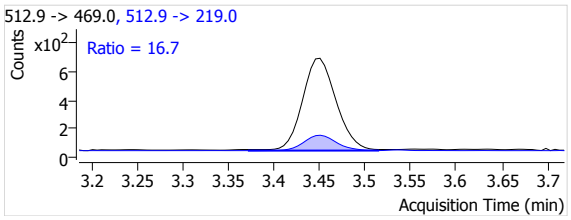

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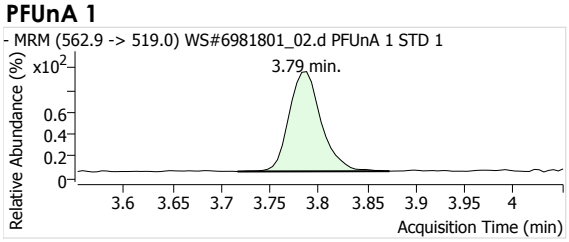

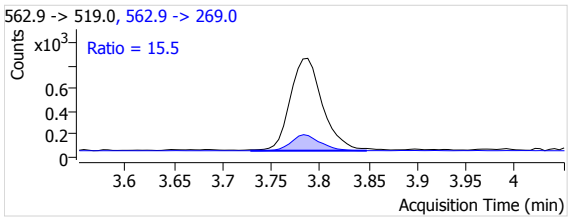

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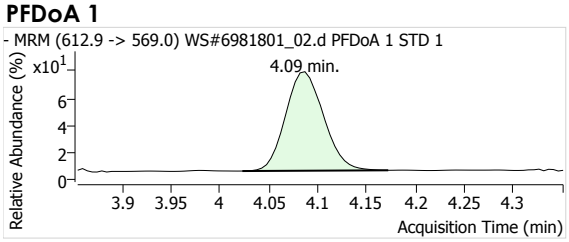

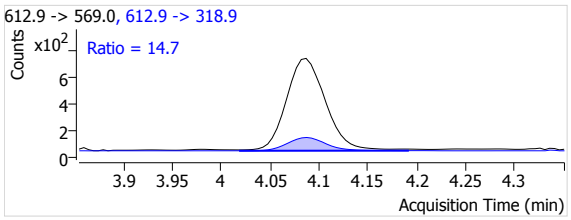

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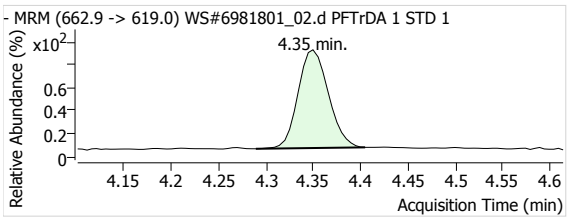

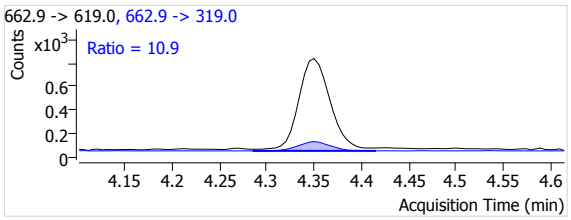

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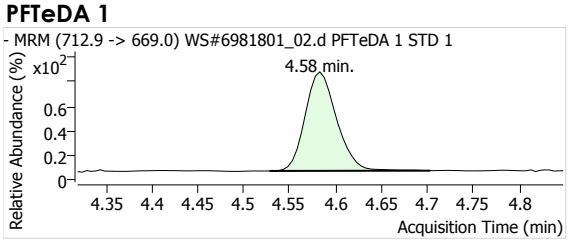

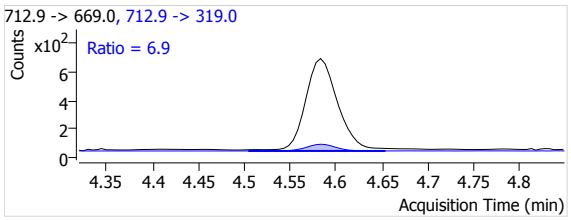

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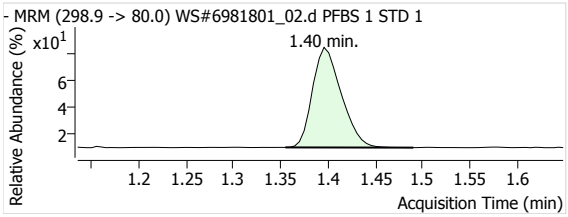

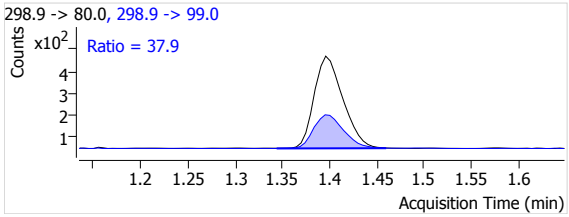

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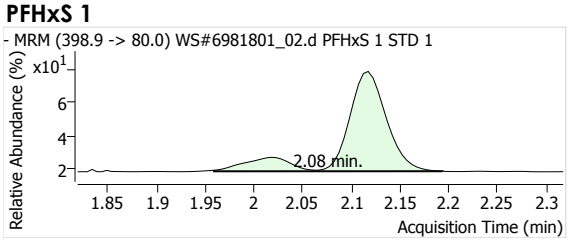

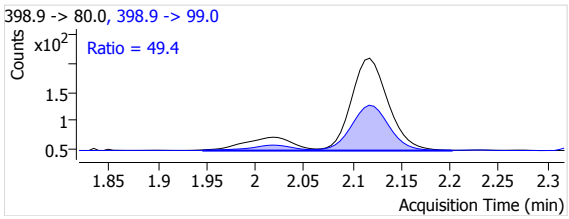

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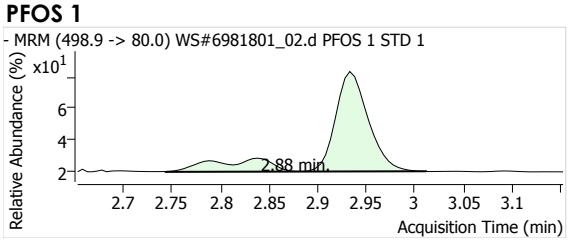

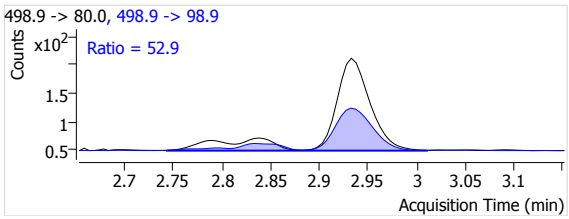

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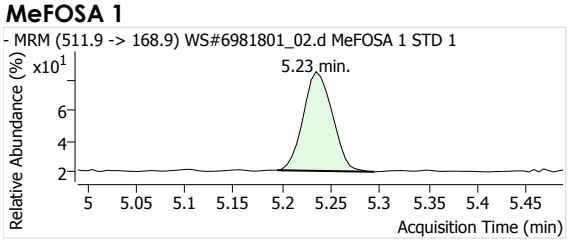

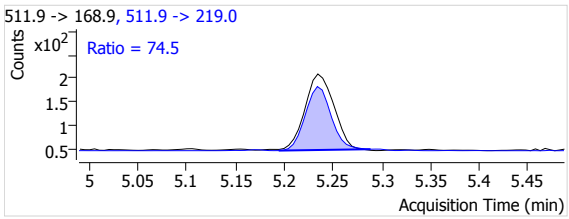

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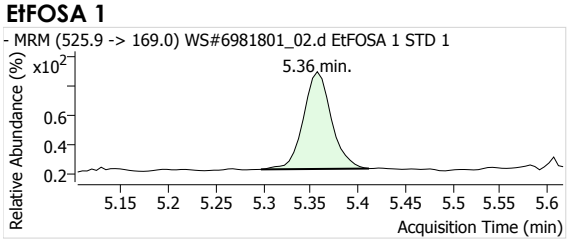
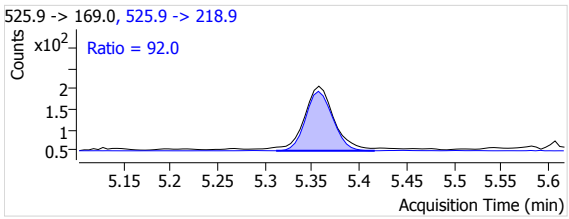
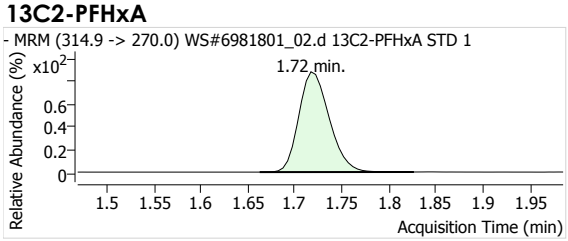
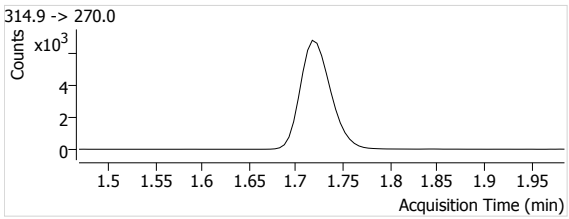




13C2-PFHxA





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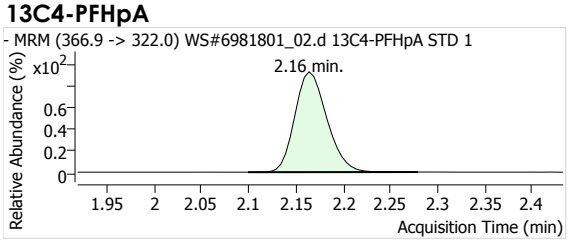

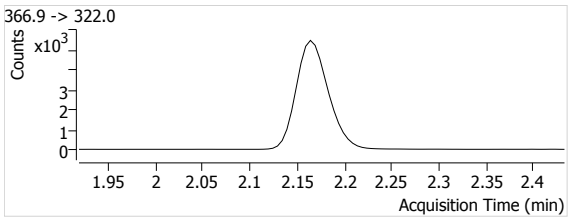

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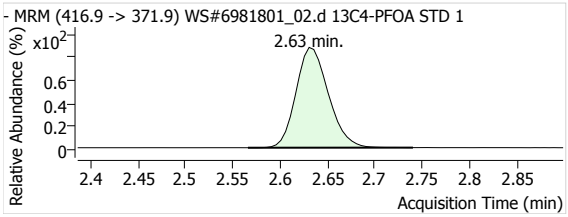

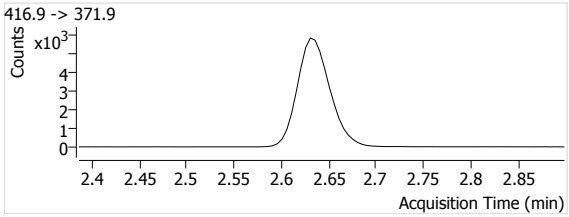

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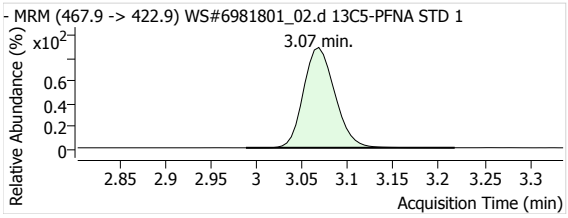

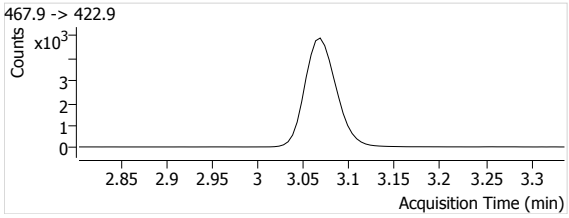

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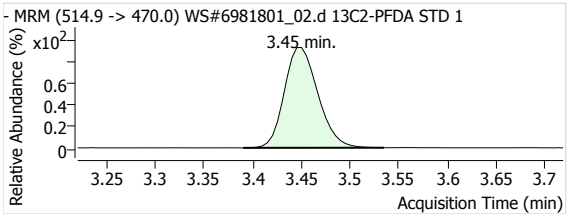

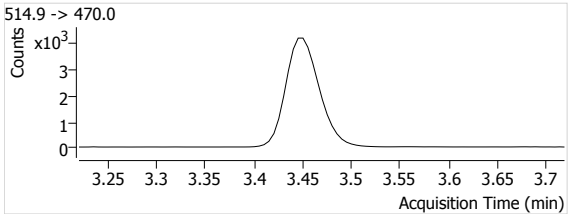

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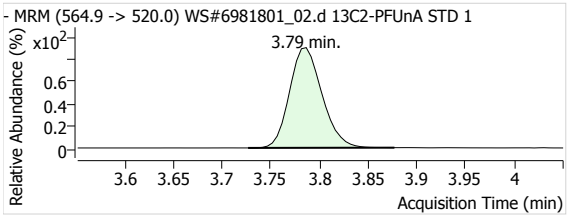

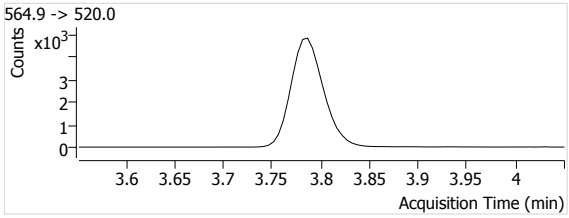

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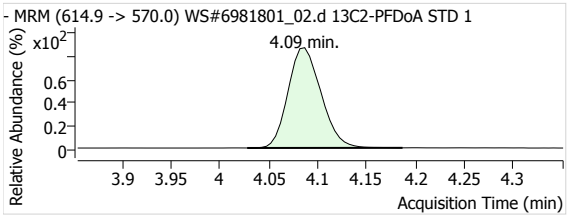

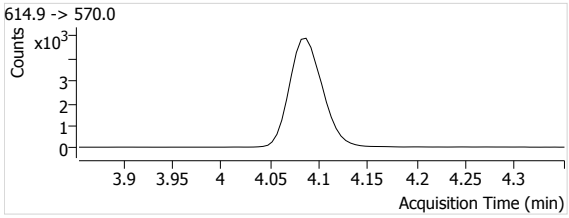

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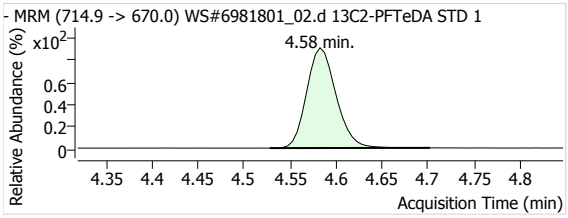

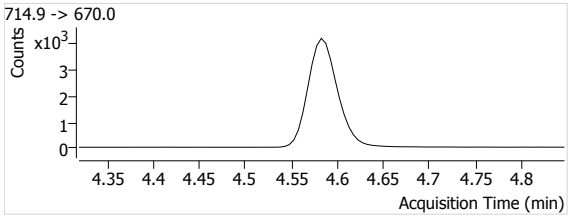

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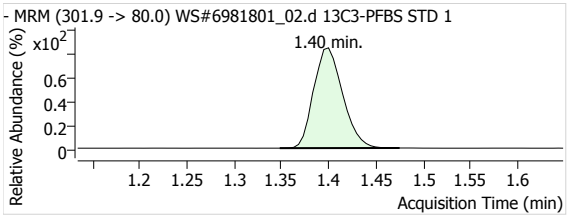

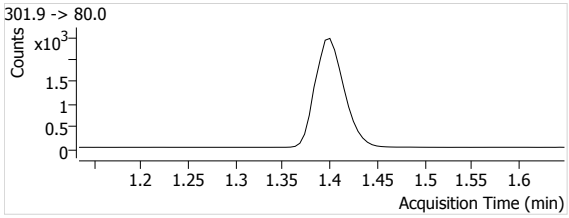

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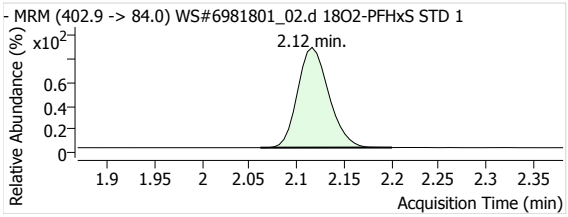

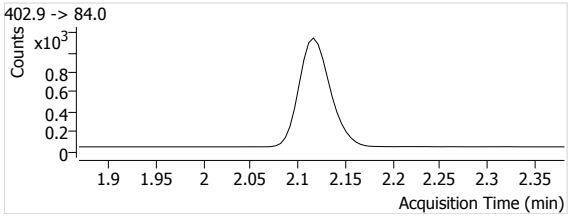

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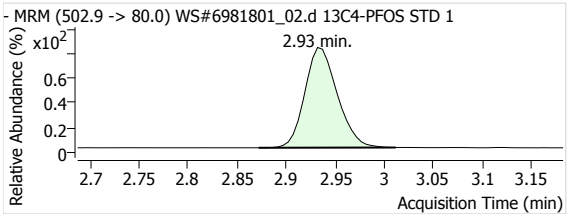
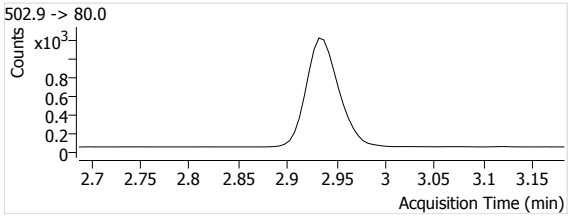
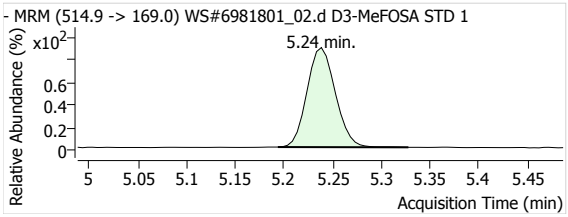
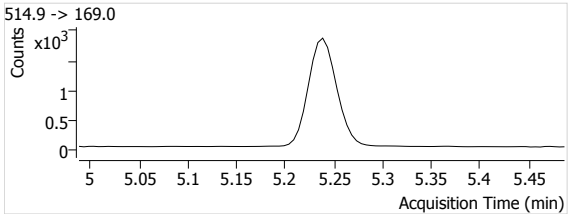




D3-MeFOSA





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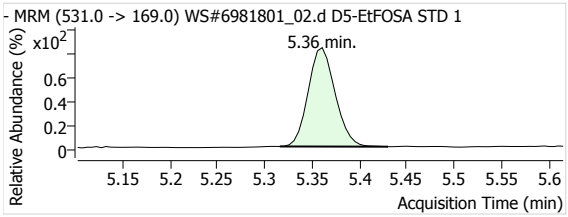
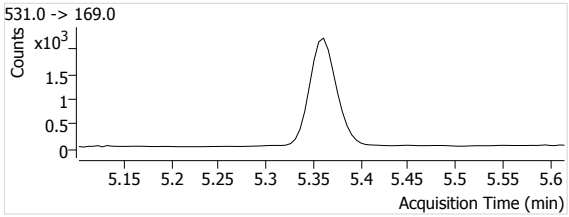




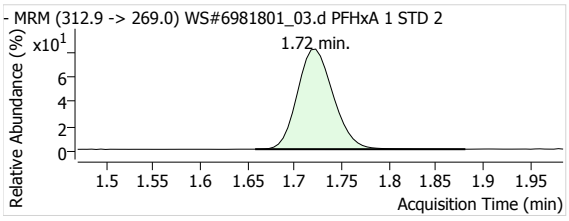
Quantitative Analysis Report

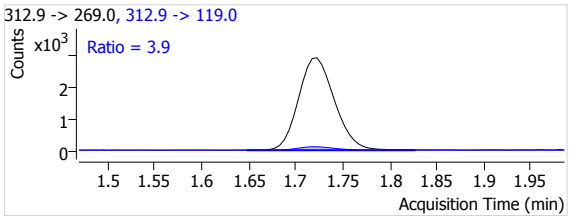
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	STD 2	**Data File**	WS#6981801_03.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A3
Acq. Date-Time	2020/10/05 12:57:37 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	3.000	3.0557	101.9	7741	1.72	228	0.5470	303	1.72	28	3.9
PFHpA 1	µg/L	3.000	3.0603	102.0	9167	2.16	267	0.7454	1469	2.17	171	16.0
PFOA 1	µg/L	3.000	3.0516	101.7	6296	2.64	87	0.4904	1632	2.64	236	25.9
PFNA 1	µg/L	3.000	3.0228	100.8	5990	3.07	144	0.5646	971	3.07	156	16.2
PFDA 1	µg/L	3.000	2.9458	98.2	4899	3.45	121	0.5191	905	3.45	386	18.5
PFUnA 1	µg/L	3.000	2.9784	99.3	5732	3.79	134	0.5432	986	3.78	147	17.2
PFDoA 1	µg/L	3.000	2.9984	99.9	5531	4.09	127	0.5160	762	4.09	161	13.8
PFTrDA 1	µg/L	3.000	3.0272	100.9	5041	4.35	104	0.5790	475	4.35	143	9.4
PFTeDA 1	µg/L	3.000	3.0761	102.5	4591	4.58	95	0.5273	341	4.58	123	7.4
PFBS 1	µg/L	3.000	3.1041	103.5	3013	1.40	170	0.6130	1166	1.40	194	38.7
PFHxS 1	µg/L	3.000	3.1159	103.9	1637	2.08	82	0.6795	763	2.07	103	46.6
PFOS 1	µg/L	3.000	3.0388	101.3	1548	2.88	108	0.5846	753	2.88	534	48.6
MeFOSA 1	µg/L	3.000	3.0551	101.8	1049	5.23	114	0.3039	868	5.23	208	82.7
EtFOSA 1	µg/L	3.000	2.9974	99.9	1010	5.36	60	0.2420	987	5.36	117	97.7
13C2-PFHxA	µg/L	100.000	96.2719	96.3	14151	1.72	2010		--	--	--	--
13C4-PFHpA	µg/L	100.000	98.4864	98.5	12298	2.16	1222		--	--	--	--
13C4-PFOA	µg/L	100.000	94.1755	94.2	12838	2.64	1210		--	--	--	--
13C5-PFNA	µg/L	100.000	95.7577	95.8	10609	3.07	1176		--	--	--	--
13C2-PFDA	µg/L	100.000	96.0220	96.0	9438	3.45	589		--	--	--	--
13C2-PFUnA	µg/L	100.000	99.2663	99.3	10553	3.79	631		--	--	--	--
13C2-PFDoA	µg/L	100.000	97.2507	97.3	10718	4.09	687		--	--	--	--
13C2-PFTeDA	µg/L	100.000	96.6904	96.7	8706	4.58	374		--	--	--	--
13C3-PFBS	µg/L	100.000	97.2497	97.2	4915	1.40	602		--	--	--	--
18O2-PFHxS	µg/L	100.000	94.7679	94.8	2409	2.12	610		--	--	--	--
13C4-PFOS	µg/L	100.000	99.0644	99.1	2647	2.94	368		--	--	--	--
D3-MeFOSA	µg/L	100.000	98.0961	98.1	3452	5.24	97		--	--	--	--
D5-EtFOSA	µg/L	100.000	99.9043	99.9	4174	5.36	96		--	--	--	--

PFHxA 1





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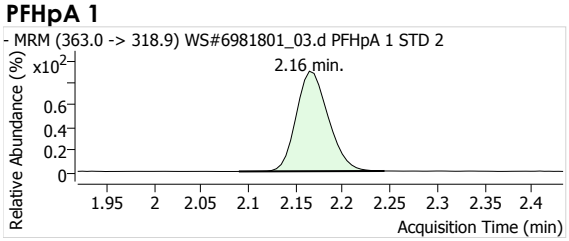
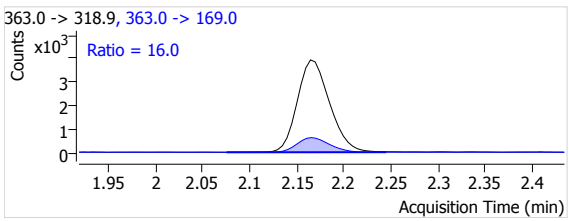
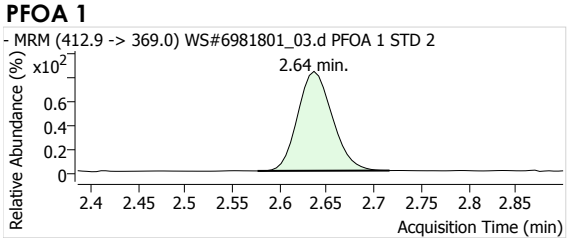
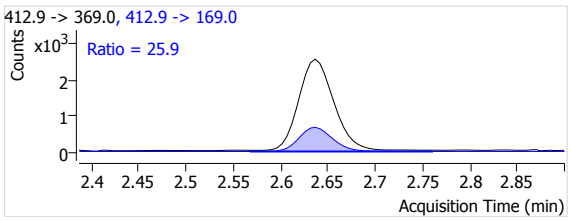




PFOA 1





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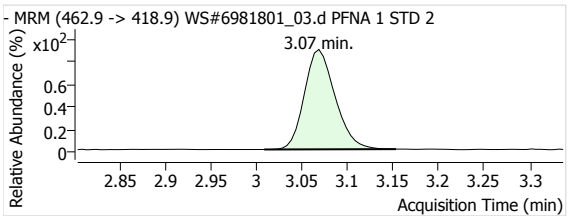

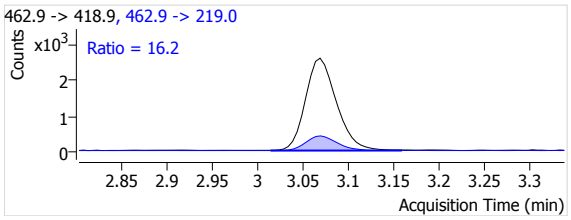

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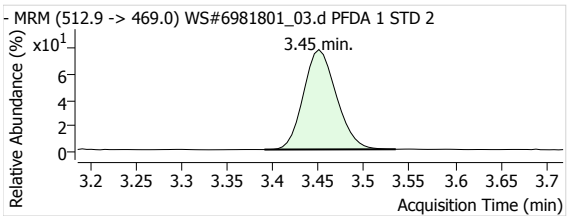

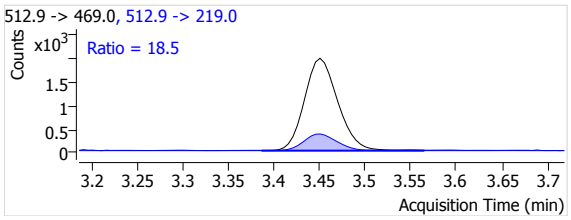

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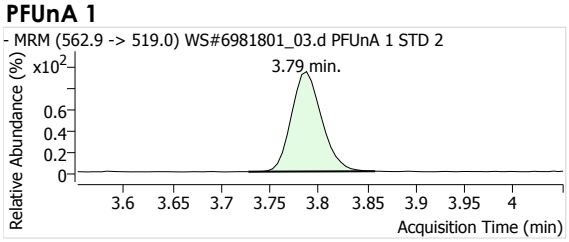

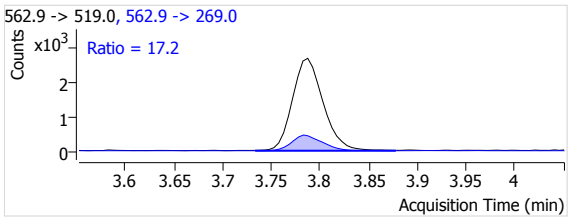

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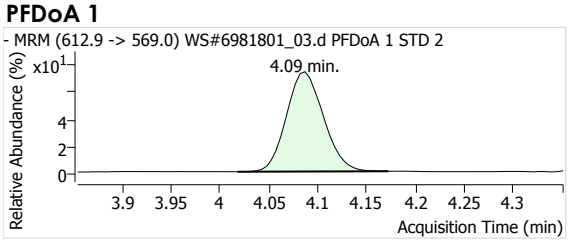

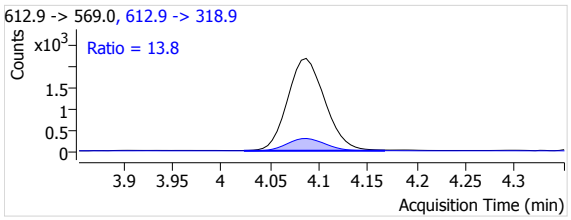

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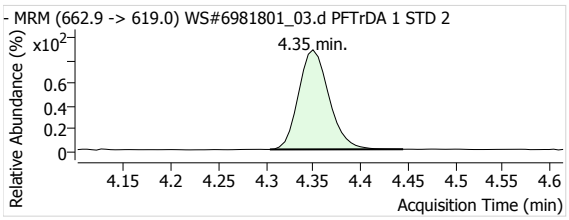

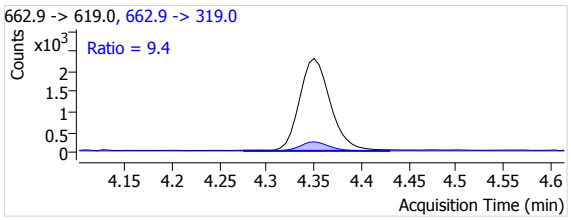

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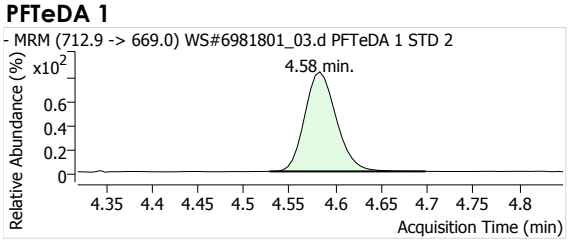

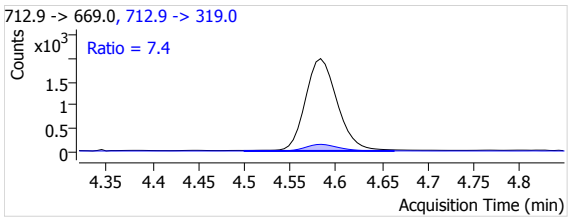

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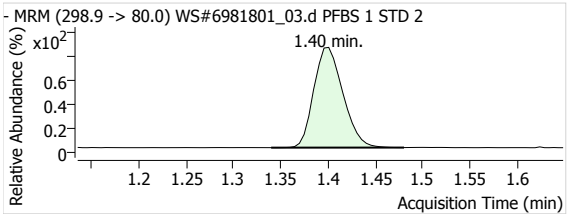
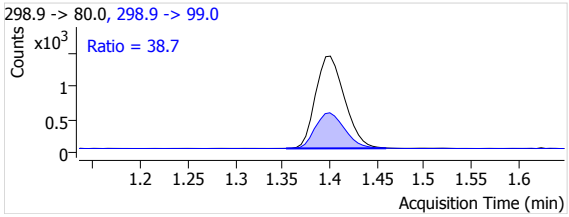
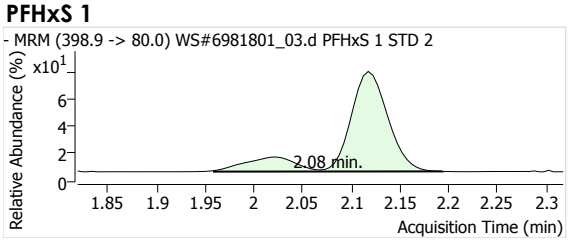
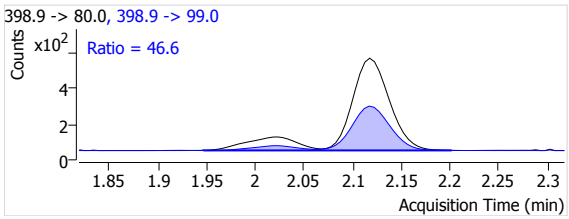


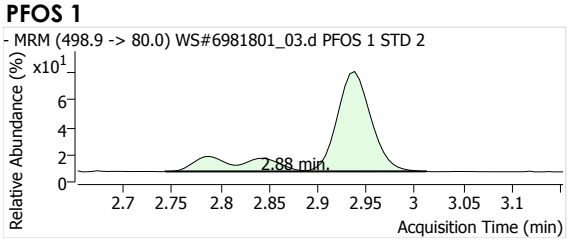


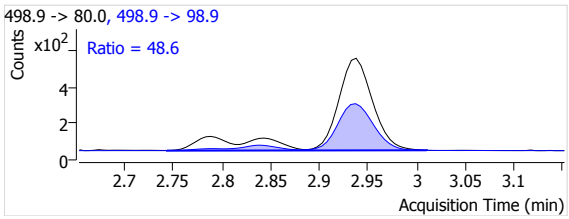
PFHxS 1





PFOS 1





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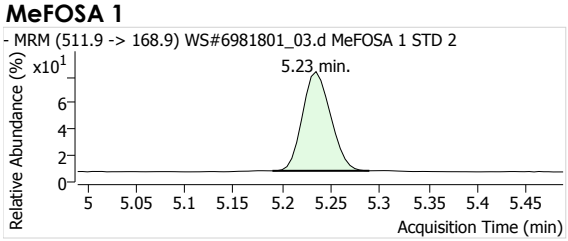

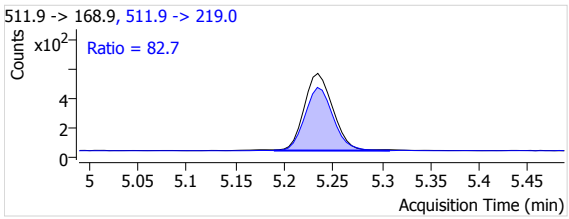

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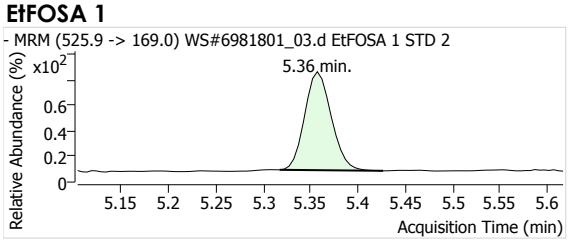

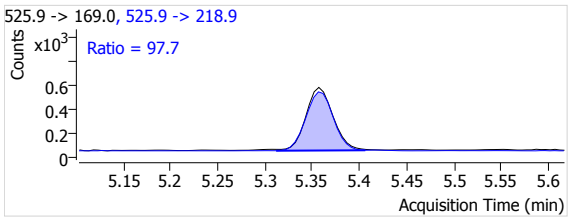

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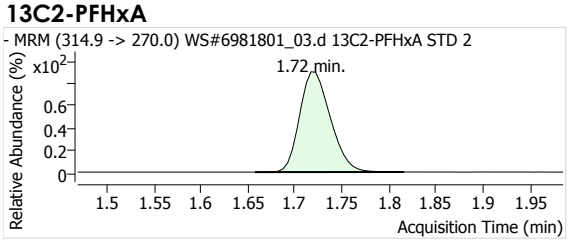

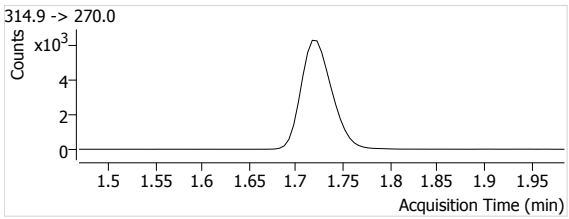

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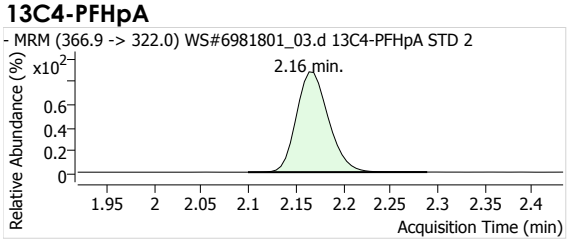

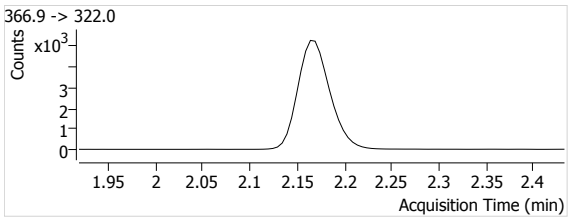

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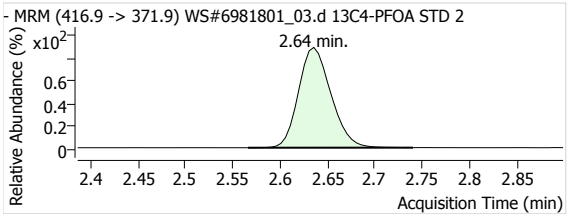

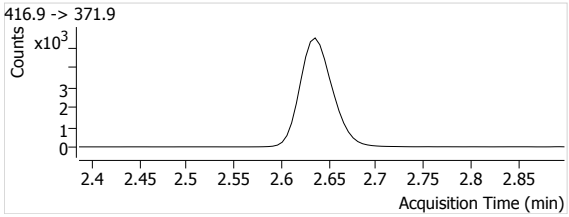

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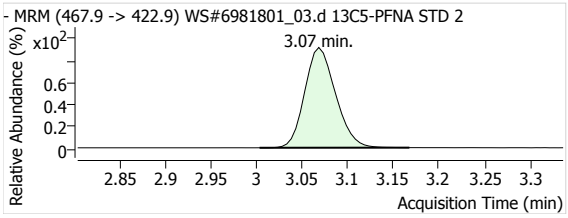

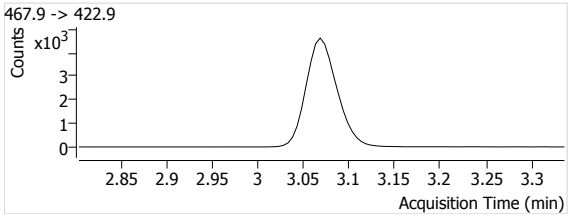

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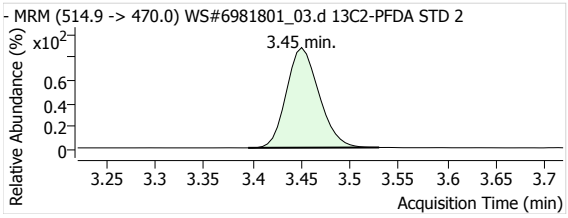

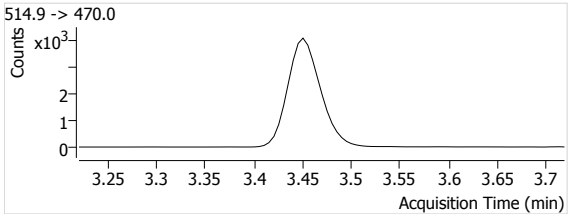

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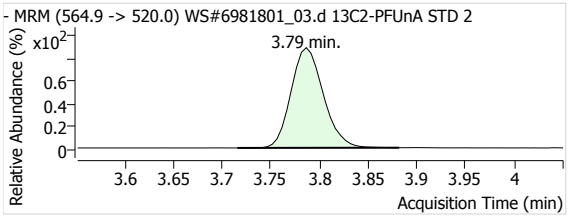

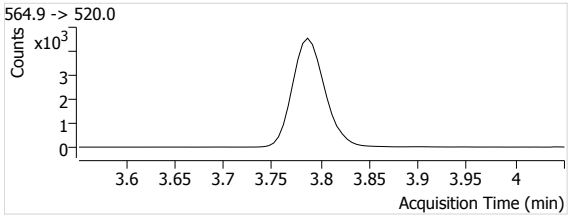

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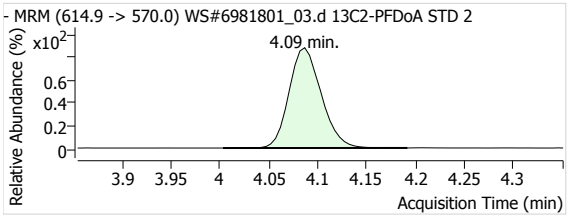

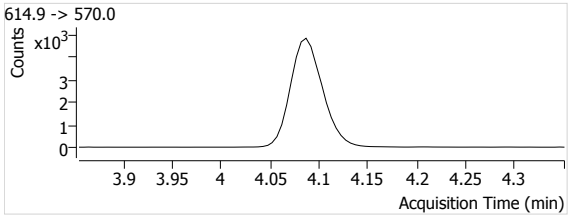

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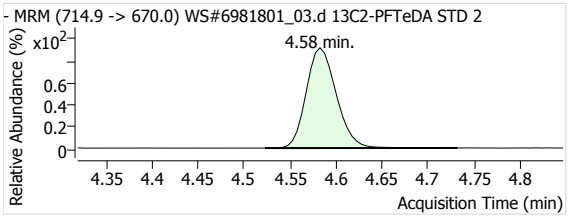

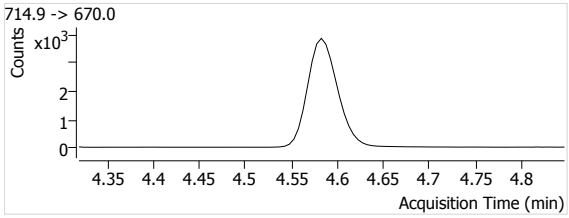

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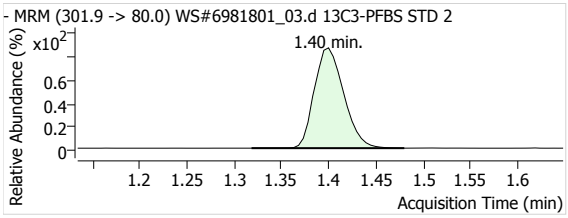

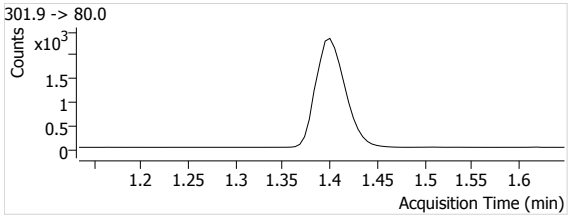

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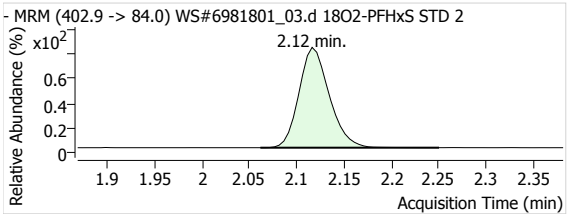

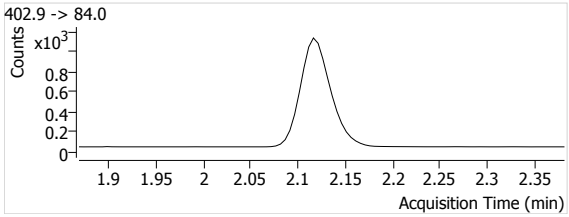

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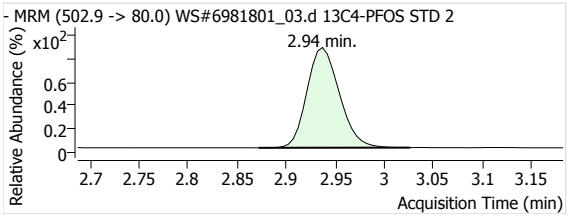

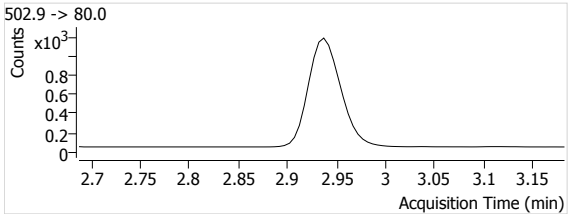

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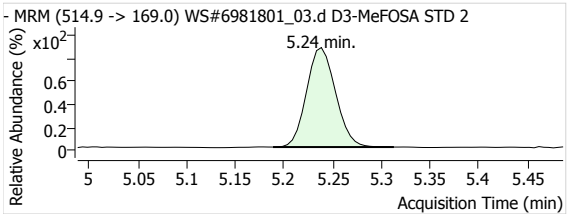

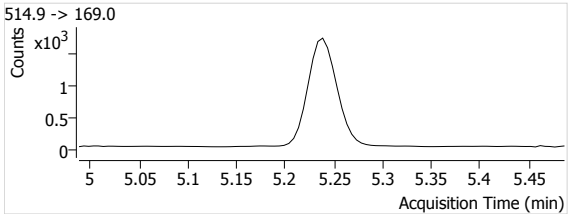

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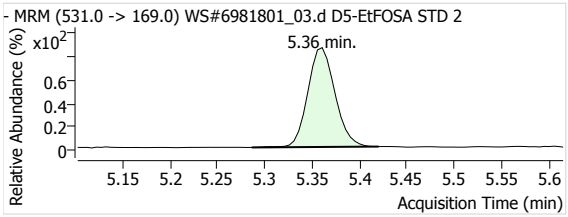
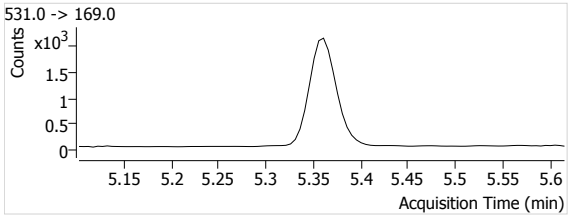




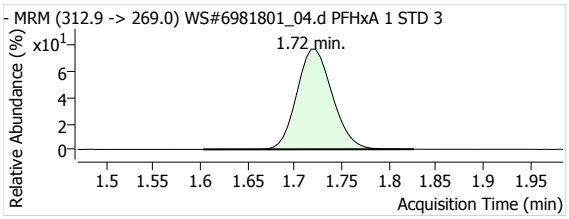
Quantitative Analysis Report

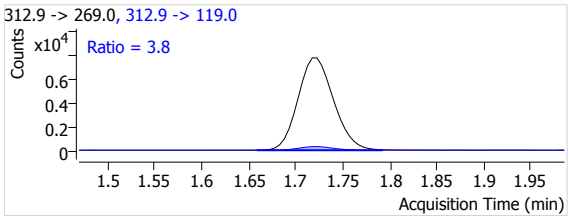
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	STD 3	**Data File**	WS#6981801_04.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A4
Acq. Date-Time	2020/10/05 1:04:39 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	8.000	8.2715	103.4	20503	1.72	488	1.4414	778	1.72	198	3.8
PFHpA 1	µg/L	8.000	8.5967	107.5	24220	2.16	594	2.0271	4078	2.17	200	16.8
PFOA 1	µg/L	8.000	8.4129	105.2	17374	2.63	243	1.3228	4272	2.63	472	24.6
PFNA 1	µg/L	8.000	8.3800	104.7	16680	3.06	318	1.5327	2682	3.06	464	16.1
PFDA 1	µg/L	8.000	8.5190	106.5	13782	3.45	454	1.4721	2432	3.45	477	17.6
PFUnA 1	µg/L	8.000	8.3698	104.6	15388	3.78	280	1.4883	2477	3.78	251	16.1
PFDoA 1	µg/L	8.000	8.3987	105.0	15074	4.09	208	1.4037	2096	4.09	125	13.9
PFTrDA 1	µg/L	8.000	8.4376	105.5	13334	4.35	250	1.5454	1406	4.35	210	10.5
PFTeDA 1	µg/L	8.000	8.4578	105.7	11935	4.58	392	1.3833	892	4.58	908	7.5
PFBS 1	µg/L	8.000	8.4238	105.3	8017	1.40	643	1.6405	3209	1.40	433	40.0
PFHxS 1	µg/L	8.000	8.3478	104.3	4368	2.08	324	1.7889	2062	2.07	889	47.2
PFOS 1	µg/L	8.000	8.5075	106.3	4178	2.88	154	1.5990	2021	2.88	268	48.4
MeFOSA 1	µg/L	8.000	8.4073	105.1	2812	5.23	111	0.8137	2257	5.23	341	80.3
EtFOSA 1	µg/L	8.000	8.3592	104.5	2717	5.36	84	0.6587	2664	5.36	347	98.0
13C2-PFHxA	µg/L	100.000	96.7685	96.8	14224	1.72	1243		--	--	--	--
13C4-PFHpA	µg/L	100.000	95.6835	95.7	11948	2.16	1057		--	--	--	--
13C4-PFOA	µg/L	100.000	96.3468	96.3	13134	2.63	1387		--	--	--	--
13C5-PFNA	µg/L	100.000	98.2309	98.2	10883	3.07	571		--	--	--	--
13C2-PFDA	µg/L	100.000	95.2488	95.2	9362	3.45	976		--	--	--	--
13C2-PFUnA	µg/L	100.000	97.2533	97.3	10339	3.78	822		--	--	--	--
13C2-PFDoA	µg/L	100.000	97.4412	97.4	10739	4.09	537		--	--	--	--
13C2-PFTeDA	µg/L	100.000	95.8241	95.8	8628	4.58	826		--	--	--	--
13C3-PFBS	µg/L	100.000	96.6957	96.7	4887	1.40	721		--	--	--	--
18O2-PFHxS	µg/L	100.000	96.0661	96.1	2442	2.12	553		--	--	--	--
13C4-PFOS	µg/L	100.000	97.7919	97.8	2613	2.93	802		--	--	--	--
D3-MeFOSA	µg/L	100.000	98.2097	98.2	3456	5.24	103		--	--	--	--
D5-EtFOSA	µg/L	100.000	98.7315	98.7	4125	5.36	69		--	--	--	--

PFHxA 1





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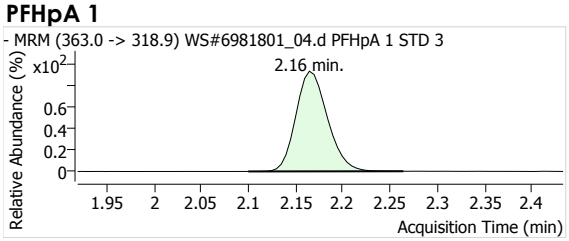

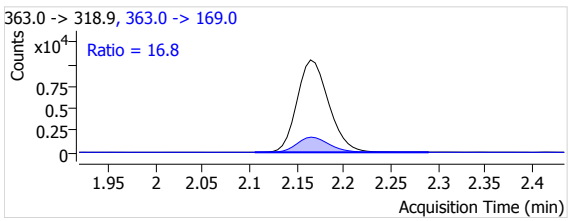

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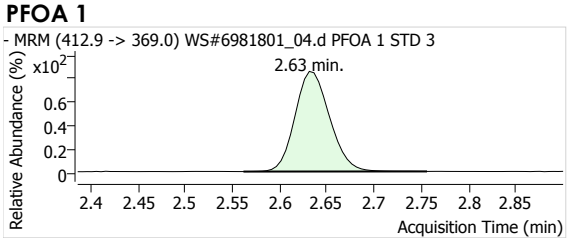

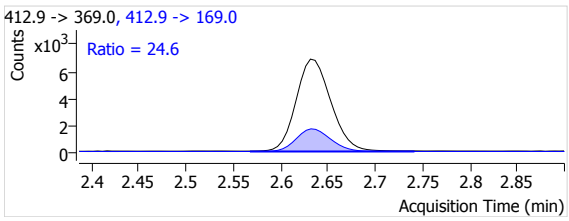

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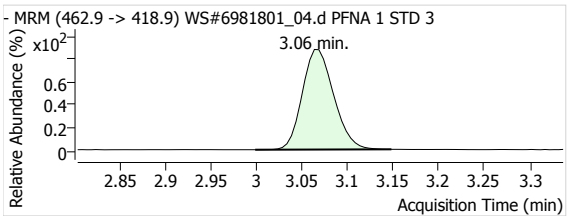

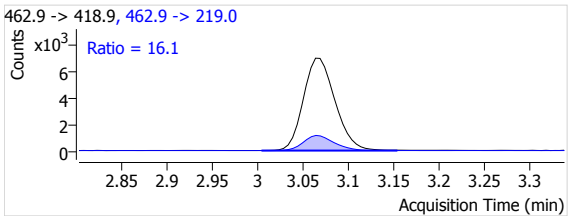

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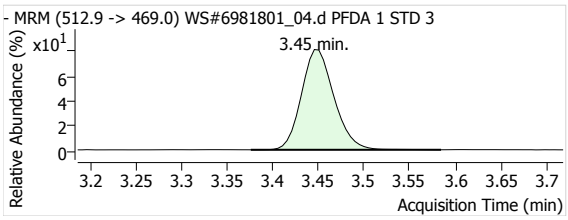

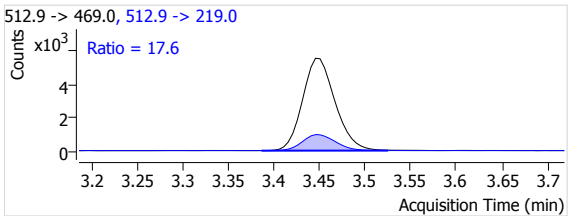

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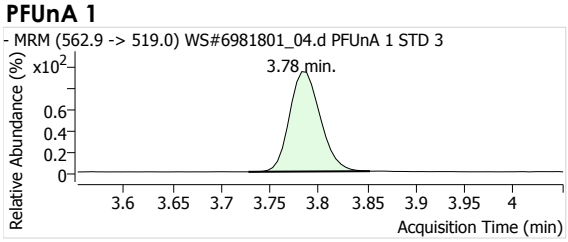
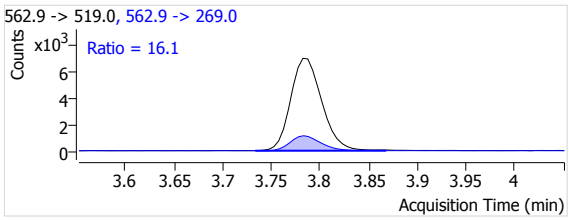
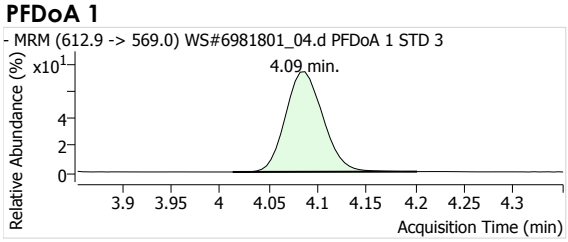
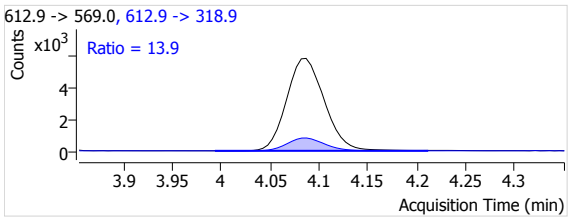




PFDoA 1





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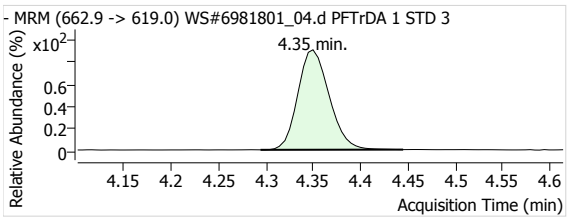

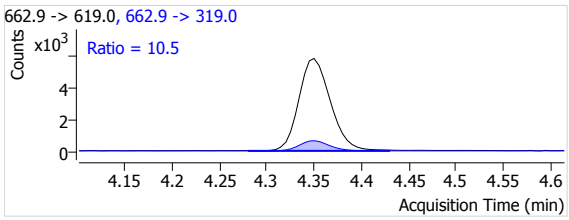

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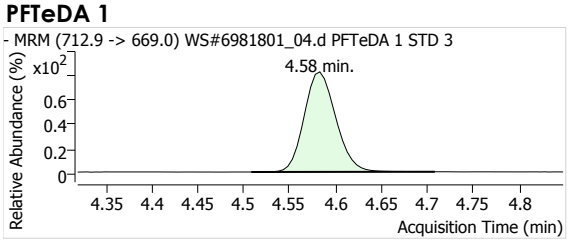

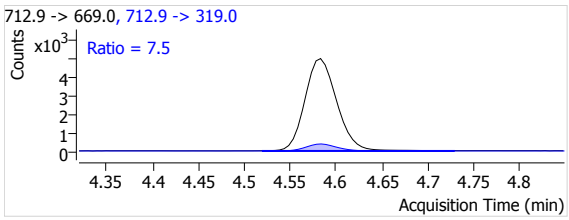

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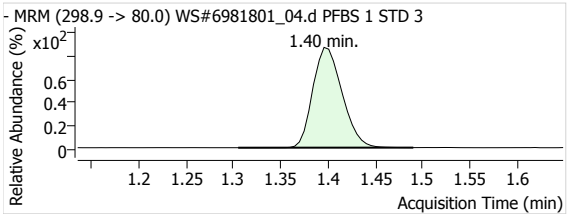

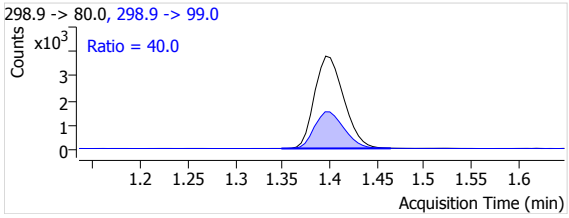

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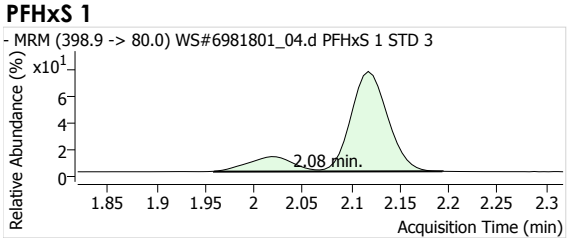

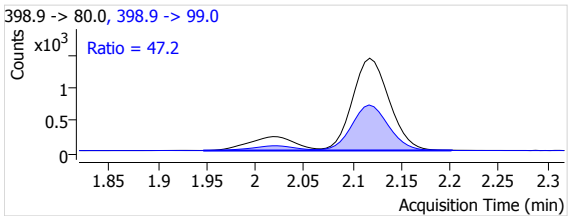

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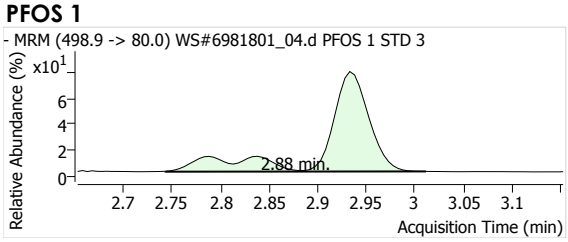

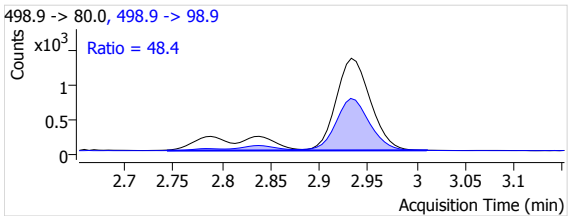

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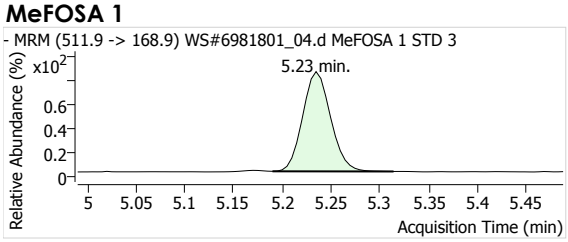

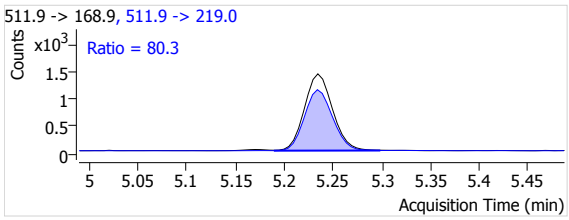

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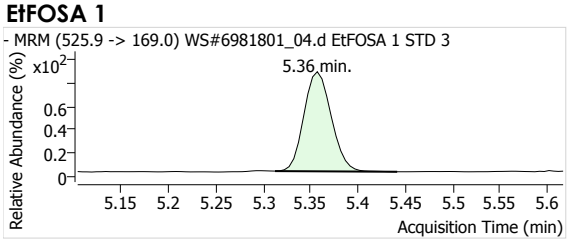

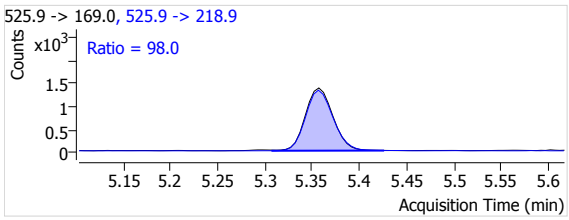

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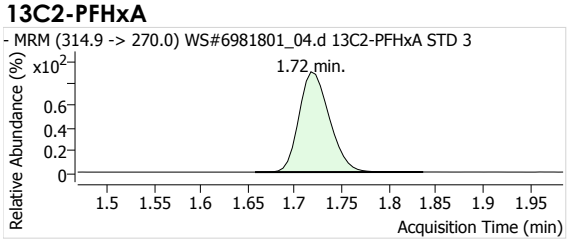

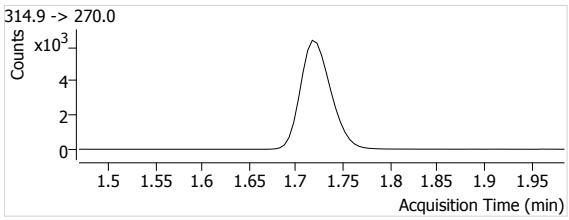

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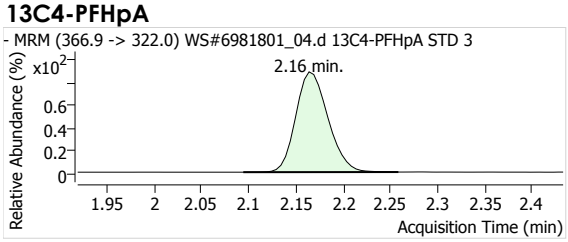

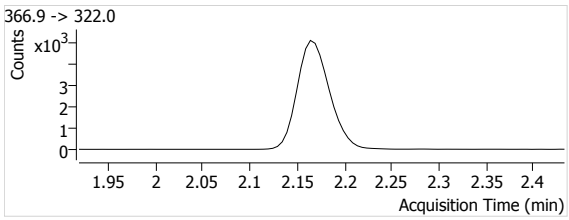

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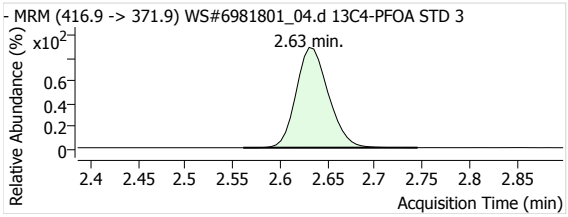

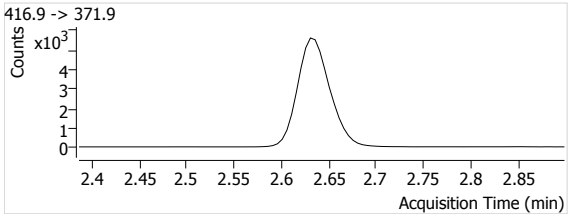

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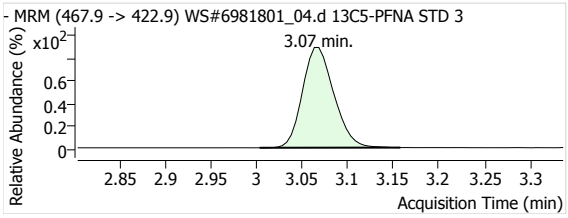

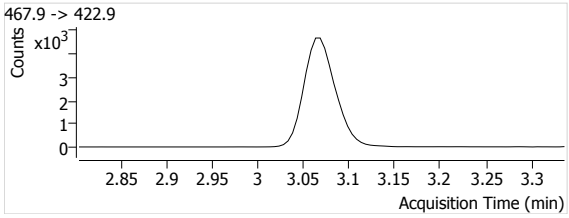

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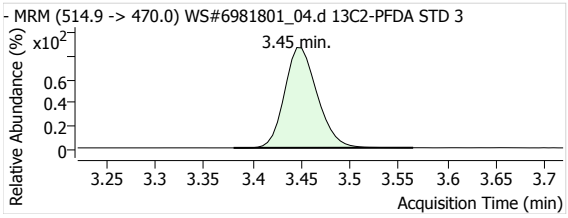

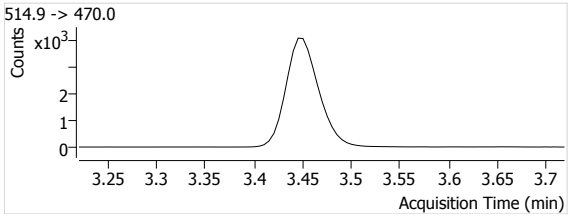

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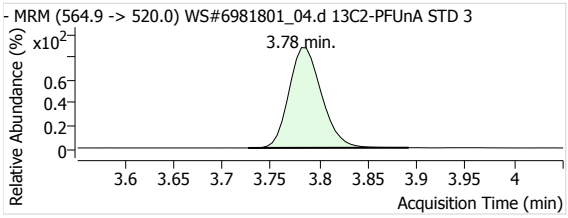

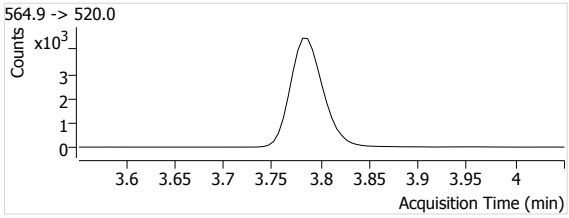

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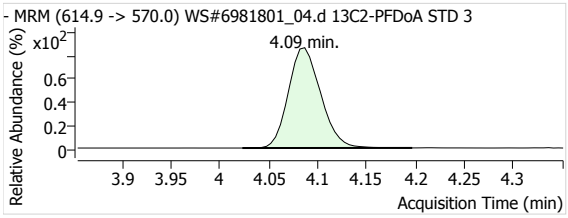

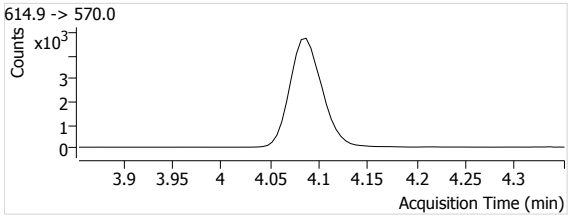

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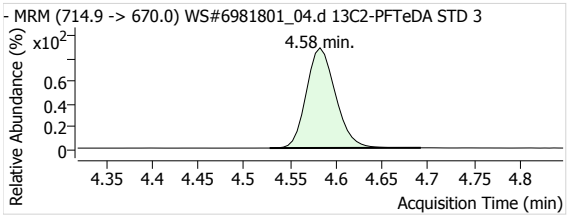

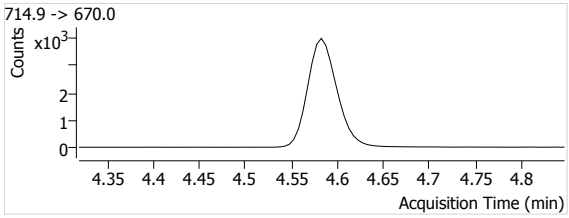

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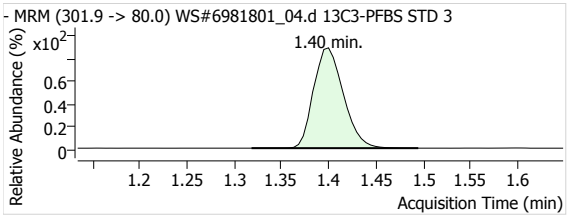

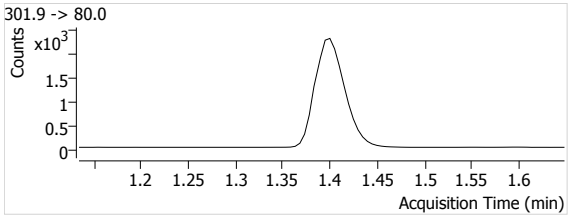

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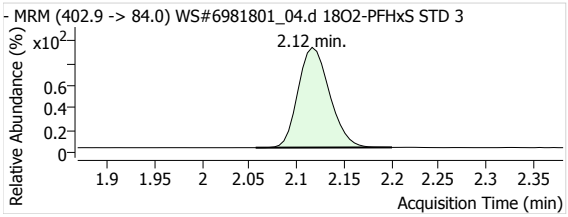

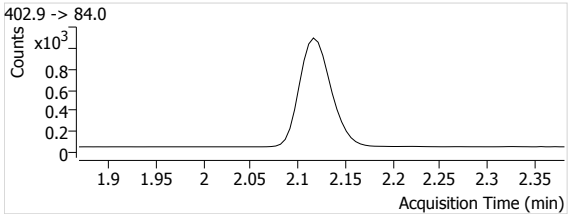

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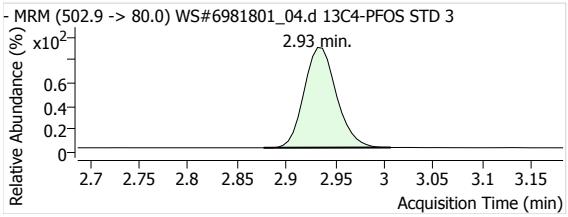

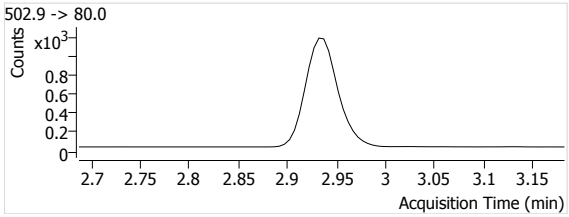

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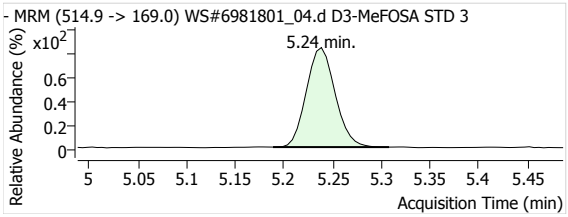

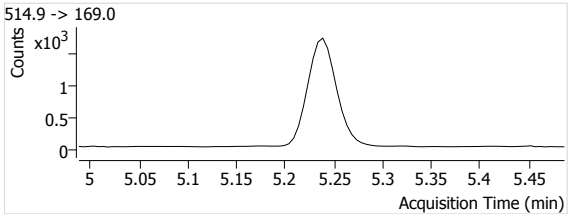

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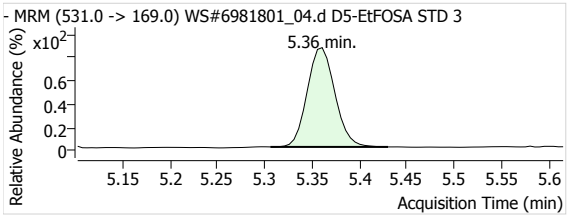
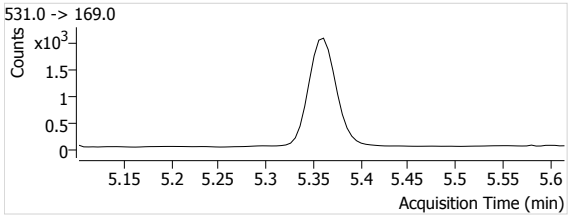




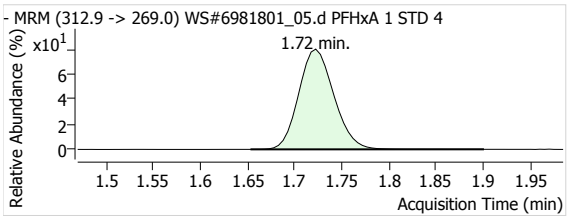
Quantitative Analysis Report

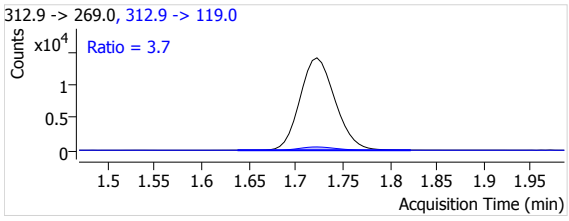
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	STD 4	**Data File**	WS#6981801_05.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A5
Acq. Date-Time	2020/10/05 1:11:39 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	14.4848	90.5	36849	1.72	559	2.5069	1357	1.72	164	3.7
PFHpA 1	µg/L	16.000	14.8362	92.7	43350	2.17	1321	3.4716	7158	2.17	916	16.5
PFOA 1	µg/L	16.000	14.6203	91.4	31171	2.64	320	2.2866	7779	2.64	562	25.0
PFNA 1	µg/L	16.000	14.4003	90.0	29033	3.07	922	2.6205	4677	3.07	381	16.1
PFDA 1	µg/L	16.000	14.4200	90.1	24388	3.45	558	2.4812	4142	3.45	286	17.0
PFUnA 1	µg/L	16.000	14.7994	92.5	27806	3.78	536	2.6156	4409	3.78	481	15.9
PFDoA 1	µg/L	16.000	14.1969	88.7	25973	4.09	480	2.3567	3852	4.09	181	14.8
PFTrDA 1	µg/L	16.000	14.5441	90.9	23736	4.35	603	2.6362	2424	4.35	374	10.2
PFTeDA 1	µg/L	16.000	14.8423	92.8	21598	4.58	379	2.3987	1567	4.58	438	7.3
PFBS 1	µg/L	16.000	14.5212	90.8	14243	1.40	807	2.8182	5691	1.40	574	40.0
PFHxS 1	µg/L	16.000	14.5238	90.8	7876	2.08	213	3.0985	3548	2.07	343	45.1
PFOS 1	µg/L	16.000	14.7733	92.3	7378	2.88	197	2.7612	3652	2.88	498	49.5
MeFOSA 1	µg/L	16.000	14.9346	93.3	5051	5.23	109	1.4354	4065	5.23	339	80.5
EtFOSA 1	µg/L	16.000	14.6762	91.7	4803	5.36	178	1.1496	4739	5.36	392	98.7
13C2-PFHxA	µg/L	100.000	100.0000	100.0	14699	1.72	801		--	--	--	--
13C4-PFHpA	µg/L	100.000	100.0000	100.0	12487	2.17	960		--	--	--	--
13C4-PFOA	µg/L	100.000	100.0000	100.0	13632	2.64	1450		--	--	--	--
13C5-PFNA	µg/L	100.000	100.0000	100.0	11079	3.07	671		--	--	--	--
13C2-PFDA	µg/L	100.000	100.0000	100.0	9829	3.45	528		--	--	--	--
13C2-PFUnA	µg/L	100.000	100.0000	100.0	10631	3.79	523		--	--	--	--
13C2-PFDoA	µg/L	100.000	100.0000	100.0	11021	4.09	516		--	--	--	--
13C2-PFTeDA	µg/L	100.000	100.0000	100.0	9004	4.58	834		--	--	--	--
13C3-PFBS	µg/L	100.000	100.0000	100.0	5054	1.40	1077		--	--	--	--
18O2-PFHxS	µg/L	100.000	100.0000	100.0	2542	2.12	583		--	--	--	--
13C4-PFOS	µg/L	100.000	100.0000	100.0	2672	2.94	692		--	--	--	--
D3-MeFOSA	µg/L	100.000	100.0000	100.0	3519	5.24	168		--	--	--	--
D5-EtFOSA	µg/L	100.000	100.0000	100.0	4178	5.36	111		--	--	--	--

PFHxA 1





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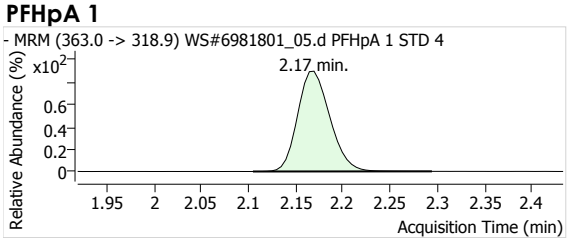
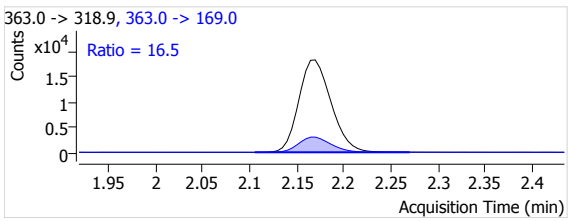
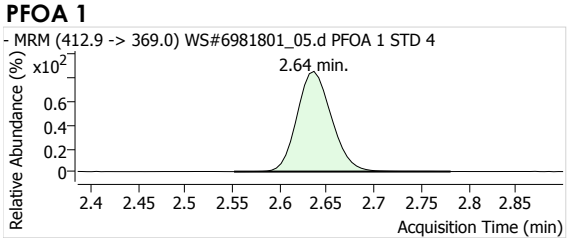
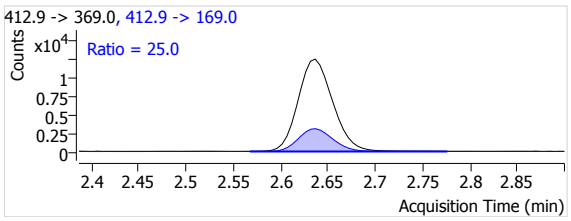




PFOA 1





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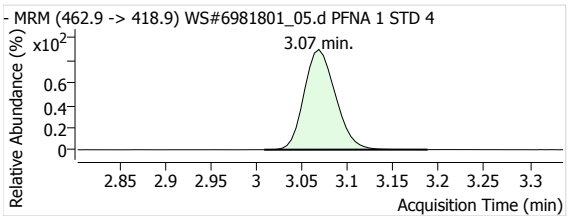

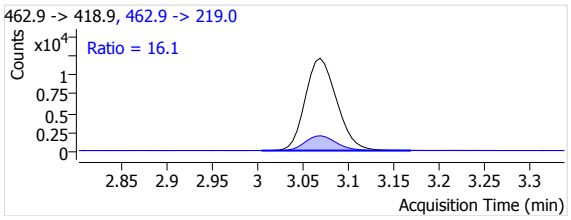

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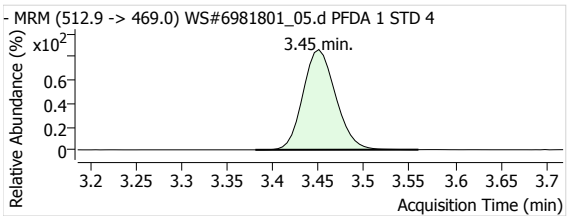

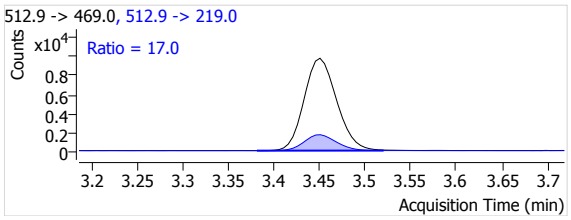

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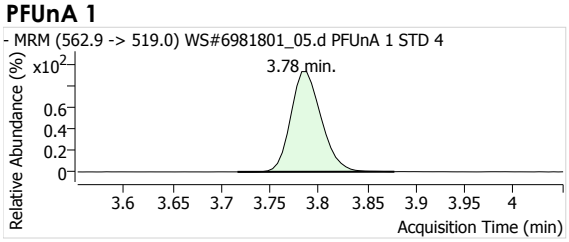

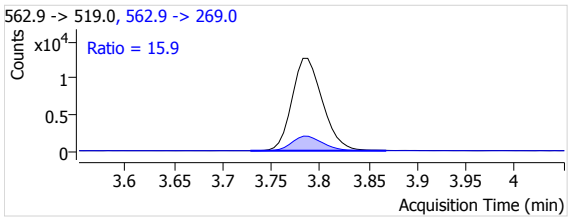

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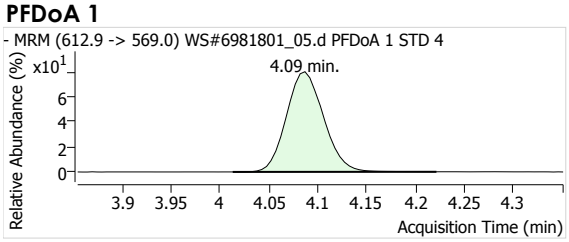

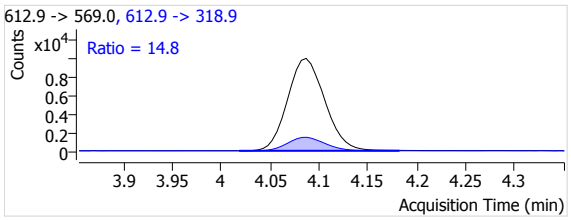

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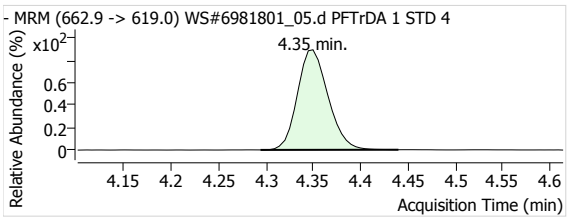

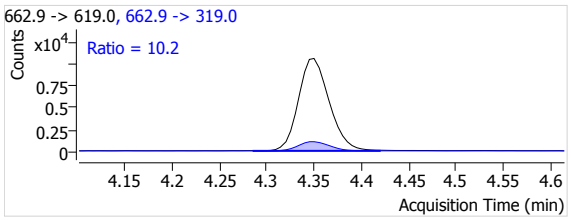

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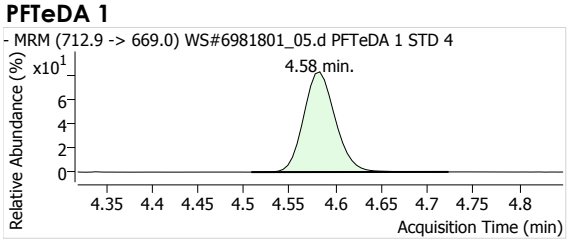

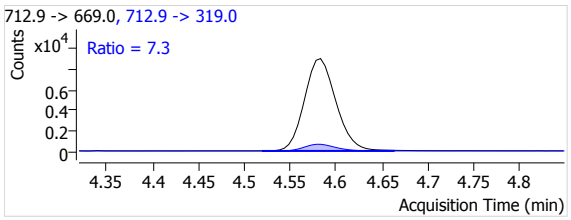

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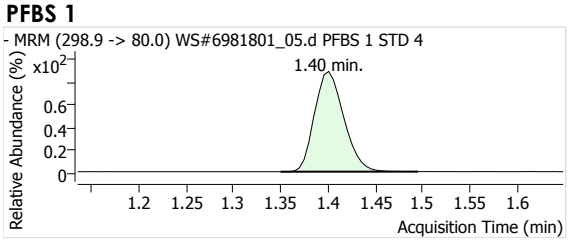

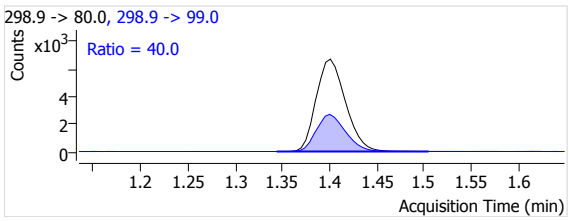

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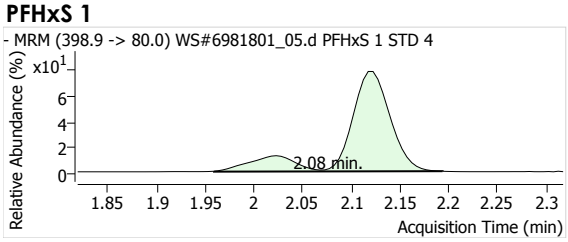

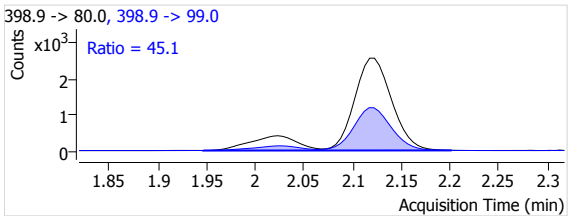

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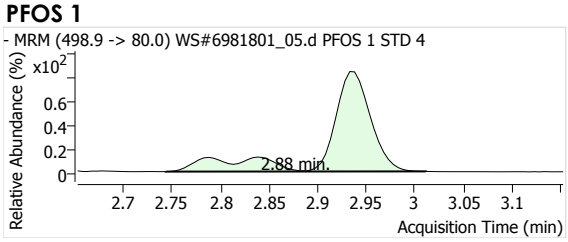

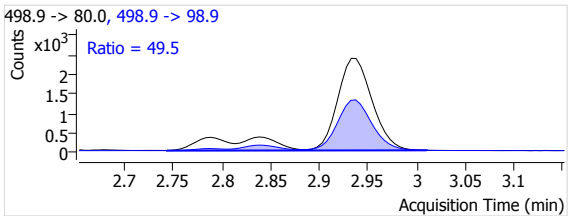

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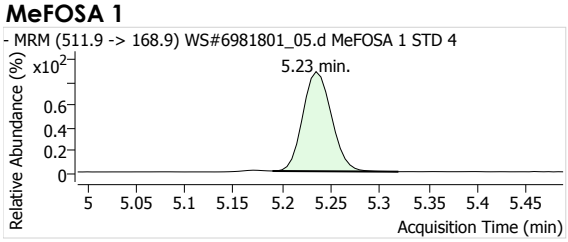

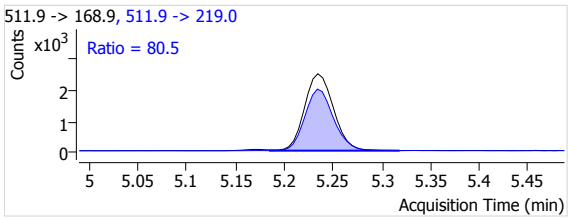

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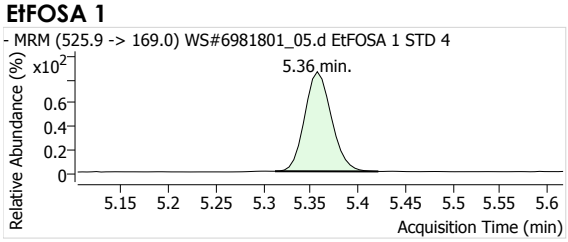

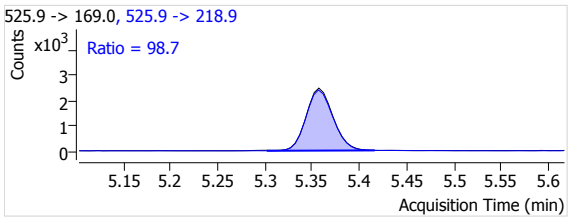

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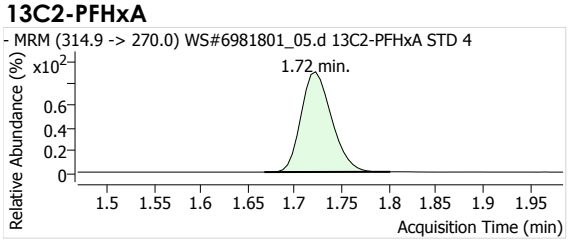

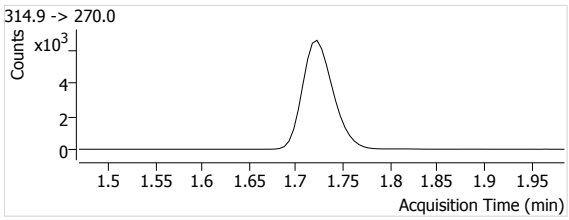

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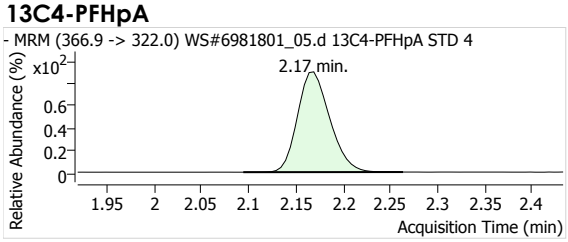

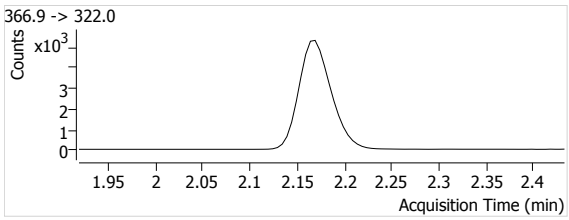

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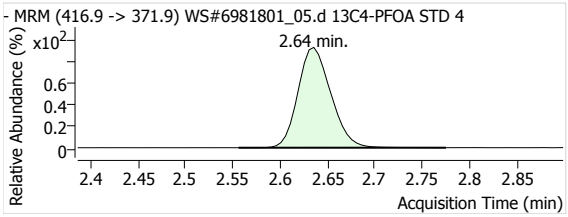

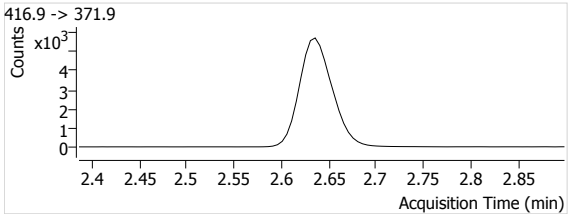

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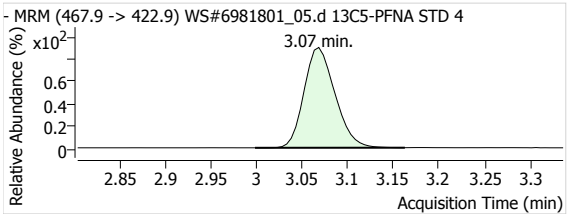

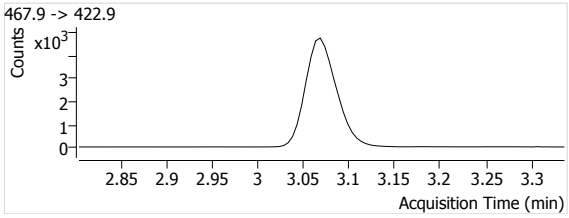

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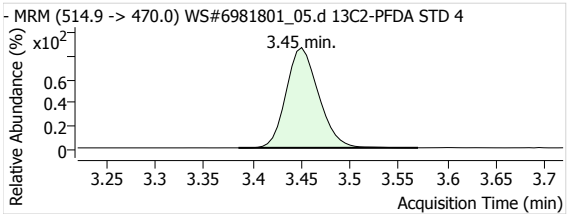

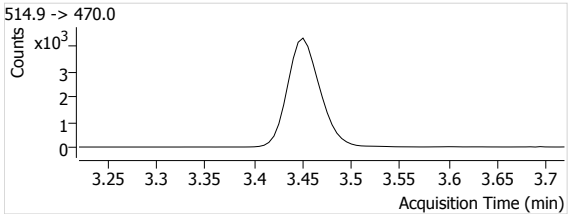

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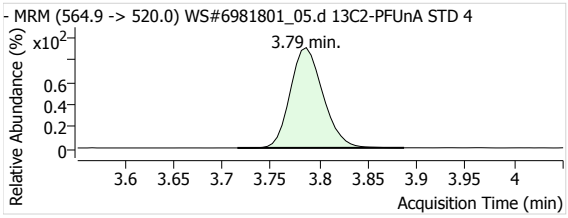

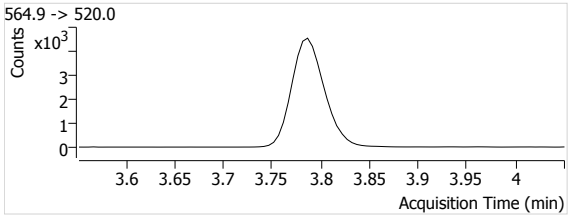

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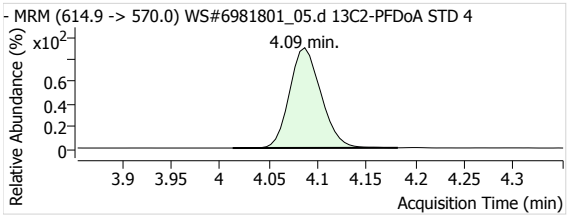

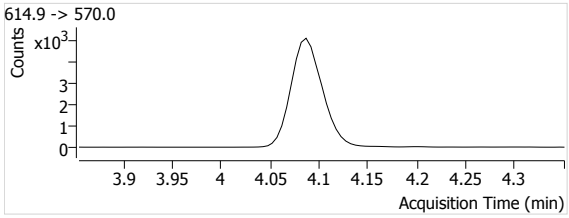

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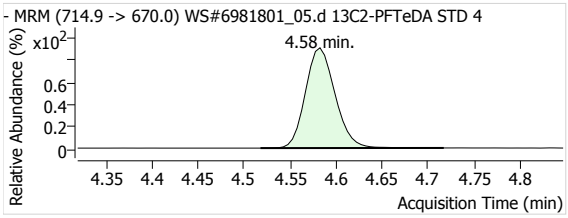

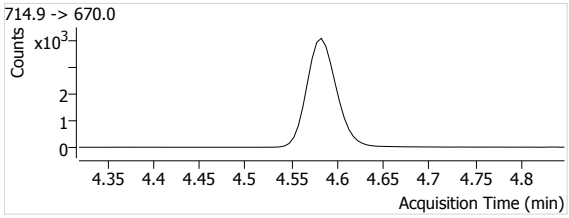

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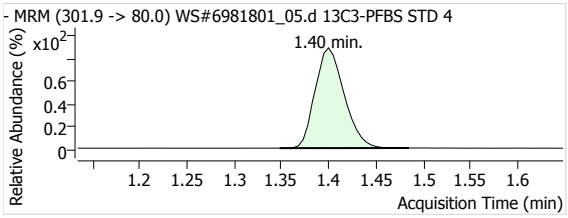

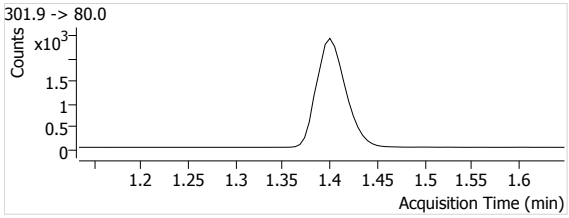

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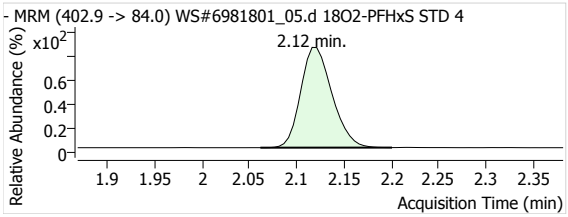

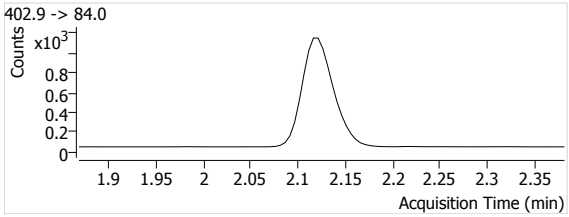

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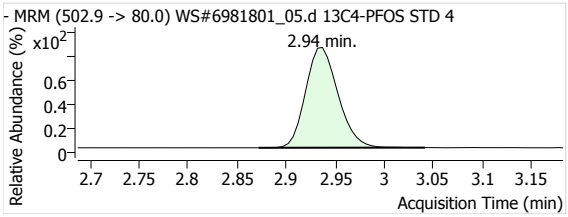
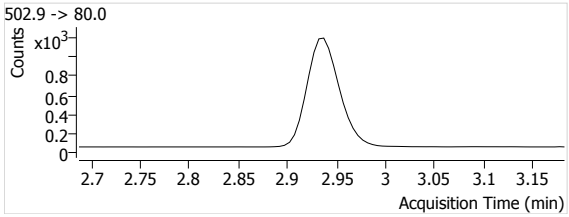
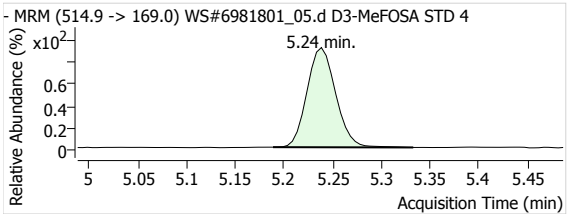
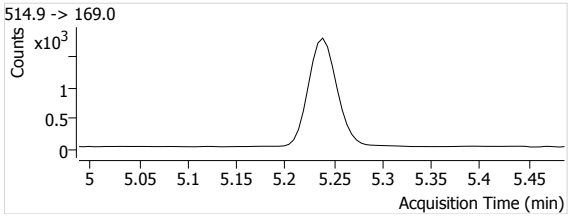




D3-MeFOSA





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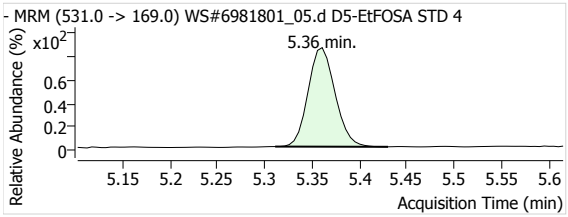
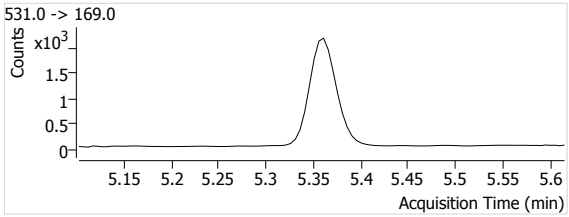




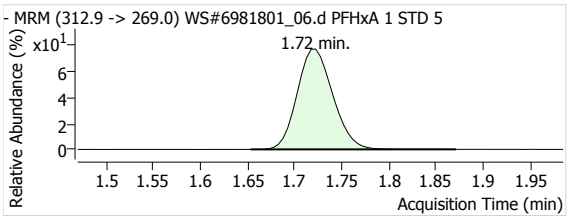
Quantitative Analysis Report

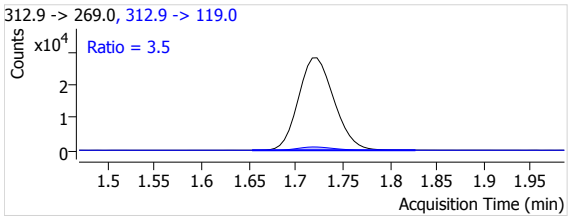
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	STD 5	**Data File**	WS#6981801_06.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A6
Acq. Date-Time	2020/10/05 1:18:38 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	30.000	30.5114	101.7	74350	1.72	1372	5.2552	2635	1.72	481	3.5
PFHpA 1	µg/L	30.000	30.7453	102.5	88532	2.16	1824	7.1547	14445	2.17	701	16.3
PFOA 1	µg/L	30.000	30.4179	101.4	64896	2.64	706	4.7394	15710	2.64	686	24.2
PFNA 1	µg/L	30.000	30.4728	101.6	59845	3.07	1160	5.5248	9574	3.07	938	16.0
PFDA 1	µg/L	30.000	30.4734	101.6	50801	3.45	1715	5.2264	8740	3.45	905	17.2
PFUnA 1	µg/L	30.000	30.3001	101.0	55933	3.79	754	5.3330	9106	3.79	458	16.3
PFDoA 1	µg/L	30.000	30.5962	102.0	54174	4.09	1058	5.0521	7581	4.09	967	14.0
PFTrDA 1	µg/L	30.000	30.5319	101.8	49383	4.35	1047	5.4919	4772	4.35	382	9.7
PFTeDA 1	µg/L	30.000	30.4825	101.6	43937	4.58	1246	4.8862	3231	4.58	552	7.4
PFBS 1	µg/L	30.000	29.8957	99.7	28973	1.40	1424	5.7877	11407	1.40	1213	39.4
PFHxS 1	µg/L	30.000	30.5836	101.9	16234	2.08	285	6.5039	7435	2.07	607	45.8
PFOS 1	µg/L	30.000	31.0687	103.6	15130	2.88	315	5.7838	7395	2.88	619	48.9
MeFOSA 1	µg/L	30.000	31.2214	104.1	10468	5.23	582	2.9866	8677	5.23	508	82.9
EtFOSA 1	µg/L	30.000	31.4082	104.7	10199	5.36	248	2.4499	9787	5.36	518	96.0
13C2-PFHxA	µg/L	100.000	96.2514	96.3	14148	1.72	1184		--	--	--	--
13C4-PFHpA	µg/L	100.000	99.0951	99.1	12374	2.16	1040		--	--	--	--
13C4-PFOA	µg/L	100.000	100.4475	100.4	13693	2.64	880		--	--	--	--
13C5-PFNA	µg/L	100.000	97.7706	97.8	10832	3.07	596		--	--	--	--
13C2-PFDA	µg/L	100.000	98.8910	98.9	9720	3.45	1010		--	--	--	--
13C2-PFUnA	µg/L	100.000	98.6549	98.7	10488	3.79	793		--	--	--	--
13C2-PFDoA	µg/L	100.000	97.2961	97.3	10723	4.09	375		--	--	--	--
13C2-PFTeDA	µg/L	100.000	99.8667	99.9	8992	4.58	994		--	--	--	--
13C3-PFBS	µg/L	100.000	99.0503	99.1	5006	1.40	516		--	--	--	--
18O2-PFHxS	µg/L	100.000	98.1904	98.2	2496	2.12	446		--	--	--	--
13C4-PFOS	µg/L	100.000	97.9042	97.9	2616	2.94	273		--	--	--	--
D3-MeFOSA	µg/L	100.000	99.6022	99.6	3505	5.24	134		--	--	--	--
D5-EtFOSA	µg/L	100.000	99.6410	99.6	4163	5.36	114		--	--	--	--

PFHxA 1





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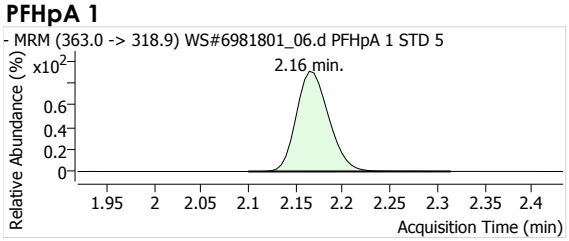

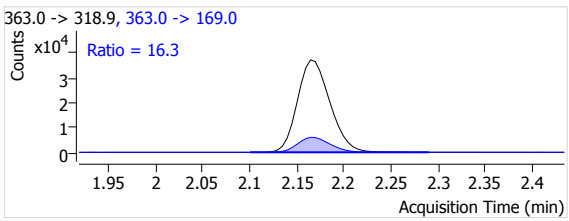

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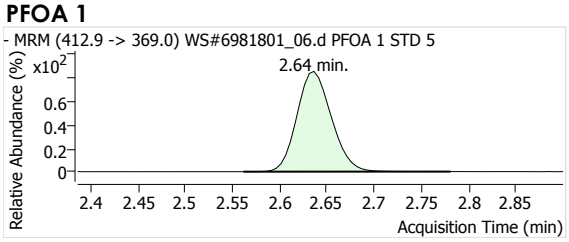

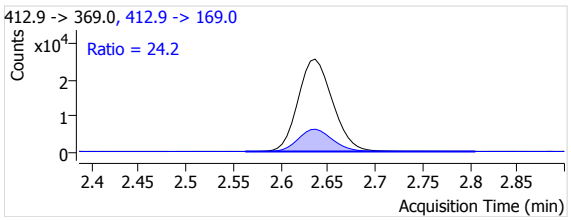

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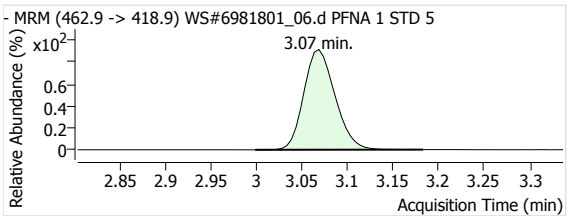

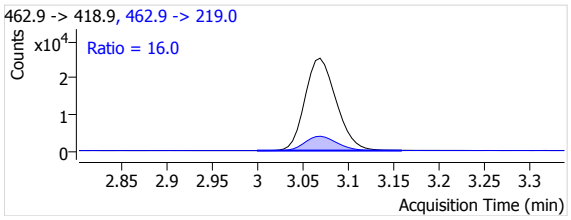

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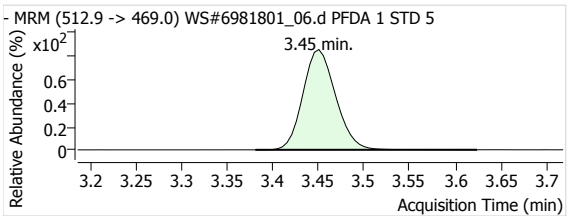

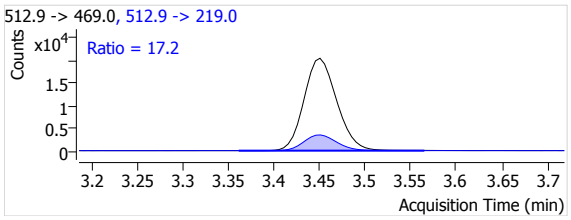

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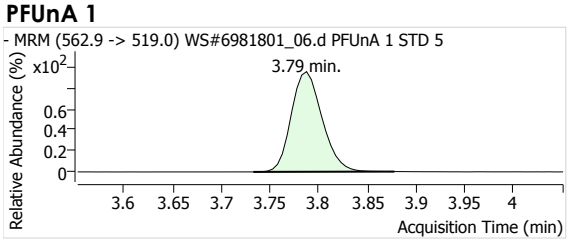

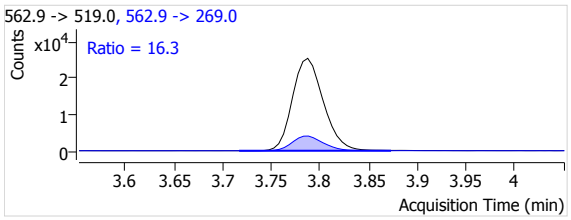

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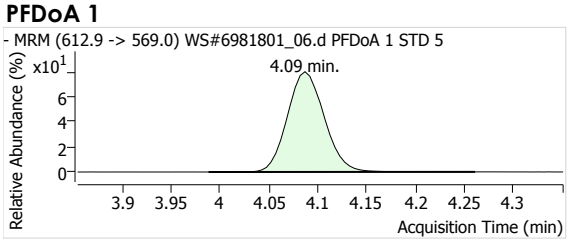

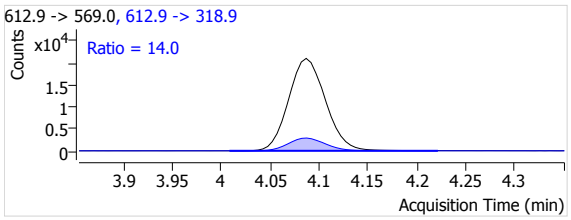

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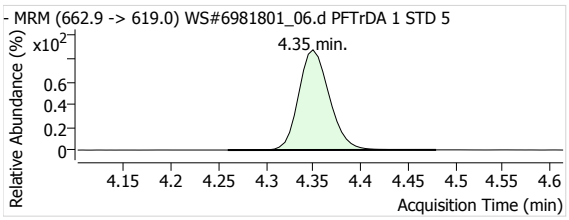

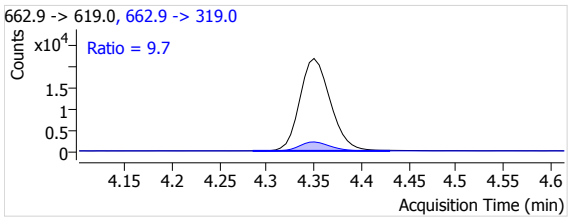

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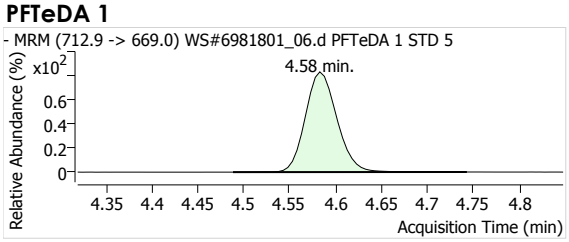

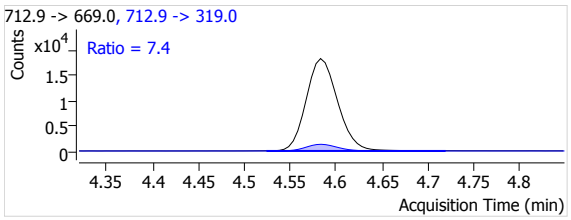

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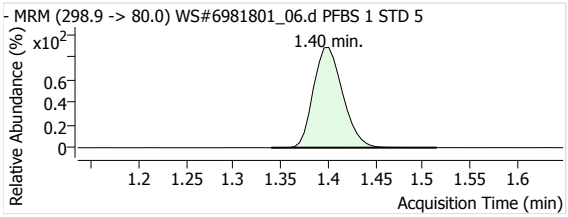

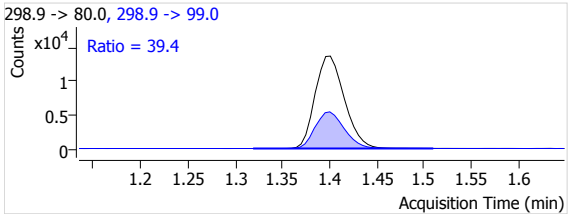

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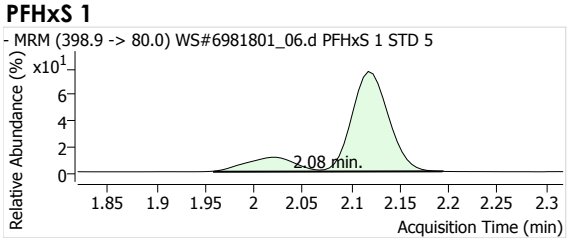

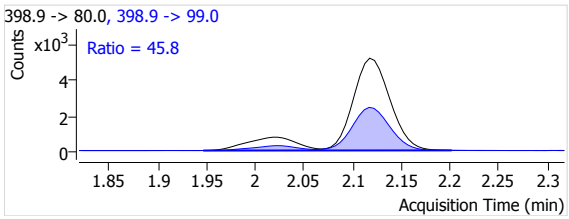

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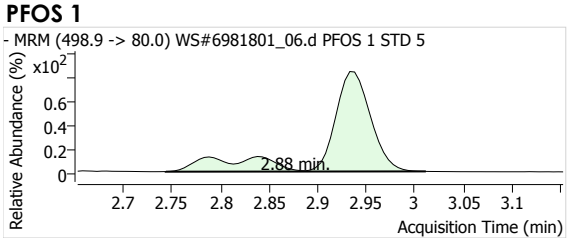

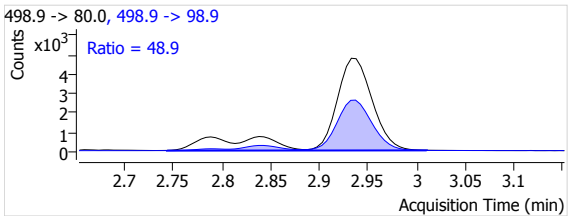

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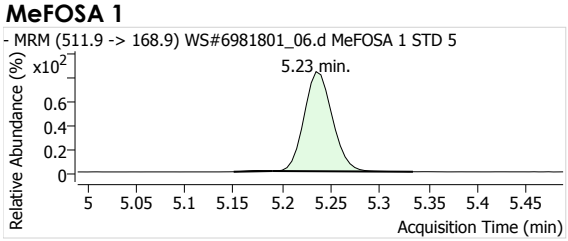

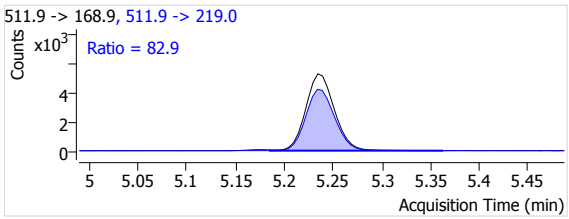

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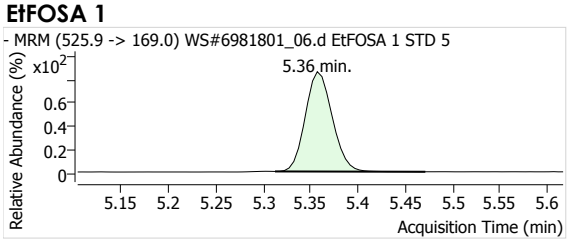

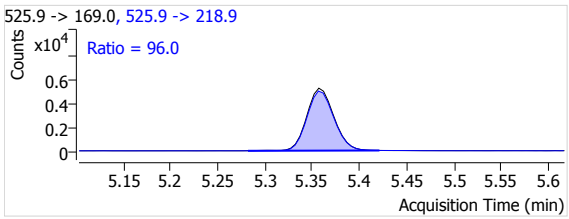

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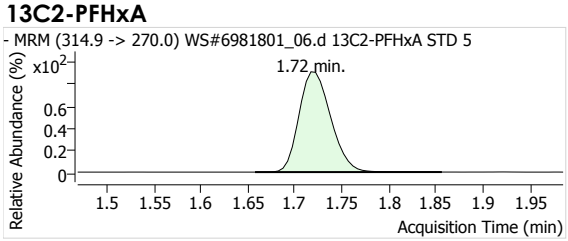

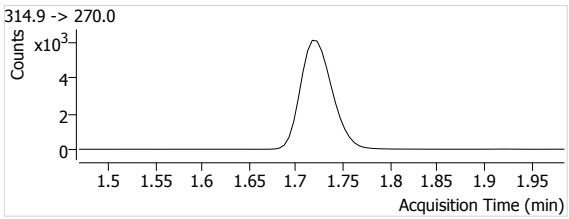

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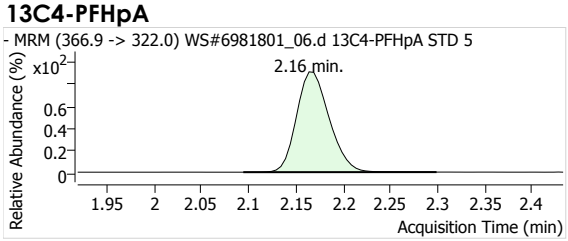

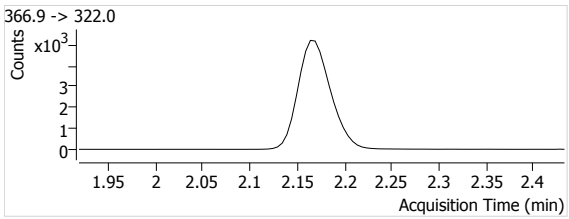

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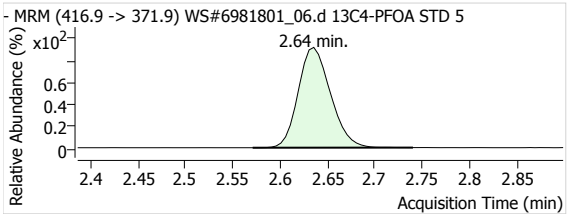

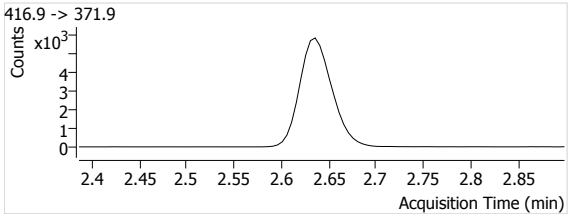

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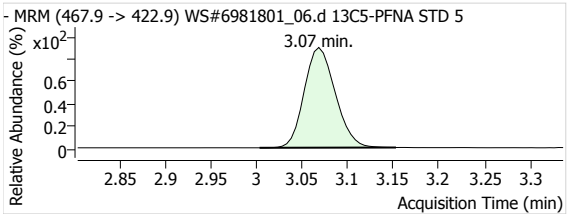

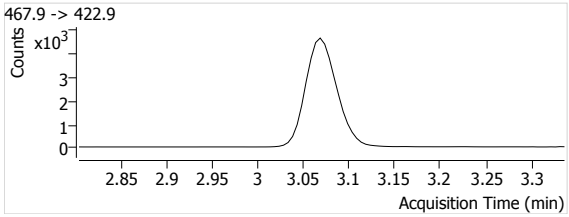

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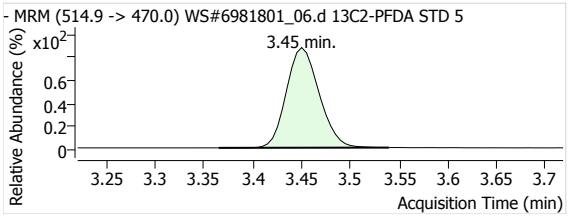

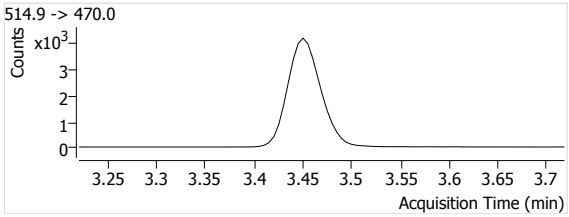

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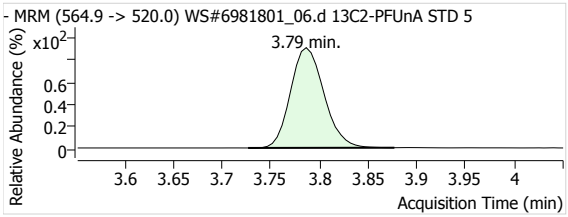

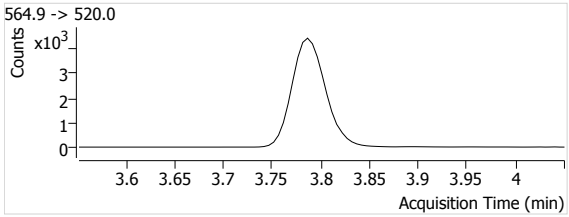

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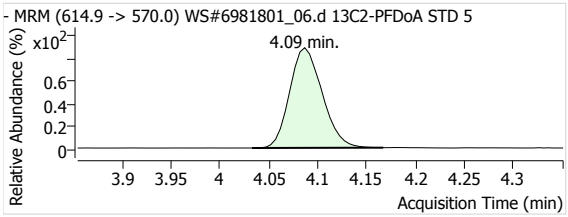

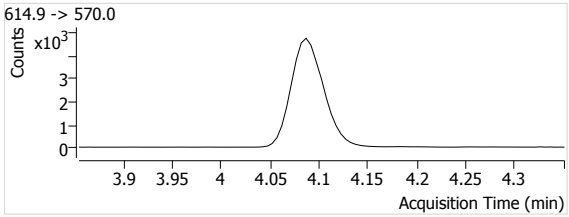

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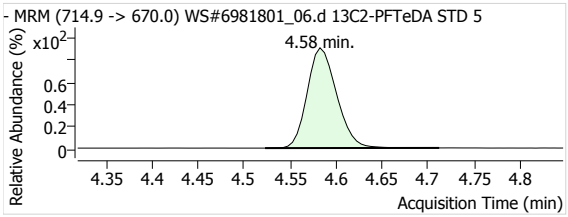

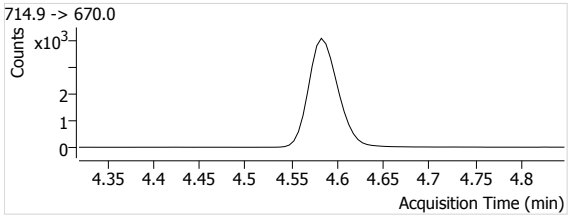

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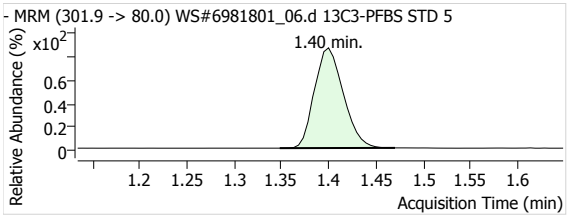

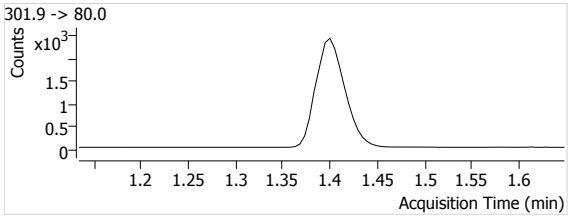

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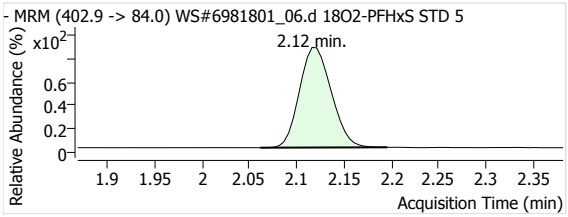

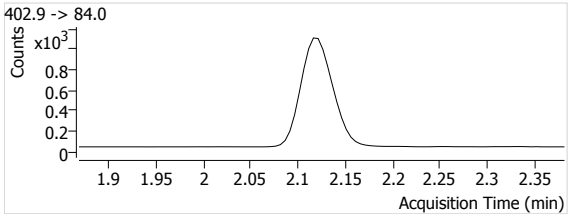

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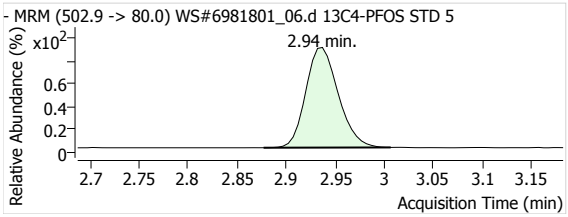
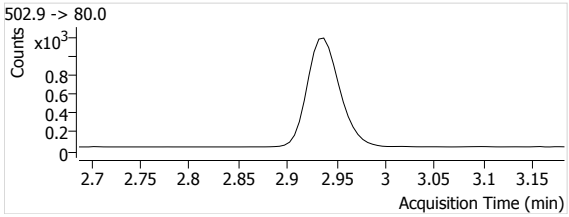
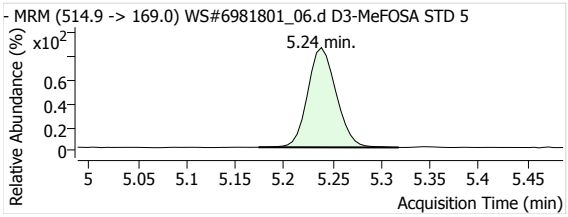
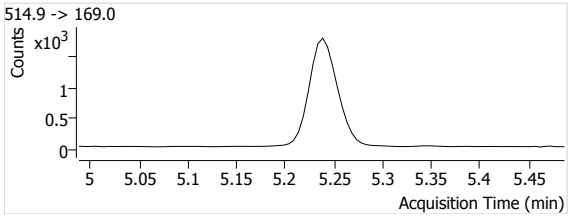




D3-MeFOSA





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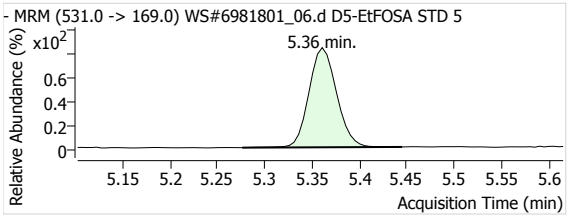
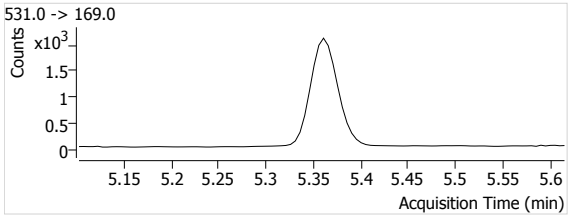




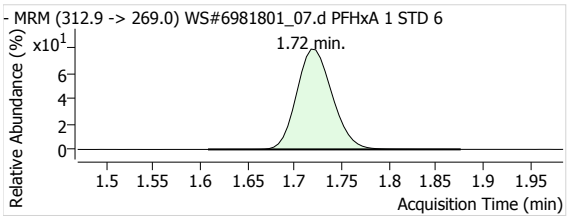
Quantitative Analysis Report

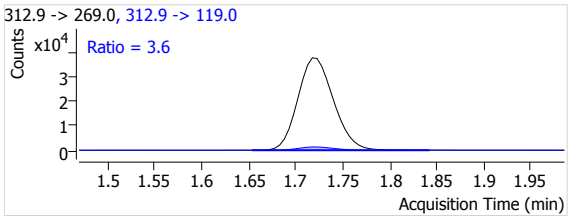
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	STD 6	**Data File**	WS#6981801_07.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A7
Acq. Date-Time	2020/10/05 1:25:37 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	41.700	42.3691	101.6	98818	1.72	2073	7.2885	3551	1.72	663	3.6
PFHpA 1	µg/L	41.700	41.4962	99.5	118751	2.16	1690	9.6436	19447	2.17	932	16.4
PFOA 1	µg/L	41.700	42.2045	101.2	88082	2.64	783	6.5694	21420	2.64	603	24.3
PFNA 1	µg/L	41.700	42.4141	101.7	82089	3.07	1811	7.6826	12807	3.07	889	15.6
PFDA 1	µg/L	41.700	42.3242	101.5	68432	3.45	1616	7.2530	11834	3.45	801	17.3
PFUnA 1	µg/L	41.700	42.2415	101.3	75305	3.79	1157	7.4265	12225	3.78	718	16.2
PFDoA 1	µg/L	41.700	42.4894	101.9	73587	4.09	1620	7.0070	10410	4.09	1364	14.1
PFTrDA 1	µg/L	41.700	42.1604	101.1	66304	4.35	1149	7.5689	6360	4.35	687	9.6
PFTeDA 1	µg/L	41.700	41.8664	100.4	58664	4.58	1135	6.6968	4372	4.58	912	7.5
PFBS 1	µg/L	41.700	42.7696	102.6	39385	1.40	2928	8.2742	15293	1.40	1602	38.8
PFHxS 1	µg/L	41.700	42.1455	101.1	22147	2.08	262	8.9555	10193	2.07	726	46.0
PFOS 1	µg/L	41.700	41.3337	99.1	20396	2.88	272	7.6879	10011	2.88	622	49.1
MeFOSA 1	µg/L	41.700	41.1058	98.6	14137	5.23	774	3.9280	11304	5.23	454	80.0
EtFOSA 1	µg/L	41.700	41.2570	98.9	13305	5.36	212	3.2153	13311	5.36	747	100.0
13C2-PFHxA	µg/L	100.000	92.2376	92.2	13558	1.72	1132		--	--	--	--
13C4-PFHpA	µg/L	100.000	98.6146	98.6	12314	2.16	1105		--	--	--	--
13C4-PFOA	µg/L	100.000	98.3568	98.4	13408	2.64	1317		--	--	--	--
13C5-PFNA	µg/L	100.000	96.4437	96.4	10685	3.07	1043		--	--	--	--
13C2-PFDA	µg/L	100.000	95.9915	96.0	9435	3.45	1180		--	--	--	--
13C2-PFUnA	µg/L	100.000	95.3814	95.4	10140	3.79	614		--	--	--	--
13C2-PFDoA	µg/L	100.000	95.2908	95.3	10502	4.09	623		--	--	--	--
13C2-PFTeDA	µg/L	100.000	97.2901	97.3	8760	4.58	726		--	--	--	--
13C3-PFBS	µg/L	100.000	94.1828	94.2	4760	1.40	1125		--	--	--	--
18O2-PFHxS	µg/L	100.000	97.2856	97.3	2473	2.12	649		--	--	--	--
13C4-PFOS	µg/L	100.000	99.2889	99.3	2653	2.94	240		--	--	--	--
D3-MeFOSA	µg/L	100.000	102.2734	102.3	3599	5.24	150		--	--	--	--
D5-EtFOSA	µg/L	100.000	99.0426	99.0	4138	5.36	109		--	--	--	--

PFHxA 1





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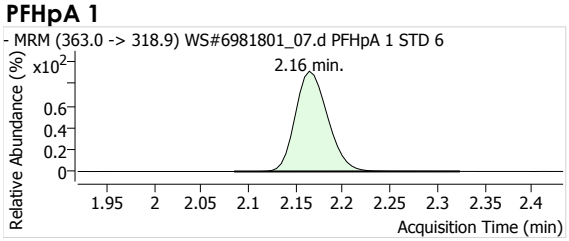

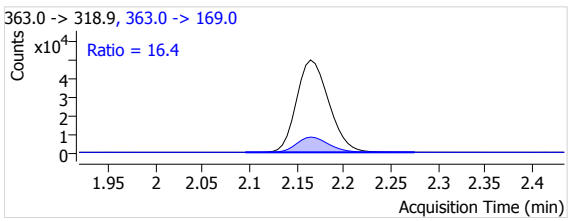

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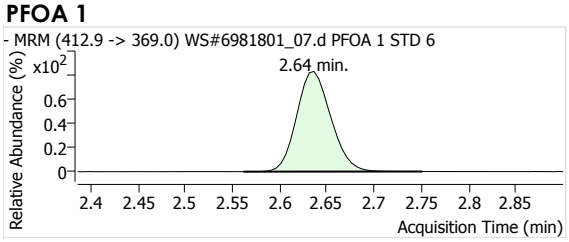

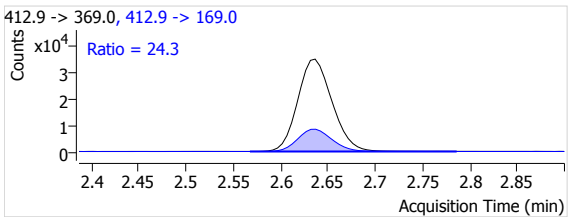

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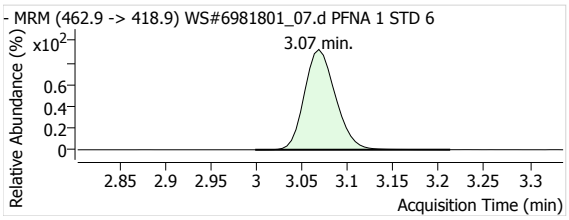

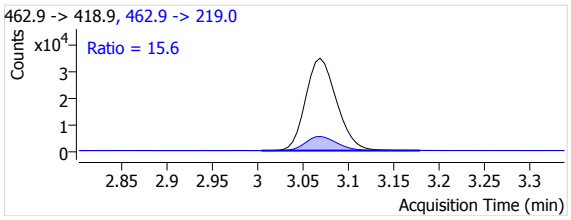

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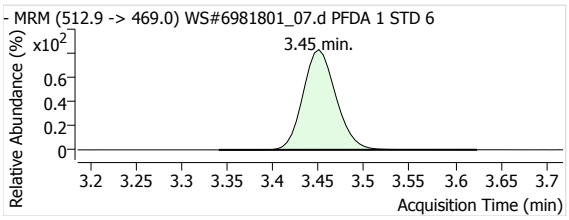

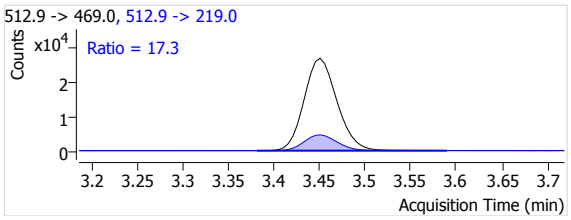

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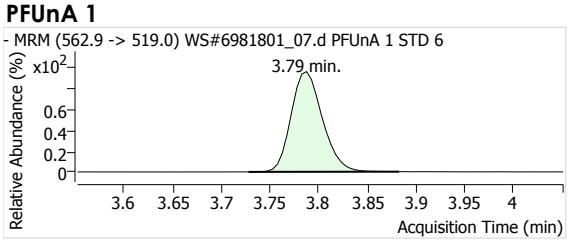

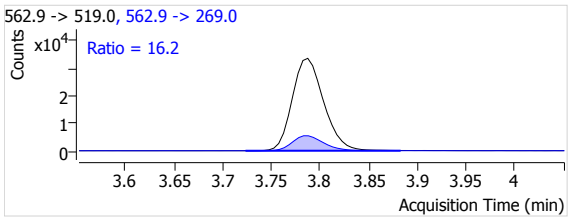

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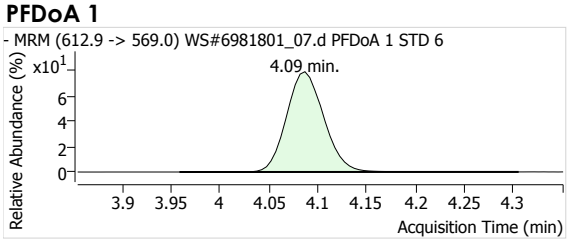

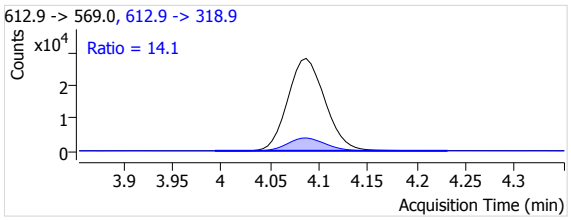

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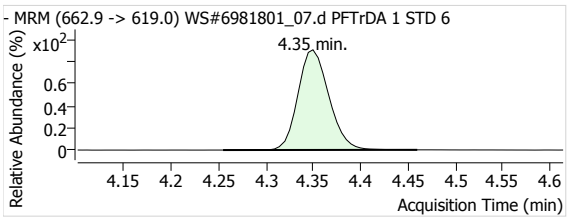

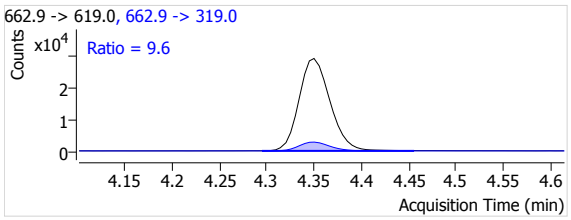

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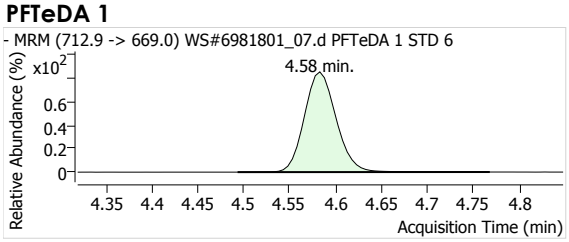

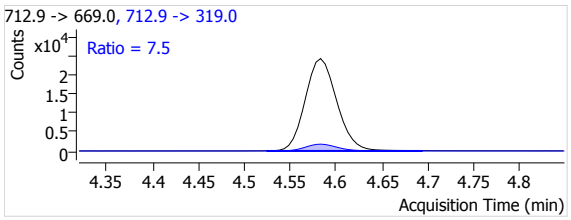

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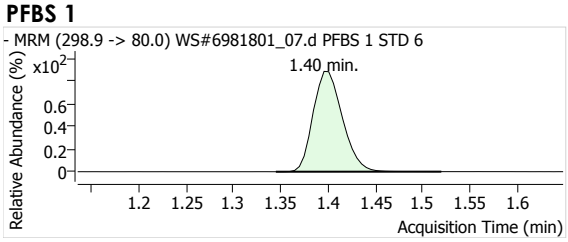

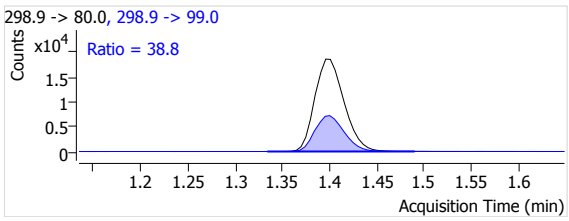

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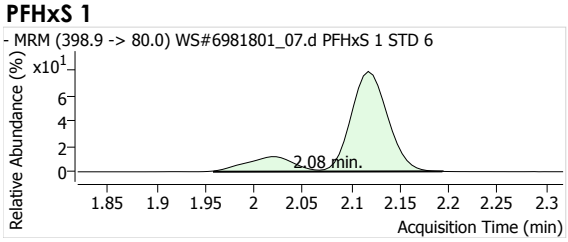

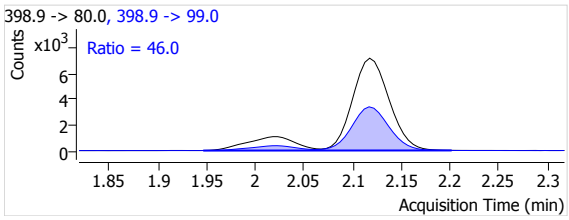

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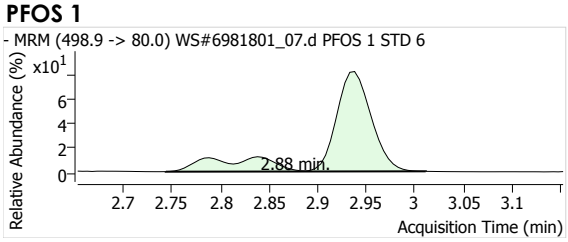

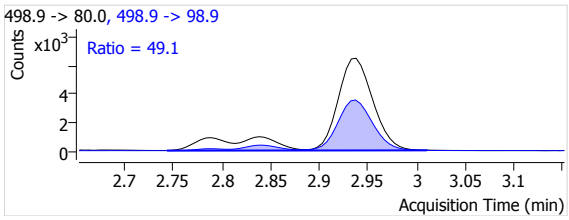

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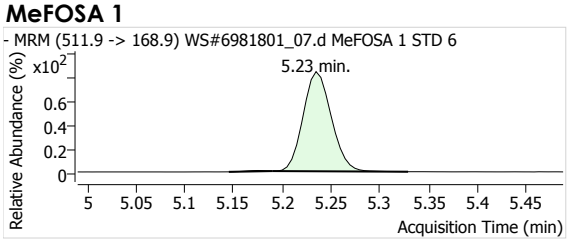

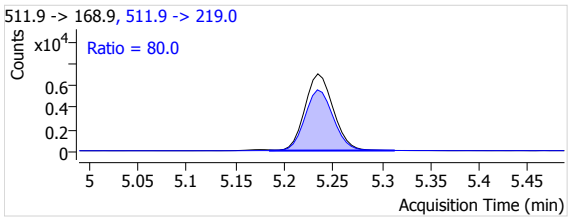

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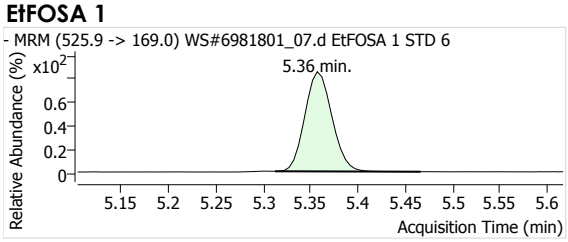

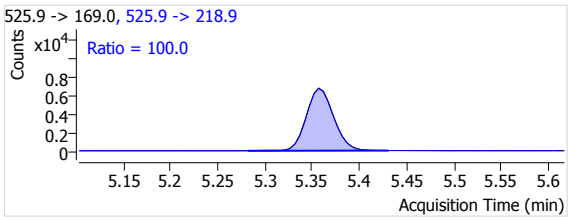

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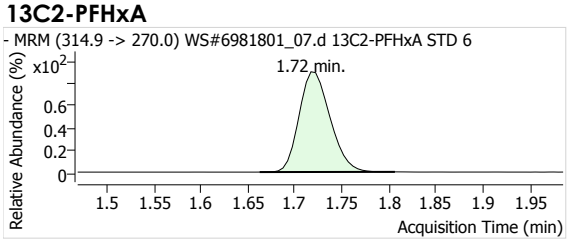

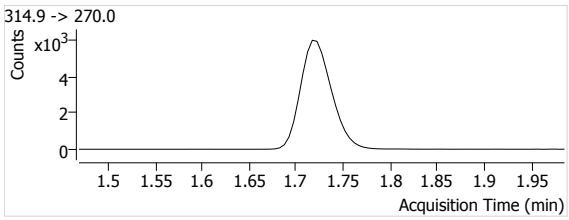

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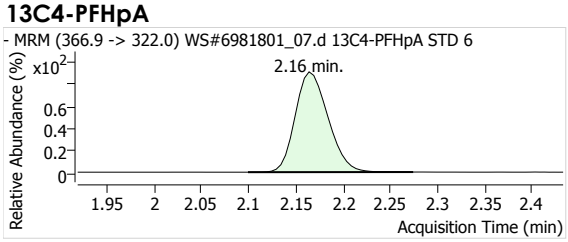

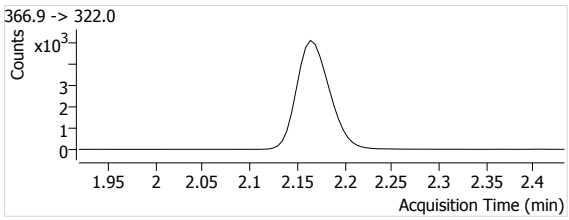

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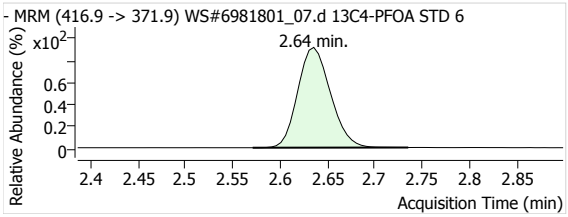

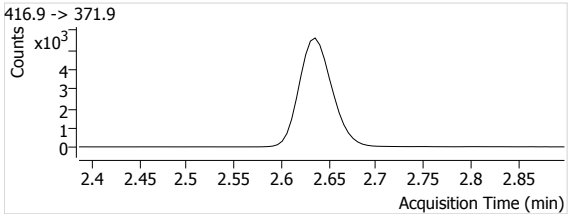

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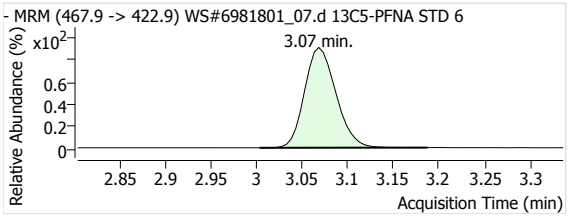

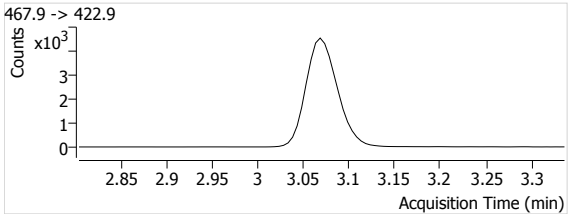

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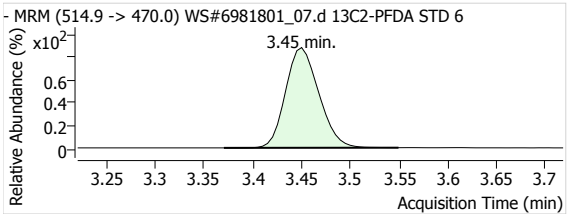

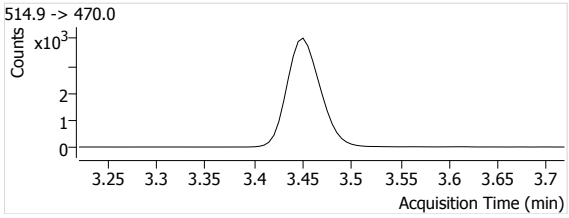

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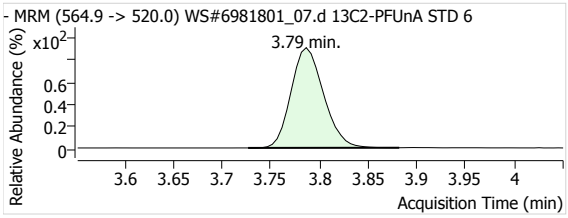

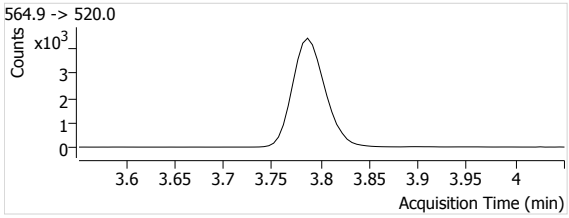

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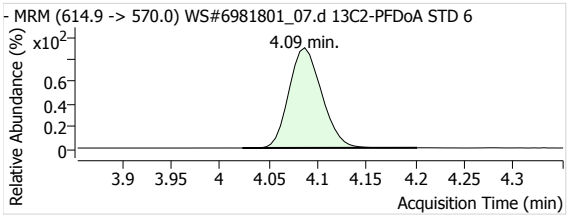

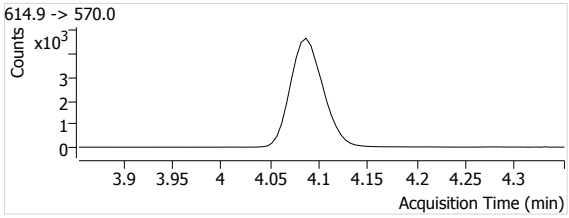

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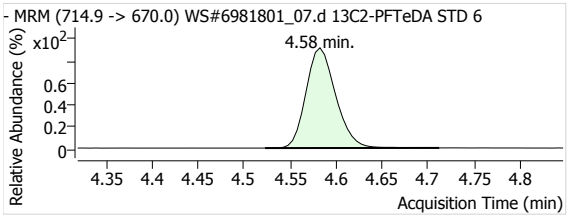

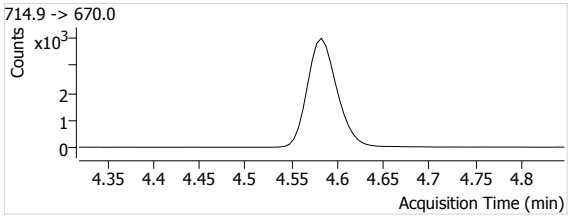

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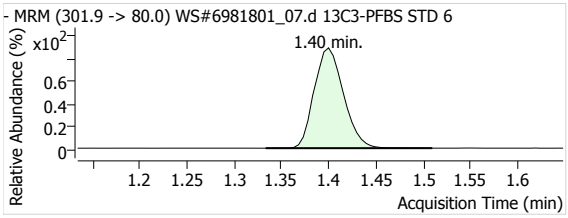

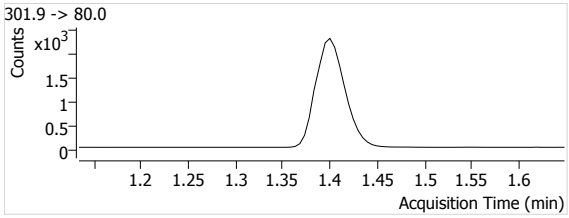

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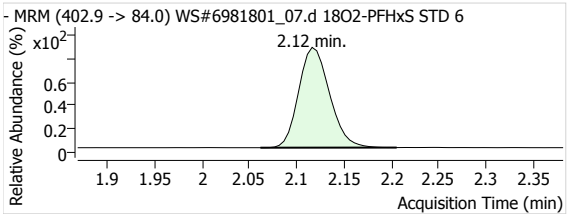
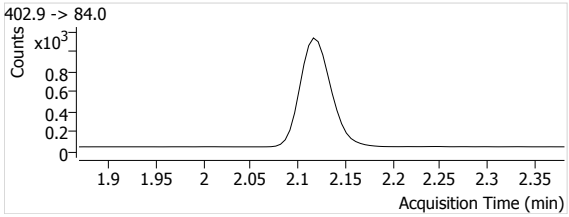
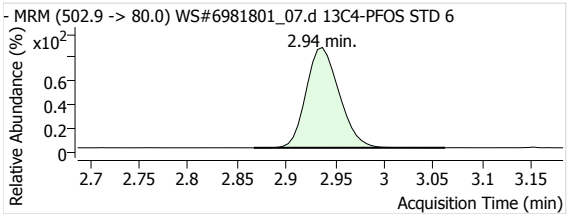
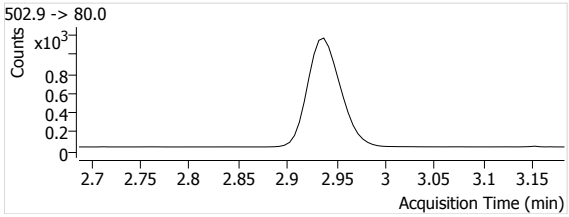


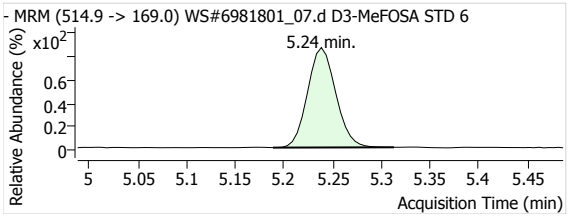


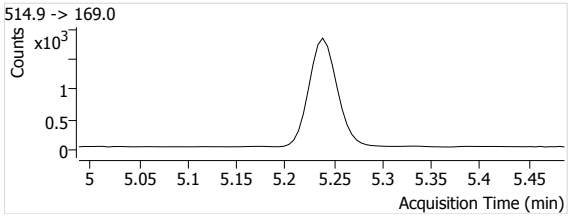
13C4-PFOS





D3-MeFOSA





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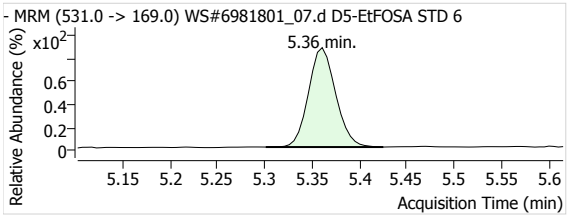
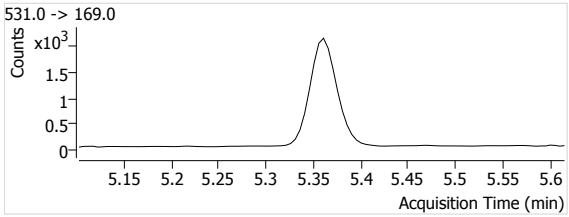




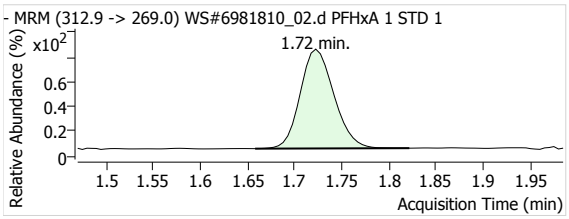
Quantitative Analysis Report

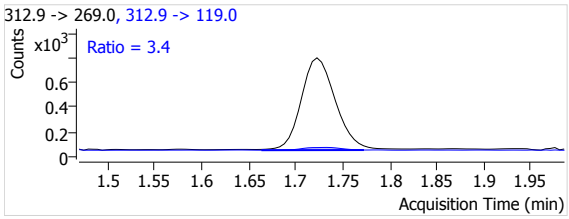
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	STD 1	**Data File**	WS#6981810_02.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A2
Acq. Date-Time	2020/10/05 7:28:47 AM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	0.830	0.8218	99.0	1850	1.72	50	0.1616	62	1.73	6	3.4
PFHpA 1	µg/L	0.830	0.8347	100.6	2083	2.17	51	0.2216	357	2.17	38	17.1
PFOA 1	µg/L	0.830	0.8538	102.9	1432	2.64	21	0.1455	354	2.64	95	24.7
PFNA 1	µg/L	0.830	0.8132	98.0	1353	3.07	32	0.1790	199	3.08	27	14.7
PFDA 1	µg/L	0.830	0.8072	97.3	1090	3.46	49	0.1624	200	3.46	73	18.3
PFUnA 1	µg/L	0.830	0.8265	99.6	1270	3.79	27	0.1672	206	3.80	25	16.2
PFDoA 1	µg/L	0.830	0.8535	102.8	1324	4.09	31	0.1651	168	4.10	47	12.7
PFTrDA 1	µg/L	0.830	0.8337	100.4	1136	4.36	16	0.1797	115	4.36	44	10.1
PFTeDA 1	µg/L	0.830	0.8230	99.2	1047	4.59	27	0.1656	66	4.59	44	6.3
PFBS 1	µg/L	0.830	0.7903	95.2	643	1.40	79	0.1626	266	1.40	46	41.4
PFHxS 1	µg/L	0.830	0.8310	100.1	359	2.07	210	0.1976	176	2.07	14	49.1
PFOS 1	µg/L	0.830	0.8280	99.8	304	2.89	25	0.1608	154	2.89	23	50.9
MeFOSA 1	µg/L	0.830	0.7974	96.1	216	5.23	25	0.0855	170	5.23	56	78.7
EtFOSA 1	µg/L	0.830	0.8304	100.0	193	5.36	88	0.0652	197	5.36	1694	102.1
13C2-PFHxA	µg/L	100.000	92.0460	92.0	11445	1.72	1097		--	--	--	--
13C4-PFHpA	µg/L	100.000	90.5326	90.5	9400	2.17	315		--	--	--	--
13C4-PFOA	µg/L	100.000	87.2506	87.3	9841	2.64	1026		--	--	--	--
13C5-PFNA	µg/L	100.000	85.4188	85.4	7557	3.07	865		--	--	--	--
13C2-PFDA	µg/L	100.000	86.1414	86.1	6713	3.46	366		--	--	--	--
13C2-PFUnA	µg/L	100.000	89.3845	89.4	7595	3.79	378		--	--	--	--
13C2-PFDoA	µg/L	100.000	88.3649	88.4	8020	4.09	408		--	--	--	--
13C2-PFTeDA	µg/L	100.000	88.1238	88.1	6322	4.59	529		--	--	--	--
13C3-PFBS	µg/L	100.000	92.7516	92.8	3954	1.40	846		--	--	--	--
18O2-PFHxS	µg/L	100.000	88.2896	88.3	1817	2.12	1323		--	--	--	--
13C4-PFOS	µg/L	100.000	89.5685	89.6	1889	2.94	461		--	--	--	--
D3-MeFOSA	µg/L	100.000	90.7620	90.8	2525	5.24	104		--	--	--	--
D5-EtFOSA	µg/L	100.000	88.9690	89.0	2960	5.36	94		--	--	--	--

PFHxA 1





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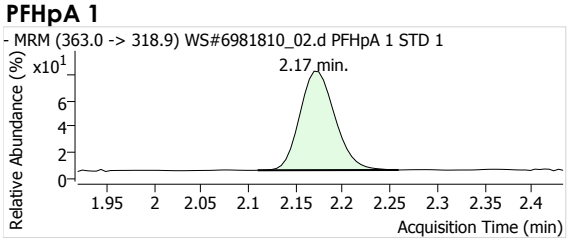

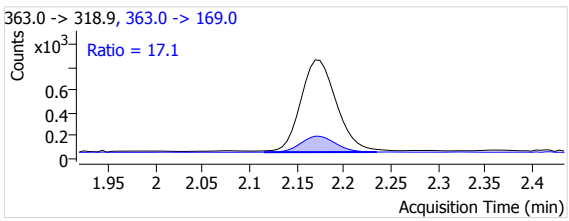

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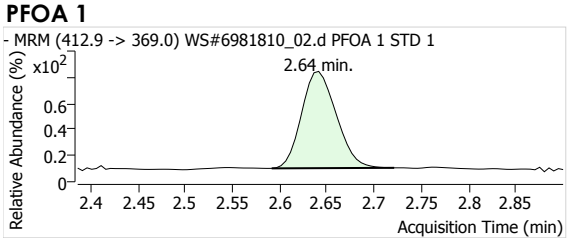

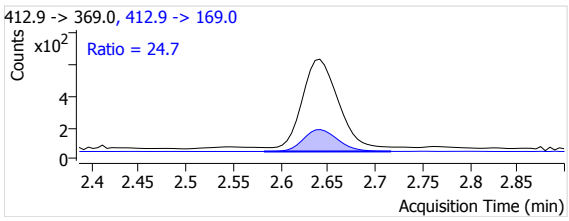

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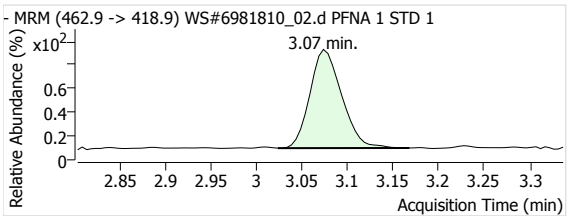

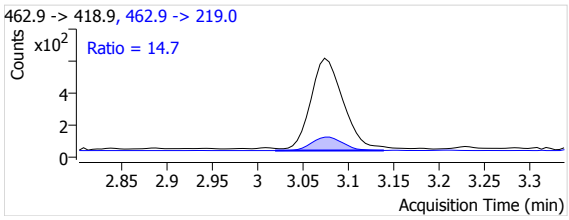

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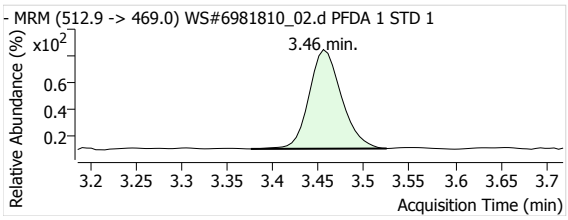

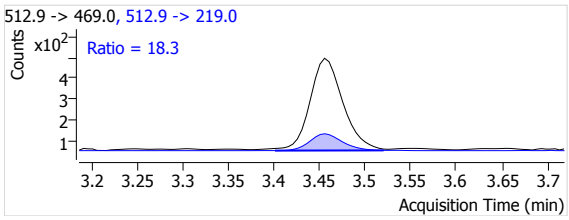

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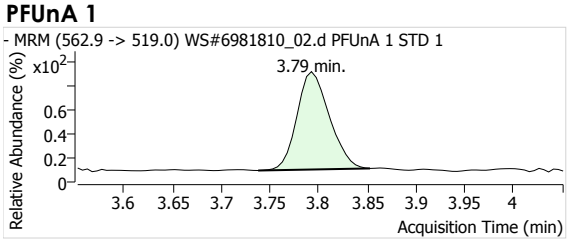

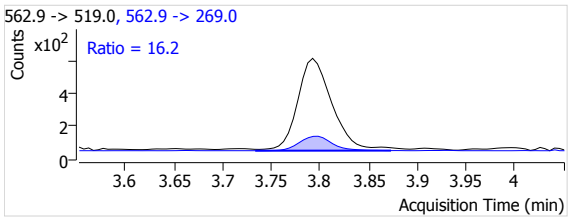

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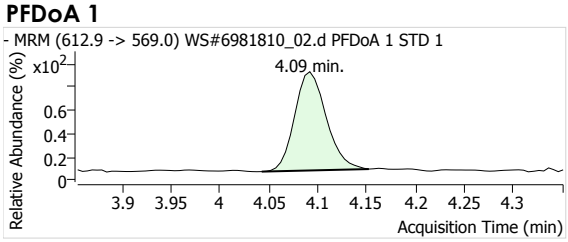

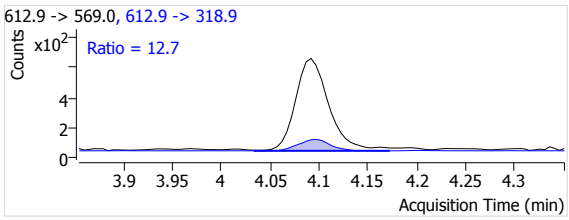

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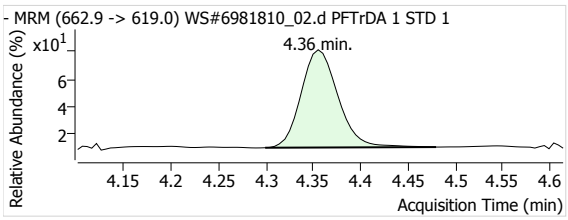

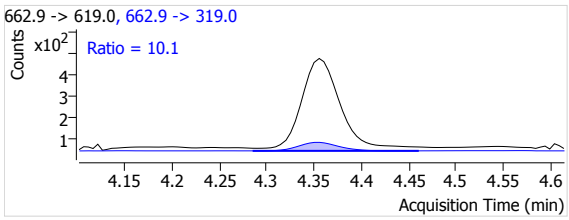

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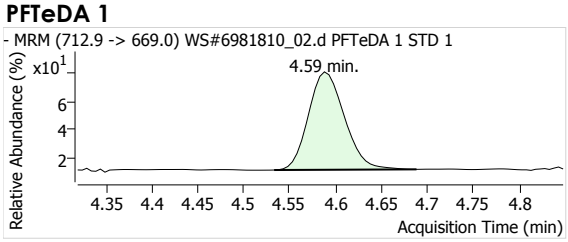

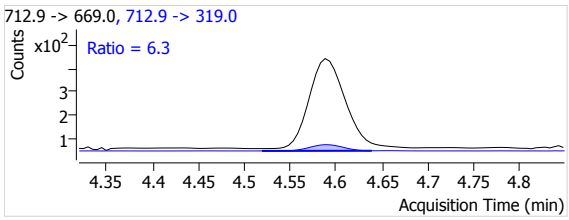

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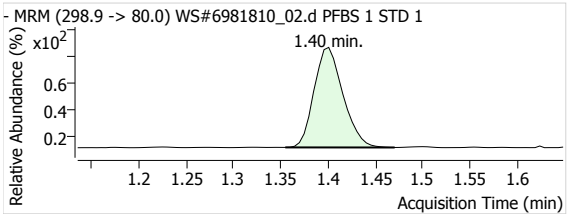

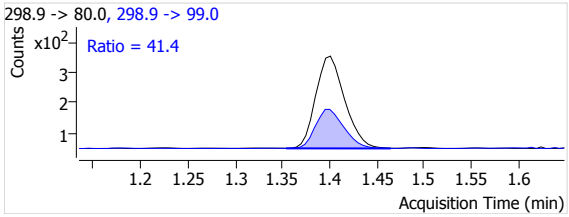

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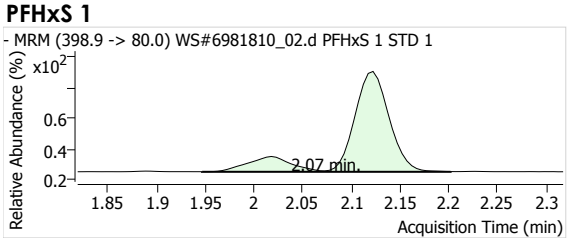

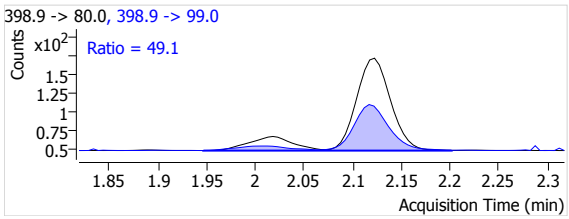

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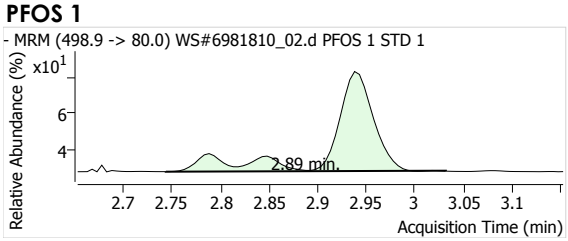

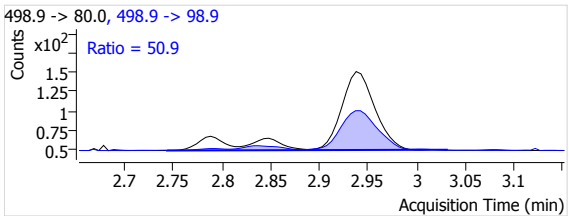

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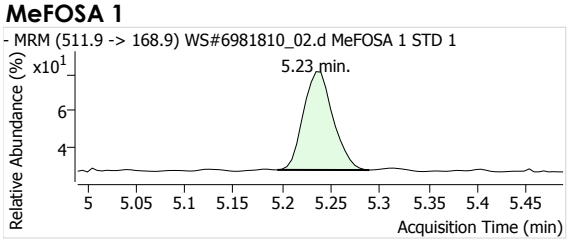

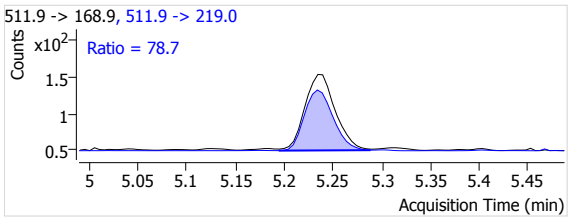

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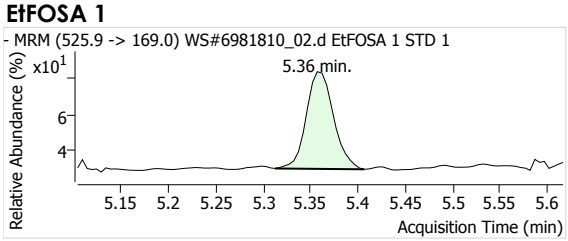
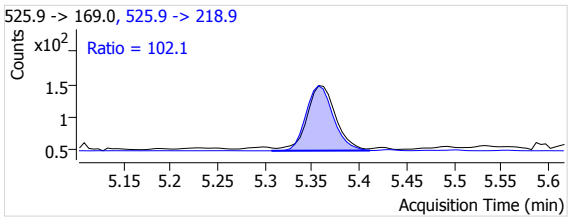
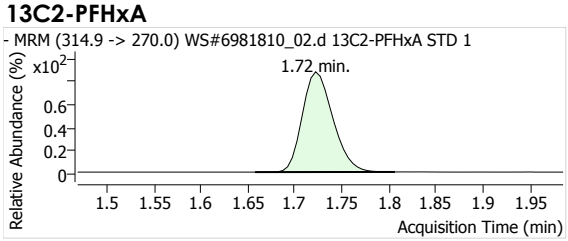
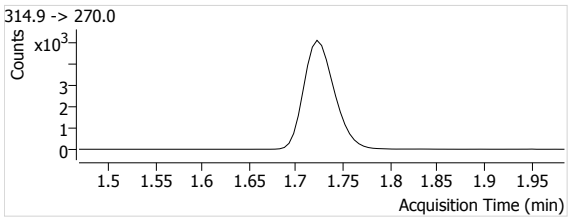




13C2-PFHxA





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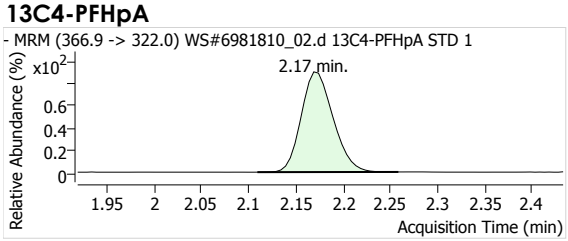

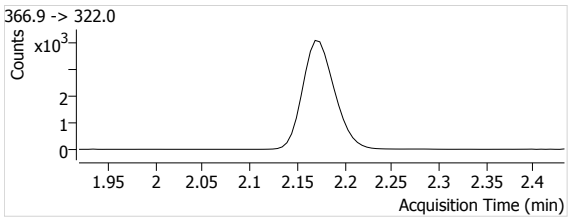

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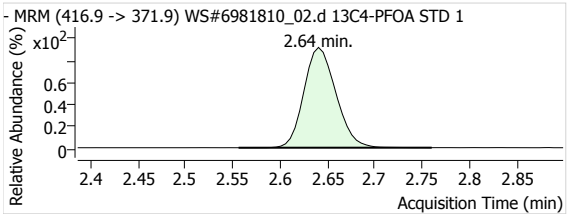

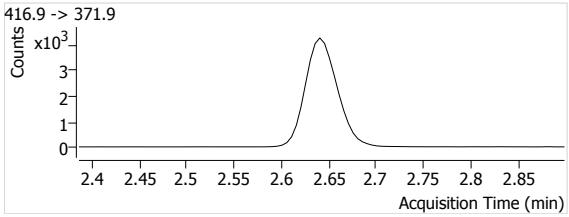

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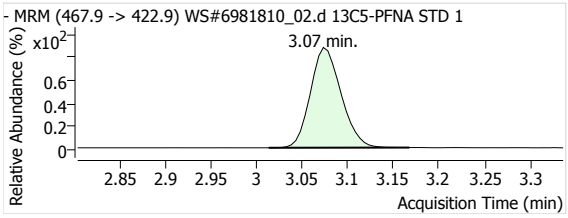

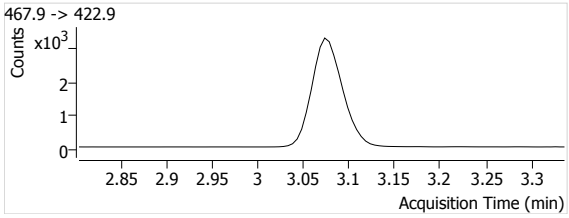

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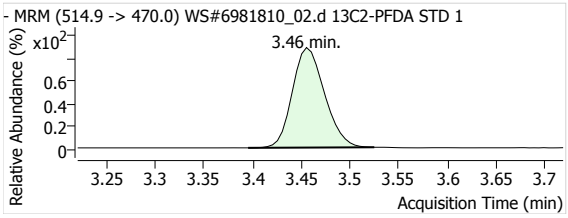

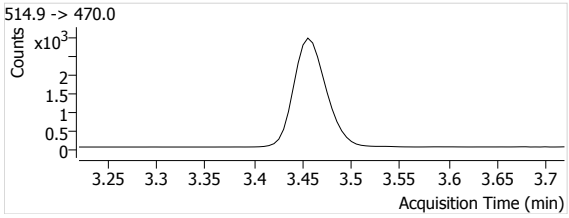

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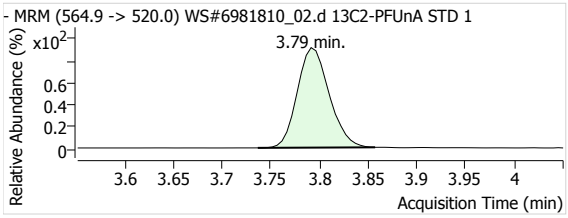

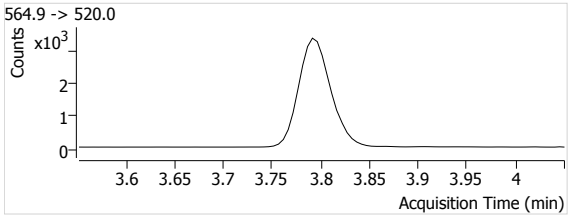

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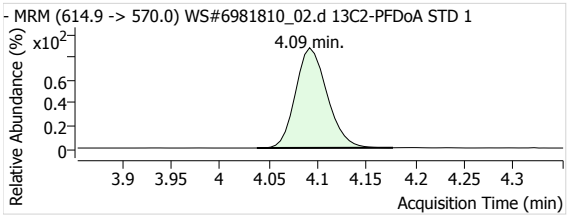

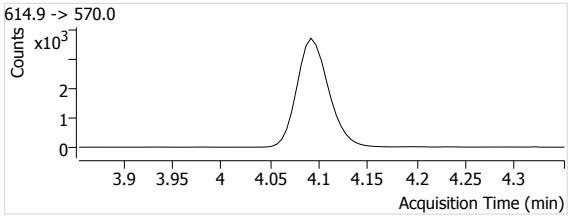

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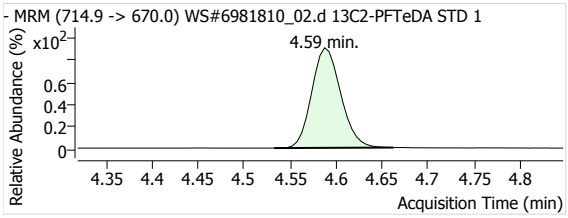

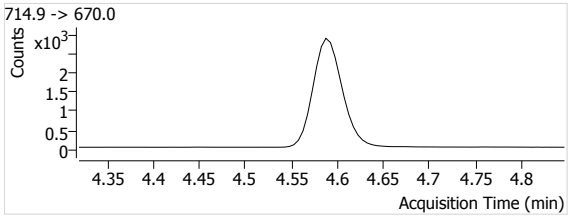

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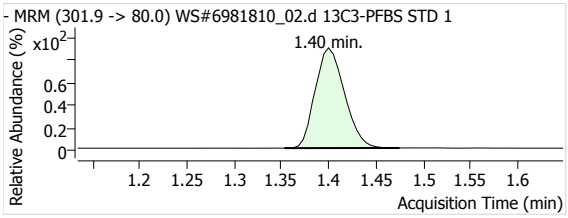

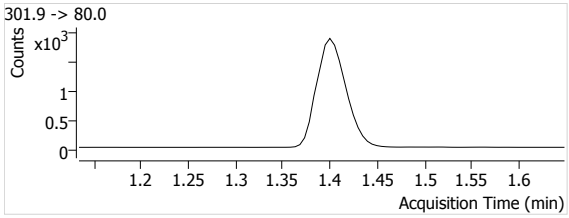

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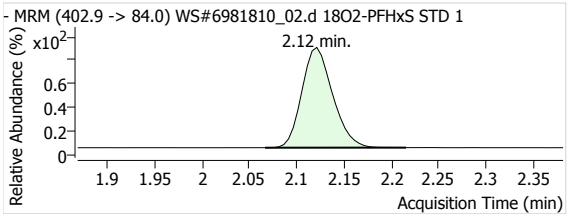

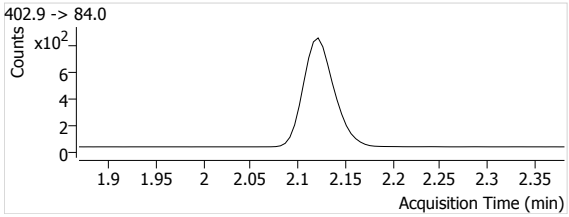

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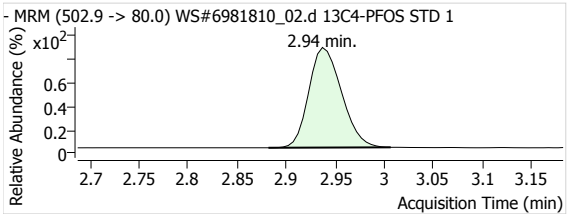

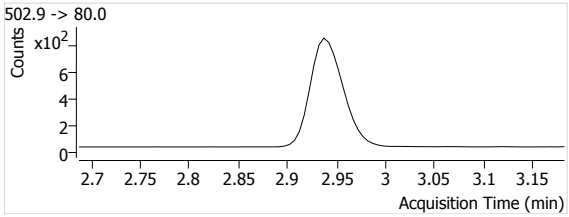

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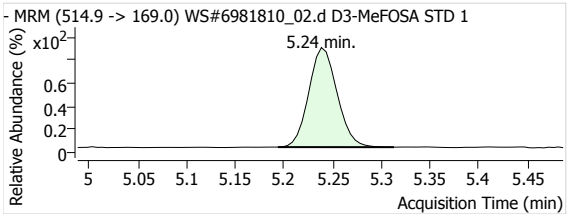

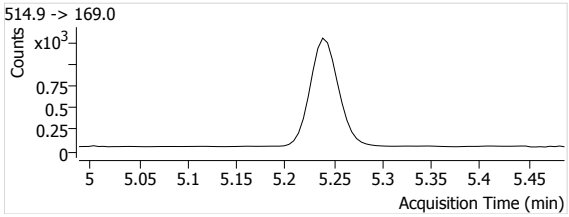

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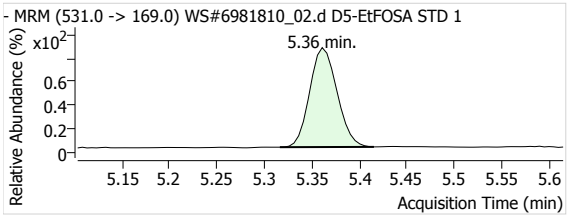
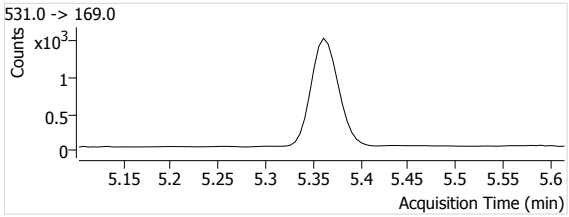




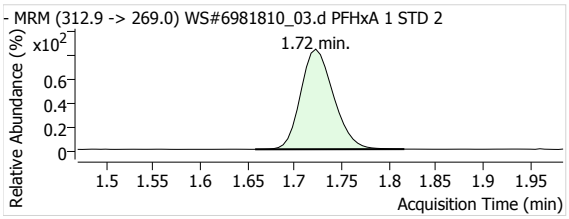
Quantitative Analysis Report

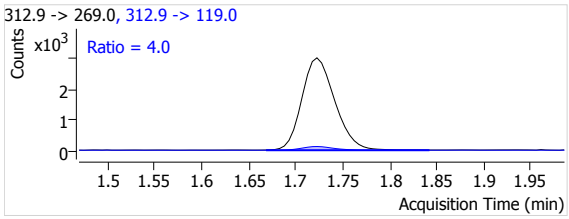
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	STD 2	**Data File**	WS#6981810_03.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A3
Acq. Date-Time	2020/10/05 7:35:46 AM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	3.000	3.1940	106.5	7128	1.72	210	0.5820	283	1.72	40	4.0
PFHpA 1	µg/L	3.000	3.0836	102.8	7945	2.17	242	0.7629	1418	2.17	130	17.8
PFOA 1	µg/L	3.000	3.0502	101.7	5511	2.64	102	0.4977	1371	2.64	318	24.9
PFNA 1	µg/L	3.000	3.2061	106.9	5291	3.07	111	0.6231	804	3.07	208	15.2
PFDA 1	µg/L	3.000	3.1166	103.9	4375	3.46	144	0.5669	777	3.46	143	17.8
PFUnA 1	µg/L	3.000	3.0892	103.0	4935	3.79	87	0.5857	836	3.79	185	16.9
PFDoA 1	µg/L	3.000	3.0937	103.1	4914	4.09	112	0.5442	702	4.09	54	14.3
PFTrDA 1	µg/L	3.000	3.0257	100.9	4229	4.36	73	0.5934	427	4.35	63	10.1
PFTeDA 1	µg/L	3.000	3.0595	102.0	3818	4.59	99	0.5357	303	4.58	90	7.9
PFBS 1	µg/L	3.000	3.1605	105.4	2688	1.40	371	0.6313	1100	1.40	344	40.9
PFHxS 1	µg/L	3.000	3.1618	105.4	1439	2.07	184	0.7088	655	2.07	645	45.5
PFOS 1	µg/L	3.000	3.0693	102.3	1258	2.89	99	0.5922	637	2.89	385	50.6
MeFOSA 1	µg/L	3.000	3.0123	100.4	867	5.23	97	0.3044	678	5.23	147	78.2
EtFOSA 1	µg/L	3.000	3.0519	101.7	804	5.36	159	0.2414	793	5.36	10766	98.6
13C2-PFHxA	µg/L	100.000	98.5041	98.5	12248	1.72	1906		--	--	--	--
13C4-PFHpA	µg/L	100.000	100.2986	100.3	10414	2.17	551		--	--	--	--
13C4-PFOA	µg/L	100.000	98.1647	98.2	11072	2.64	583		--	--	--	--
13C5-PFNA	µg/L	100.000	95.9760	96.0	8491	3.07	795		--	--	--	--
13C2-PFDA	µg/L	100.000	99.0248	99.0	7717	3.46	741		--	--	--	--
13C2-PFUnA	µg/L	100.000	99.1644	99.2	8426	3.79	852		--	--	--	--
13C2-PFDoA	µg/L	100.000	99.4932	99.5	9030	4.09	701		--	--	--	--
13C2-PFTeDA	µg/L	100.000	99.3449	99.3	7127	4.58	774		--	--	--	--
13C3-PFBS	µg/L	100.000	99.8827	99.9	4258	1.40	766		--	--	--	--
18O2-PFHxS	µg/L	100.000	98.6395	98.6	2030	2.12	1431		--	--	--	--
13C4-PFOS	µg/L	100.000	100.7587	100.8	2125	2.94	491		--	--	--	--
D3-MeFOSA	µg/L	100.000	102.3724	102.4	2848	5.23	112		--	--	--	--
D5-EtFOSA	µg/L	100.000	100.0902	100.1	3330	5.36	125		--	--	--	--

PFHxA 1





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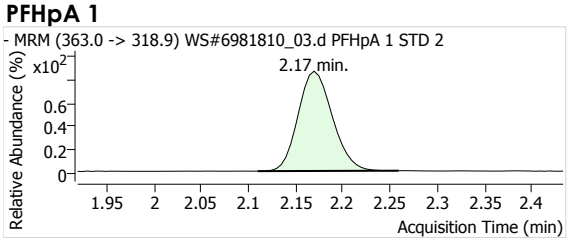

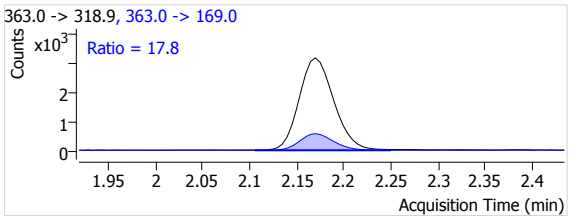

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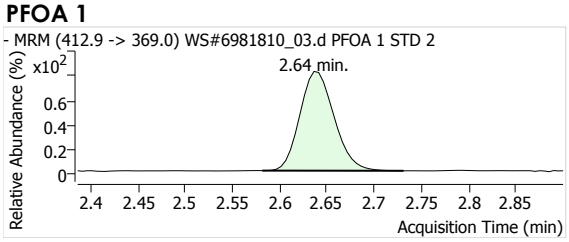

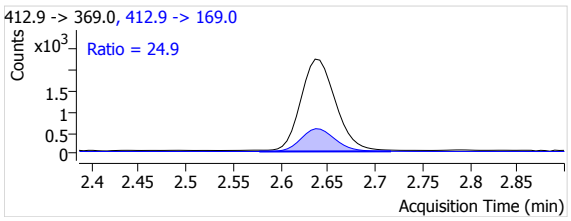

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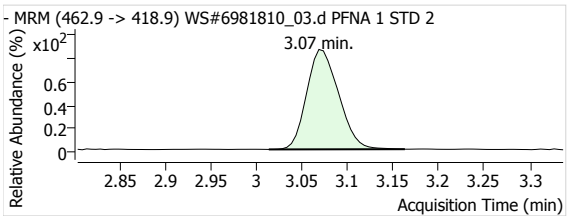

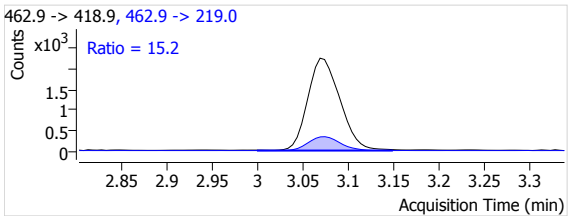

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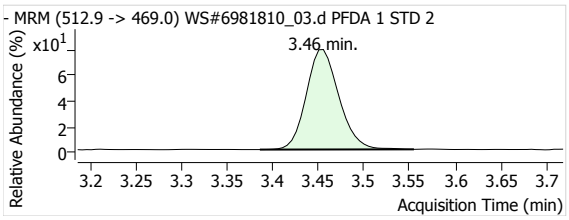

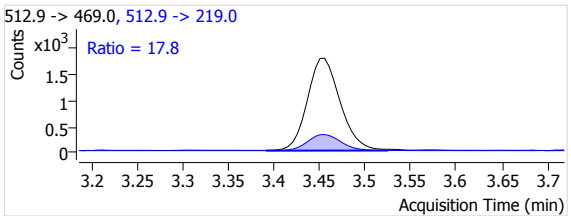

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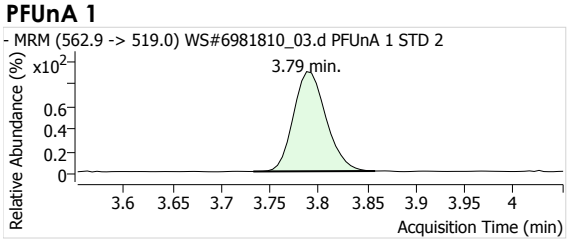

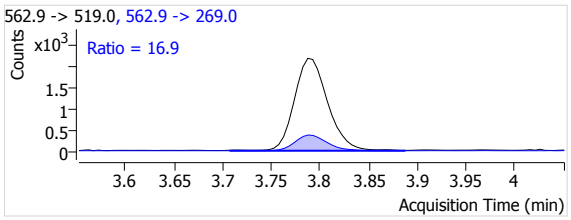

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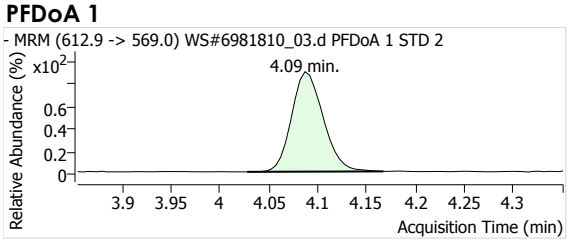

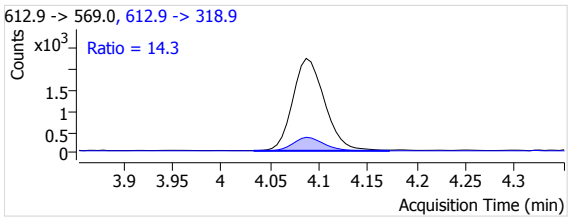

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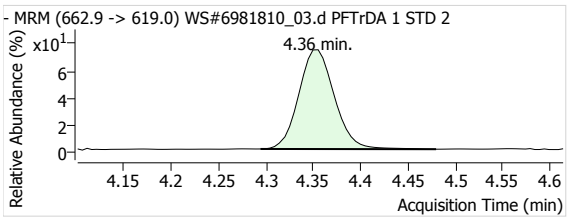

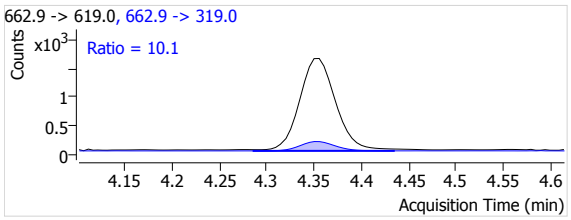

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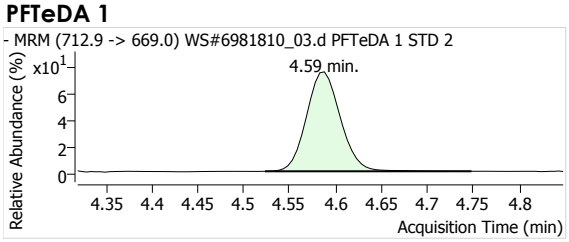

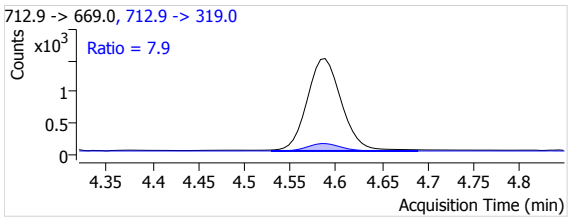

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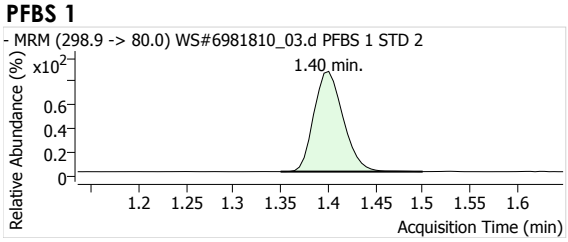

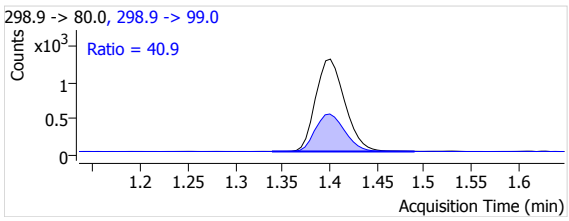

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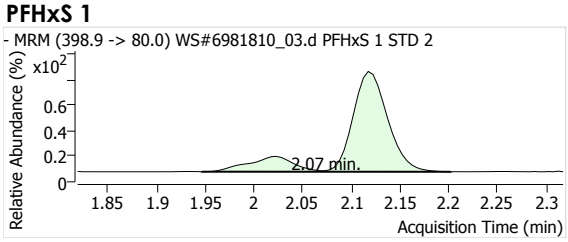

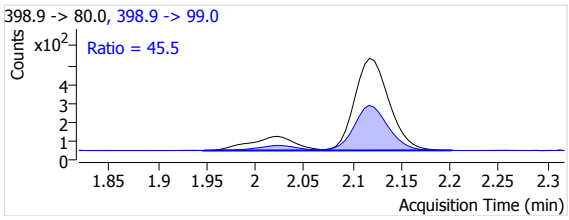

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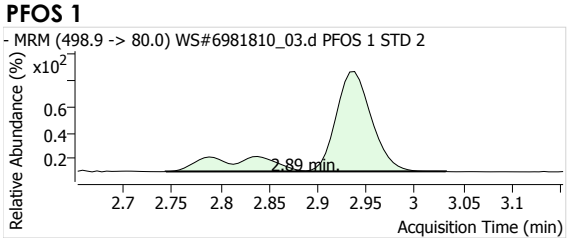
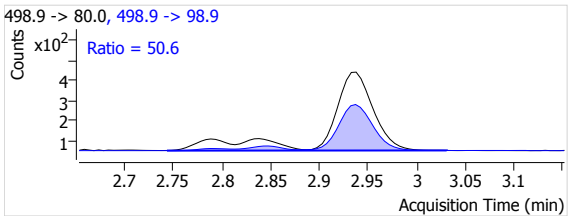
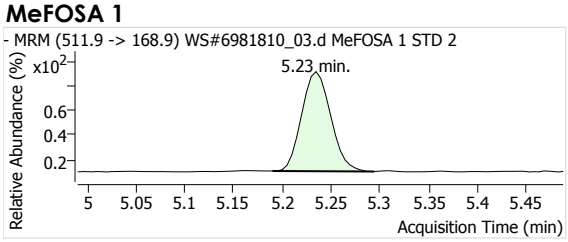
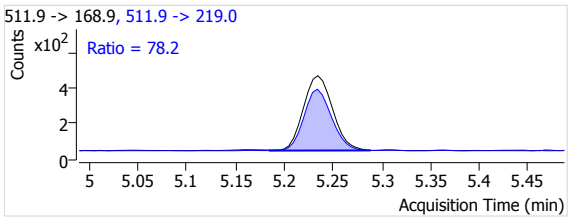




MeFOSA 1





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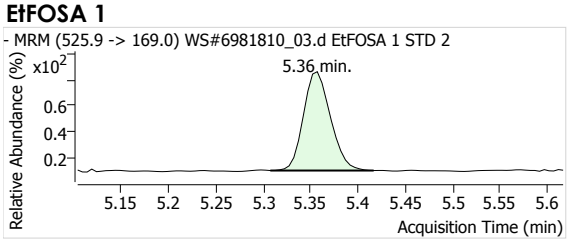
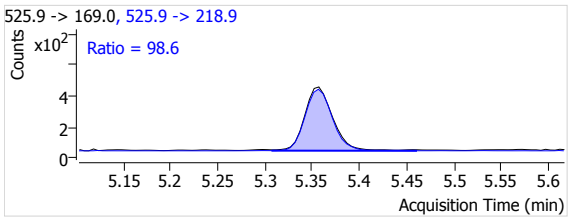
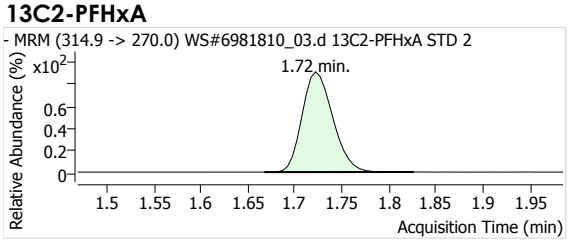
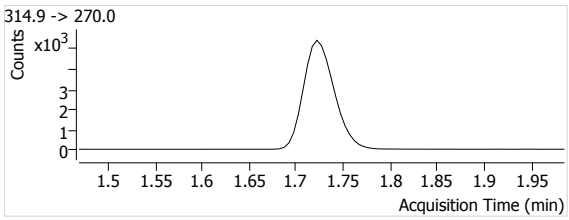


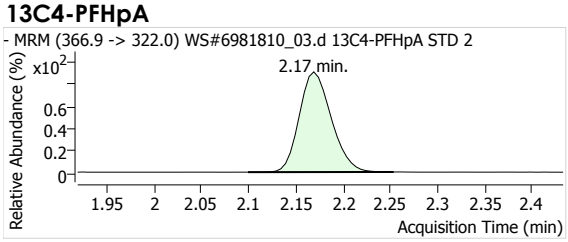


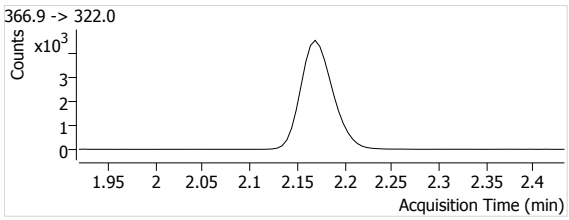
13C2-PFHxA





13C4-PFHpA





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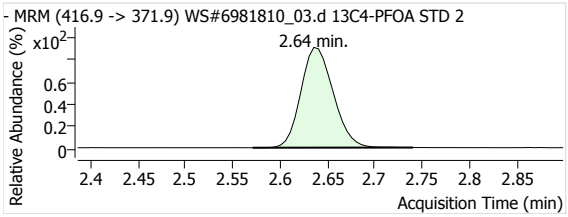

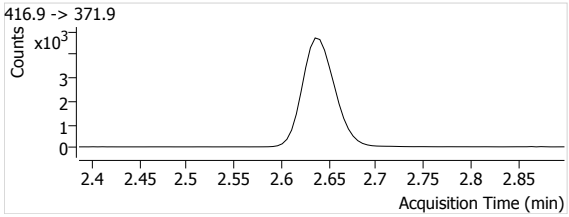

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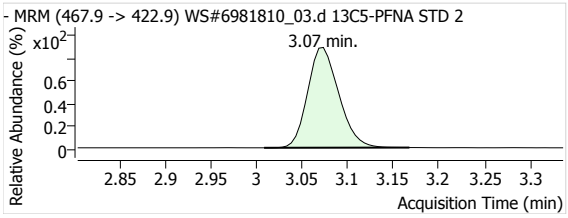

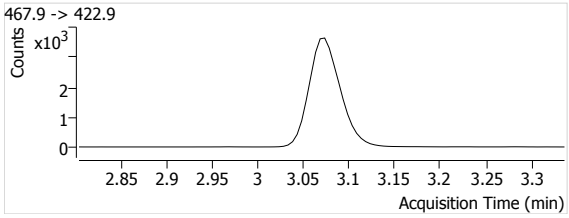

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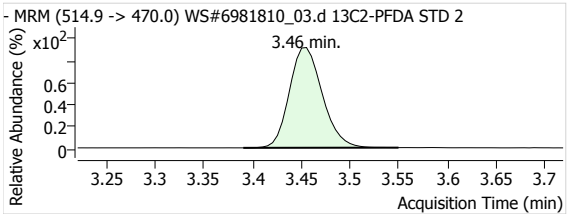

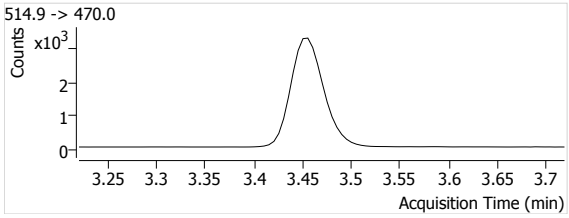

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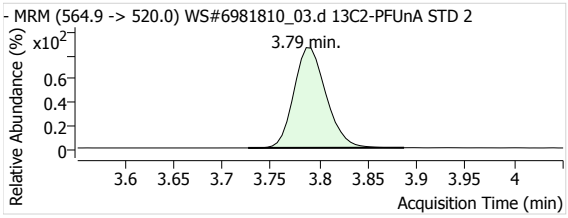

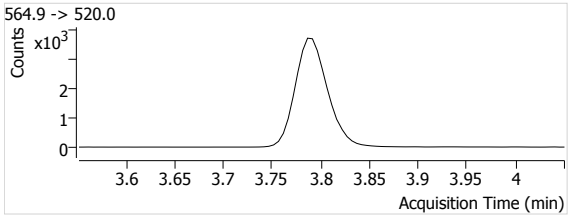

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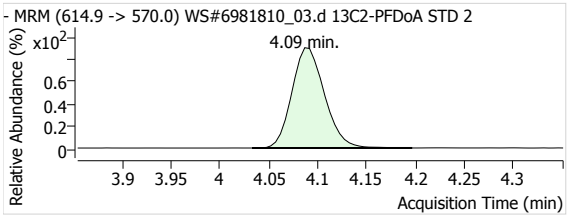

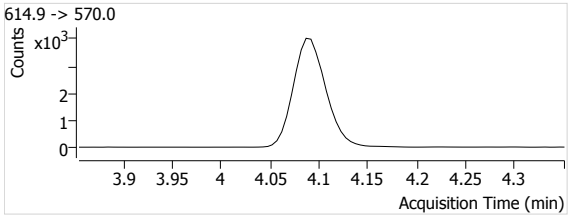

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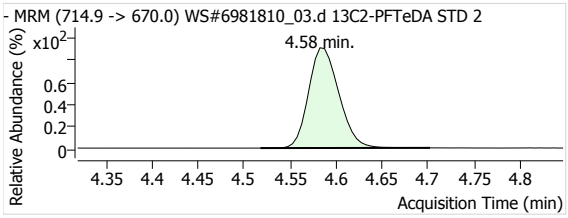

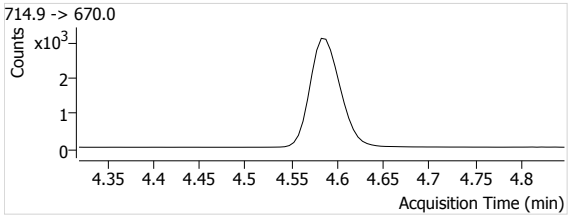

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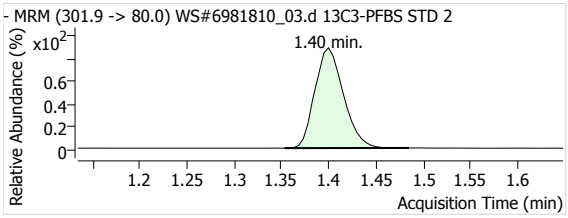
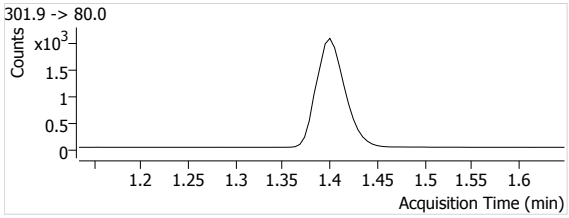
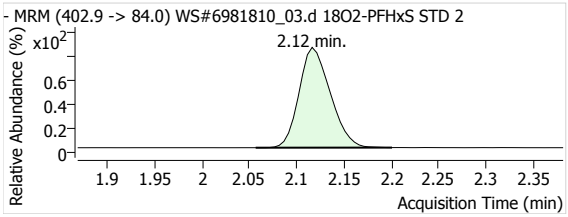
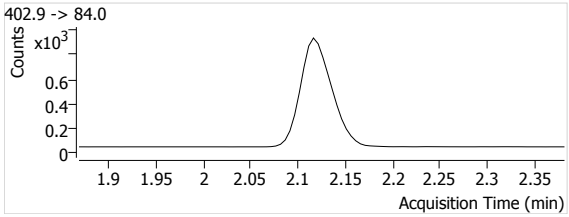




18O2-PFHxS





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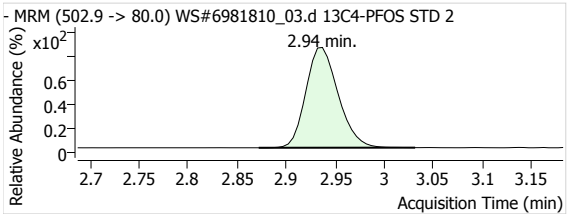
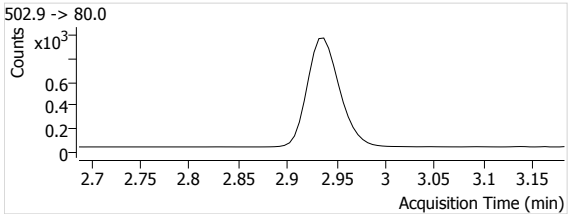
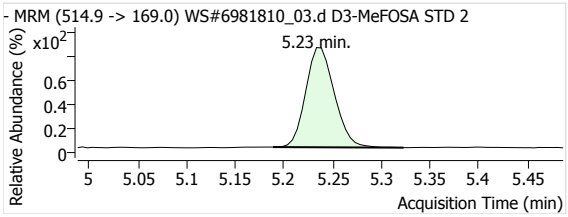
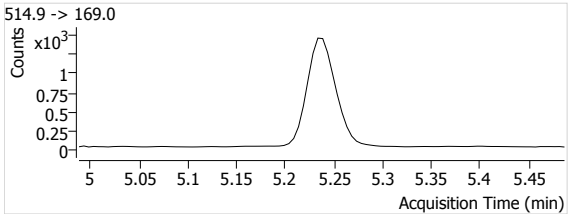


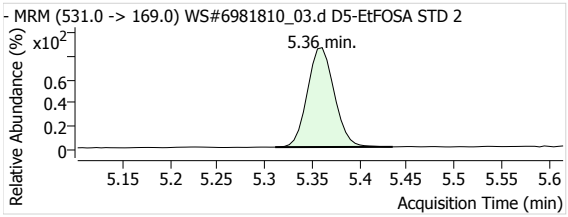


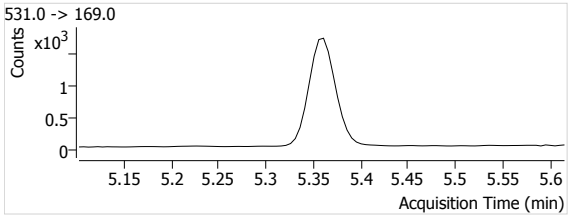
D3-MeFOSA





D5-EtFOSA





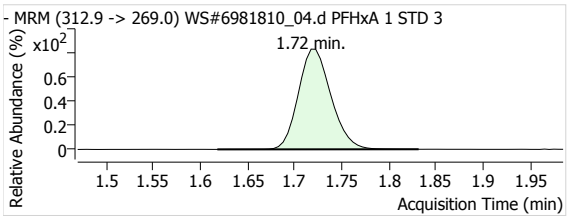
Quantitative Analysis Report

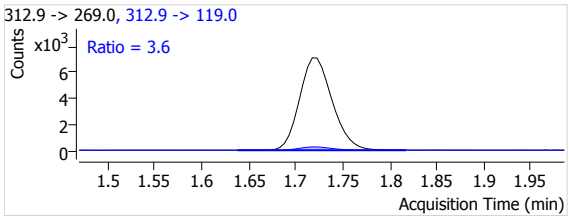
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	STD 3	**Data File**	WS#6981810_04.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A4
Acq. Date-Time	2020/10/05 7:42:45 AM	**Dil.**	1.0
Comment	-		
User Defined			

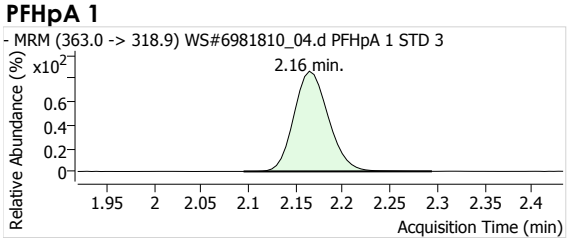
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	8.000	7.5594	94.5	17132	1.72	429	1.3555	622	1.72	84	3.6
PFHpA 1	µg/L	8.000	7.7304	96.6	19672	2.16	426	1.8814	3382	2.17	212	17.2
PFOA 1	µg/L	8.000	7.6698	95.9	13642	2.63	152	1.2386	3529	2.63	445	25.9
PFNA 1	µg/L	8.000	7.7837	97.3	12625	3.06	261	1.4726	2069	3.07	306	16.4
PFDA 1	µg/L	8.000	7.9947	99.9	10668	3.45	292	1.4215	1878	3.45	378	17.6
PFUnA 1	µg/L	8.000	7.8070	97.6	12010	3.79	222	1.4582	1952	3.78	364	16.3
PFDoA 1	µg/L	8.000	7.5085	93.9	11801	4.09	421	1.2913	1711	4.09	314	14.5
PFTrDA 1	µg/L	8.000	7.7962	97.5	10605	4.35	229	1.4937	1034	4.35	243	9.8
PFTeDA 1	µg/L	8.000	7.8698	98.4	9455	4.58	247	1.3317	677	4.58	243	7.2
PFBS 1	µg/L	8.000	7.9337	99.2	6672	1.40	520	1.5751	2628	1.40	322	39.4
PFHxS 1	µg/L	8.000	7.4710	93.4	3452	2.07	296	1.6540	1639	2.07	373	47.5
PFOS 1	µg/L	8.000	7.7693	97.1	3224	2.89	140	1.4968	1600	2.89	279	49.6
MeFOSA 1	µg/L	8.000	8.2037	102.5	2248	5.23	141	0.8175	1795	5.23	329	79.8
EtFOSA 1	µg/L	8.000	7.7458	96.8	2044	5.36	421	0.6138	2117	5.36	1193	103.6
13C2-PFHxA	µg/L	100.000	101.6487	101.6	12639	1.72	1069		--	--	--	--
13C4-PFHpA	µg/L	100.000	100.7031	100.7	10456	2.16	952		--	--	--	--
13C4-PFOA	µg/L	100.000	97.6505	97.7	11014	2.63	1401		--	--	--	--
13C5-PFNA	µg/L	100.000	96.9029	96.9	8573	3.07	794		--	--	--	--
13C2-PFDA	µg/L	100.000	96.3044	96.3	7505	3.45	524		--	--	--	--
13C2-PFUnA	µg/L	100.000	96.9283	96.9	8236	3.79	814		--	--	--	--
13C2-PFDoA	µg/L	100.000	100.6941	100.7	9139	4.09	827		--	--	--	--
13C2-PFTeDA	µg/L	100.000	98.9685	99.0	7100	4.58	808		--	--	--	--
13C3-PFBS	µg/L	100.000	99.3666	99.4	4236	1.39	695		--	--	--	--
18O2-PFHxS	µg/L	100.000	101.4091	101.4	2087	2.11	432		--	--	--	--
13C4-PFOS	µg/L	100.000	102.1337	102.1	2154	2.93	582		--	--	--	--
D3-MeFOSA	µg/L	100.000	98.8497	98.8	2750	5.24	100		--	--	--	--
D5-EtFOSA	µg/L	100.000	100.0902	100.1	3330	5.36	100		--	--	--	--

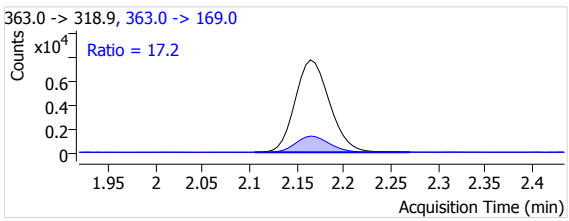
PFHxA 1





PFHpA 1





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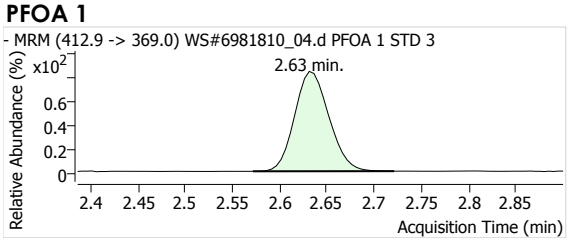

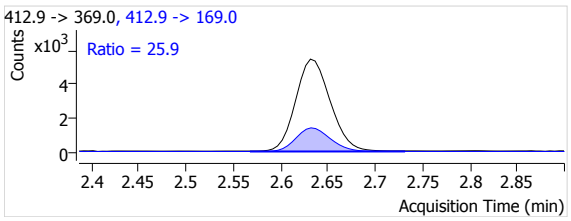

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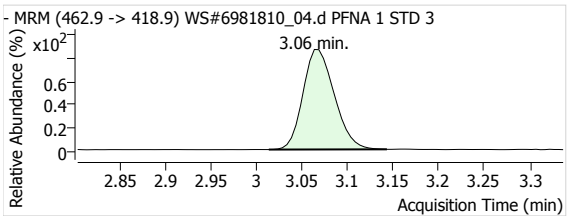

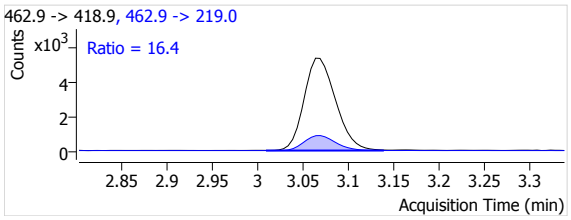

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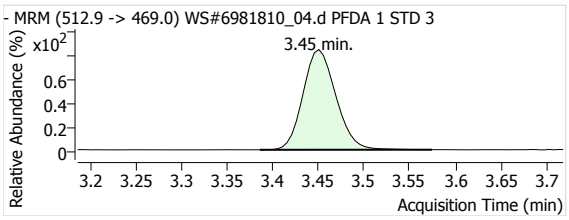

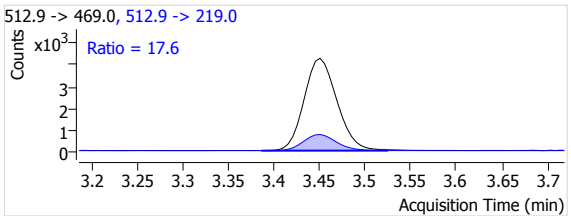

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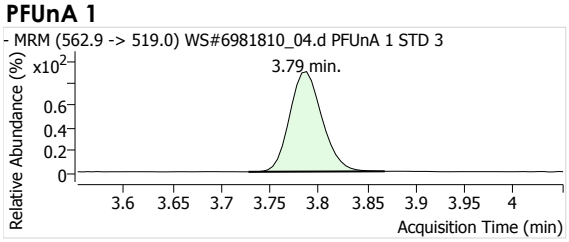

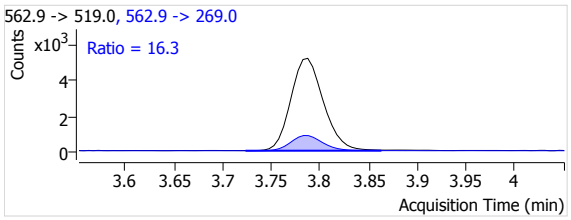

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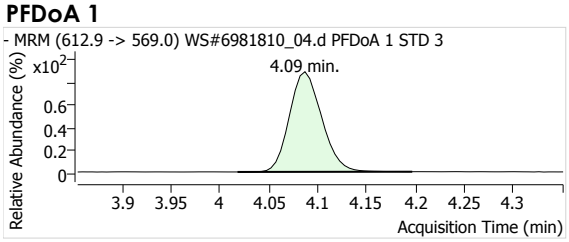

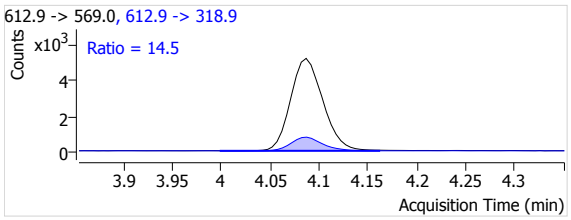

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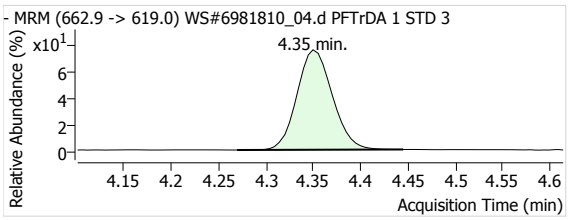

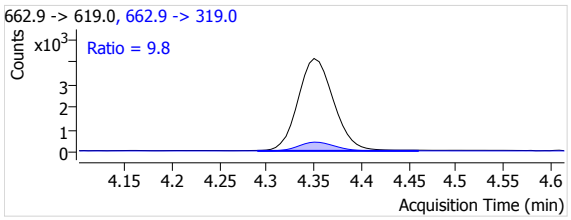

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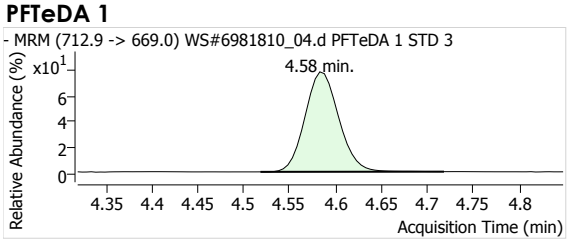

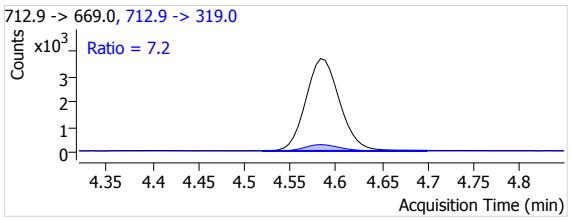

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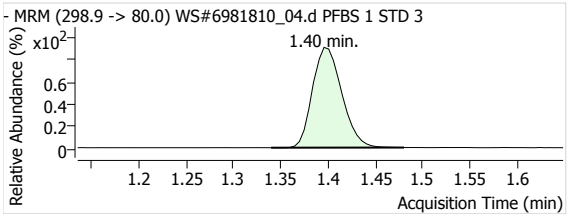

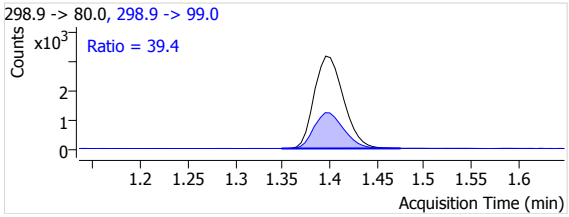

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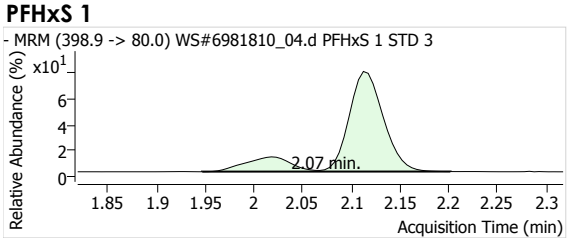
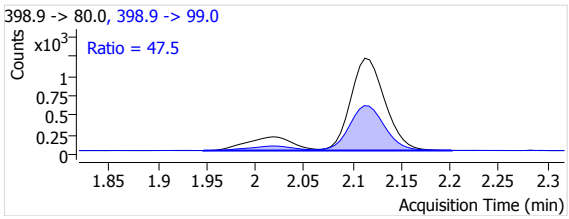
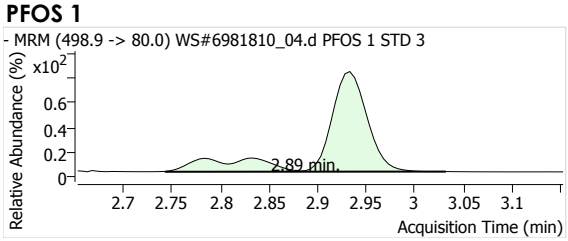
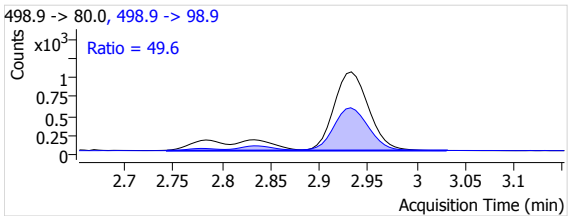




PFOS 1





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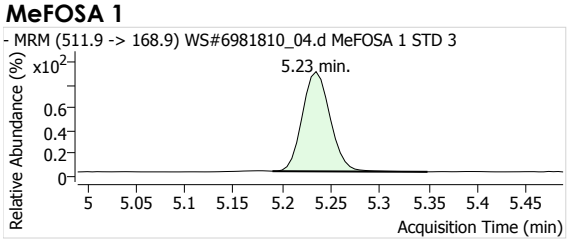

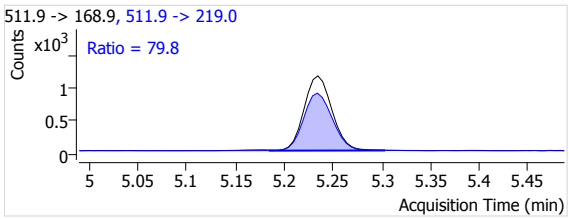

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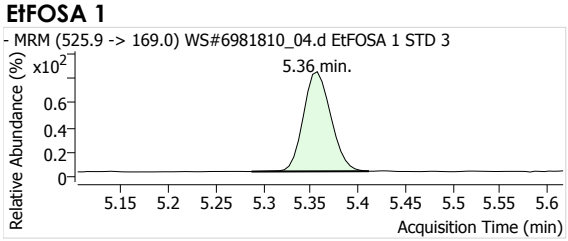

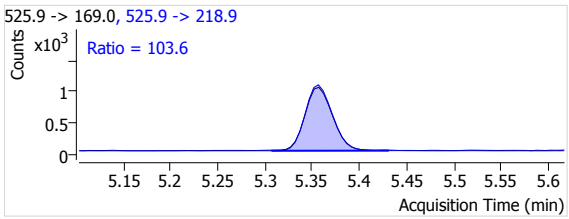

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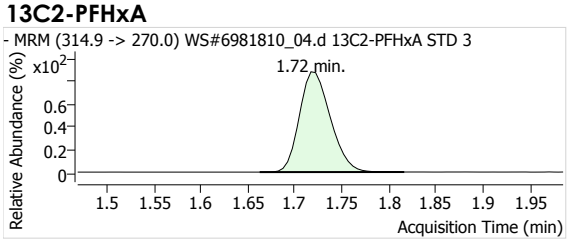

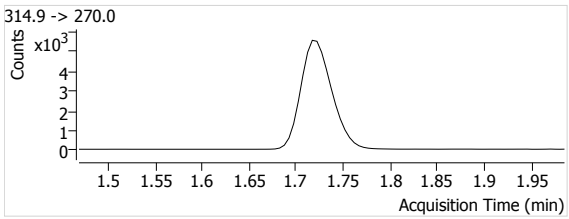

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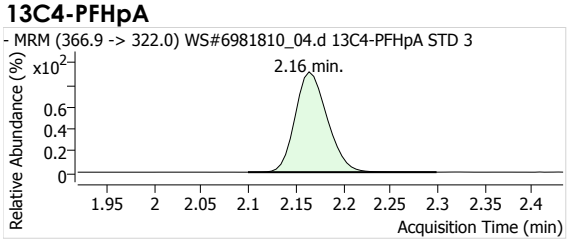

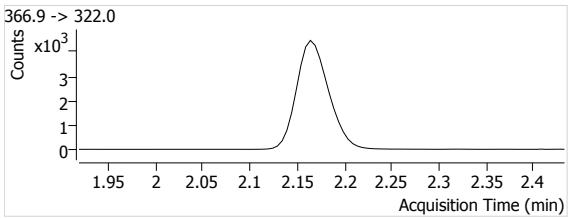

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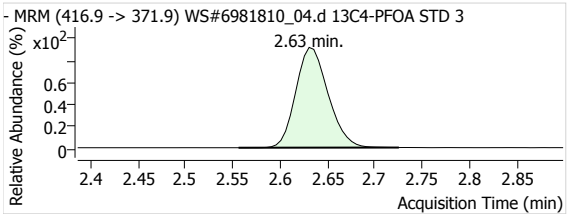

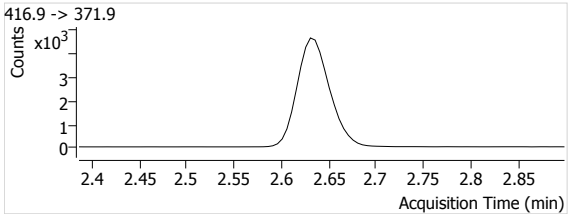

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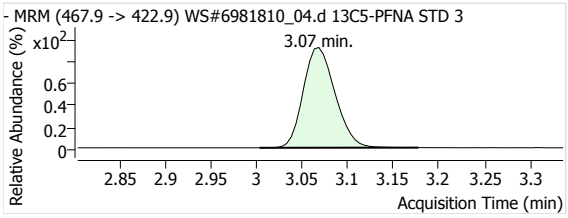

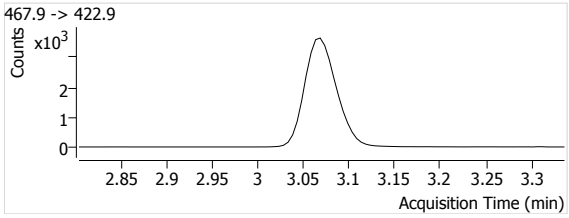

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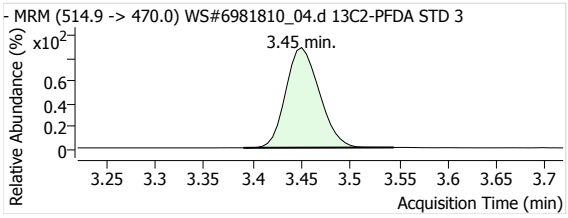

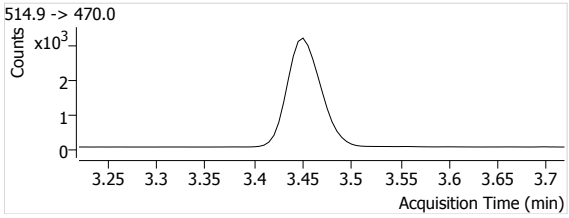

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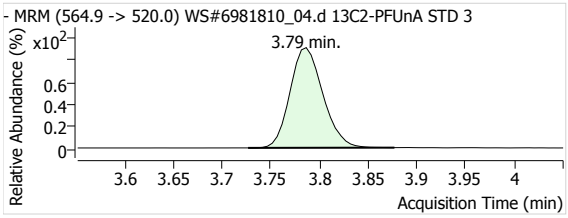

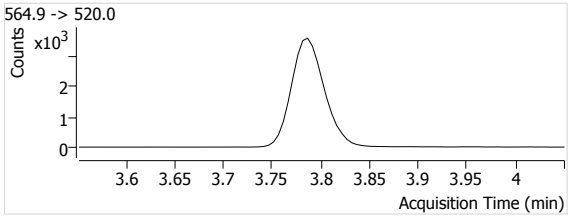

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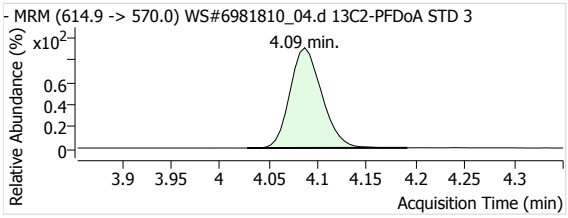

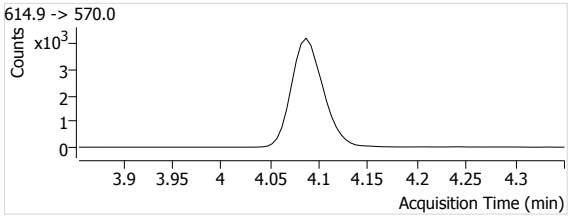

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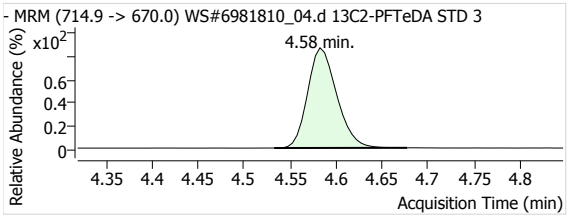

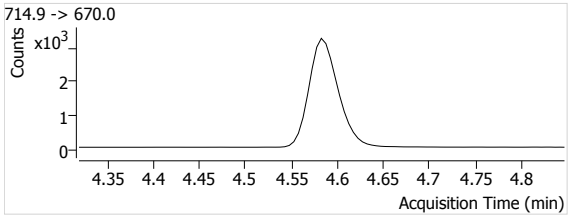

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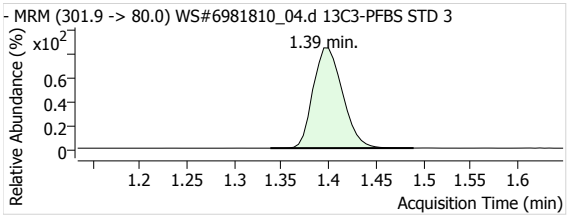

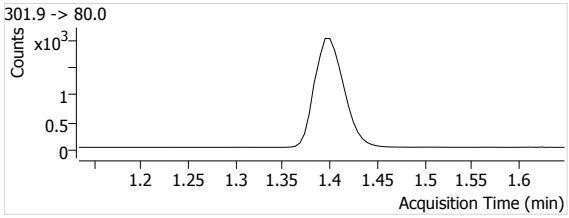

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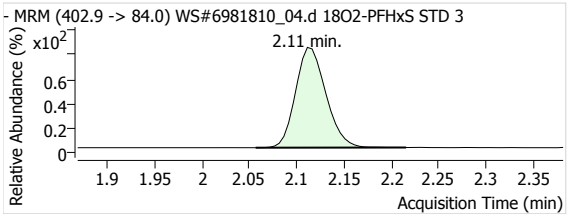

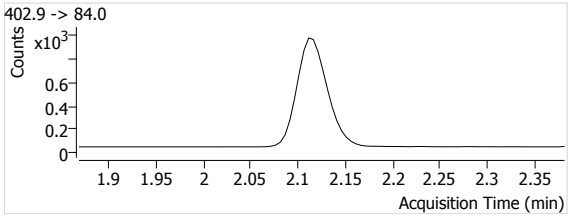

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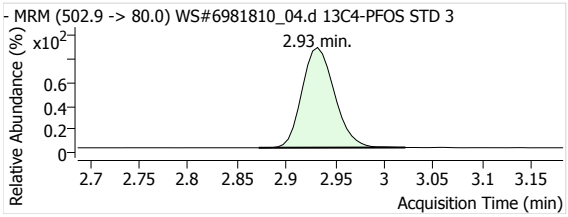

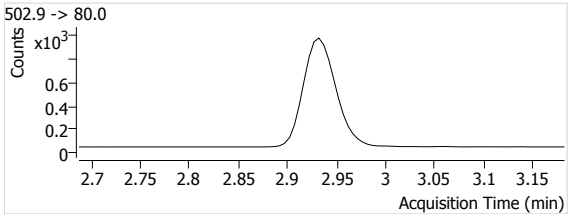

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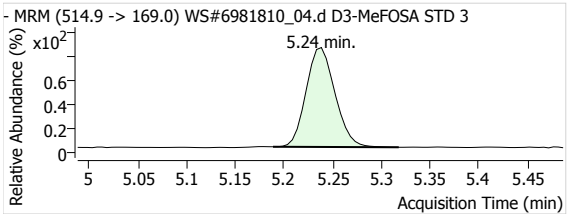

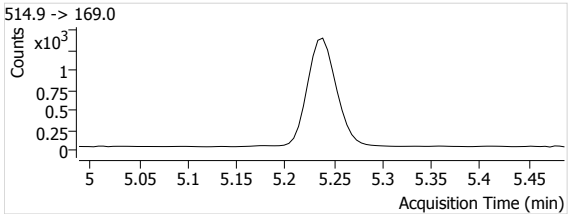

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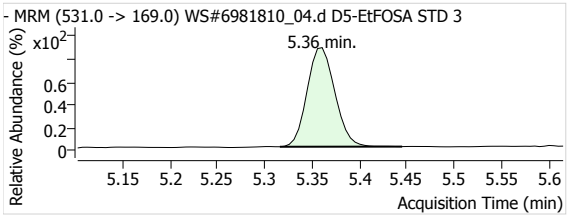
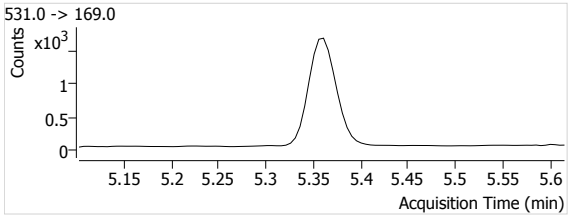




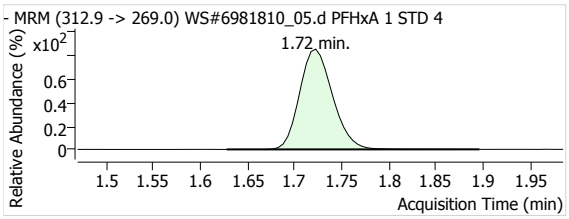
Quantitative Analysis Report

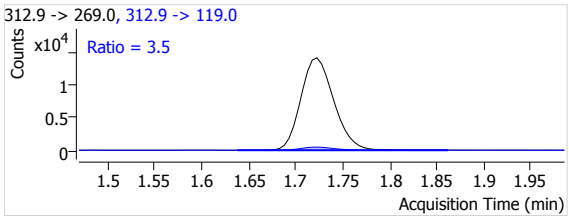
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	STD 4	**Data File**	WS#6981810_05.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A5
Acq. Date-Time	2020/10/05 7:49:44 AM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	15.5727	97.3	34509	1.72	881	2.7754	1194	1.72	140	3.5
PFHpA 1	µg/L	16.000	15.7467	98.4	39569	2.17	855	3.8109	6695	2.17	337	16.9
PFOA 1	µg/L	16.000	15.5548	97.2	28233	2.64	485	2.5031	7014	2.64	382	24.8
PFNA 1	µg/L	16.000	15.2889	95.6	25351	3.07	573	2.8655	4092	3.07	709	16.1
PFDA 1	µg/L	16.000	15.4162	96.4	21209	3.45	915	2.7215	3809	3.45	597	18.0
PFUnA 1	µg/L	16.000	15.6367	97.7	24695	3.79	575	2.9063	4005	3.79	283	16.2
PFDoA 1	µg/L	16.000	15.7536	98.5	24383	4.09	550	2.6865	3430	4.09	243	14.1
PFTrDA 1	µg/L	16.000	16.0616	100.4	21906	4.35	433	3.0535	2226	4.35	310	10.2
PFTeDA 1	µg/L	16.000	15.9679	99.8	19167	4.58	294	2.6717	1321	4.58	288	6.9
PFBS 1	µg/L	16.000	15.9779	99.9	13495	1.40	1212	3.1656	5267	1.40	789	39.0
PFHxS 1	µg/L	16.000	15.8140	98.8	7170	2.07	580	3.4839	3356	2.07	355	46.8
PFOS 1	µg/L	16.000	15.9593	99.7	6481	2.89	151	3.0732	3235	2.89	187	49.9
MeFOSA 1	µg/L	16.000	16.2599	101.6	4489	5.23	114	1.6136	3649	5.23	367	81.3
EtFOSA 1	µg/L	16.000	16.0730	100.5	4240	5.36	1589	1.2744	4241	5.36	33228	100.0
13C2-PFHxA	µg/L	100.000	100.0000	100.0	12434	1.72	1130		--	--	--	--
13C4-PFHpA	µg/L	100.000	100.0000	100.0	10383	2.17	1197		--	--	--	--
13C4-PFOA	µg/L	100.000	100.0000	100.0	11279	2.64	853		--	--	--	--
13C5-PFNA	µg/L	100.000	100.0000	100.0	8847	3.07	1167		--	--	--	--
13C2-PFDA	µg/L	100.000	100.0000	100.0	7793	3.45	960		--	--	--	--
13C2-PFUnA	µg/L	100.000	100.0000	100.0	8497	3.79	622		--	--	--	--
13C2-PFDoA	µg/L	100.000	100.0000	100.0	9076	4.09	649		--	--	--	--
13C2-PFTeDA	µg/L	100.000	100.0000	100.0	7174	4.58	687		--	--	--	--
13C3-PFBS	µg/L	100.000	100.0000	100.0	4263	1.40	798		--	--	--	--
18O2-PFHxS	µg/L	100.000	100.0000	100.0	2058	2.12	450		--	--	--	--
13C4-PFOS	µg/L	100.000	100.0000	100.0	2109	2.93	514		--	--	--	--
D3-MeFOSA	µg/L	100.000	100.0000	100.0	2782	5.24	100		--	--	--	--
D5-EtFOSA	µg/L	100.000	100.0000	100.0	3327	5.36	82		--	--	--	--

PFHxA 1





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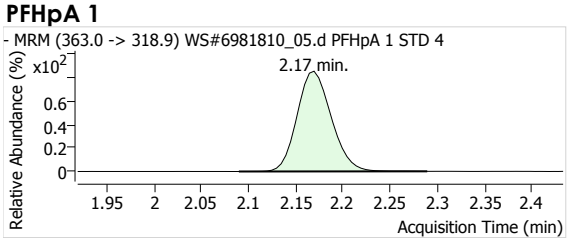

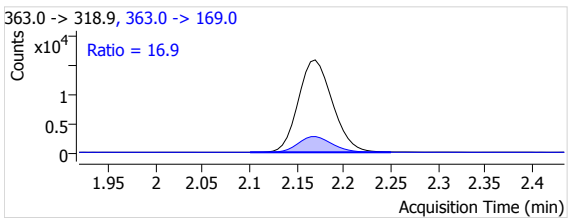

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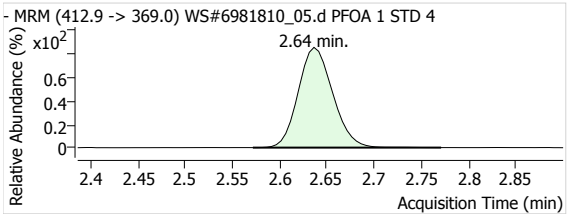

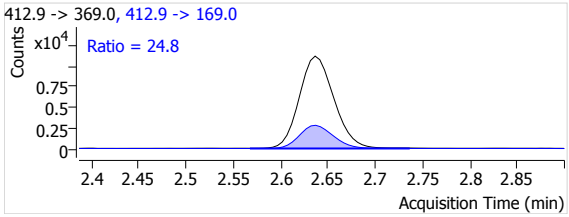

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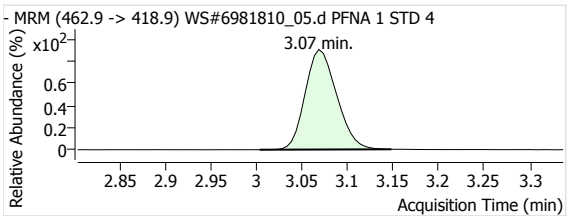

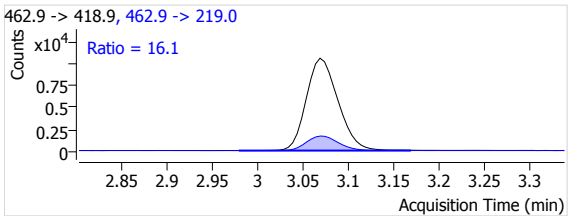

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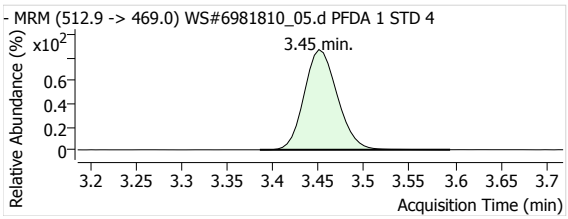

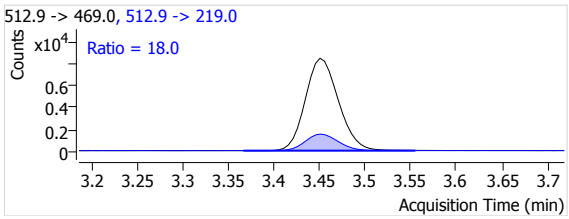

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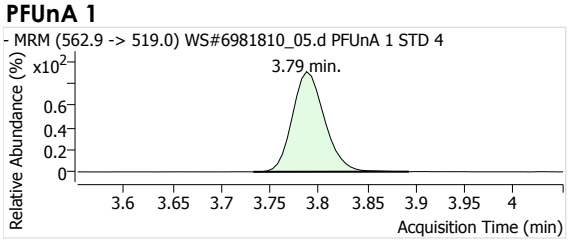

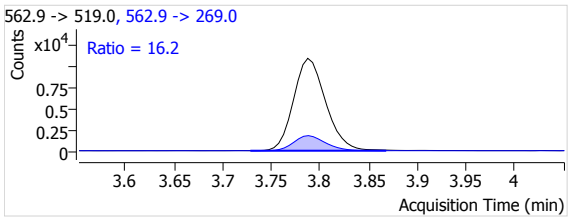

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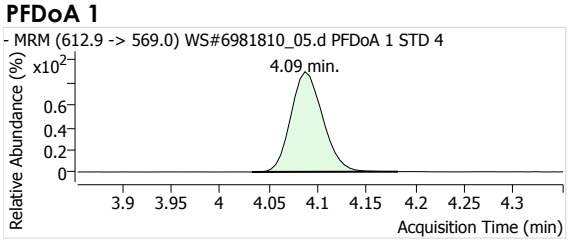

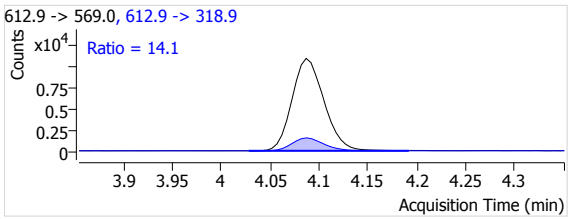

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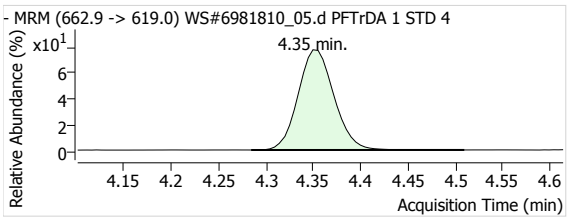

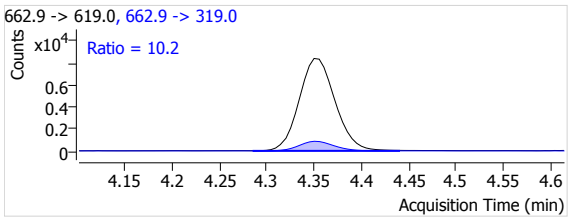

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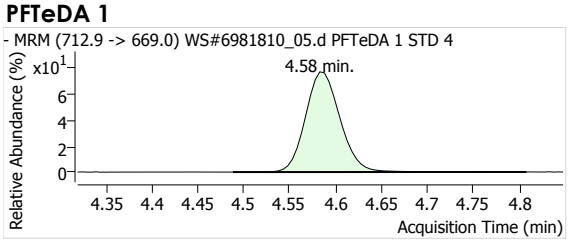

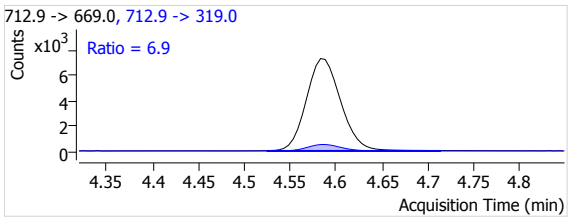

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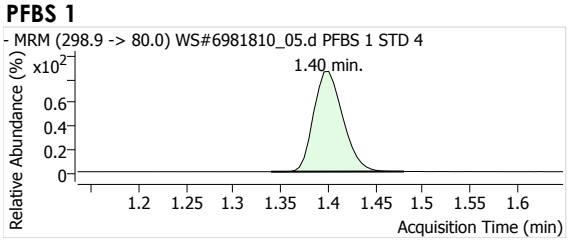

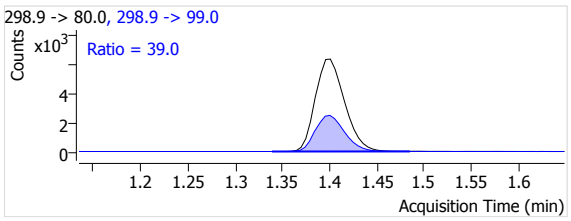

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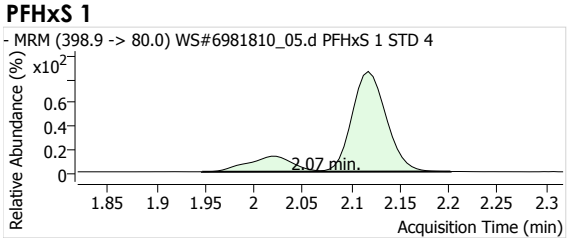

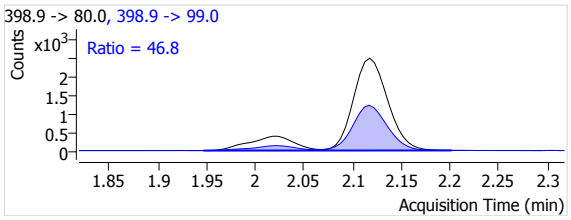

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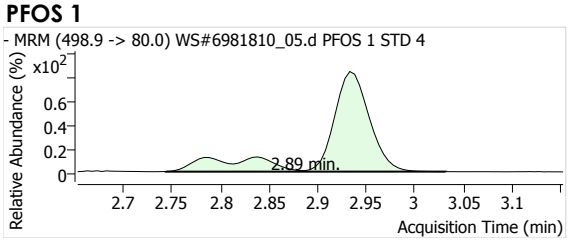

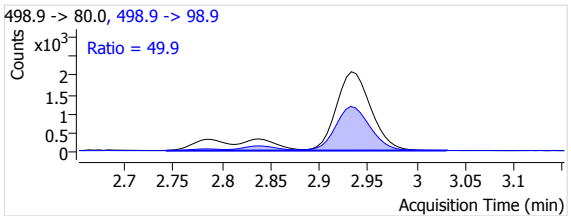

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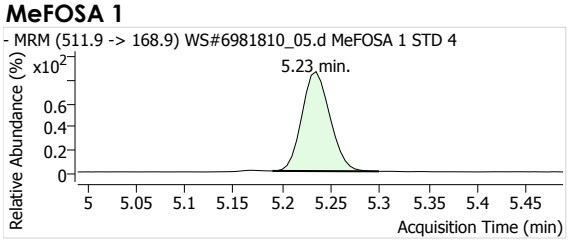

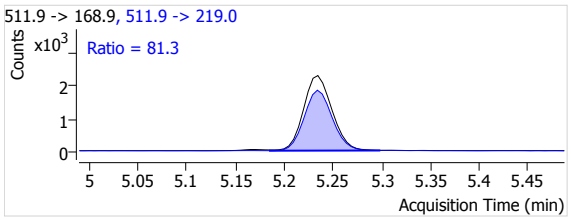

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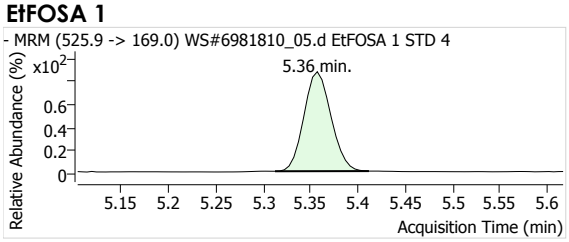

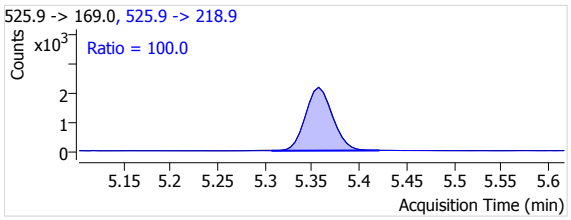

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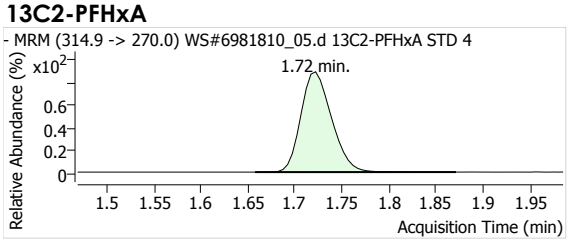

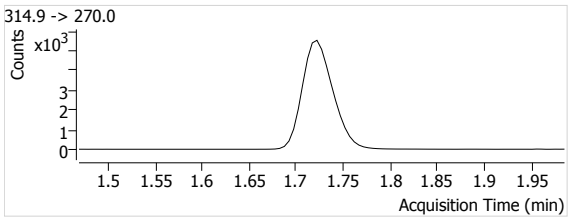

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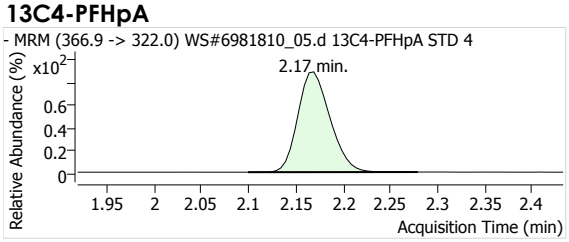

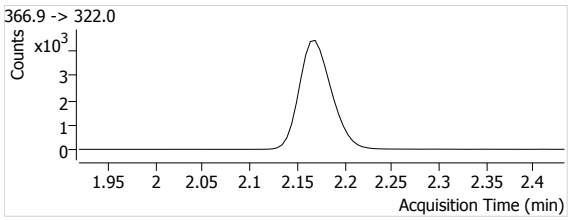

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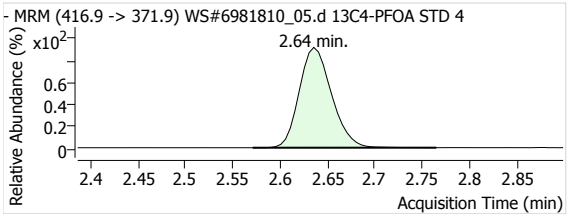

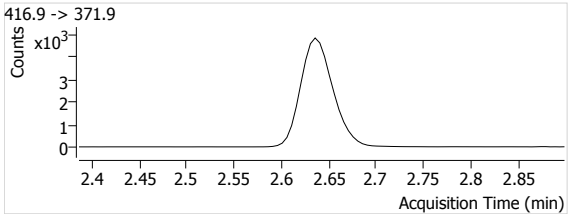

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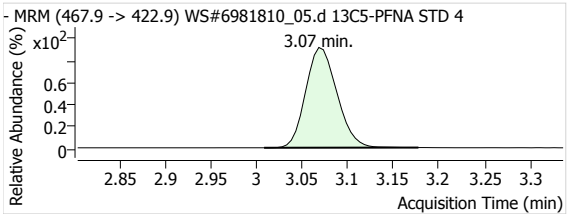

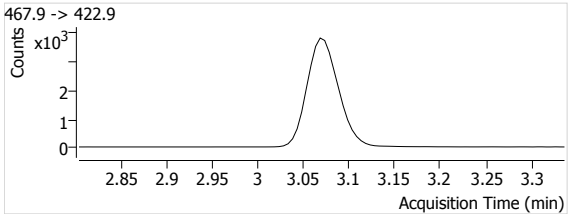

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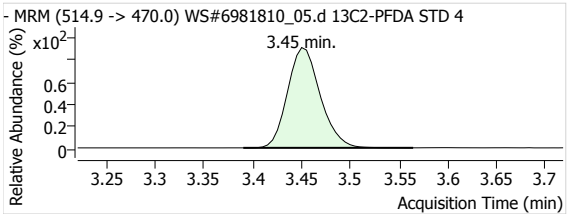

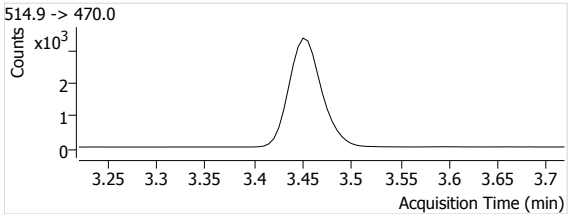

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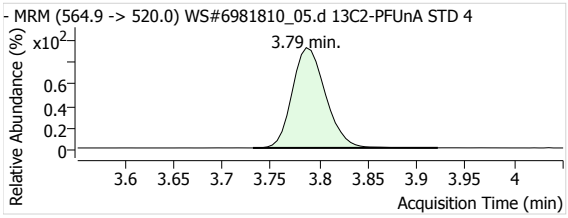

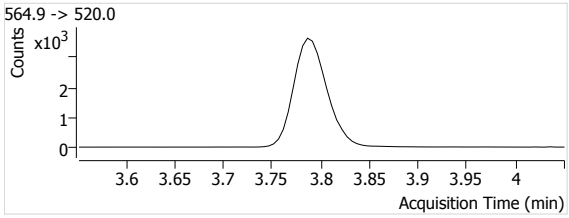

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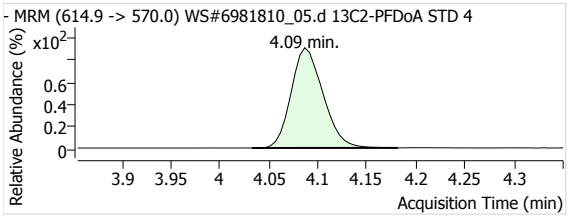

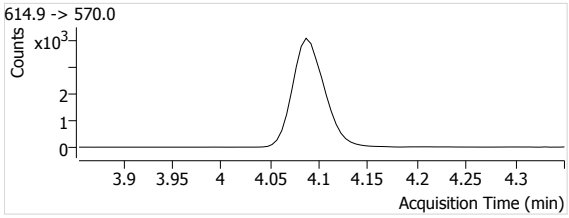

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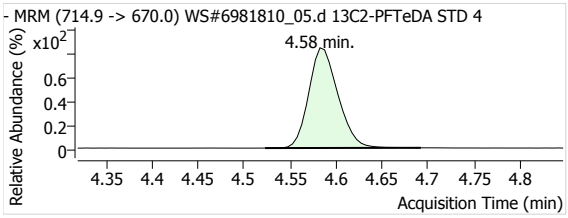

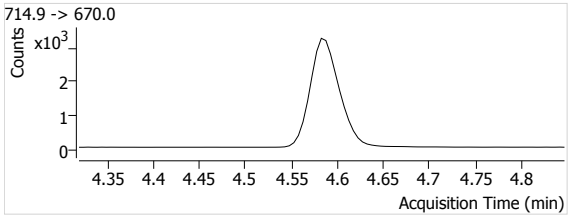

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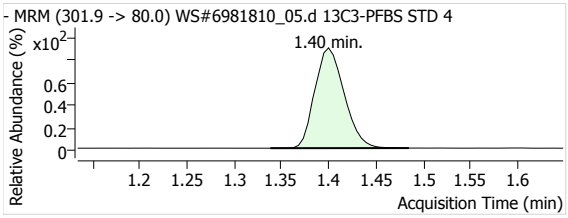

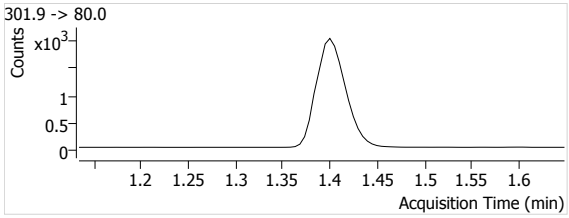

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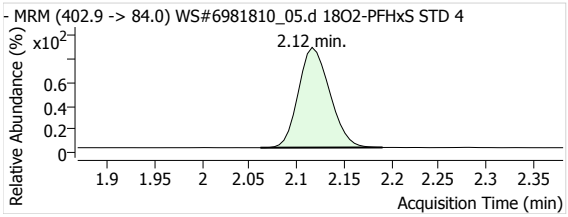

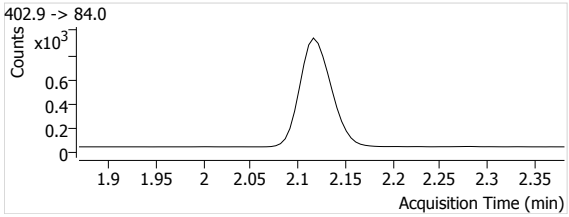

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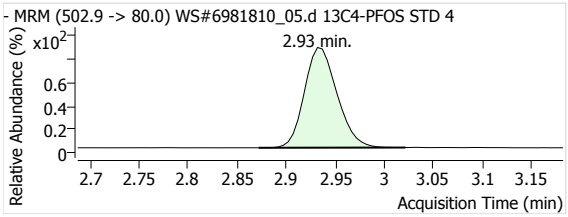
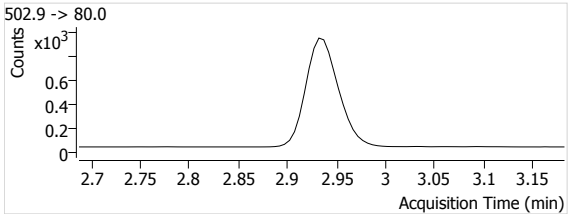
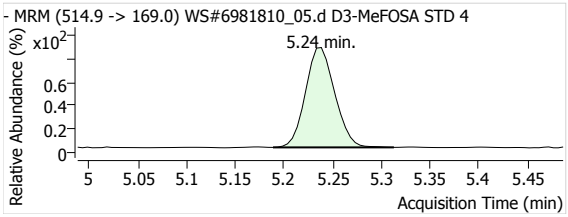
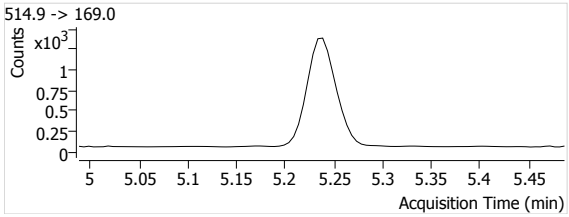




D3-MeFOSA





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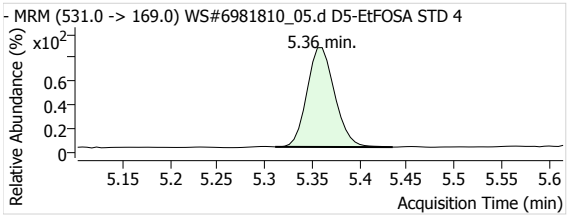
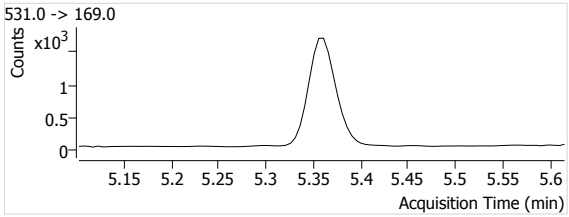




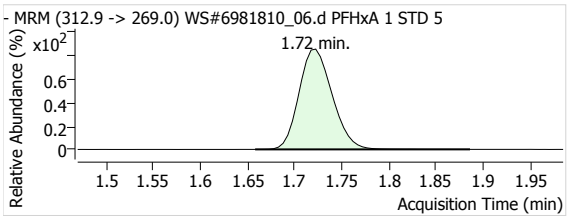
Quantitative Analysis Report

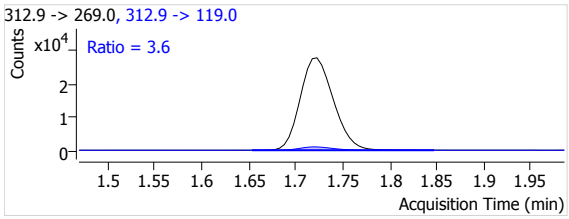
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	STD 5	**Data File**	WS#6981810_06.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A6
Acq. Date-Time	2020/10/05 7:56:43 AM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	30.000	31.1306	103.8	67868	1.72	1741	5.5321	2452	1.72	166	3.6
PFHpA 1	µg/L	30.000	30.5999	102.0	79327	2.17	1258	7.3861	13577	2.17	1736	17.1
PFOA 1	µg/L	30.000	30.7302	102.4	57697	2.64	682	4.9369	14280	2.64	775	24.7
PFNA 1	µg/L	30.000	30.5721	101.9	51892	3.07	1369	5.7018	8212	3.07	645	15.8
PFDA 1	µg/L	30.000	31.4820	104.9	43169	3.45	751	5.5359	7534	3.45	409	17.5
PFUnA 1	µg/L	30.000	31.0702	103.6	49450	3.79	845	5.7607	7931	3.79	702	16.0
PFDoA 1	µg/L	30.000	30.2628	100.9	48503	4.09	1198	5.1418	6787	4.09	520	14.0
PFTrDA 1	µg/L	30.000	30.6320	102.1	43542	4.35	724	5.8033	4220	4.35	507	9.7
PFTeDA 1	µg/L	30.000	30.4576	101.5	38036	4.58	799	5.0694	2758	4.58	399	7.3
PFBS 1	µg/L	30.000	30.5125	101.7	26616	1.40	1809	6.0395	10459	1.40	1115	39.3
PFHxS 1	µg/L	30.000	31.0046	103.3	14163	2.07	588	6.8156	6766	2.07	819	47.8
PFOS 1	µg/L	30.000	30.6148	102.0	13061	2.89	274	5.8939	6474	2.89	827	49.6
MeFOSA 1	µg/L	30.000	30.4427	101.5	8747	5.23	138	3.0152	7156	5.23	474	81.8
EtFOSA 1	µg/L	30.000	30.6830	102.3	8320	5.36	3072	2.4335	8269	5.36	4368	99.4
13C2-PFHxA	µg/L	100.000	98.6650	98.7	12268	1.72	1054		--	--	--	--
13C4-PFHpA	µg/L	100.000	103.4383	103.4	10740	2.17	939		--	--	--	--
13C4-PFOA	µg/L	100.000	103.6173	103.6	11687	2.64	1032		--	--	--	--
13C5-PFNA	µg/L	100.000	102.8710	102.9	9101	3.07	439		--	--	--	--
13C2-PFDA	µg/L	100.000	100.0642	100.1	7798	3.45	501		--	--	--	--
13C2-PFUnA	µg/L	100.000	101.0239	101.0	8584	3.79	361		--	--	--	--
13C2-PFDoA	µg/L	100.000	103.9335	103.9	9433	4.09	377		--	--	--	--
13C2-PFTeDA	µg/L	100.000	104.5860	104.6	7503	4.58	965		--	--	--	--
13C3-PFBS	µg/L	100.000	103.3779	103.4	4407	1.40	590		--	--	--	--
18O2-PFHxS	µg/L	100.000	100.9718	101.0	2078	2.12	470		--	--	--	--
13C4-PFOS	µg/L	100.000	105.0735	105.1	2216	2.93	612		--	--	--	--
D3-MeFOSA	µg/L	100.000	104.2775	104.3	2901	5.23	91		--	--	--	--
D5-EtFOSA	µg/L	100.000	102.7653	102.8	3419	5.36	66		--	--	--	--

PFHxA 1





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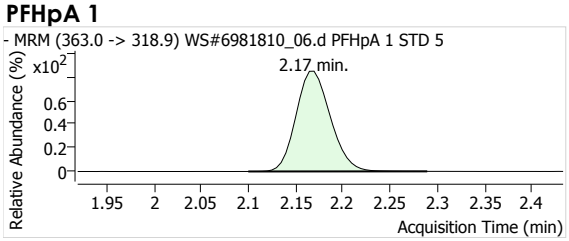
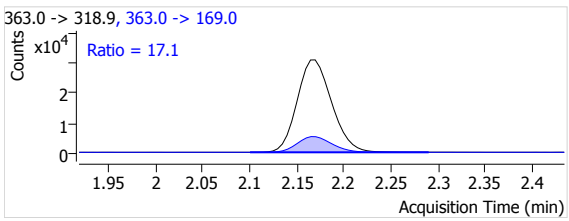
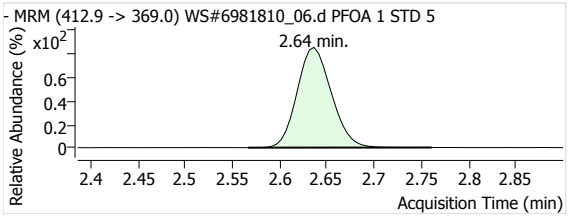
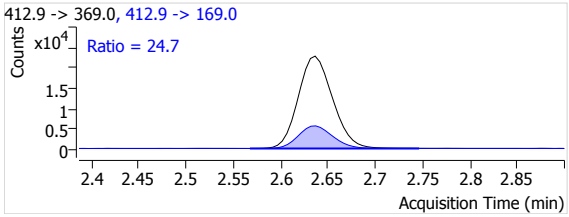


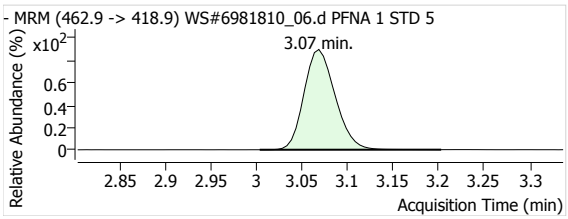


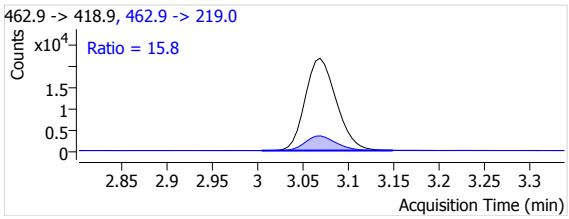
PFOA 1





PFNA 1





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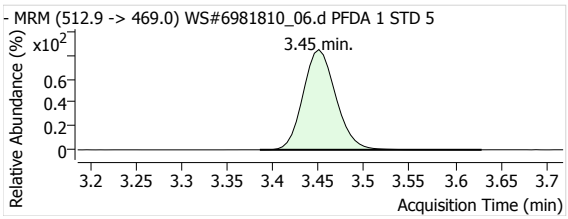

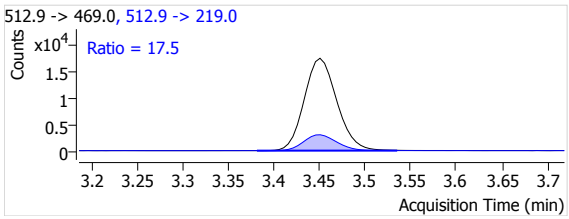

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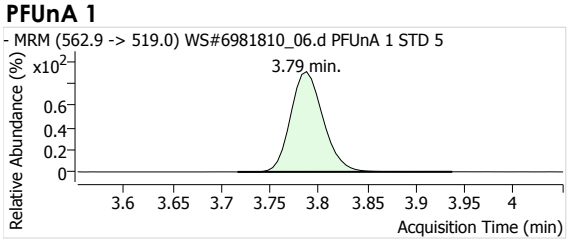

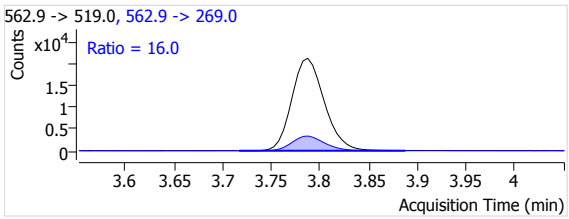

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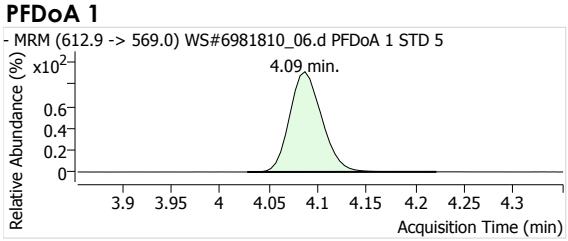

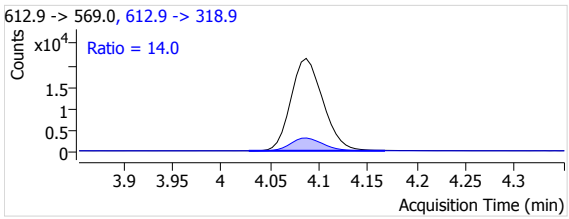

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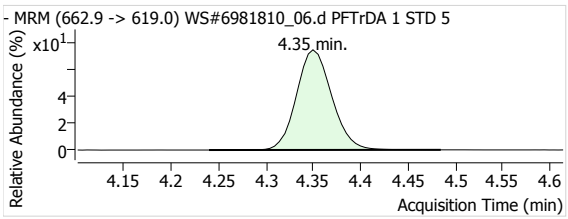

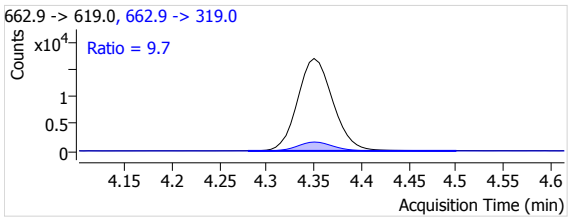

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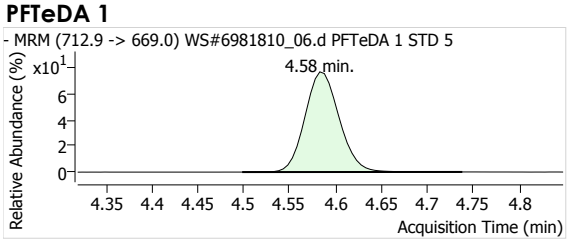

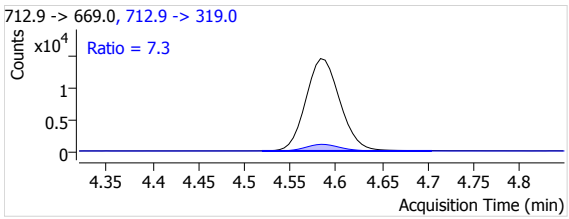

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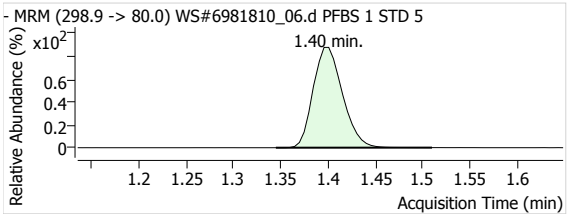

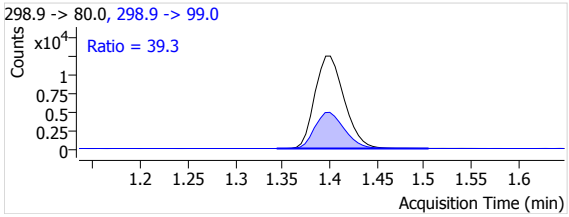

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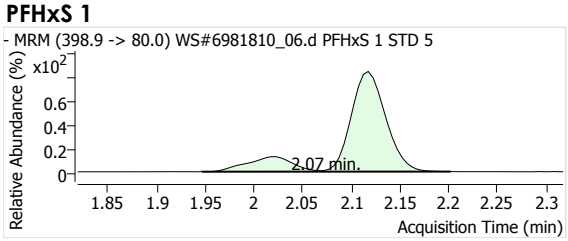

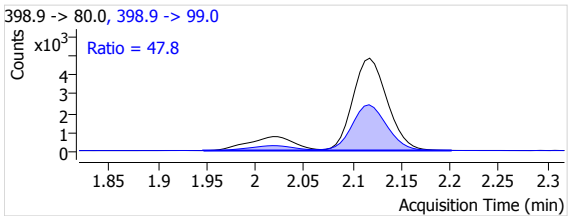

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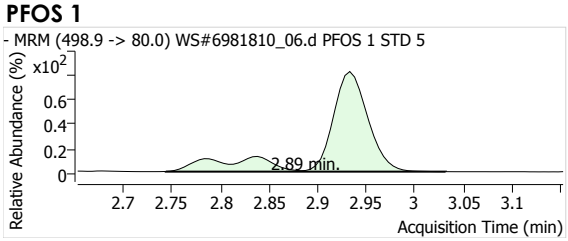

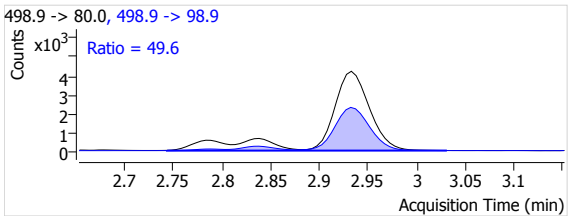

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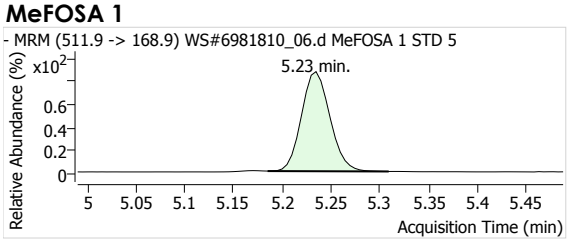

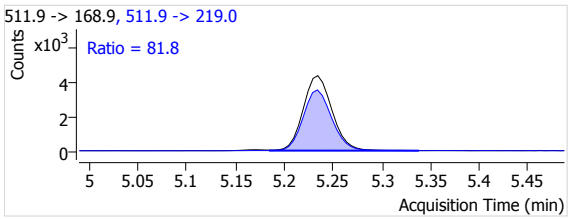

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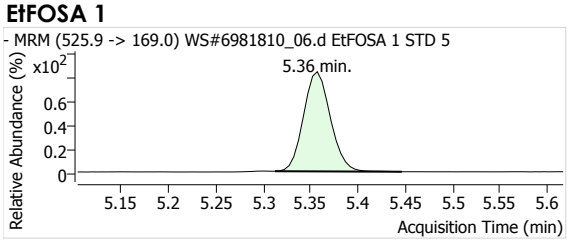

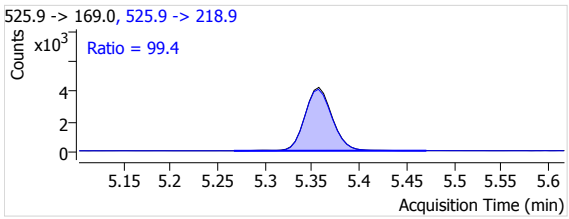

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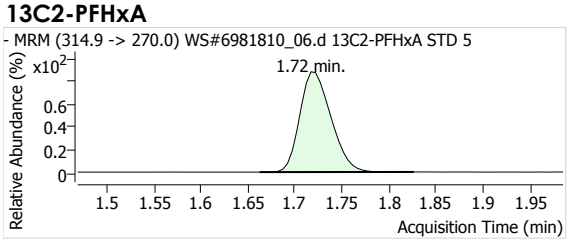

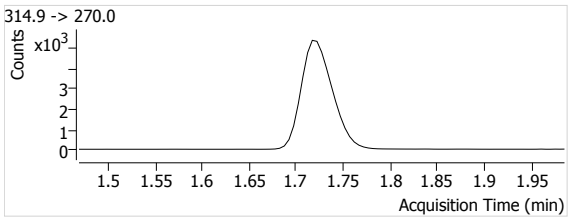

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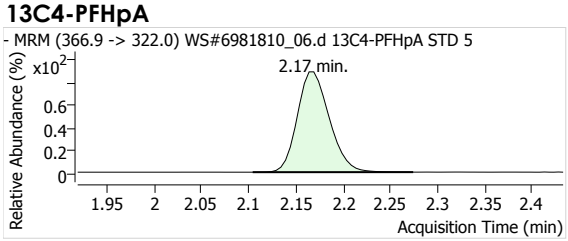

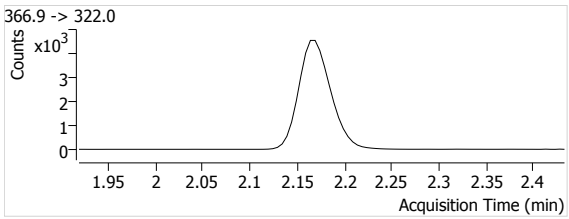

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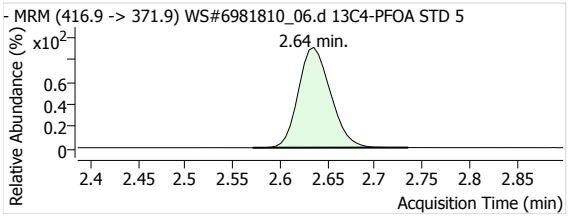

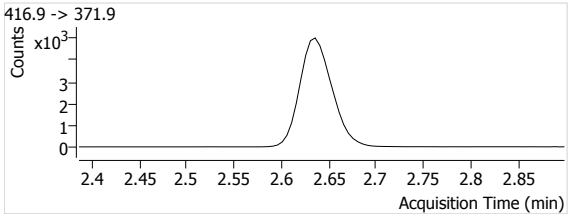

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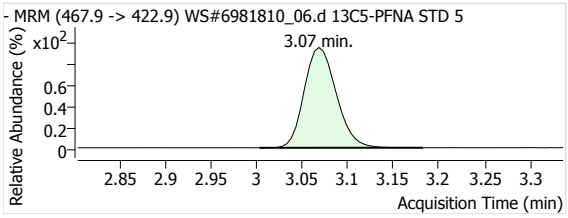

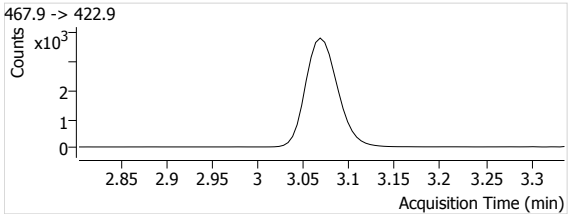

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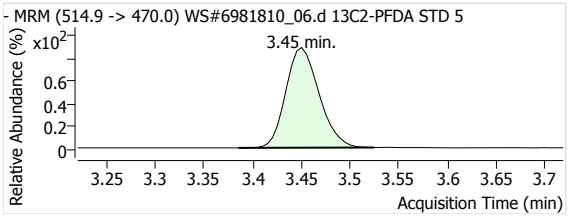

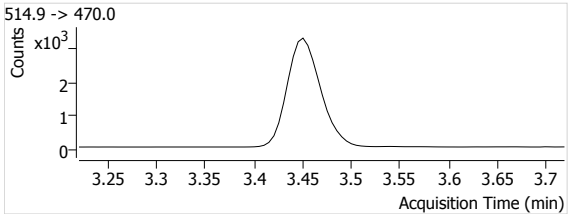

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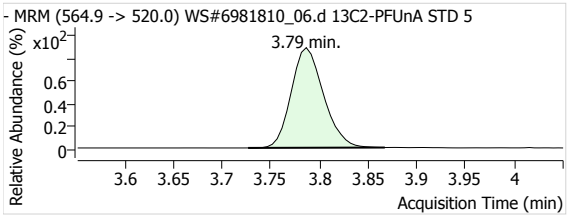

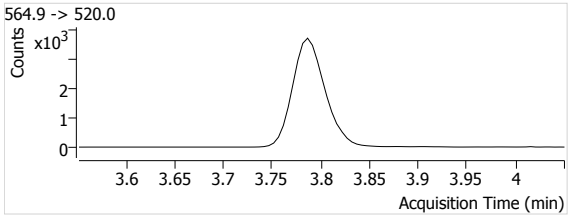

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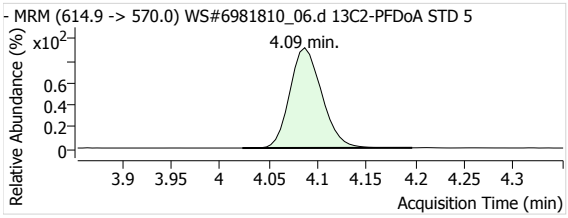

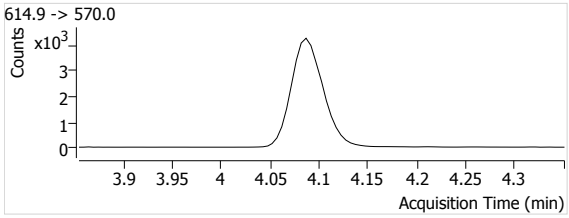

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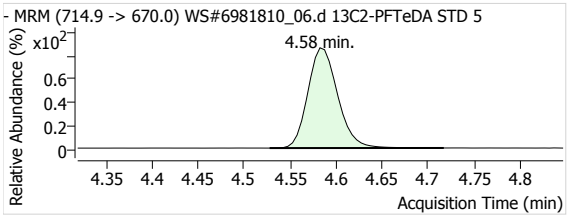

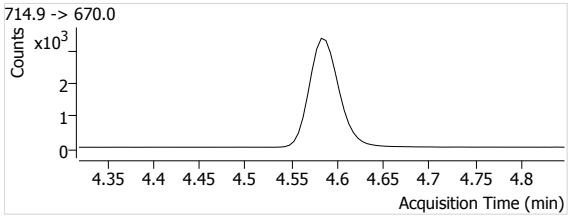

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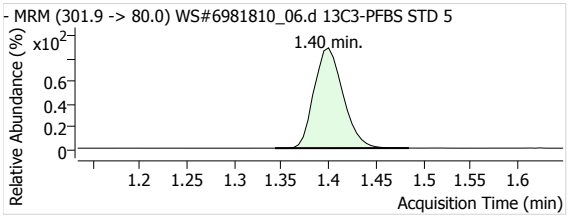
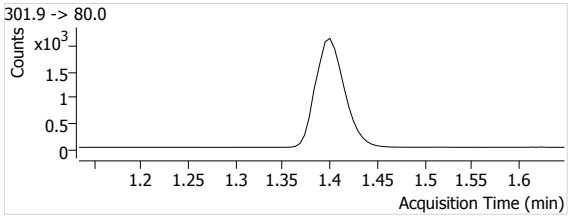
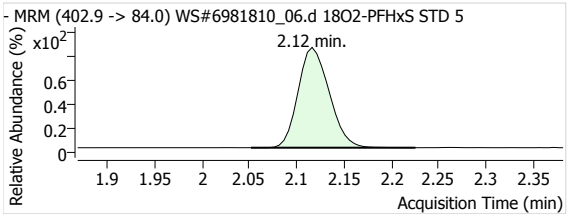
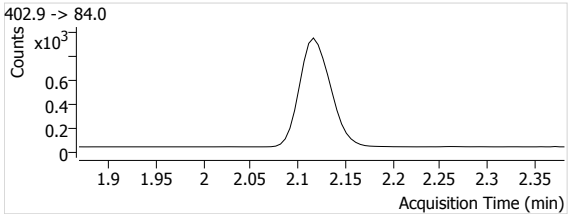




18O2-PFHxS





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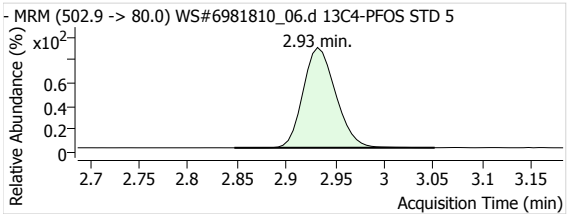
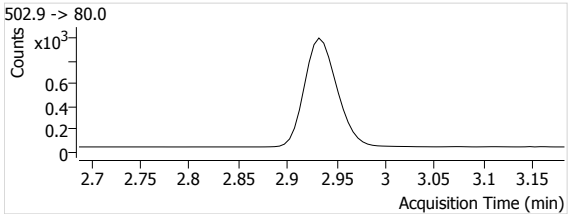
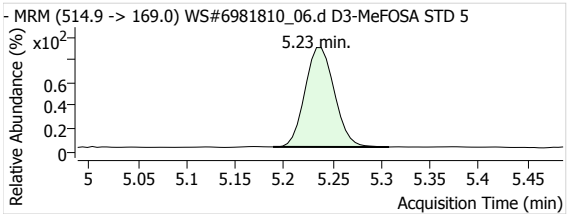
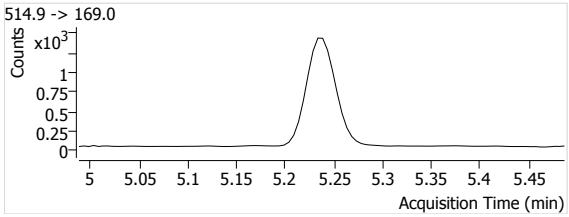




D3-MeFOSA





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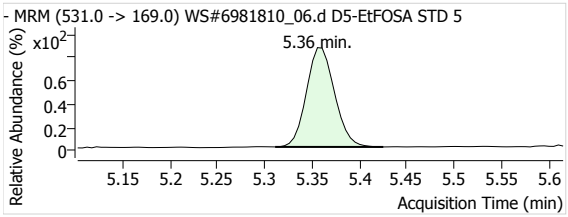
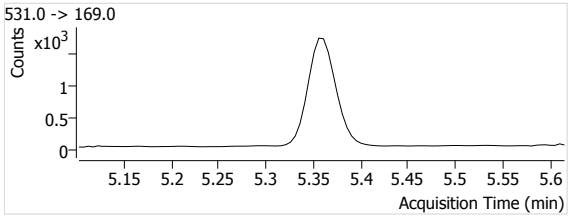




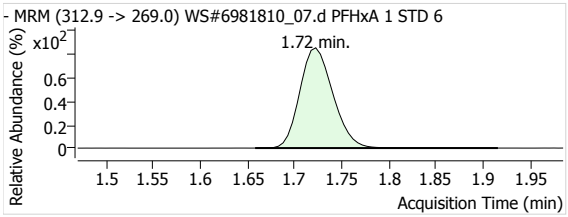
Quantitative Analysis Report

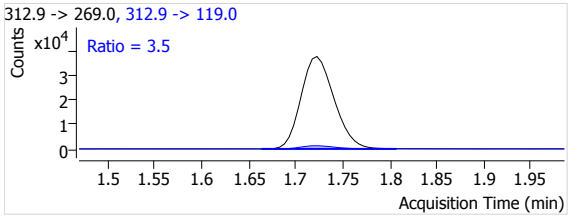
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	STD 6	**Data File**	WS#6981810_07.d
Type	Calibration	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A7
Acq. Date-Time	2020/10/05 8:03:43 AM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	41.700	41.2515	98.9	91744	1.72	1849	7.3255	3213	1.72	414	3.5
PFHpA 1	µg/L	41.700	41.5347	99.6	108807	2.17	2217	10.0181	18416	2.17	1026	16.9
PFOA 1	µg/L	41.700	41.6711	99.9	80010	2.64	774	6.6915	19341	2.64	697	24.2
PFNA 1	µg/L	41.700	41.8660	100.4	71864	3.07	1878	7.7977	11226	3.07	909	15.6
PFDA 1	µg/L	41.700	40.7132	97.6	60121	3.45	1548	7.1530	10269	3.45	923	17.1
PFUnA 1	µg/L	41.700	41.1005	98.6	67598	3.79	1039	7.6158	10983	3.78	1078	16.2
PFDoA 1	µg/L	41.700	42.0580	100.9	66996	4.09	812	7.1379	9266	4.09	409	13.8
PFTrDA 1	µg/L	41.700	41.1809	98.8	59656	4.35	1047	7.7941	5997	4.35	718	10.1
PFTeDA 1	µg/L	41.700	41.3522	99.2	52600	4.58	1162	6.8722	3749	4.58	585	7.1
PFBS 1	µg/L	41.700	41.1550	98.7	36590	1.40	1930	8.1438	14450	1.40	1821	39.5
PFHxS 1	µg/L	41.700	41.2477	98.9	19828	2.07	851	9.0623	9226	2.07	815	46.5
PFOS 1	µg/L	41.700	41.2892	99.0	18019	2.89	347	7.9485	8892	2.89	525	49.3
MeFOSA 1	µg/L	41.700	40.8141	97.9	11890	5.23	928	4.0401	9746	5.23	400	82.0
EtFOSA 1	µg/L	41.700	41.1460	98.7	11543	5.36	1938	3.2635	11577	5.36	102869	100.3
13C2-PFHxA	µg/L	100.000	100.7238	100.7	12524	1.72	892		--	--	--	--
13C4-PFHpA	µg/L	100.000	104.6037	104.6	10861	2.17	920		--	--	--	--
13C4-PFOA	µg/L	100.000	106.0112	106.0	11957	2.64	1041		--	--	--	--
13C5-PFNA	µg/L	100.000	104.1709	104.2	9216	3.07	454		--	--	--	--
13C2-PFDA	µg/L	100.000	107.8532	107.9	8405	3.45	757		--	--	--	--
13C2-PFUnA	µg/L	100.000	104.4604	104.5	8876	3.79	752		--	--	--	--
13C2-PFDoA	µg/L	100.000	103.4156	103.4	9386	4.09	621		--	--	--	--
13C2-PFTeDA	µg/L	100.000	106.6908	106.7	7654	4.58	640		--	--	--	--
13C3-PFBS	µg/L	100.000	105.3953	105.4	4493	1.40	545		--	--	--	--
18O2-PFHxS	µg/L	100.000	106.3168	106.3	2188	2.12	707		--	--	--	--
13C4-PFOS	µg/L	100.000	107.4917	107.5	2267	2.93	303		--	--	--	--
D3-MeFOSA	µg/L	100.000	105.7872	105.8	2943	5.24	114		--	--	--	--
D5-EtFOSA	µg/L	100.000	106.3120	106.3	3537	5.36	95		--	--	--	--

PFHxA 1





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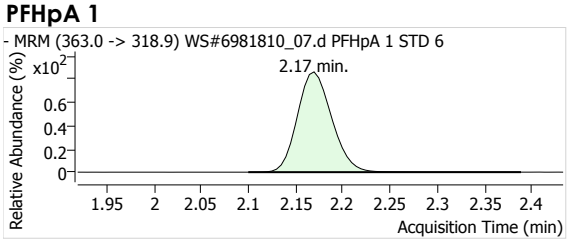

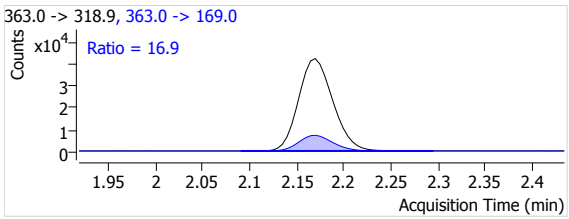

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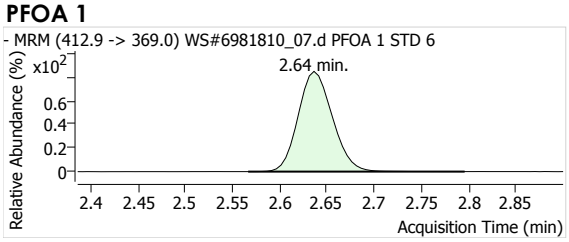

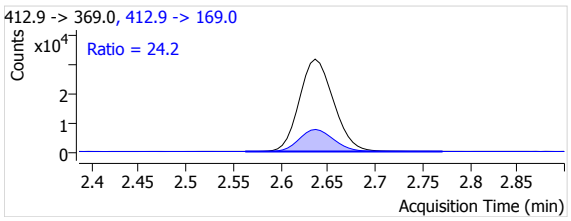

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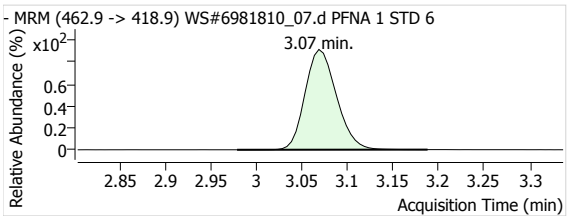

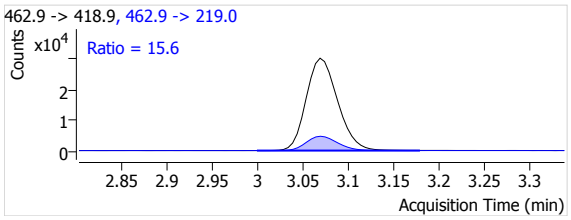

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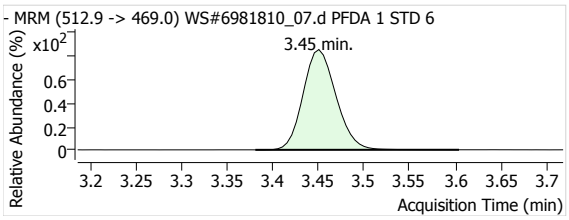

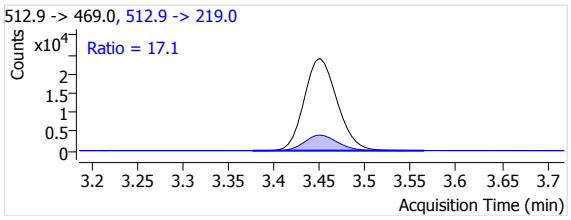

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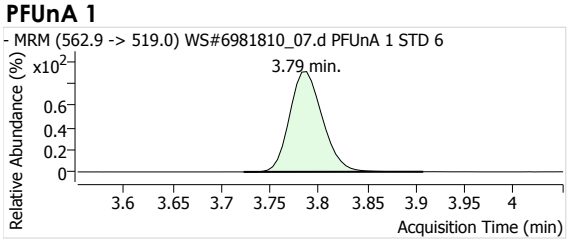

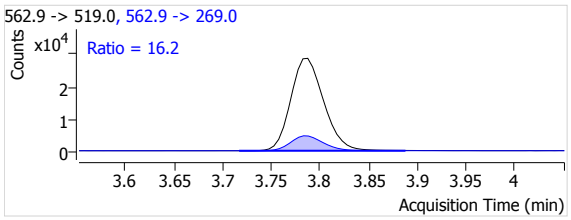

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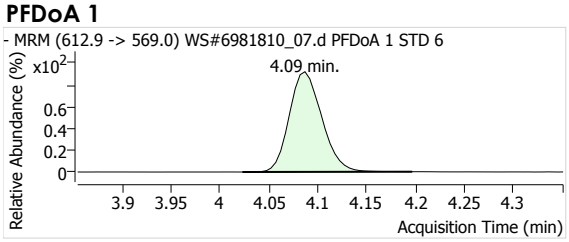

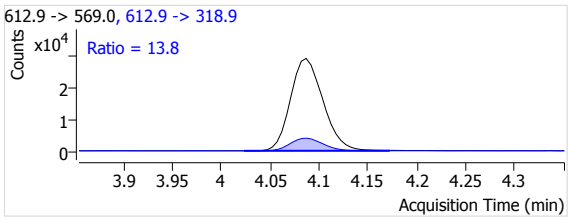

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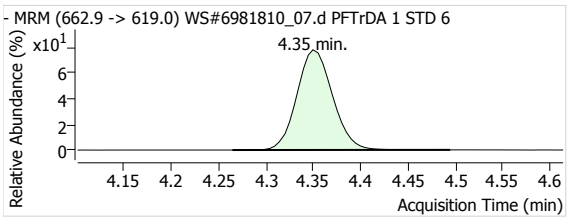

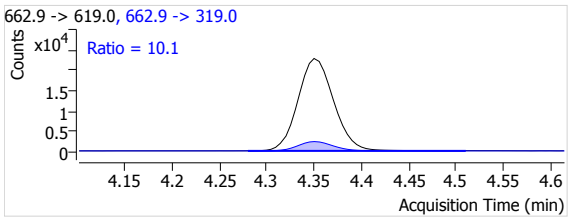

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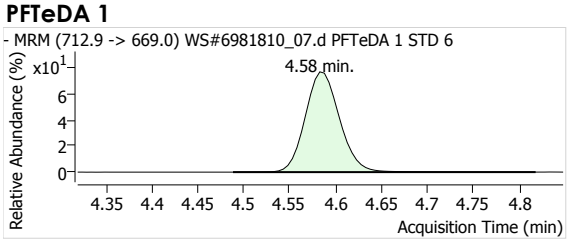

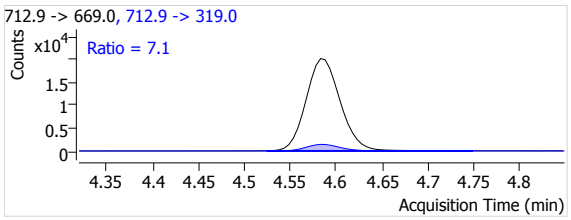

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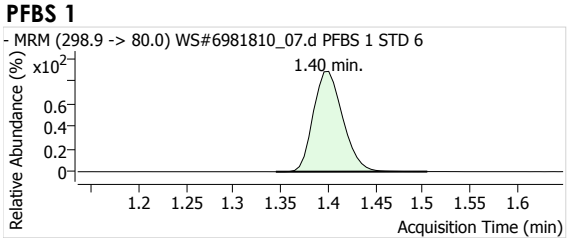

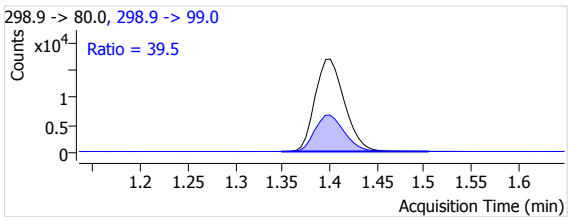

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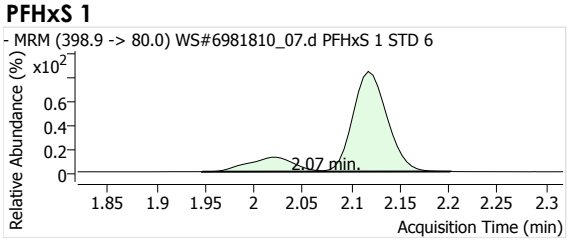

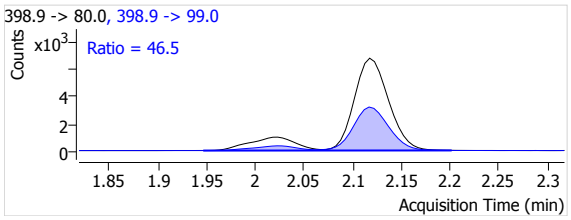

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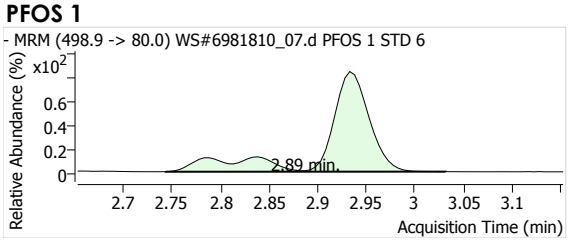

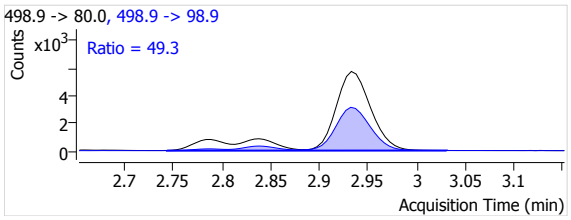

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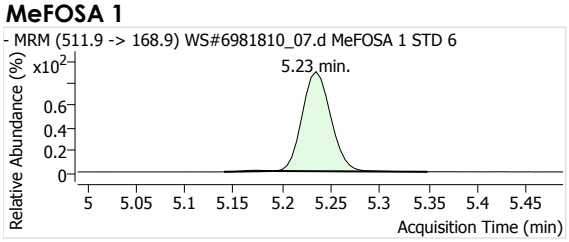

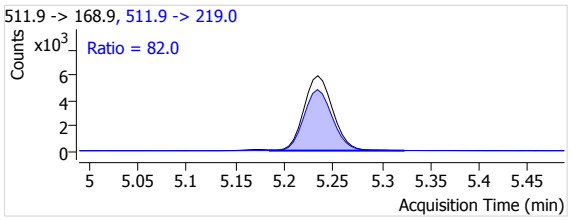

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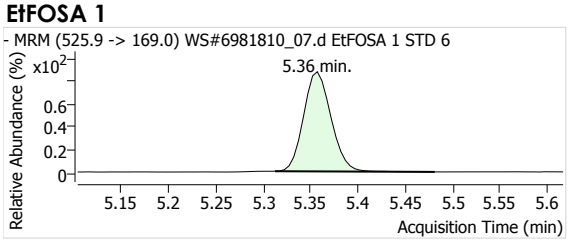

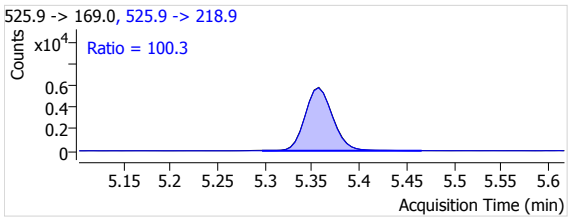

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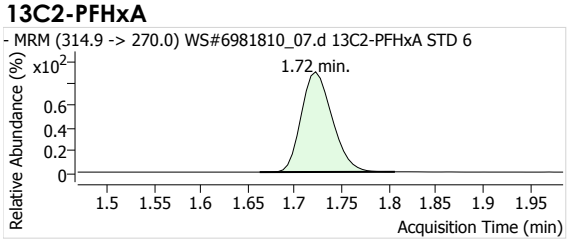

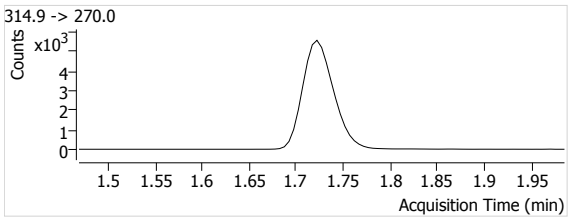

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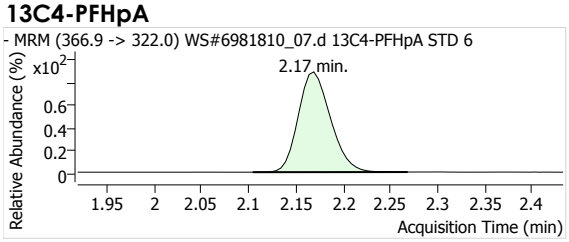

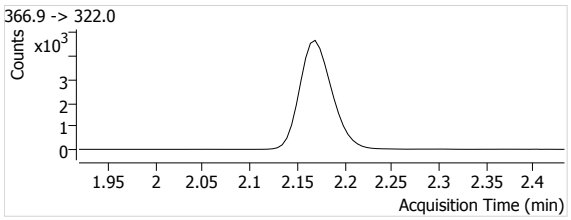

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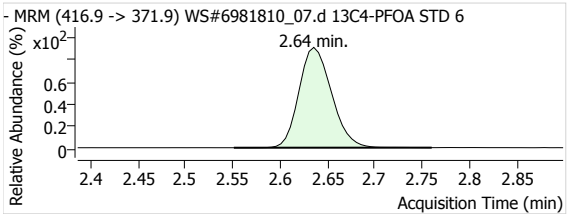

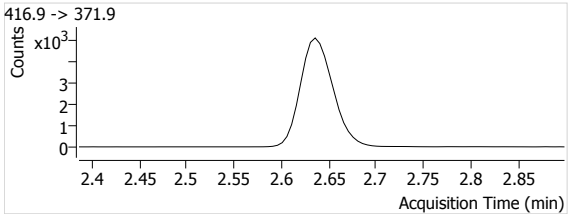

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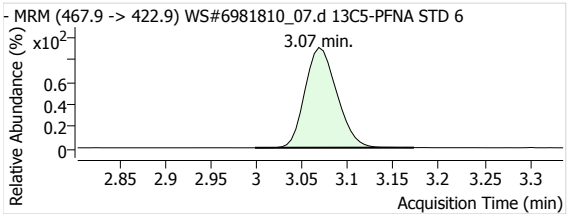

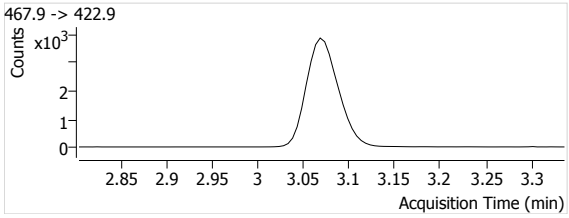

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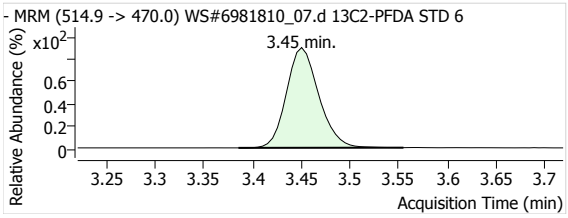

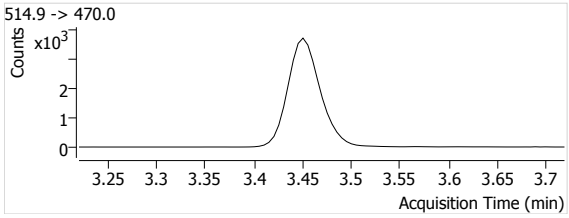

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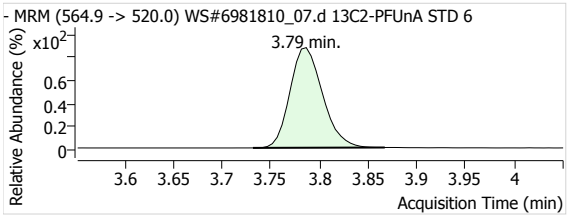

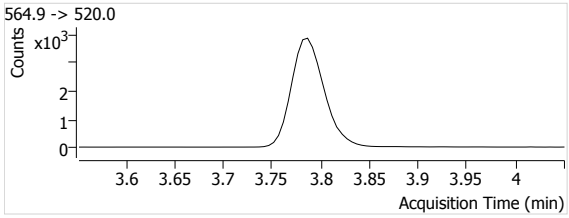

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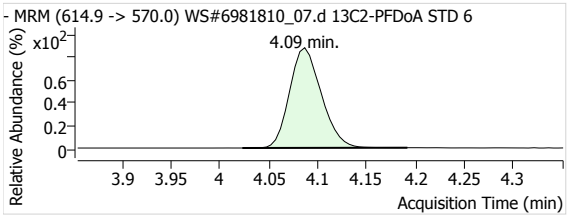

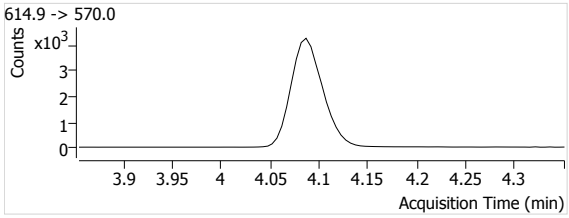

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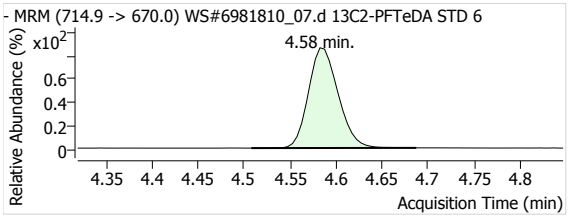

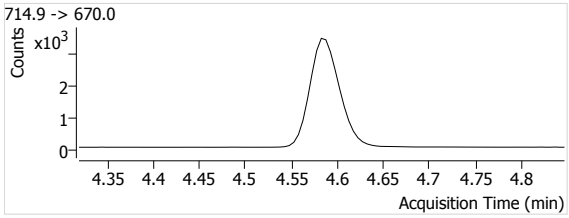

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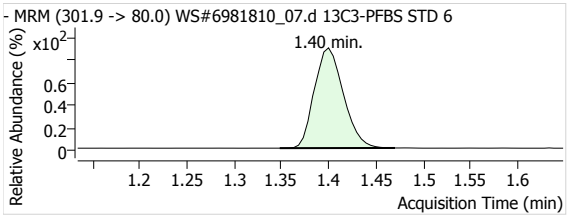

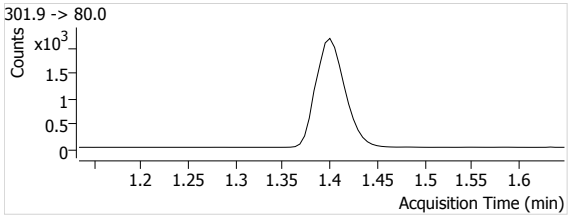

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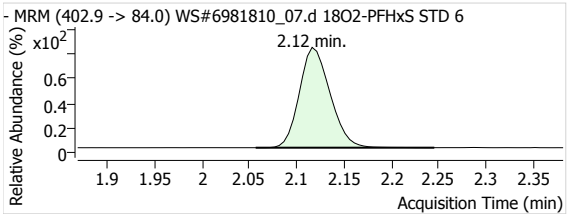

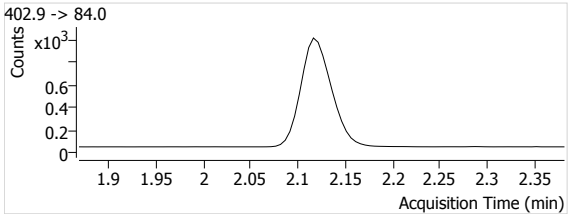

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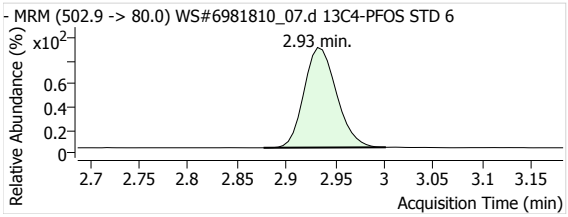

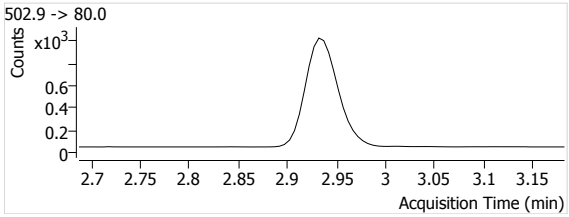

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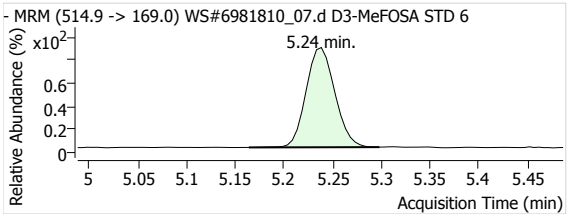

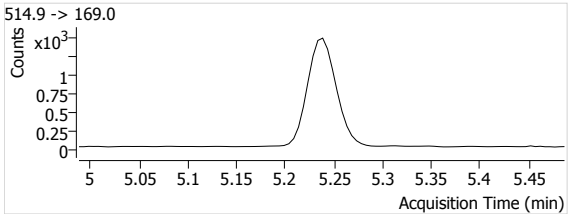

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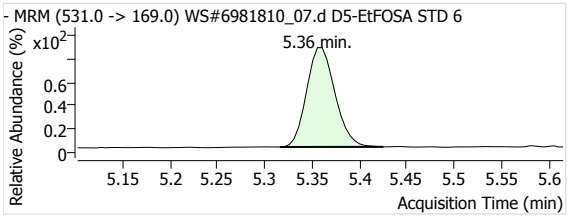
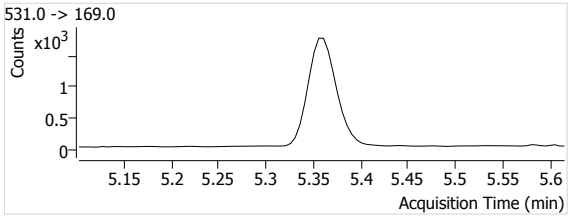




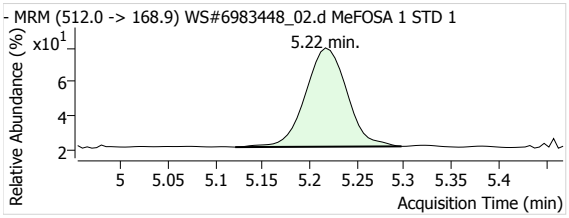
Quantitative Analysis Report

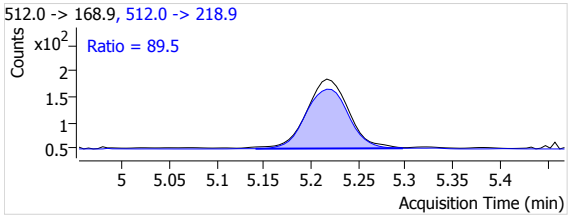
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	STD 1	**Data File**	WS#6983448_02.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E1
Acq. Date-Time	2020/10/06 12:33:36 PM	**Dil.**	1.0
Comment	-		
User Defined			

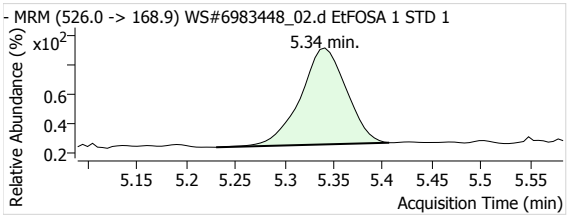
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	0.830	0.8691	104.7	410	5.22	15	0.0726	367	5.22	90	89.5
EtFOSA 1	µg/L	0.830	0.8198	98.8	444	5.34	17	0.0933	360	5.35	51	81.1
D3-MeFOSA	µg/L	100.000	93.2133	93.2	5645	5.22	76		--	--	--	--
D5-EtFOSA	µg/L	100.000	91.0274	91.0	4758	5.35	72		--	--	--	--

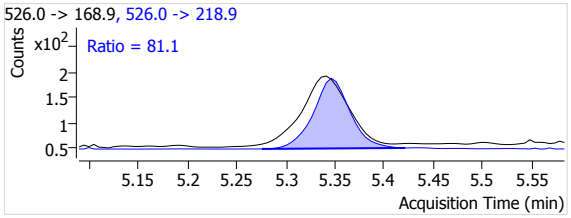
MeFOSA 1



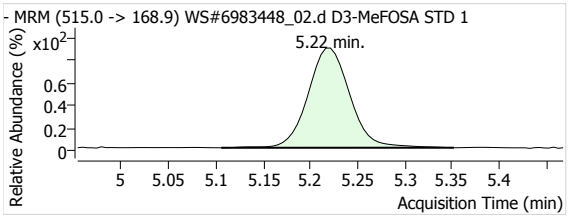


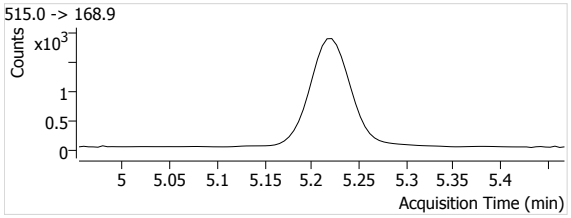
EtFOSA 1



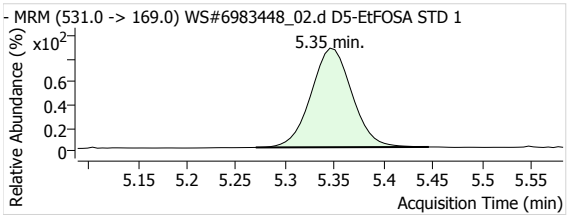


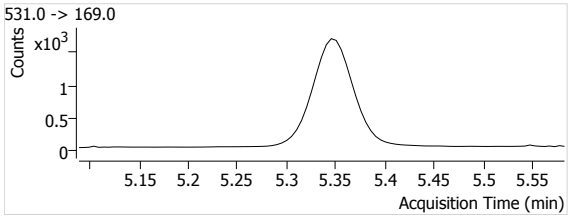
D3-MeFOSA





D5-EtFOSA





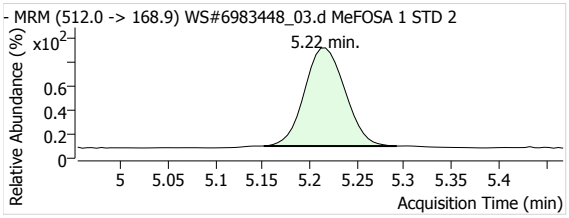
Quantitative Analysis Report

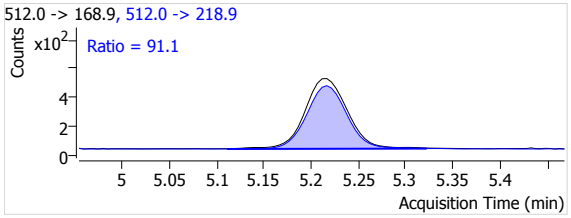
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	STD 2	**Data File**	WS#6983448_03.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E2
Acq. Date-Time	2020/10/06 12:40:32 PM	**Dil.**	1.0
Comment	-		
User Defined			

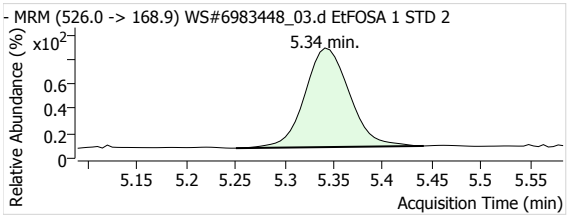
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	3.000	2.9749	99.2	1417	5.22	59	0.2409	1291	5.22	144	91.1
EtFOSA 1	µg/L	3.000	3.0776	102.6	1561	5.34	35	0.3028	1288	5.35	317	82.5
D3-MeFOSA	µg/L	100.000	97.1103	97.1	5881	5.22	104		--	--	--	--
D5-EtFOSA	µg/L	100.000	98.6225	98.6	5155	5.35	182		--	--	--	--

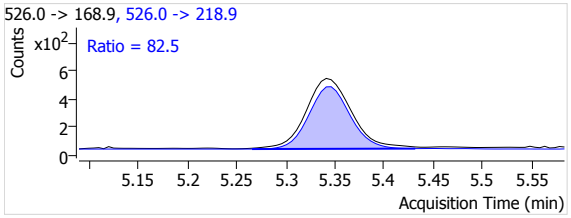
MeFOSA 1



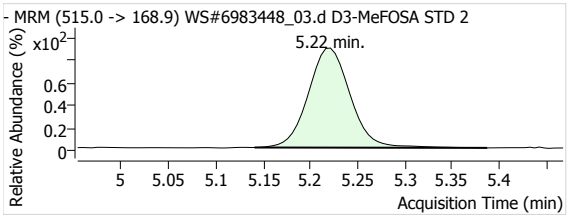


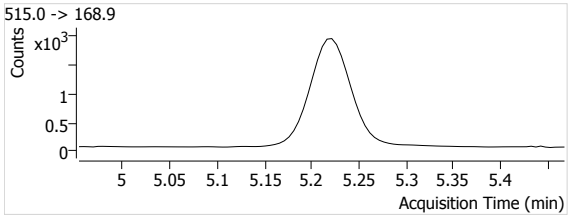
EtFOSA 1



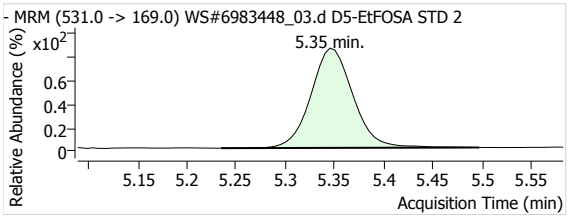


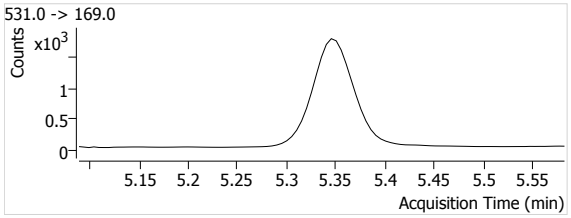
D3-MeFOSA





D5-EtFOSA





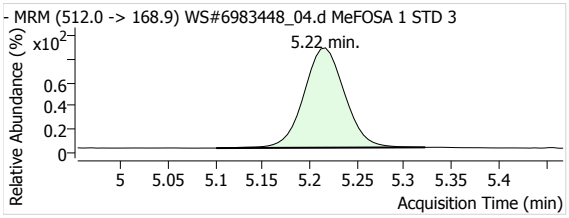
Quantitative Analysis Report

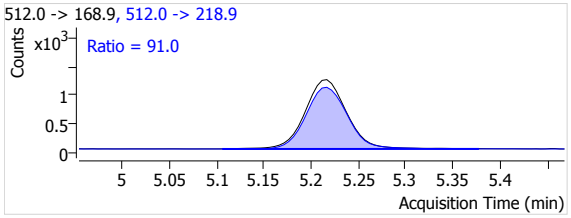
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	STD 3	**Data File**	WS#6983448_04.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E3
Acq. Date-Time	2020/10/06 12:47:28 PM	**Dil.**	1.0
Comment	-		
User Defined			

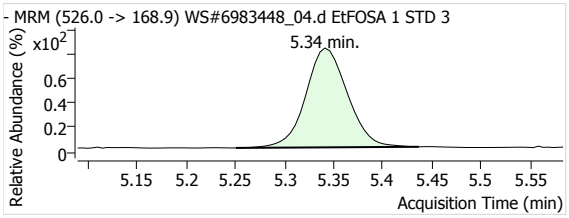
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	8.000	7.5890	94.9	3703	5.22	226	0.6097	3369	5.22	633	91.0
EtFOSA 1	µg/L	8.000	7.8358	97.9	3880	5.34	75	0.7443	3590	5.34	241	92.5
D3-MeFOSA	µg/L	100.000	100.2807	100.3	6073	5.22	81		--	--	--	--
D5-EtFOSA	µg/L	100.000	99.7322	99.7	5213	5.35	115		--	--	--	--

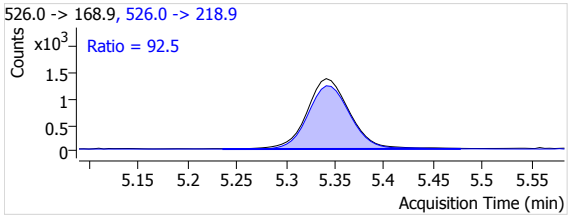
MeFOSA 1



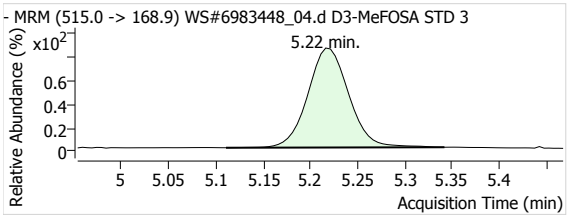


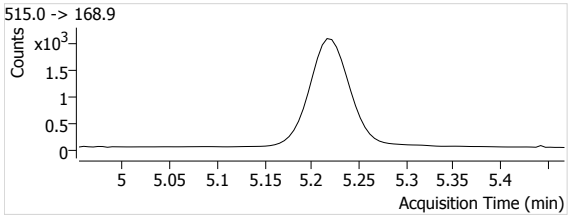
EtFOSA 1



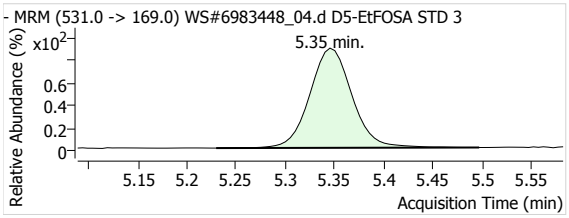


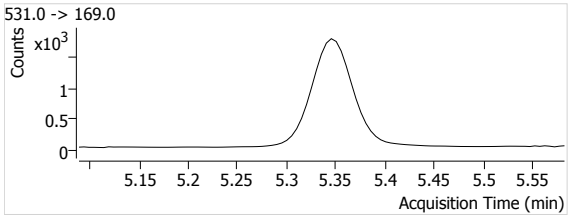
D3-MeFOSA





D5-EtFOSA





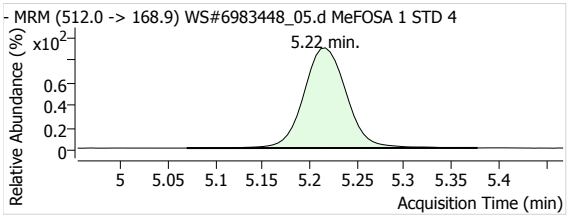
Quantitative Analysis Report

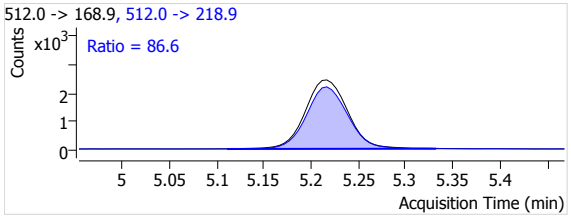
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	STD 4	**Data File**	WS#6983448_05.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E4
Acq. Date-Time	2020/10/06 12:54:23 PM	**Dil.**	1.0
Comment	-		
User Defined			

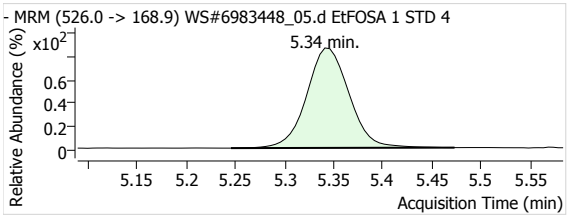
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	16.000	15.8038	98.8	7669	5.22	446	1.2663	6645	5.22	701	86.6
EtFOSA 1	µg/L	16.000	15.9321	99.6	7817	5.34	163	1.4955	6897	5.35	754	88.2
D3-MeFOSA	µg/L	100.000	100.0000	100.0	6056	5.22	95		--	--	--	--
D5-EtFOSA	µg/L	100.000	100.0000	100.0	5227	5.35	79		--	--	--	--

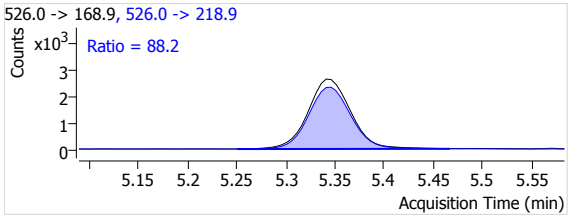
MeFOSA 1



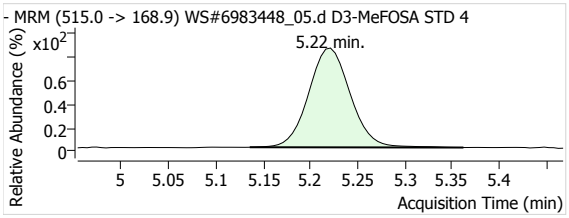


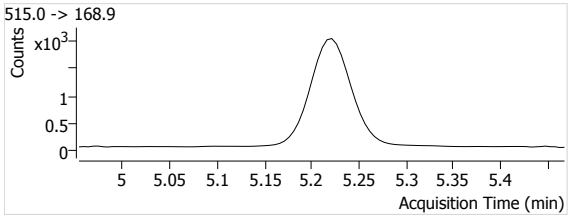
EtFOSA 1



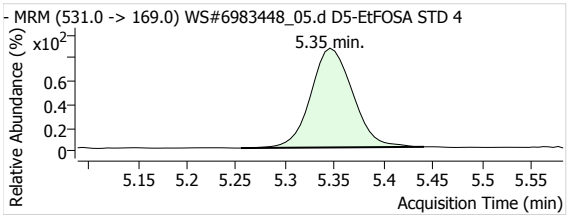


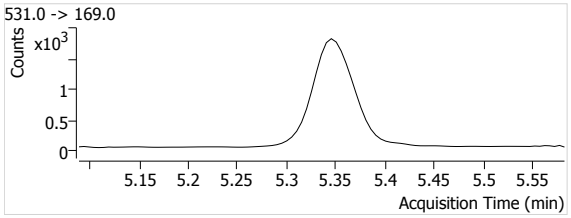
D3-MeFOSA





D5-EtFOSA





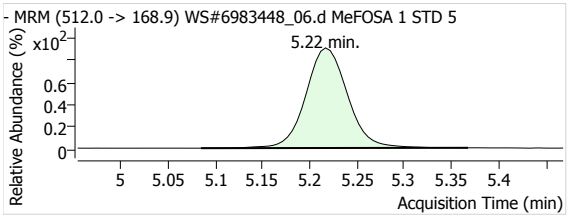
Quantitative Analysis Report

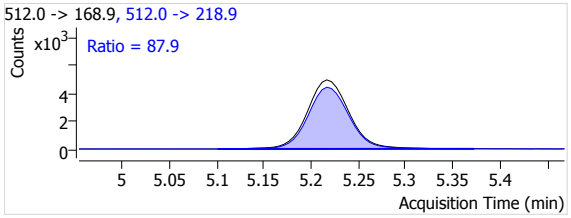
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	STD 5	**Data File**	WS#6983448_06.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E5
Acq. Date-Time	2020/10/06 1:01:19 PM	**Dil.**	1.0
Comment	-		
User Defined			

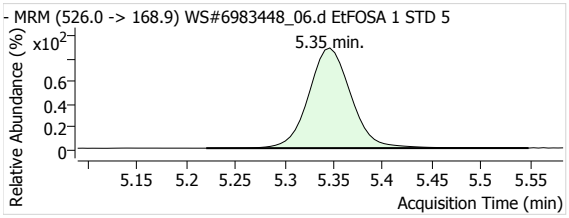
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	30.000	31.1452	103.8	15277	5.22	523	2.4926	13432	5.22	785	87.9
EtFOSA 1	µg/L	30.000	30.7782	102.6	15471	5.35	368	2.8730	14194	5.35	448	91.7
D3-MeFOSA	µg/L	100.000	101.2054	101.2	6129	5.22	105		--	--	--	--
D5-EtFOSA	µg/L	100.000	103.0228	103.0	5385	5.35	76		--	--	--	--

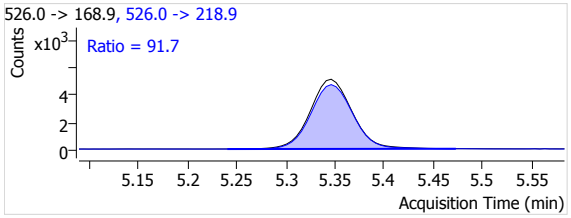
MeFOSA 1



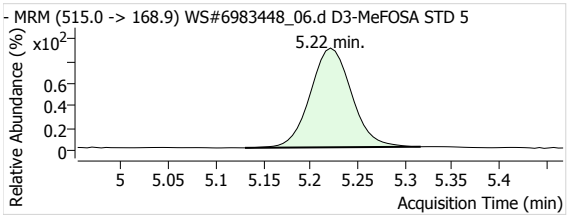


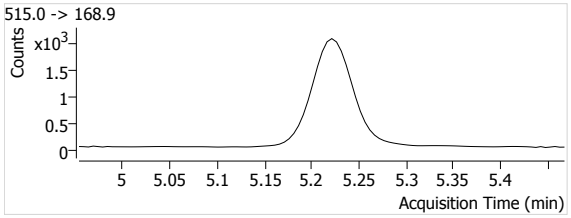
EtFOSA 1



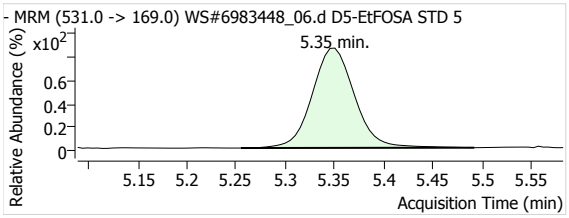


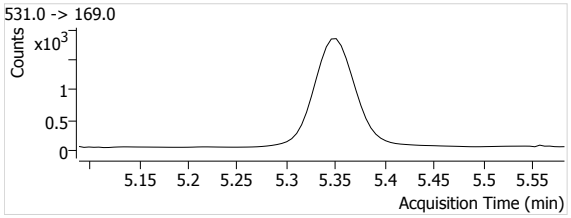
D3-MeFOSA





D5-EtFOSA





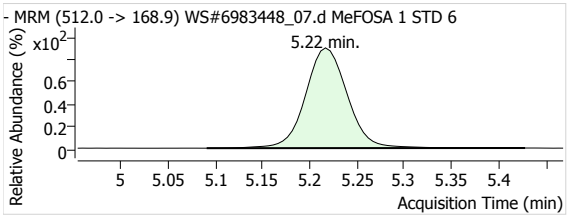
Quantitative Analysis Report

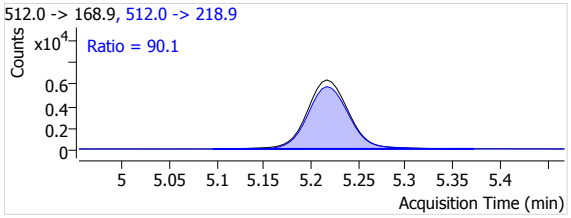
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	STD 6	**Data File**	WS#6983448_07.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E6
Acq. Date-Time	2020/10/06 1:08:15 PM	**Dil.**	1.0
Comment	-		
User Defined			

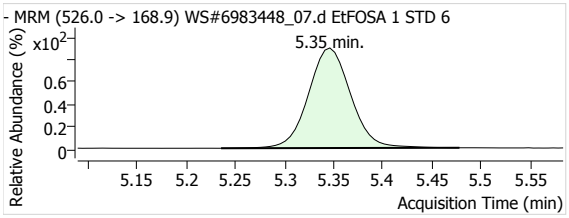
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	41.700	41.1481	98.7	19667	5.22	1198	3.2921	17714	5.22	1112	90.1
EtFOSA 1	µg/L	41.700	41.0865	98.5	20407	5.35	454	3.8294	18597	5.35	841	91.1
D3-MeFOSA	µg/L	100.000	98.6460	98.6	5974	5.22	91		--	--	--	--
D5-EtFOSA	µg/L	100.000	101.9514	102.0	5329	5.35	86		--	--	--	--

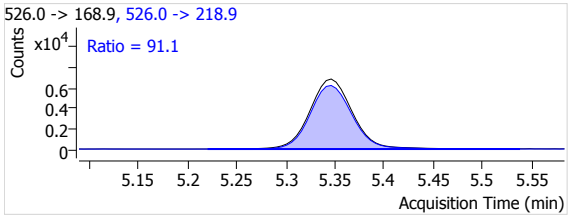
MeFOSA 1





EtFOSA 1





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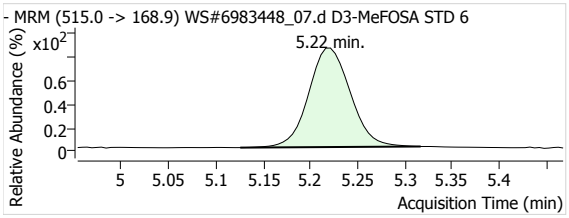

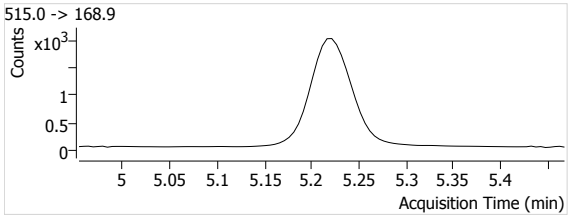

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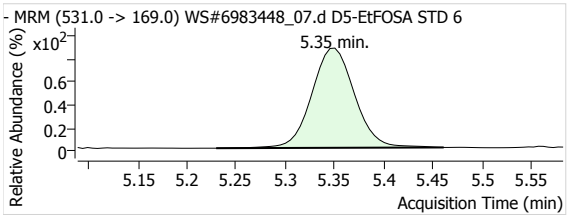
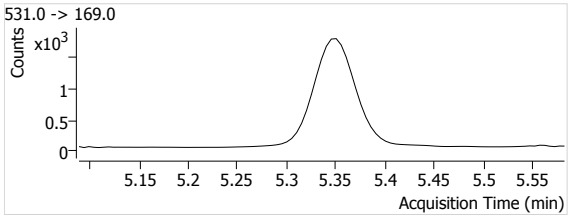




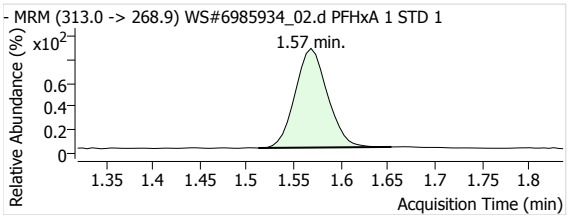
Quantitative Analysis Report

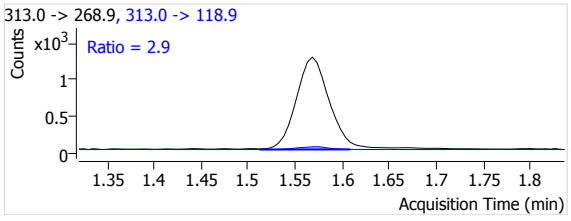
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	STD 1	**Data File**	WS#6985934_02.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A2
Acq. Date-Time	2020/10/07 1:21:06 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	0.830	0.8625	103.9	2994	1.57	97	0.2141	86	1.57	17	2.9
PFHpA 1	µg/L	0.830	0.8562	103.2	3272	1.98	40	0.1697	625	1.98	87	19.1
PFOA 1	µg/L	0.830	0.8751	105.4	3267	2.44	47	0.1913	668	2.44	49	20.4
PFNA 1	µg/L	0.830	0.9097	109.6	2873	2.88	32	0.1774	533	2.88	68	18.6
PFDA 1	µg/L	0.830	0.9072	109.3	2966	3.29	48	0.2387	440	3.28	83	14.8
PFUnA 1	µg/L	0.830	0.8868	106.8	2846	3.64	29	0.1906	416	3.64	26	14.6
PFDoA 1	µg/L	0.830	0.8774	105.7	3173	3.95	48	0.1740	431	3.95	49	13.6
PFTrDA 1	µg/L	0.830	0.8732	105.2	3681	4.22	39	0.1509	312	4.22	65	8.5
PFTeDA 1	µg/L	0.830	0.8443	101.7	4141	4.47	50	0.1698	225	4.47	77	5.4
PFBS 1	µg/L	0.830	0.9022	108.7	618	1.28	79	0.2015	260	1.28	27	42.1
PFHxS 1	µg/L	0.830	0.8672	104.5	486	1.94	105	0.2050	259	1.94	17	53.2
PFOS 1	µg/L	0.830	0.8907	107.3	412	2.75	34	0.1797	215	2.75	19	52.1
MeFOSA 1	µg/L	0.830	0.8602	103.6	421	5.19	26	0.0725	373	5.20	110	88.6
EtFOSA 1	µg/L	0.830	0.8684	104.6	442	5.33	11	0.0895	411	5.33	85	93.0
13C2-PFHxA	µg/L	100.000	96.6420	96.6	13987	1.57	756		--	--	--	--
13C4-PFHpA	µg/L	100.000	93.8035	93.8	19286	1.98	512		--	--	--	--
13C4-PFOA	µg/L	100.000	94.0263	94.0	17078	2.44	1065		--	--	--	--
13C5-PFNA	µg/L	100.000	94.1252	94.1	16198	2.88	1021		--	--	--	--
13C2-PFDA	µg/L	100.000	90.3367	90.3	12424	3.28	713		--	--	--	--
13C2-PFUnA	µg/L	100.000	91.9860	92.0	14933	3.64	546		--	--	--	--
13C2-PFDoA	µg/L	100.000	93.0869	93.1	18232	3.95	800		--	--	--	--
13C2-PFTeDA	µg/L	100.000	90.9382	90.9	24386	4.47	932		--	--	--	--
13C3-PFBS	µg/L	100.000	91.6617	91.7	3067	1.27	163		--	--	--	--
18O2-PFHxS	µg/L	100.000	90.4345	90.4	2373	1.97	258		--	--	--	--
13C4-PFOS	µg/L	100.000	88.2308	88.2	2294	2.80	136		--	--	--	--
D3-MeFOSA	µg/L	100.000	93.7238	93.7	5809	5.20	108		--	--	--	--
D5-EtFOSA	µg/L	100.000	90.5242	90.5	4939	5.33	101		--	--	--	--

PFHxA 1





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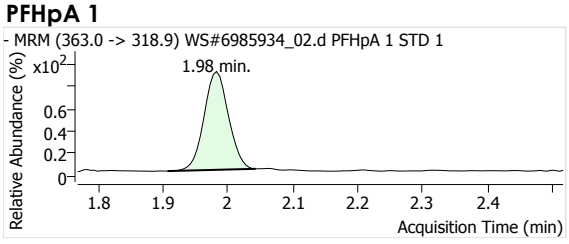

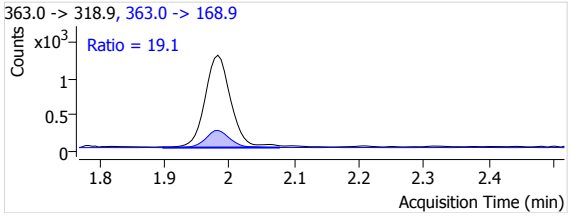

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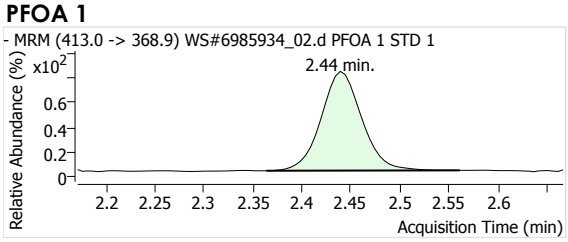

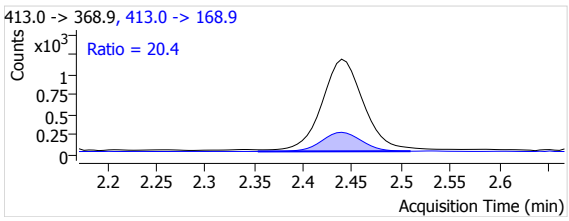

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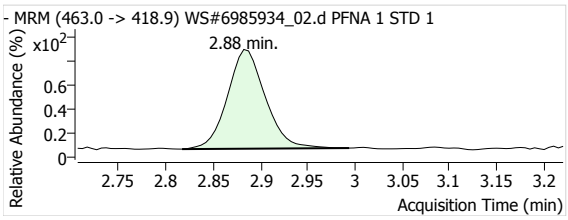

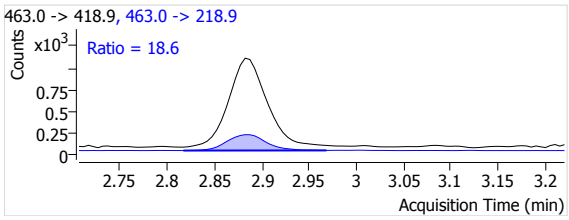

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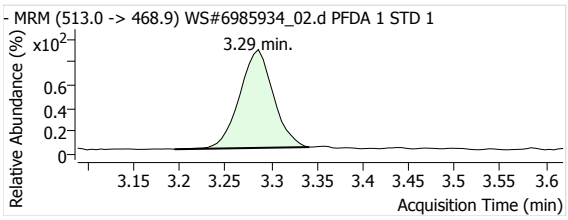

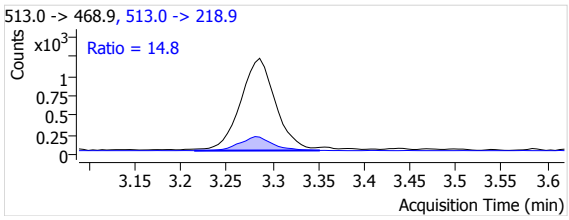

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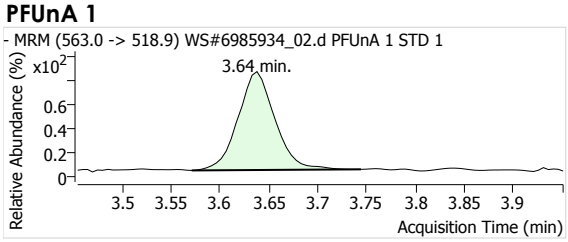

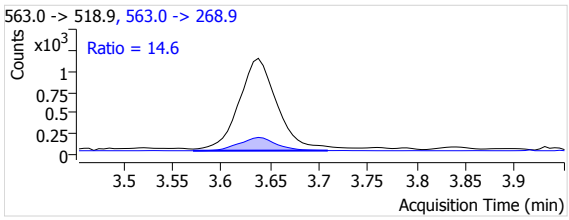

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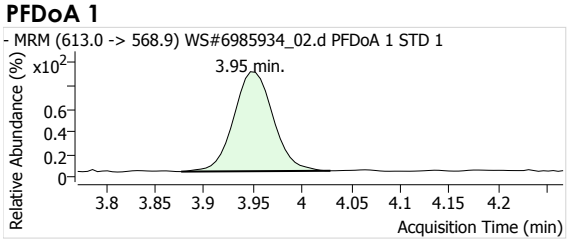

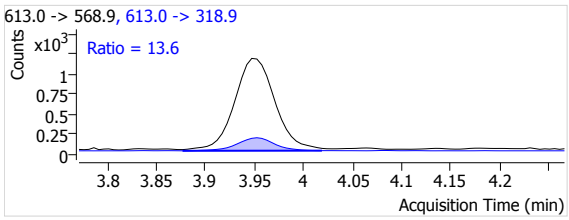

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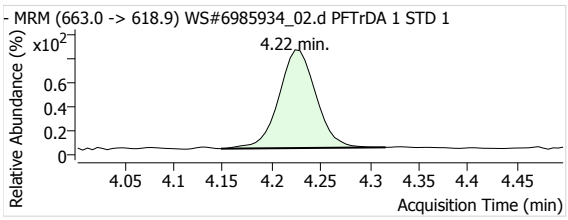

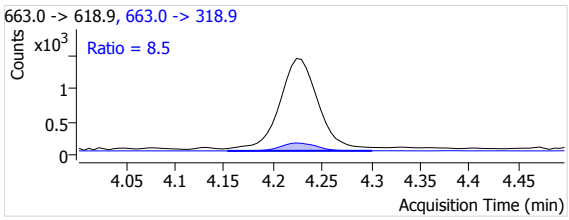

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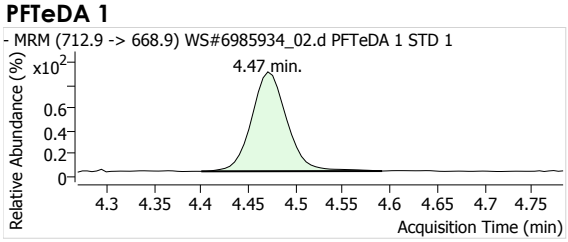

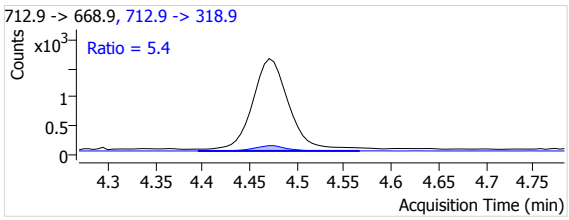

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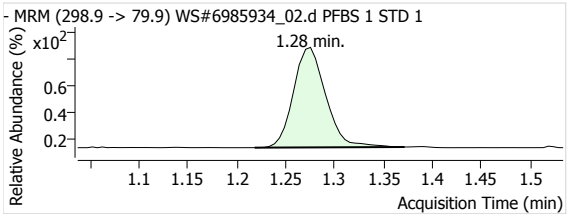

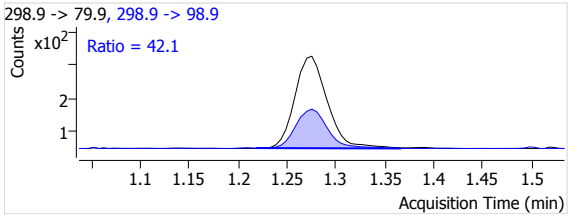

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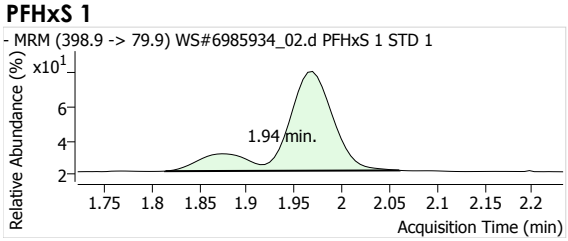

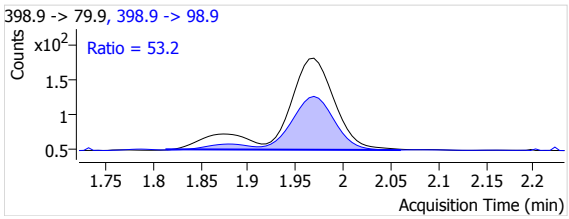

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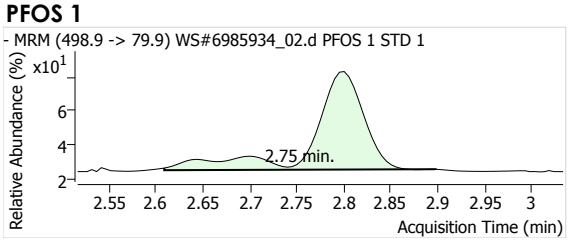

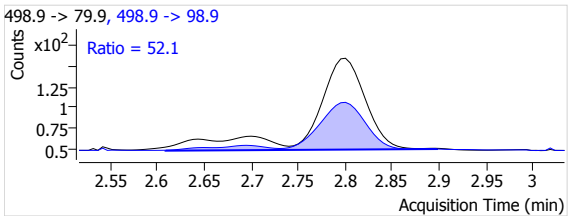

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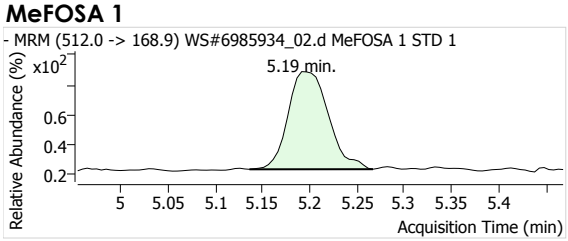

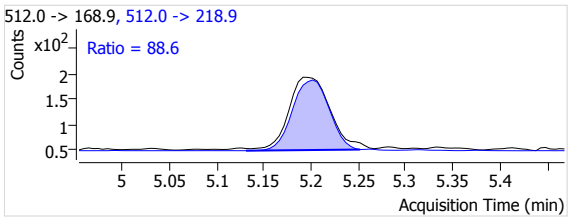

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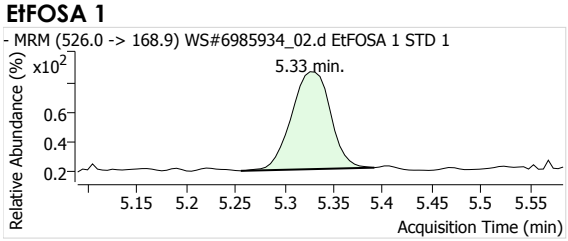

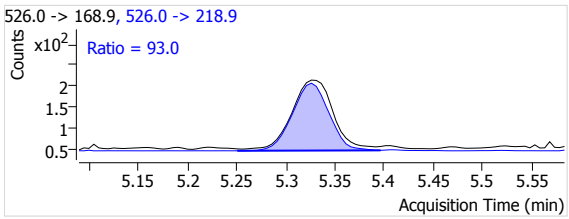

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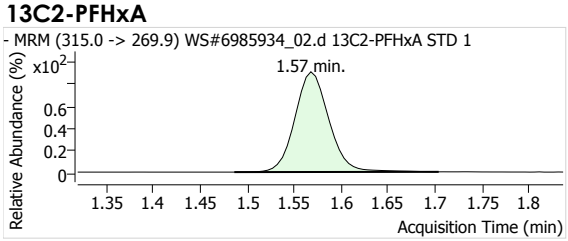

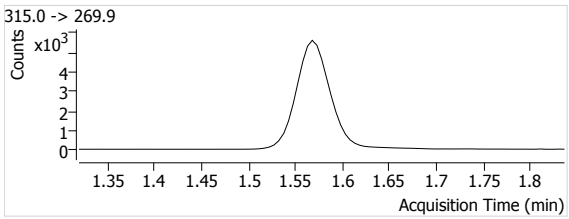

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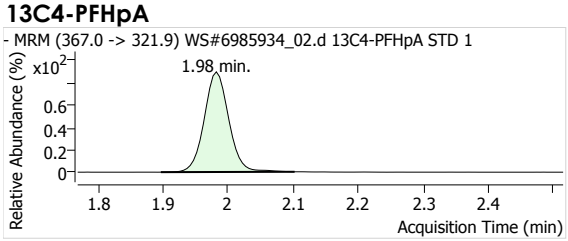

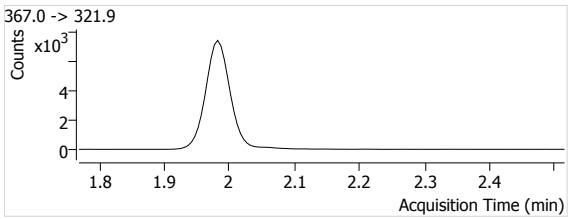

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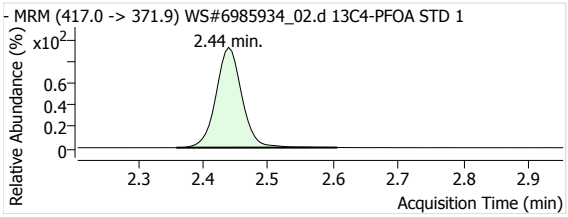

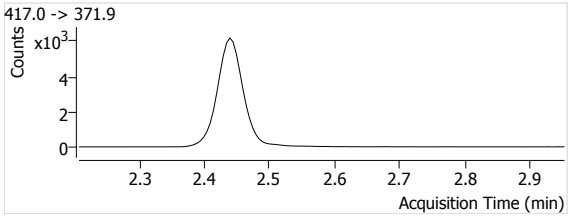

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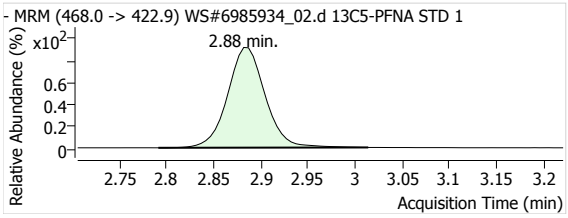

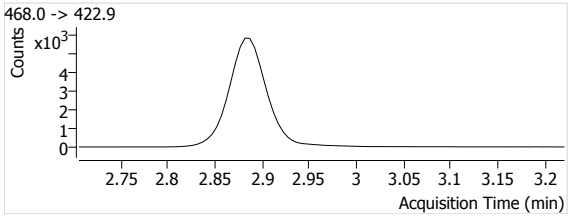

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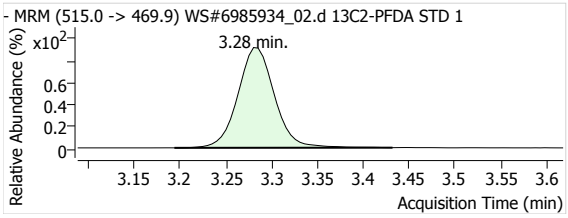

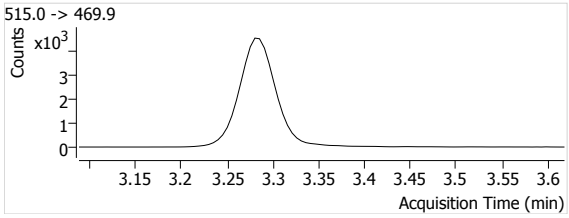

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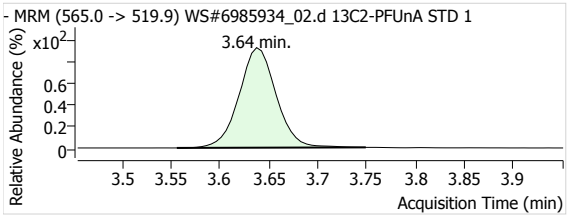

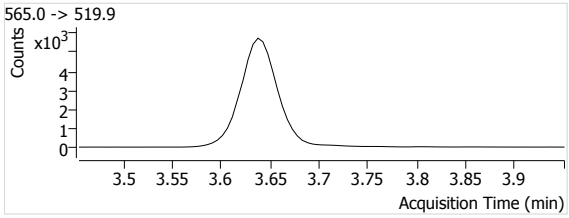

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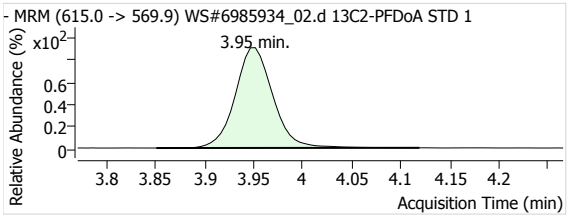

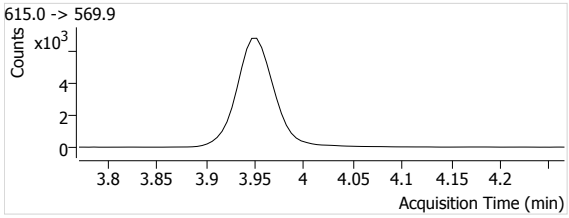

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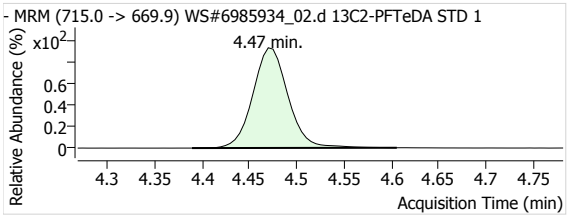

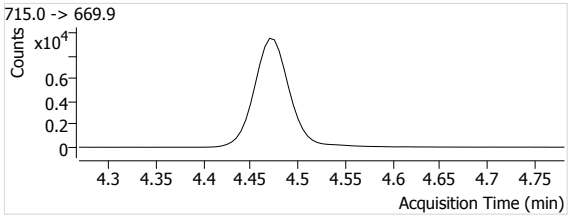

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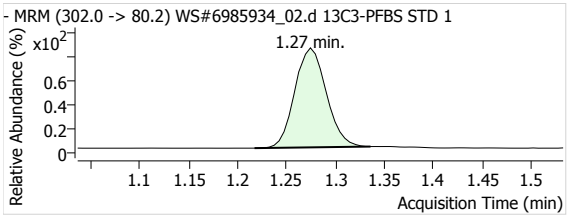

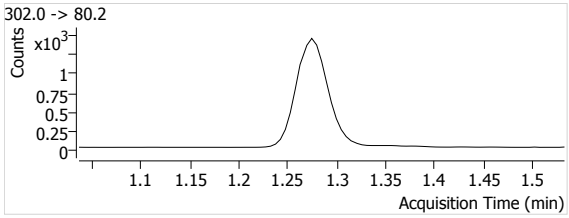

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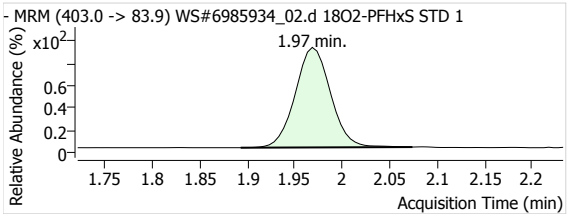

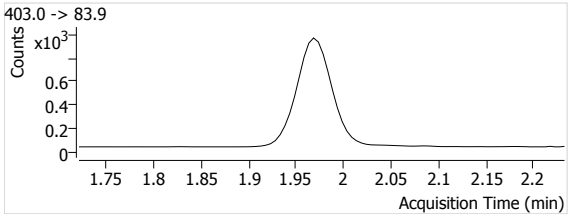

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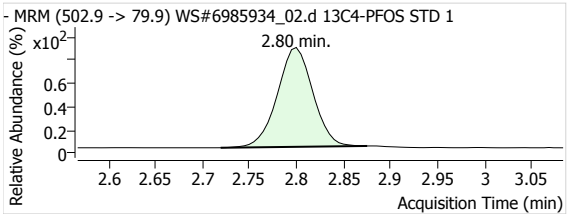

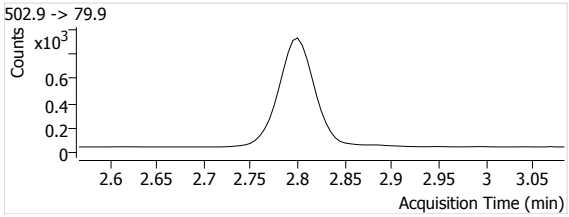

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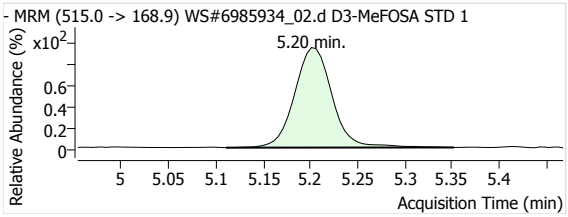

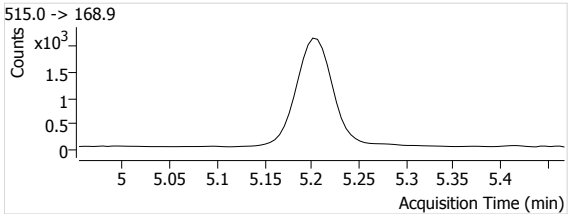

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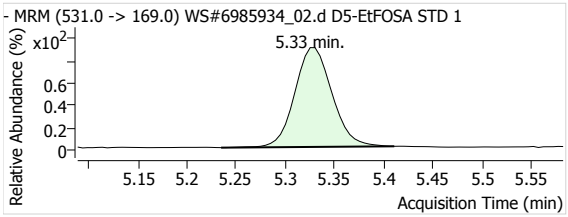
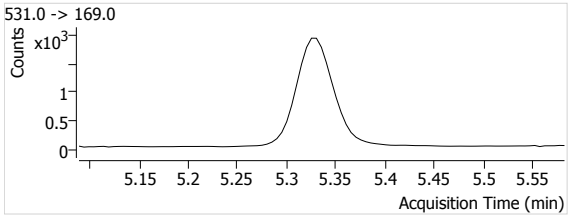




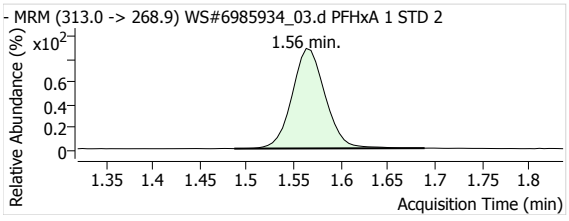
Quantitative Analysis Report

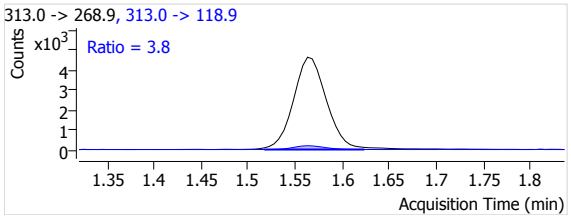
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	STD 2	**Data File**	WS#6985934_03.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A3
Acq. Date-Time	2020/10/07 1:28:02 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	3.000	3.0189	100.6	11266	1.56	268	0.7437	432	1.56	35	3.8
PFHpA 1	µg/L	3.000	3.0429	101.4	13286	1.98	245	0.6291	2176	1.98	113	16.4
PFOA 1	µg/L	3.000	2.9761	99.2	12387	2.44	124	0.6622	2767	2.44	167	22.3
PFNA 1	µg/L	3.000	2.9059	96.9	10180	2.88	106	0.5818	1960	2.88	117	19.3
PFDA 1	µg/L	3.000	3.0045	100.2	11223	3.28	141	0.8272	1623	3.28	104	14.5
PFUnA 1	µg/L	3.000	2.9941	99.8	10537	3.64	108	0.6518	1469	3.64	226	13.9
PFDoA 1	µg/L	3.000	2.9522	98.4	12178	3.95	178	0.5992	1507	3.95	236	12.4
PFTrDA 1	µg/L	3.000	2.9666	98.9	13626	4.22	244	0.5074	1075	4.22	82	7.9
PFTeDA 1	µg/L	3.000	3.0410	101.4	16305	4.47	276	0.6072	779	4.47	98	4.8
PFBS 1	µg/L	3.000	2.9088	97.0	2293	1.27	109	0.6681	996	1.27	81	43.4
PFHxS 1	µg/L	3.000	3.0951	103.2	1891	1.94	86	0.7299	973	1.94	87	51.5
PFOS 1	µg/L	3.000	3.0747	102.5	1636	2.75	52	0.6111	826	2.75	50	50.5
MeFOSA 1	µg/L	3.000	3.0151	100.5	1560	5.20	79	0.2502	1341	5.20	152	86.0
EtFOSA 1	µg/L	3.000	3.0170	100.6	1687	5.33	62	0.3020	1474	5.33	135	87.4
13C2-PFHxA	µg/L	100.000	104.6639	104.7	15148	1.56	623		--	--	--	--
13C4-PFHpA	µg/L	100.000	102.7140	102.7	21118	1.98	681		--	--	--	--
13C4-PFOA	µg/L	100.000	102.9841	103.0	18705	2.44	479		--	--	--	--
13C5-PFNA	µg/L	100.000	101.6794	101.7	17498	2.88	534		--	--	--	--
13C2-PFDA	µg/L	100.000	98.6476	98.6	13567	3.28	632		--	--	--	--
13C2-PFUnA	µg/L	100.000	99.5750	99.6	16165	3.64	785		--	--	--	--
13C2-PFDoA	µg/L	100.000	103.7629	103.8	20323	3.95	906		--	--	--	--
13C2-PFTeDA	µg/L	100.000	100.1342	100.1	26852	4.47	1098		--	--	--	--
13C3-PFBS	µg/L	100.000	102.5702	102.6	3432	1.27	258		--	--	--	--
18O2-PFHxS	µg/L	100.000	98.7424	98.7	2591	1.96	130		--	--	--	--
13C4-PFOS	µg/L	100.000	102.9615	103.0	2677	2.79	395		--	--	--	--
D3-MeFOSA	µg/L	100.000	100.6131	100.6	6236	5.20	89		--	--	--	--
D5-EtFOSA	µg/L	100.000	102.3827	102.4	5586	5.33	132		--	--	--	--

PFHxA 1





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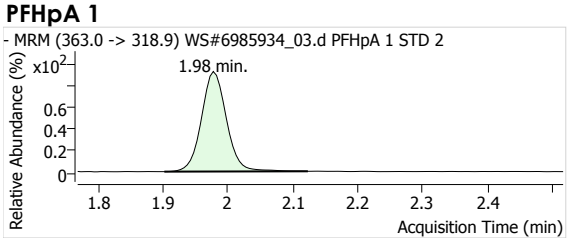

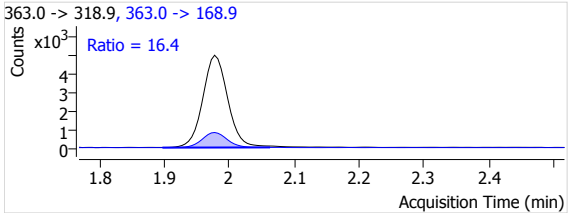

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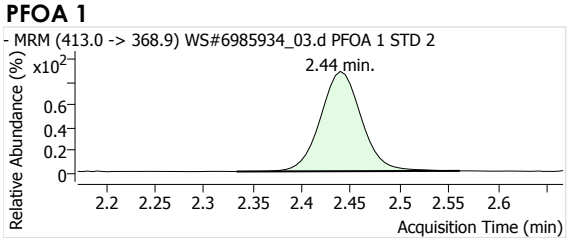

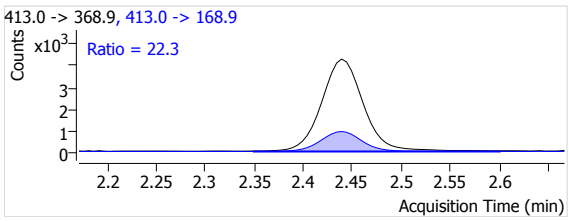

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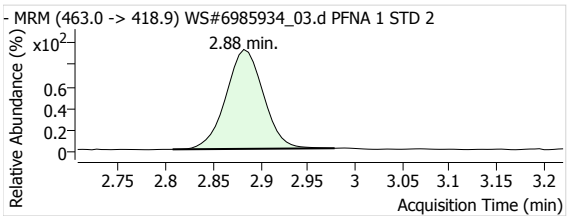

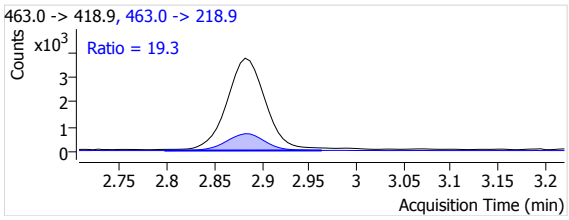

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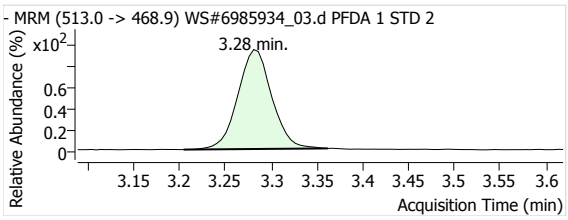

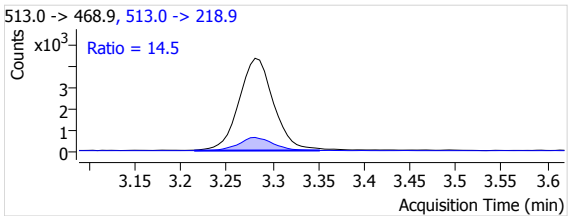

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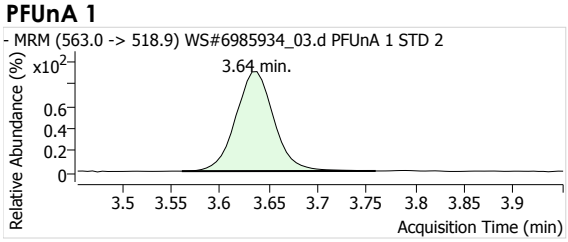

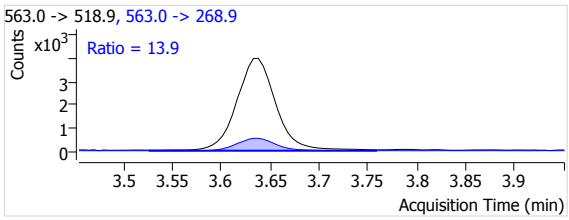

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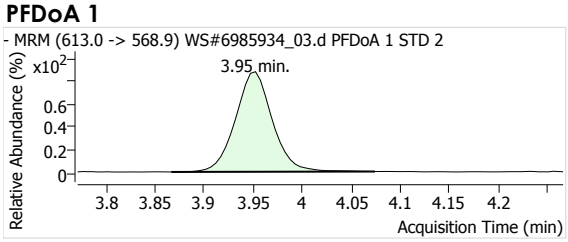

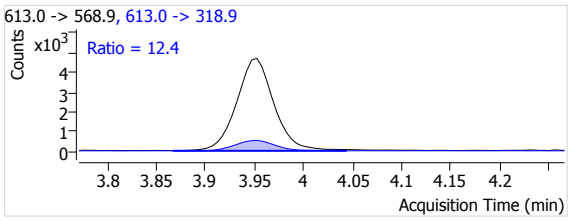

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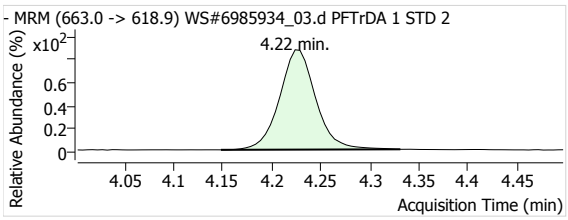

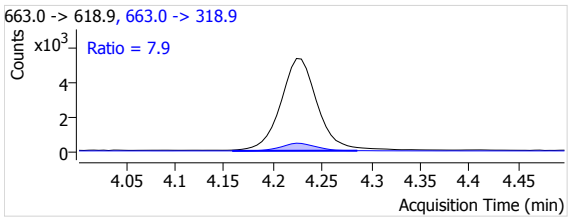

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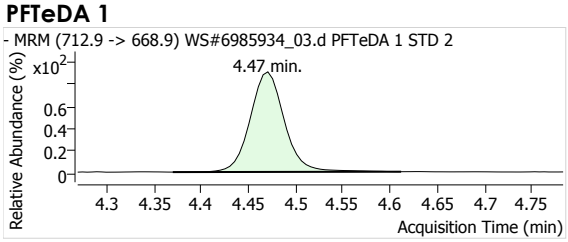

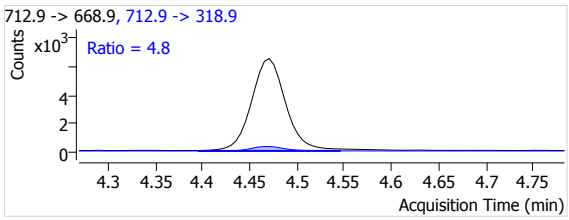

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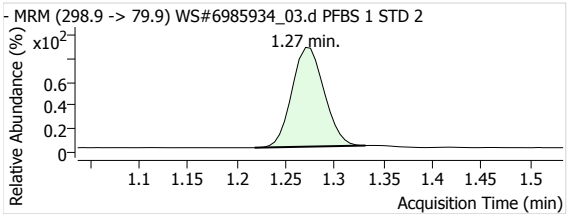

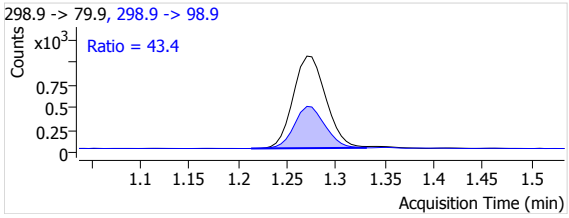

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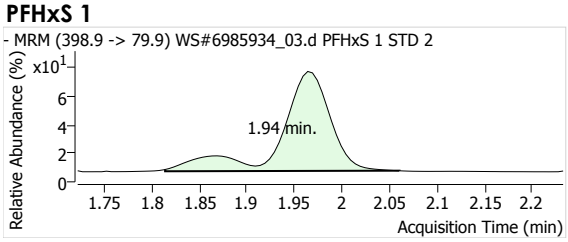

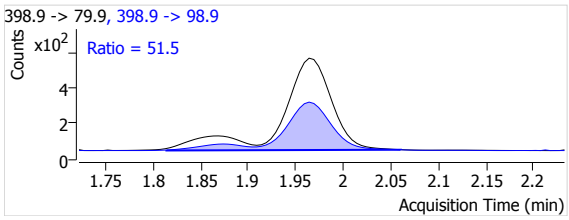

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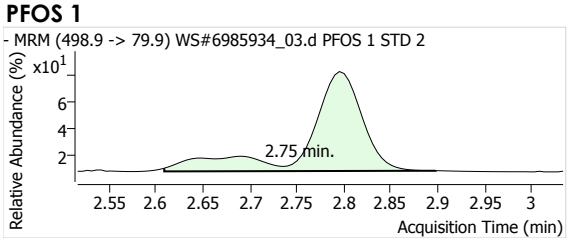

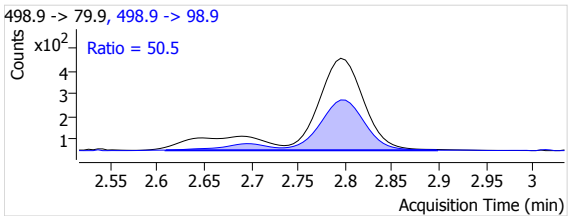

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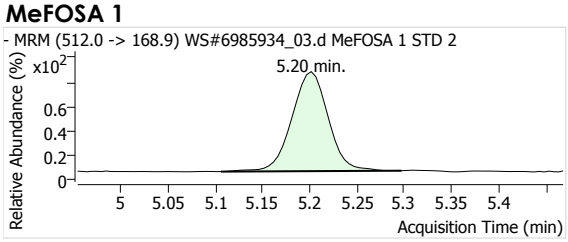

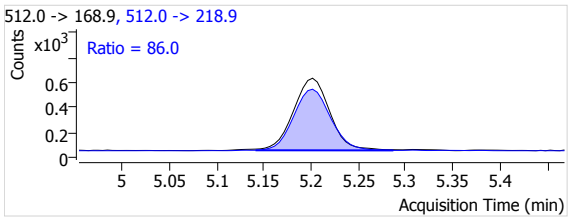

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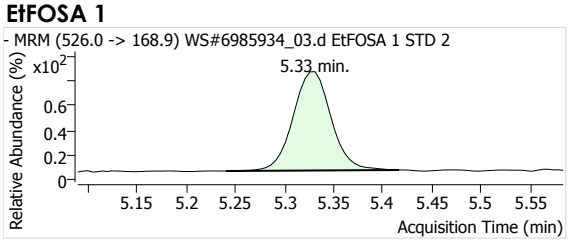
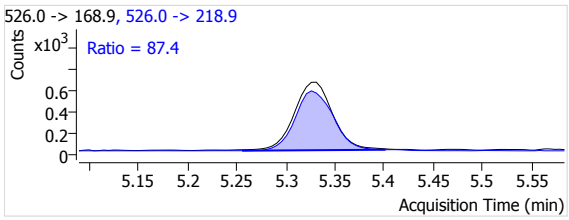
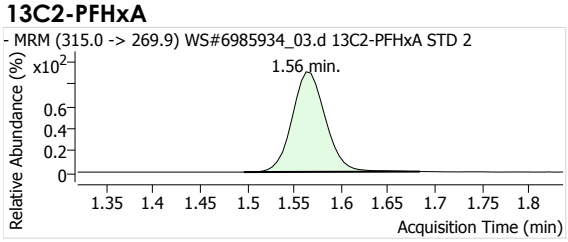
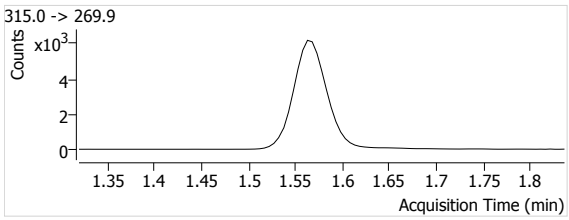




13C2-PFHxA





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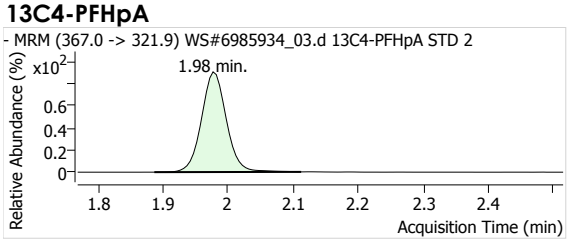
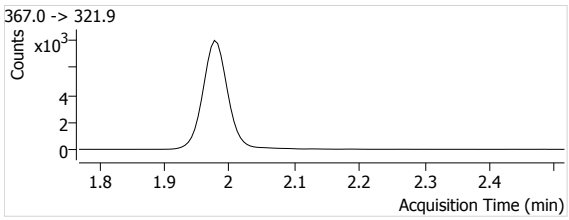
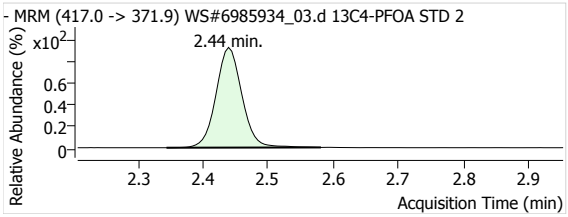
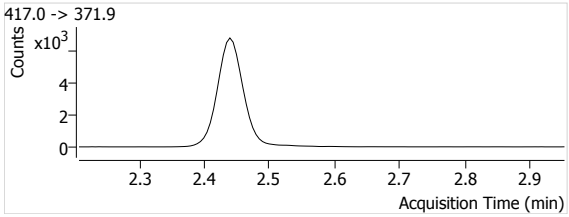




13C4-PFOA





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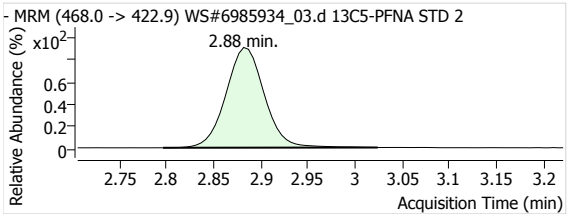

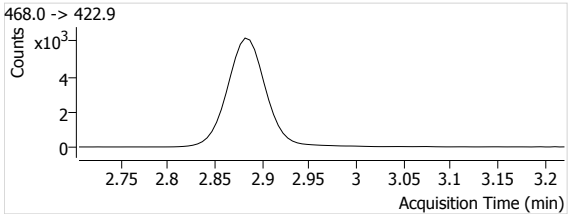

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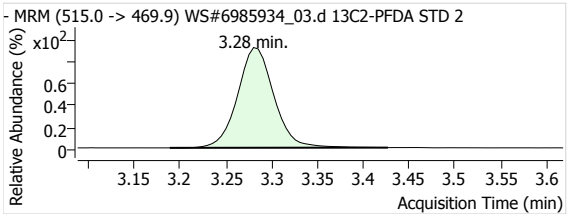

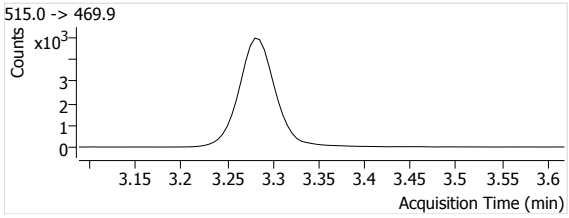

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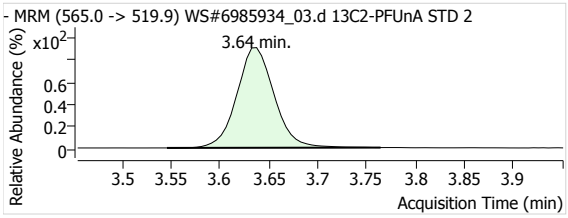

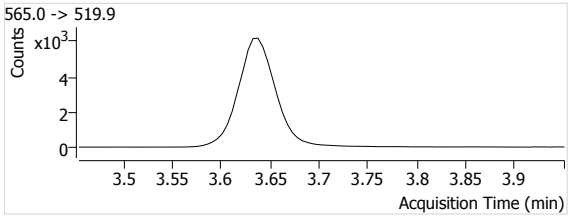

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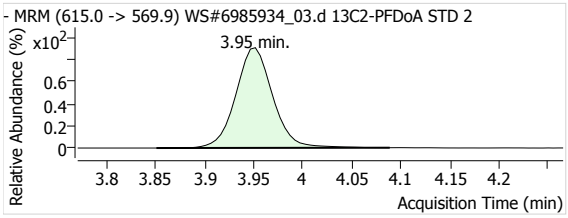

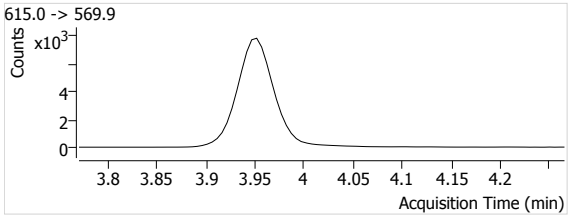

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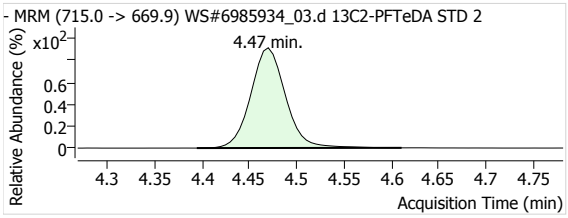

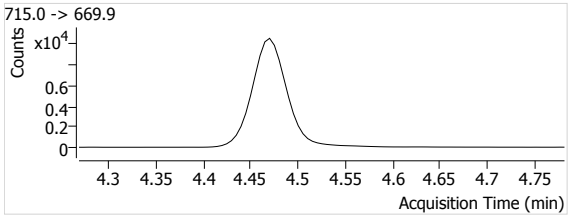

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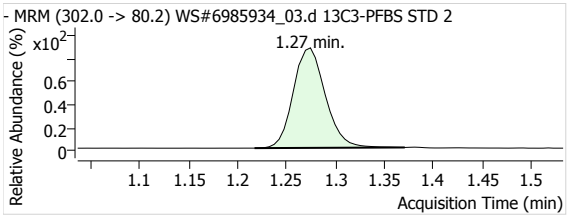

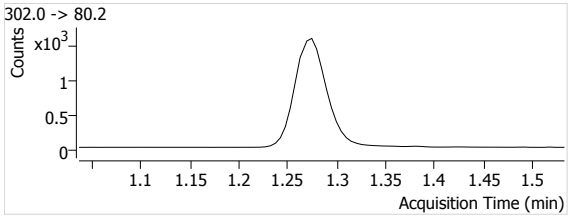

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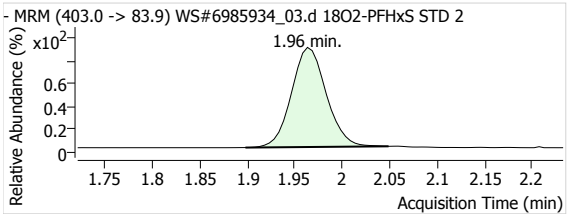

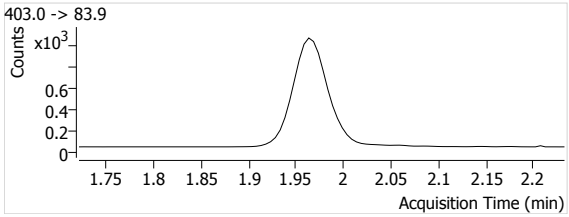

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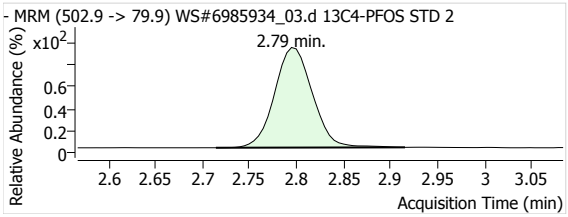
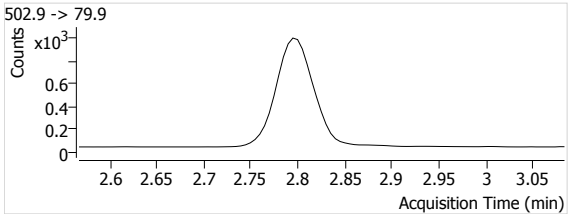
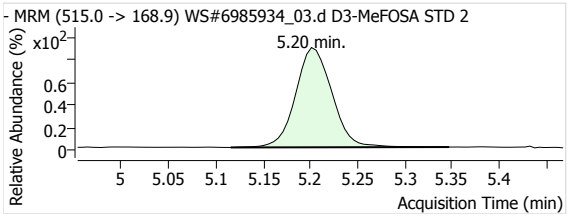
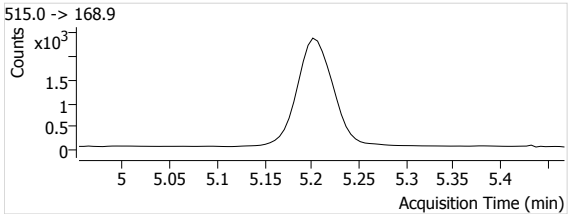




D3-MeFOSA





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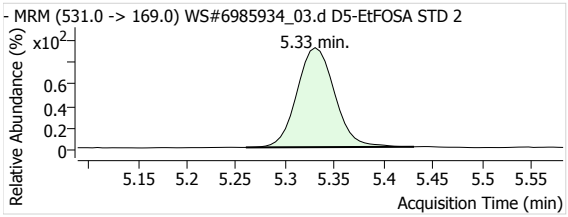
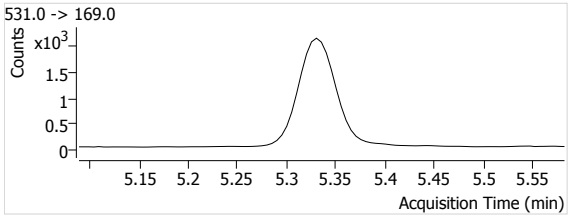




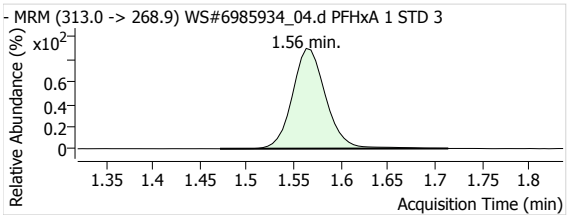
Quantitative Analysis Report

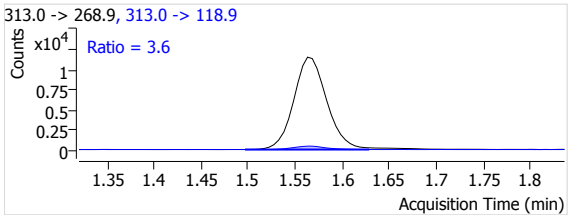
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	STD 3	**Data File**	WS#6985934_04.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A4
Acq. Date-Time	2020/10/07 1:34:57 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	8.000	7.5524	94.4	28427	1.56	532	1.8572	1031	1.56	83	3.6
PFHpA 1	µg/L	8.000	7.6666	95.8	33423	1.98	471	1.6006	5609	1.98	109	16.8
PFOA 1	µg/L	8.000	7.6420	95.5	31601	2.44	471	1.7081	7072	2.44	486	22.4
PFNA 1	µg/L	8.000	7.5791	94.7	26796	2.88	225	1.5285	4892	2.88	211	18.3
PFDA 1	µg/L	8.000	7.3708	92.1	28830	3.29	253	2.0524	4105	3.29	141	14.2
PFUnA 1	µg/L	8.000	7.4507	93.1	26869	3.64	237	1.6273	3808	3.64	224	14.2
PFDoA 1	µg/L	8.000	7.6337	95.4	31099	3.95	383	1.5586	3861	3.95	243	12.4
PFTrDA 1	µg/L	8.000	7.6530	95.7	35092	4.22	323	1.3055	2847	4.22	249	8.1
PFTeDA 1	µg/L	8.000	7.7958	97.4	41771	4.47	634	1.5540	2110	4.47	270	5.1
PFBS 1	µg/L	8.000	7.7890	97.4	5977	1.27	316	1.8030	2464	1.27	113	41.2
PFHxS 1	µg/L	8.000	7.7000	96.3	4757	1.94	111	1.8150	2381	1.94	119	50.1
PFOS 1	µg/L	8.000	7.2838	91.0	3899	2.75	49	1.4424	2165	2.75	168	55.5
MeFOSA 1	µg/L	8.000	7.6034	95.0	3925	5.20	129	0.6285	3421	5.20	193	87.2
EtFOSA 1	µg/L	8.000	7.6003	95.0	4192	5.33	119	0.7553	3782	5.33	262	90.2
13C2-PFHxA	µg/L	100.000	105.7555	105.8	15306	1.56	640		--	--	--	--
13C4-PFHpA	µg/L	100.000	101.5613	101.6	20881	1.98	857		--	--	--	--
13C4-PFOA	µg/L	100.000	101.8609	101.9	18501	2.44	416		--	--	--	--
13C5-PFNA	µg/L	100.000	101.8711	101.9	17531	2.88	778		--	--	--	--
13C2-PFDA	µg/L	100.000	102.1377	102.1	14047	3.29	694		--	--	--	--
13C2-PFUnA	µg/L	100.000	101.7063	101.7	16511	3.64	1004		--	--	--	--
13C2-PFDoA	µg/L	100.000	101.8738	101.9	19953	3.95	637		--	--	--	--
13C2-PFTeDA	µg/L	100.000	100.2387	100.2	26880	4.47	1790		--	--	--	--
13C3-PFBS	µg/L	100.000	99.0735	99.1	3315	1.27	244		--	--	--	--
18O2-PFHxS	µg/L	100.000	99.8857	99.9	2621	1.97	276		--	--	--	--
13C4-PFOS	µg/L	100.000	103.9615	104.0	2703	2.79	308		--	--	--	--
D3-MeFOSA	µg/L	100.000	100.7583	100.8	6245	5.20	113		--	--	--	--
D5-EtFOSA	µg/L	100.000	101.7229	101.7	5550	5.33	124		--	--	--	--

PFHxA 1





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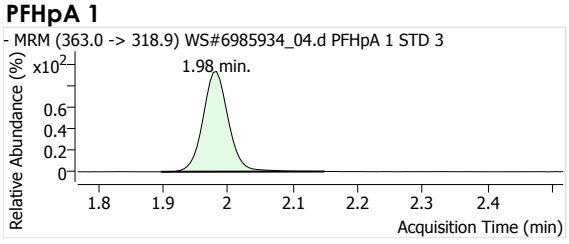

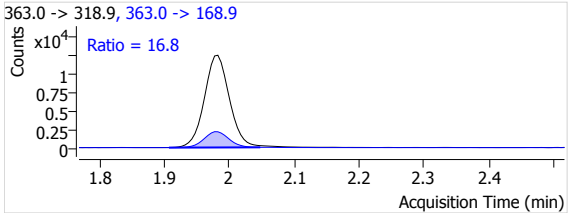

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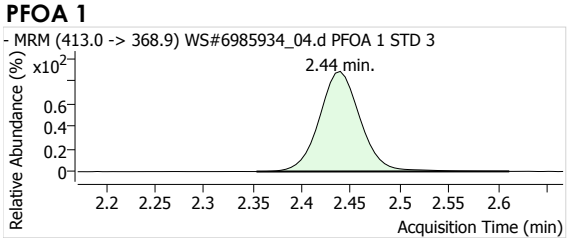

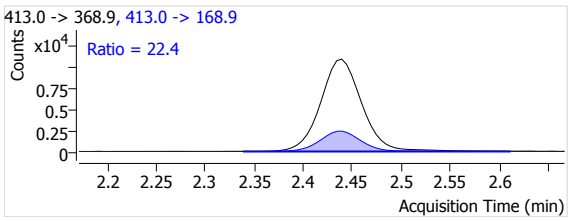

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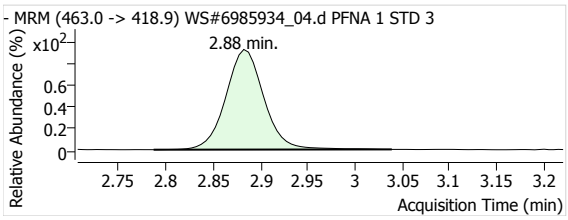

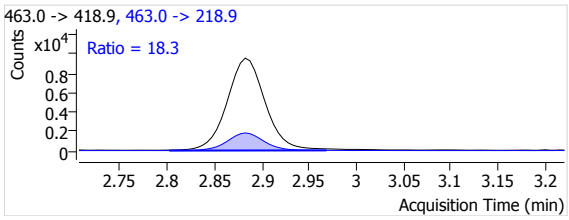

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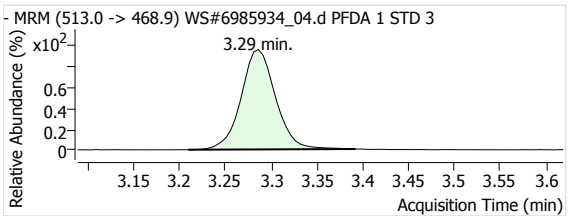

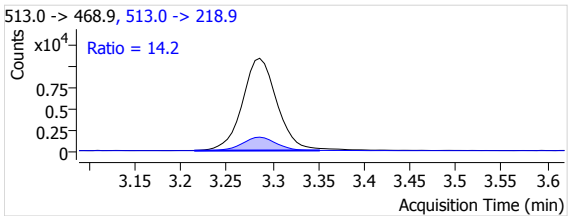

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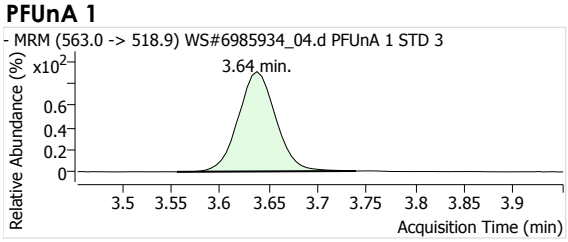

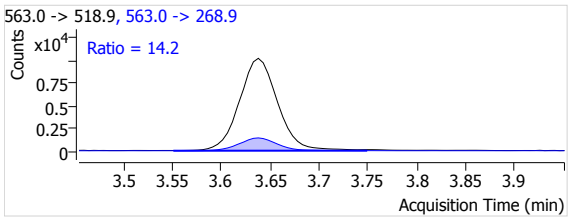

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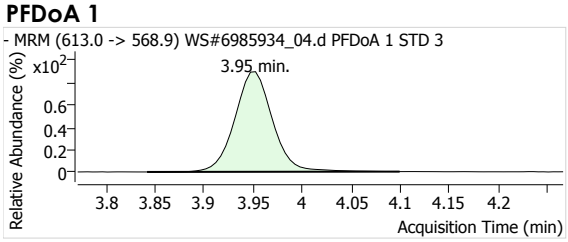

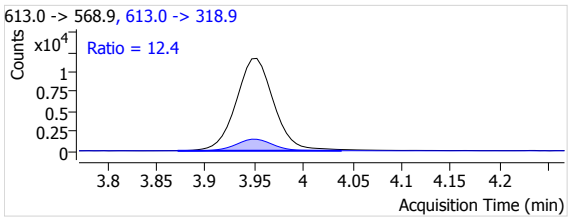

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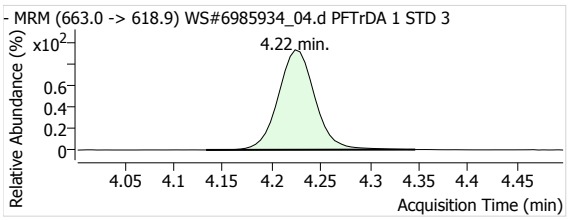

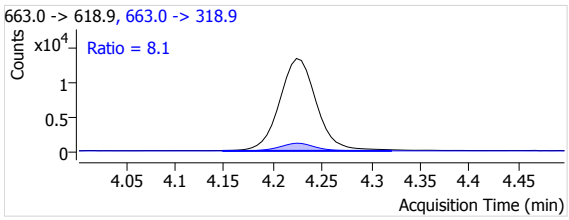

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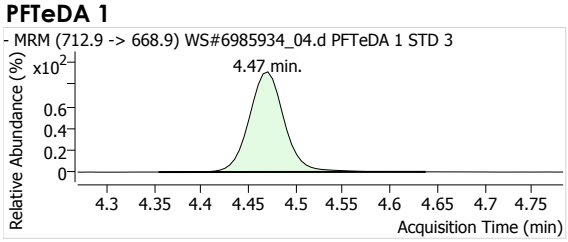

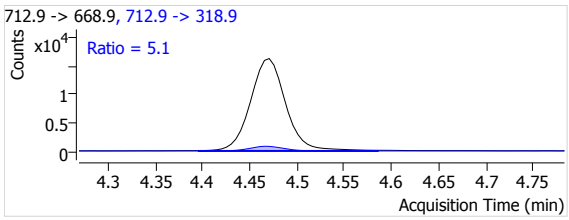

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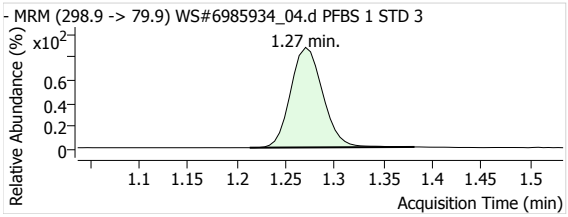

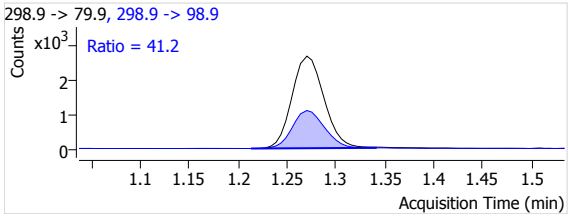

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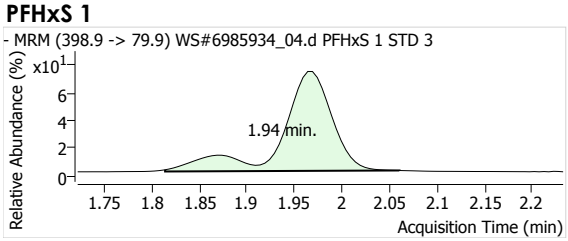

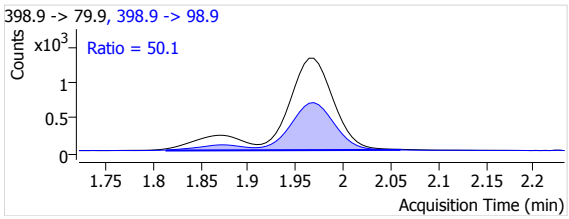

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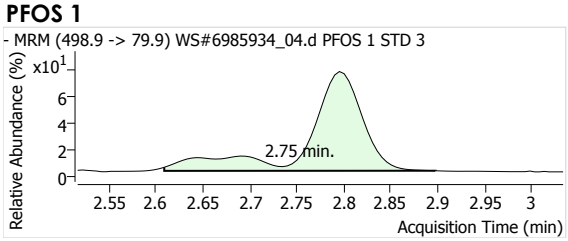
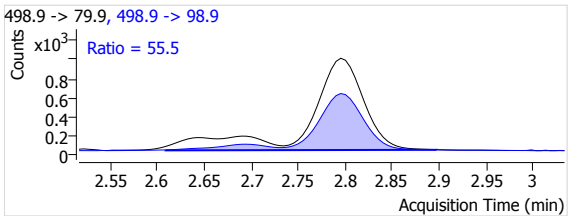
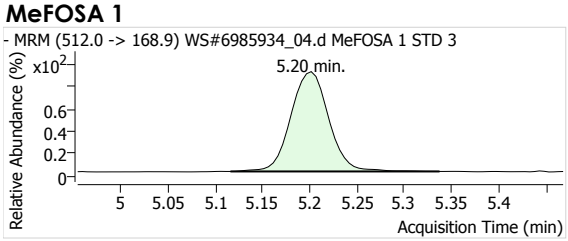
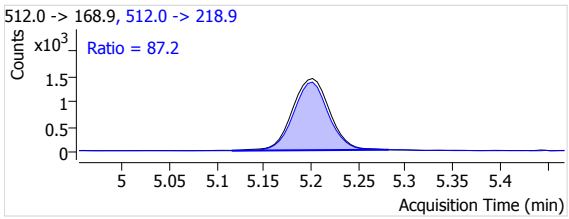




MeFOSA 1





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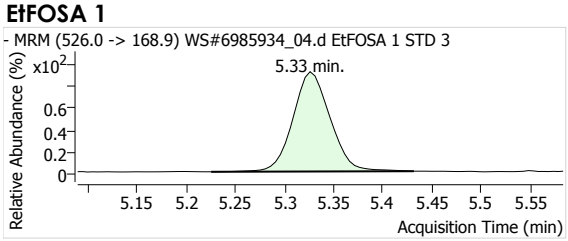

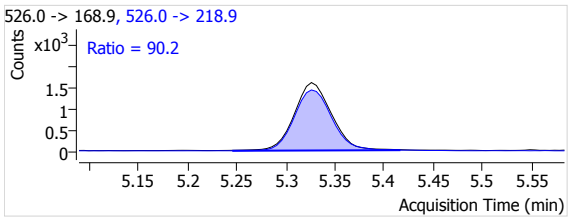

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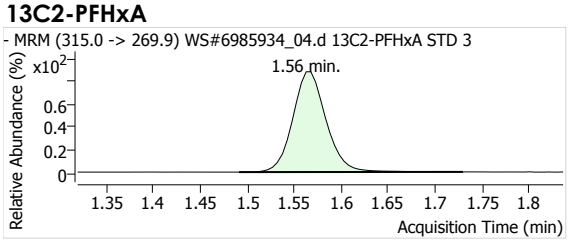

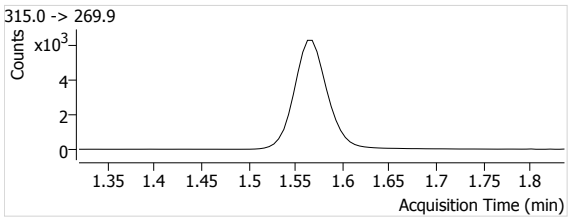

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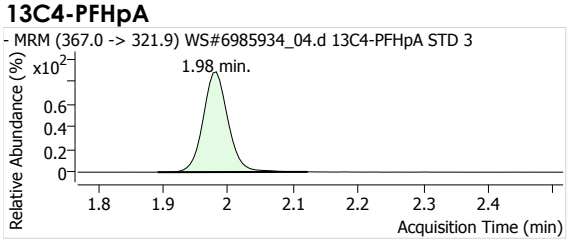

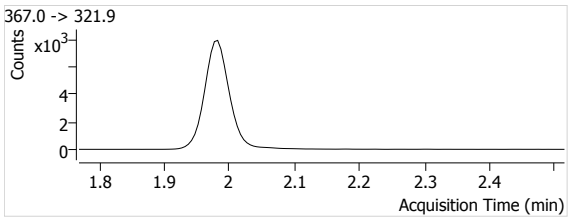

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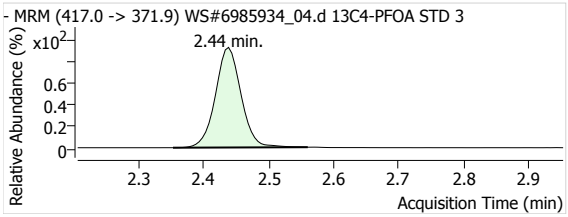

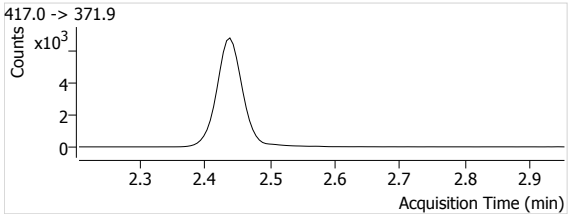

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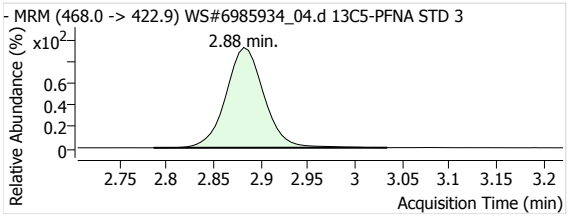

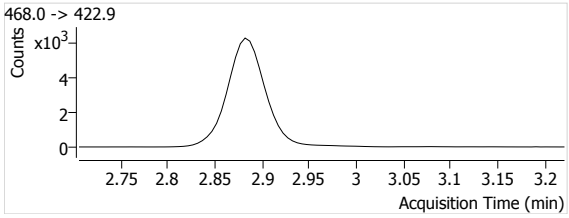

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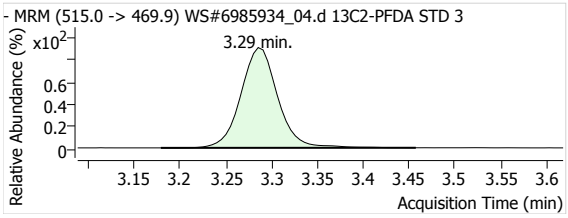

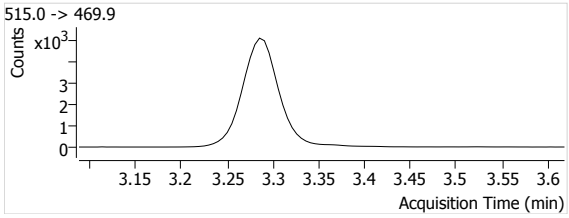

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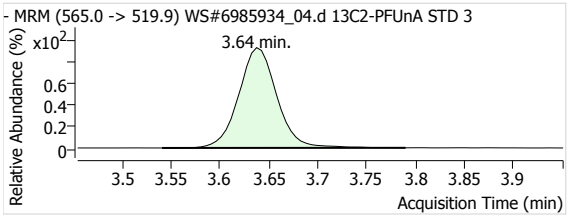

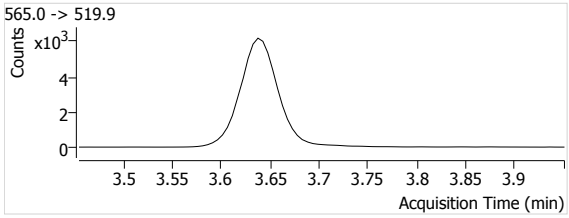

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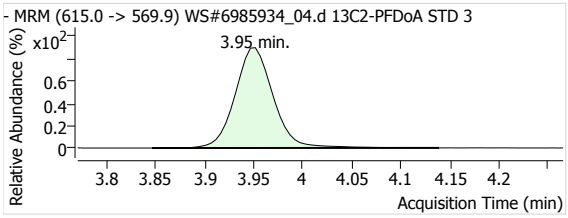

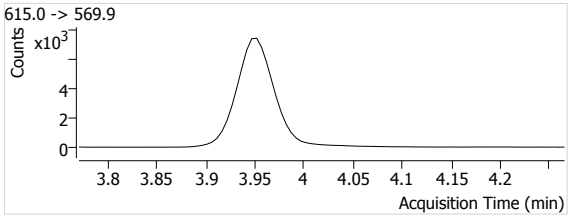

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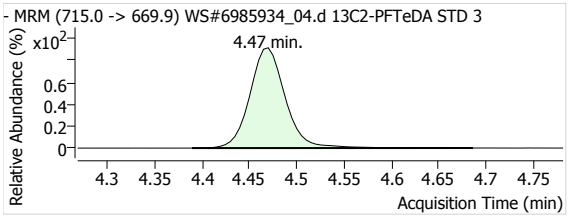

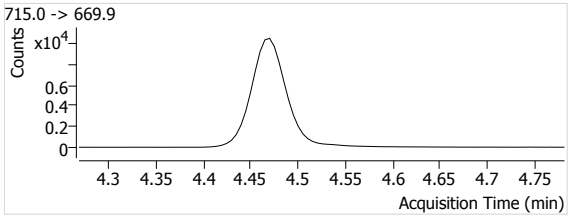

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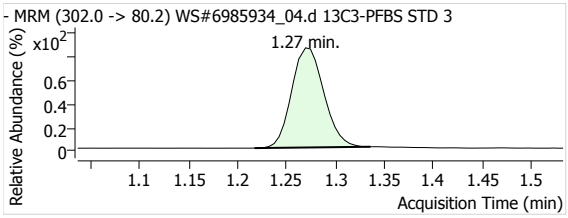

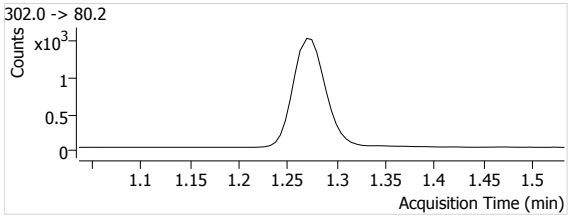

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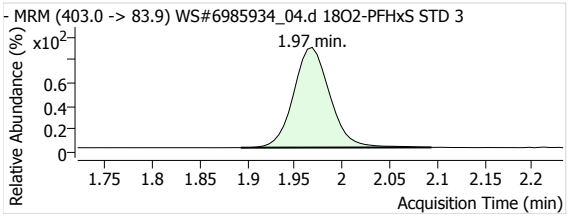

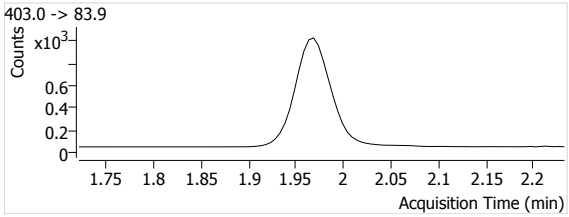

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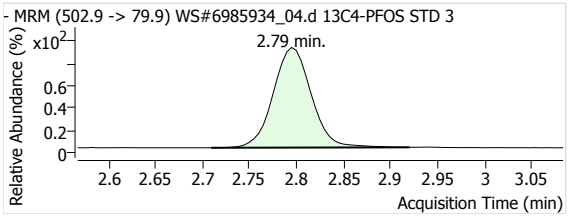

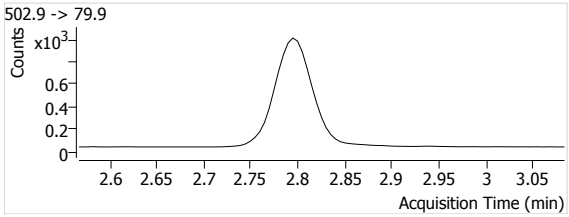

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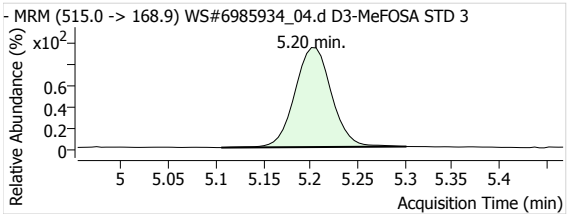

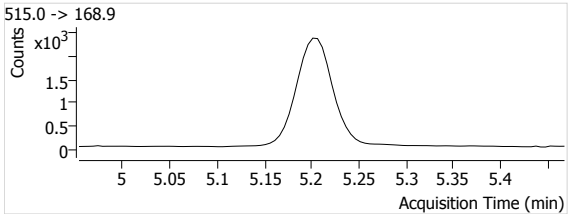

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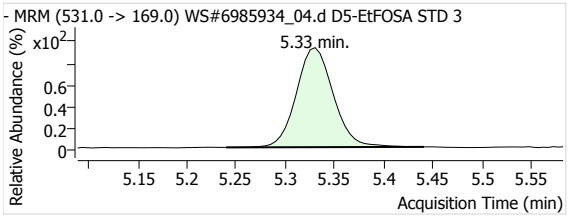
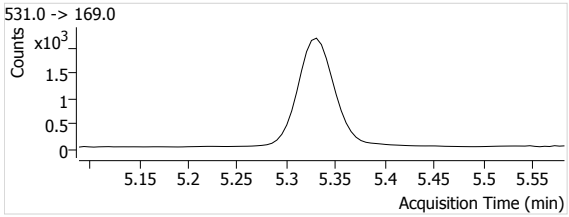




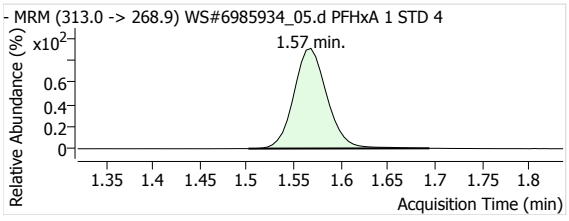
Quantitative Analysis Report

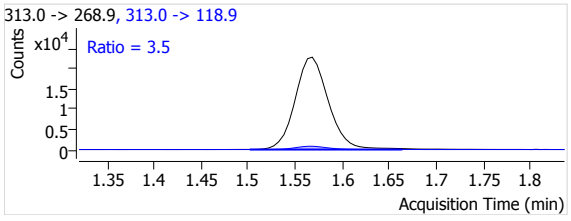
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	STD 4	**Data File**	WS#6985934_05.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A5
Acq. Date-Time	2020/10/07 1:41:53 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	15.6863	98.0	55795	1.57	543	3.8551	1973	1.57	205	3.5
PFHpA 1	µg/L	16.000	15.4127	96.3	66373	1.98	834	3.2283	11431	1.98	378	17.2
PFOA 1	µg/L	16.000	15.5059	96.9	63039	2.44	886	3.4707	13609	2.44	699	21.6
PFNA 1	µg/L	16.000	15.2330	95.2	52987	2.88	480	3.0790	9522	2.88	293	18.0
PFDA 1	µg/L	16.000	15.0370	94.0	57811	3.28	351	4.2035	8134	3.28	157	14.1
PFUnA 1	µg/L	16.000	15.3983	96.2	54659	3.64	590	3.3669	7394	3.63	469	13.5
PFDoA 1	µg/L	16.000	15.5437	97.1	62276	3.95	881	3.1796	7430	3.95	161	11.9
PFTrDA 1	µg/L	16.000	15.5604	97.3	71118	4.22	1034	2.6521	5802	4.22	262	8.2
PFTeDA 1	µg/L	16.000	15.5782	97.4	83226	4.47	1744	3.1036	4216	4.47	593	5.1
PFBS 1	µg/L	16.000	14.9205	93.3	11582	1.28	197	3.4614	4861	1.28	395	42.0
PFHxS 1	µg/L	16.000	14.7021	91.9	9092	1.94	123	3.4648	4779	1.94	120	52.6
PFOS 1	µg/L	16.000	15.5601	97.3	8000	2.75	56	3.0770	4183	2.75	141	52.3
MeFOSA 1	µg/L	16.000	15.6112	97.6	7988	5.20	386	1.2888	6806	5.20	364	85.2
EtFOSA 1	µg/L	16.000	15.5855	97.4	8430	5.33	183	1.5451	7634	5.33	555	90.6
13C2-PFHxA	µg/L	100.000	100.0000	100.0	14473	1.57	250		--	--	--	--
13C4-PFHpA	µg/L	100.000	100.0000	100.0	20560	1.98	738		--	--	--	--
13C4-PFOA	µg/L	100.000	100.0000	100.0	18163	2.44	747		--	--	--	--
13C5-PFNA	µg/L	100.000	100.0000	100.0	17209	2.88	602		--	--	--	--
13C2-PFDA	µg/L	100.000	100.0000	100.0	13753	3.28	717		--	--	--	--
13C2-PFUnA	µg/L	100.000	100.0000	100.0	16234	3.64	1353		--	--	--	--
13C2-PFDoA	µg/L	100.000	100.0000	100.0	19586	3.95	718		--	--	--	--
13C2-PFTeDA	µg/L	100.000	100.0000	100.0	26816	4.47	1314		--	--	--	--
13C3-PFBS	µg/L	100.000	100.0000	100.0	3346	1.27	296		--	--	--	--
18O2-PFHxS	µg/L	100.000	100.0000	100.0	2624	1.97	262		--	--	--	--
13C4-PFOS	µg/L	100.000	100.0000	100.0	2600	2.79	339		--	--	--	--
D3-MeFOSA	µg/L	100.000	100.0000	100.0	6198	5.20	100		--	--	--	--
D5-EtFOSA	µg/L	100.000	100.0000	100.0	5456	5.33	167		--	--	--	--

PFHxA 1





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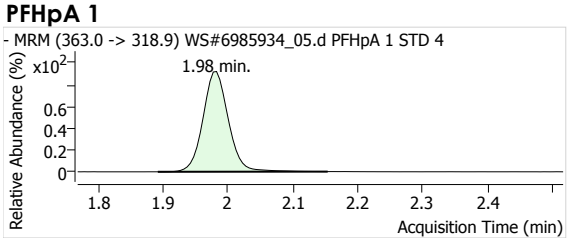

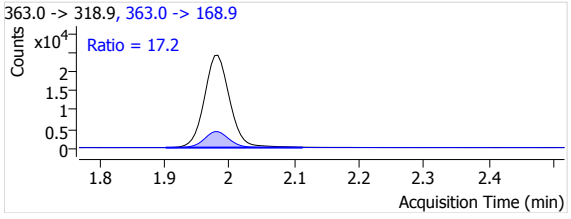

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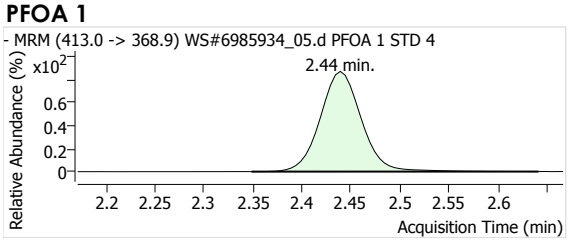

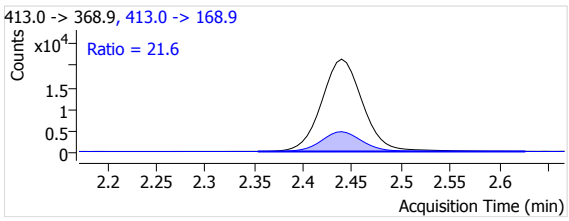

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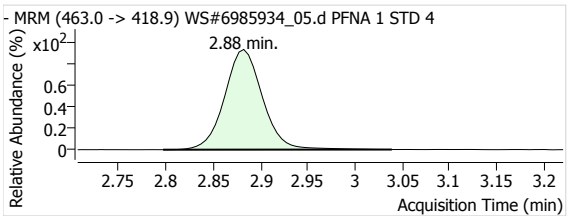

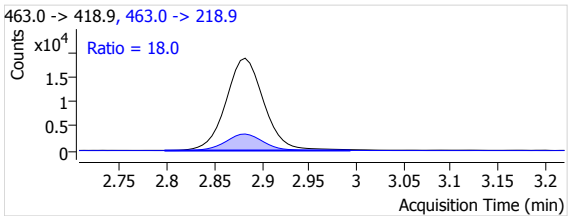

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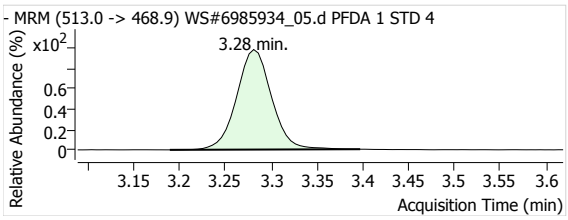

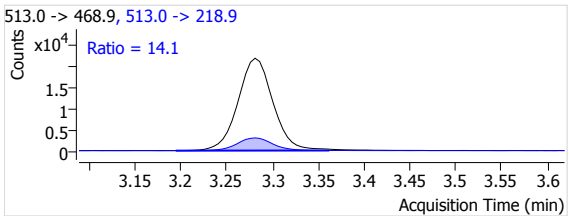

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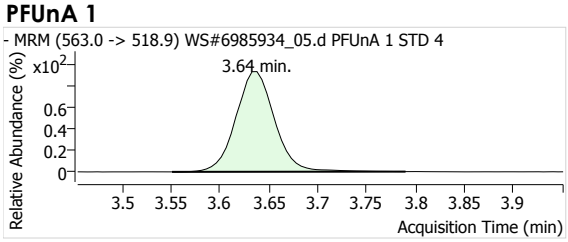

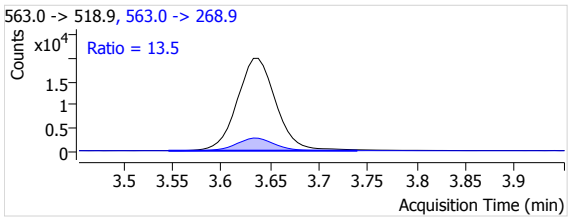

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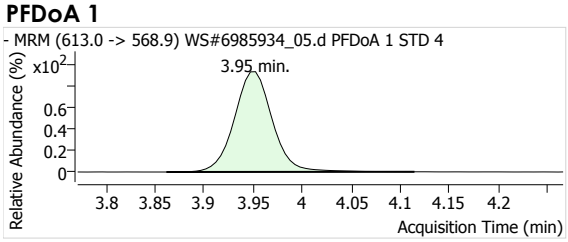

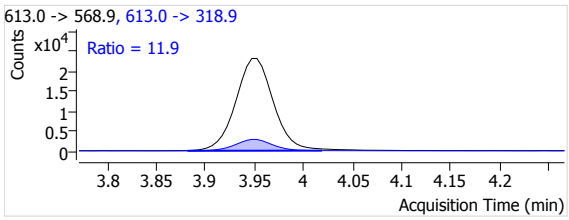

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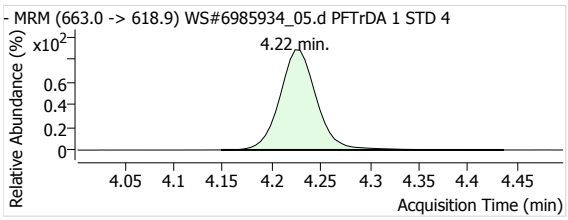
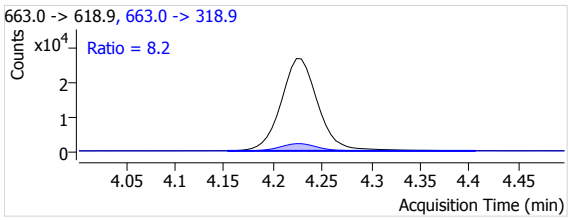
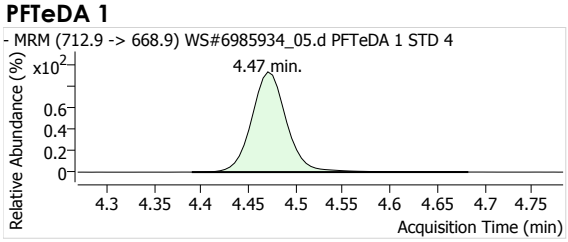
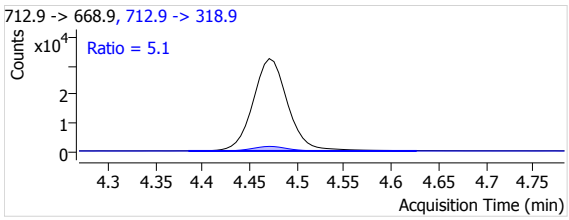




PFTeDA 1





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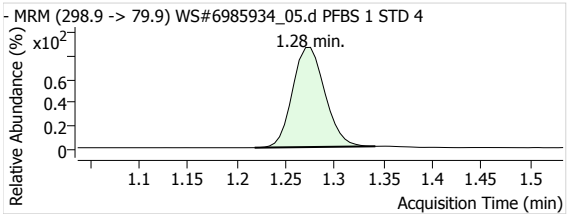

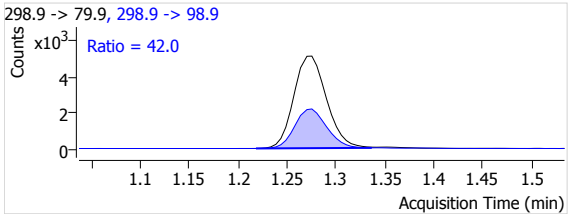

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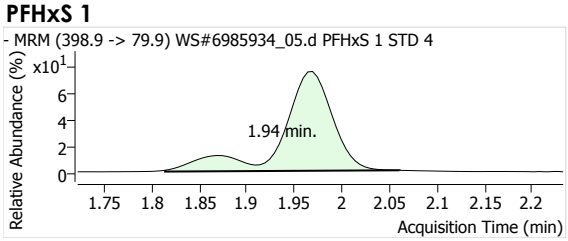

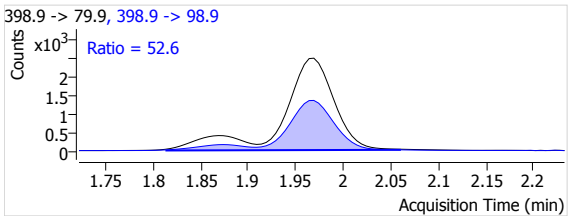

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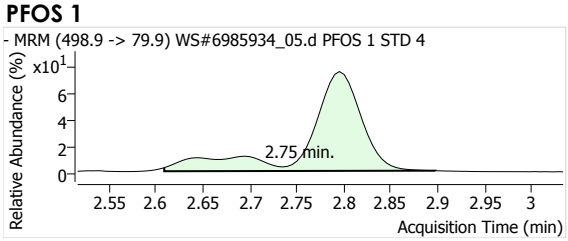

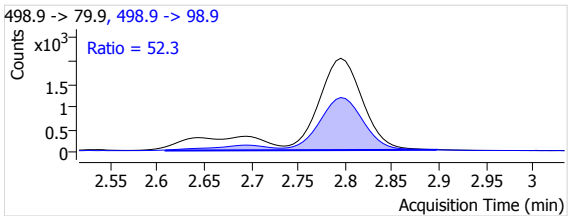

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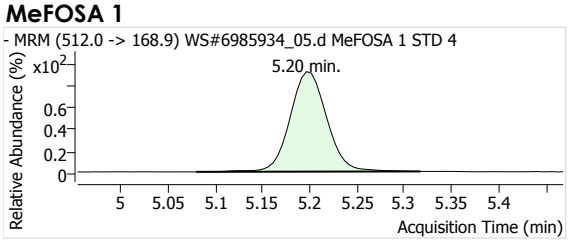

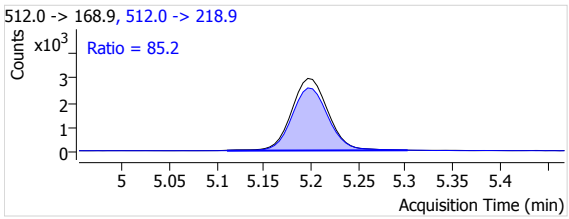

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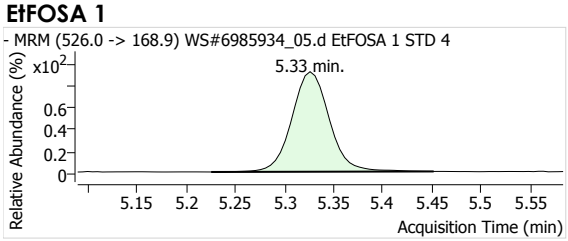

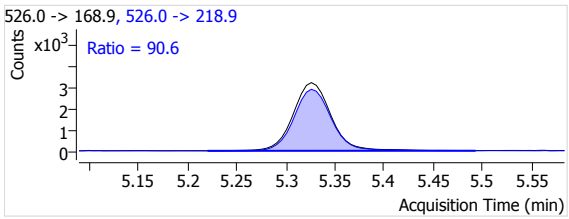

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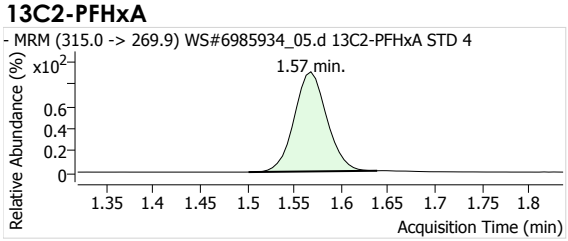

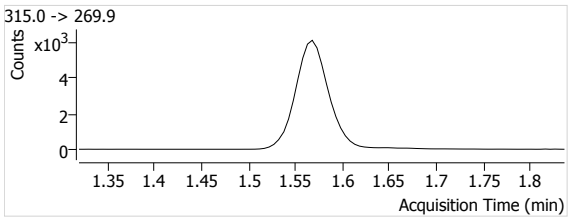

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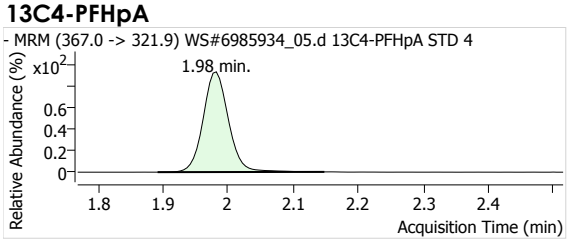

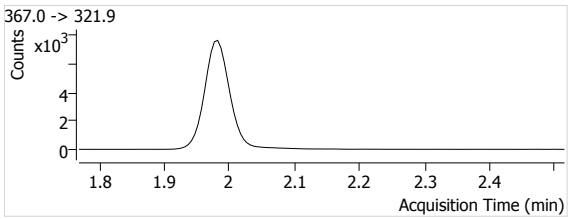

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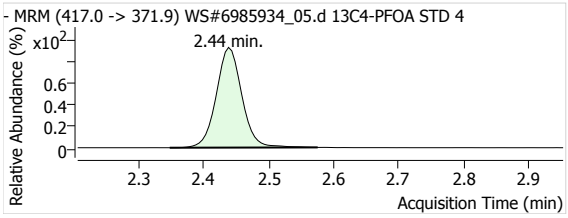

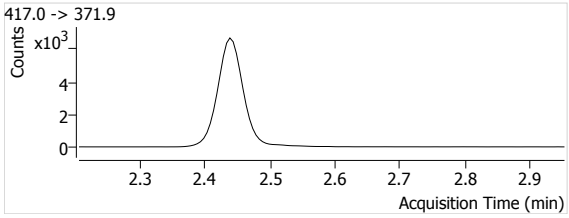

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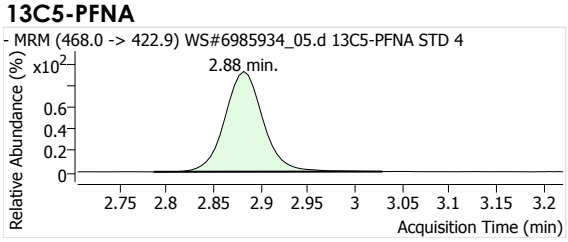

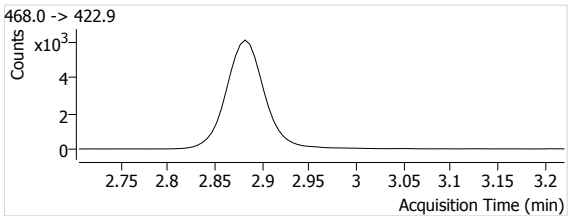

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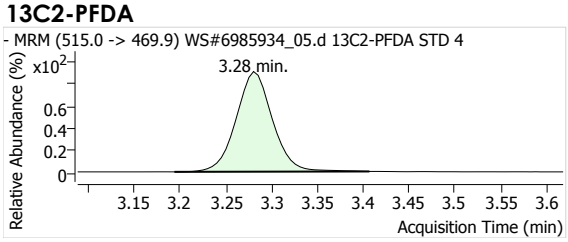

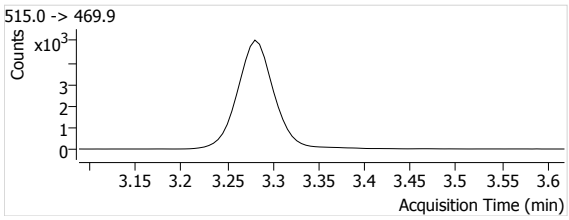

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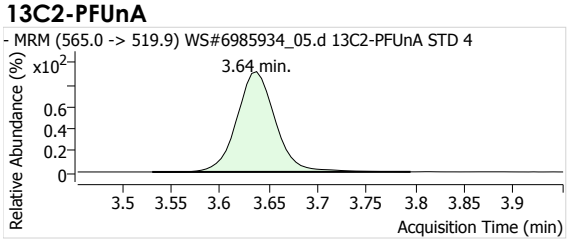

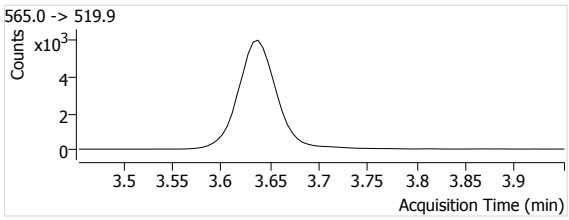

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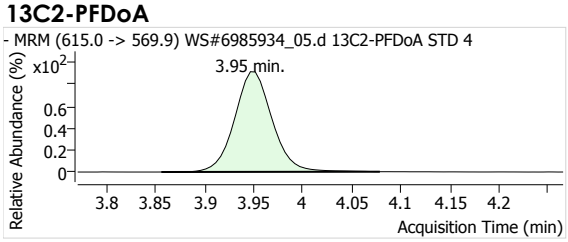

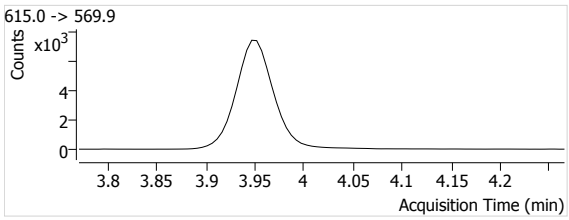

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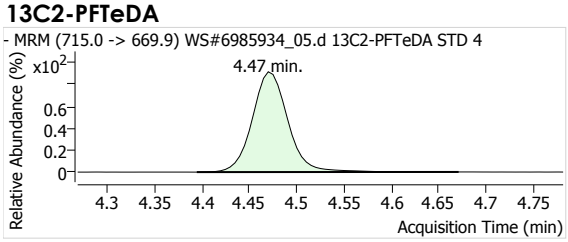

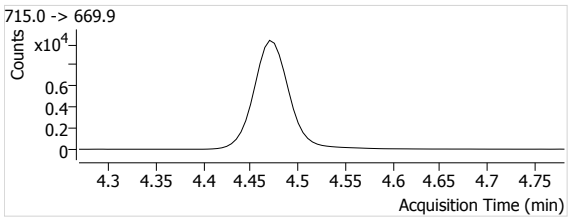

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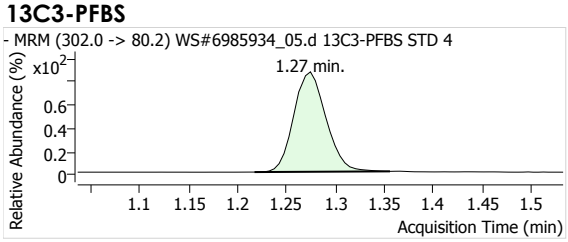

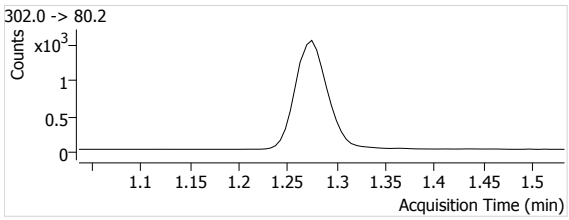

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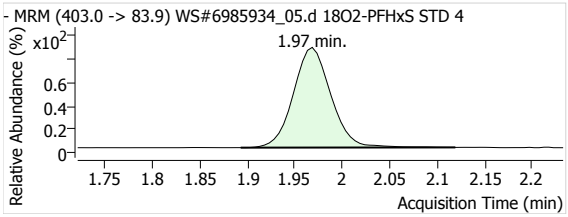

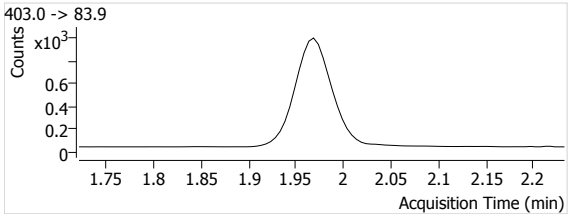

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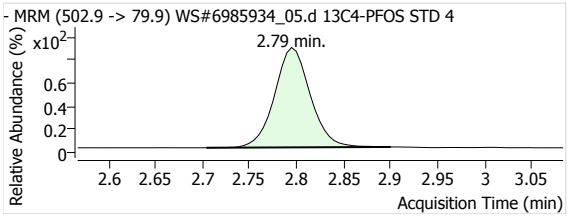
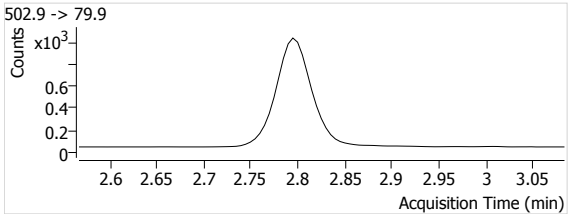
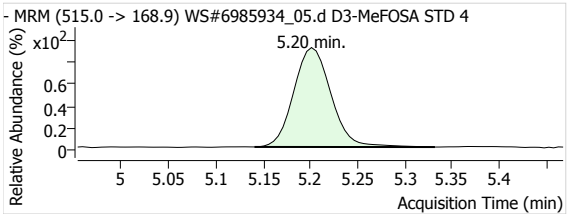
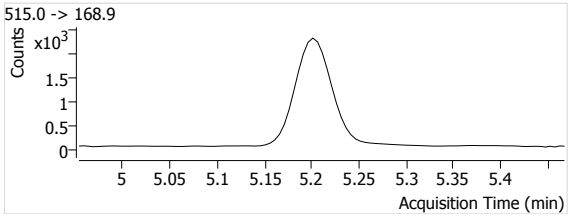




D3-MeFOSA





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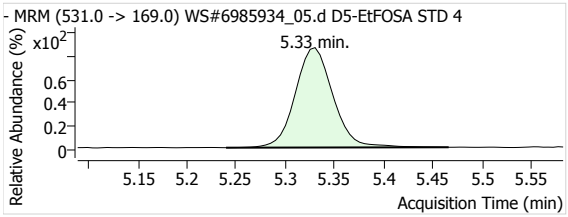
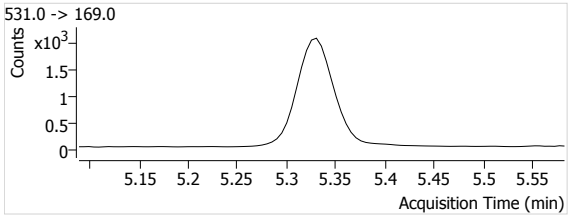




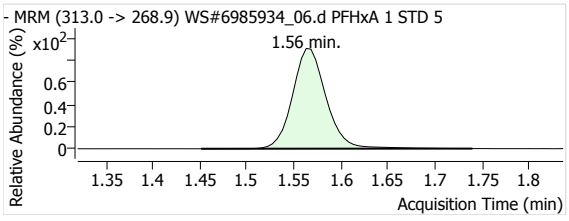
Quantitative Analysis Report

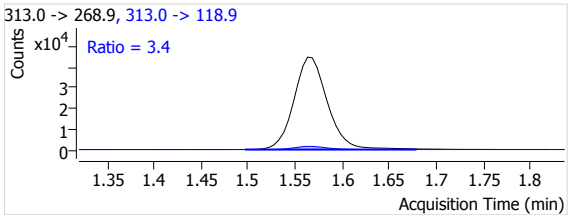
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	STD 5	**Data File**	WS#6985934_06.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A6
Acq. Date-Time	2020/10/07 1:48:51 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	30.000	31.4015	104.7	111900	1.56	1545	7.7151	3840	1.56	284	3.4
PFHpA 1	µg/L	30.000	31.2903	104.3	131269	1.98	1040	6.5644	22256	1.98	888	17.0
PFOA 1	µg/L	30.000	31.0048	103.3	127200	2.44	1365	6.9447	27790	2.44	1352	21.8
PFNA 1	µg/L	30.000	30.7589	102.5	106529	2.88	735	6.2243	19573	2.88	1045	18.4
PFDA 1	µg/L	30.000	30.8610	102.9	118695	3.28	862	8.6437	16410	3.28	278	13.8
PFUnA 1	µg/L	30.000	31.4354	104.8	110806	3.64	1195	6.8772	14840	3.64	963	13.4
PFDoA 1	µg/L	30.000	31.4313	104.8	126226	3.95	1394	6.4355	15286	3.95	602	12.1
PFTrDA 1	µg/L	30.000	31.2122	104.0	143348	4.22	1557	5.3175	11342	4.22	341	7.9
PFTeDA 1	µg/L	30.000	30.7882	102.6	165311	4.47	2386	6.1322	8151	4.47	426	4.9
PFBS 1	µg/L	30.000	30.6279	102.1	23676	1.27	1018	7.1142	10269	1.28	364	43.4
PFHxS 1	µg/L	30.000	30.7404	102.5	18341	1.94	110	7.2438	9495	1.94	135	51.8
PFOS 1	µg/L	30.000	29.4171	98.1	15779	2.75	52	5.8138	8303	2.75	127	52.6
MeFOSA 1	µg/L	30.000	31.5778	105.3	16062	5.20	780	2.6054	14254	5.20	931	88.7
EtFOSA 1	µg/L	30.000	30.6159	102.1	17335	5.33	319	3.0317	15563	5.33	641	89.8
13C2-PFHxA	µg/L	100.000	100.2142	100.2	14504	1.56	1451		--	--	--	--
13C4-PFHpA	µg/L	100.000	97.2617	97.3	19997	1.98	1350		--	--	--	--
13C4-PFOA	µg/L	100.000	100.8424	100.8	18316	2.44	526		--	--	--	--
13C5-PFNA	µg/L	100.000	99.4538	99.5	17115	2.88	406		--	--	--	--
13C2-PFDA	µg/L	100.000	99.8473	99.8	13732	3.28	982		--	--	--	--
13C2-PFUnA	µg/L	100.000	99.2485	99.2	16112	3.64	477		--	--	--	--
13C2-PFDoA	µg/L	100.000	100.1430	100.1	19614	3.95	300		--	--	--	--
13C2-PFTeDA	µg/L	100.000	100.5295	100.5	26958	4.47	1463		--	--	--	--
13C3-PFBS	µg/L	100.000	99.4620	99.5	3328	1.27	361		--	--	--	--
18O2-PFHxS	µg/L	100.000	96.4939	96.5	2532	1.97	236		--	--	--	--
13C4-PFOS	µg/L	100.000	104.3846	104.4	2714	2.79	619		--	--	--	--
D3-MeFOSA	µg/L	100.000	99.4676	99.5	6165	5.20	113		--	--	--	--
D5-EtFOSA	µg/L	100.000	104.8021	104.8	5718	5.33	127		--	--	--	--

PFHxA 1





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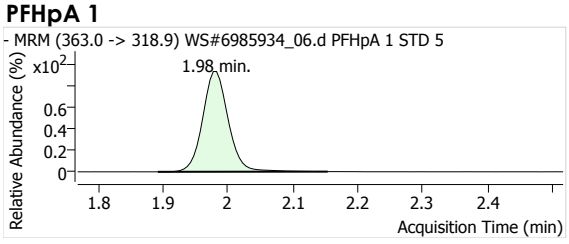

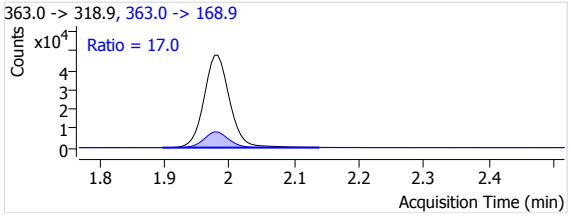

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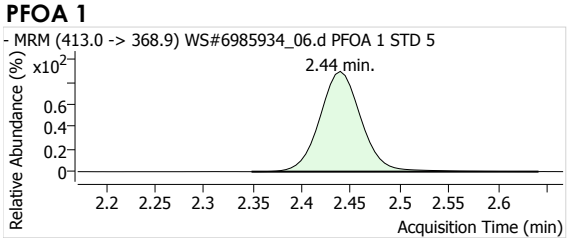

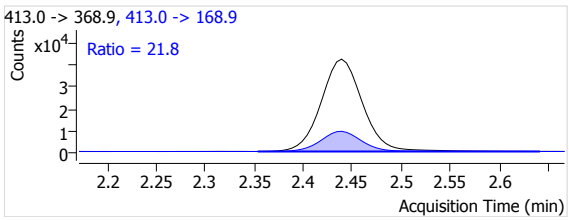

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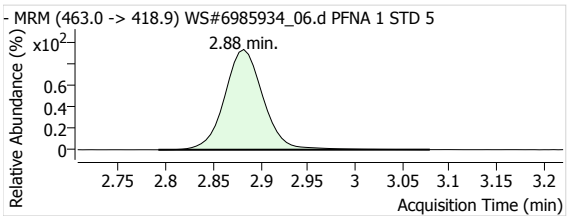
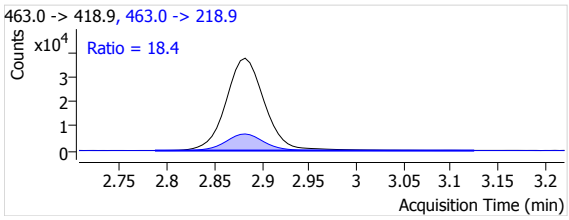
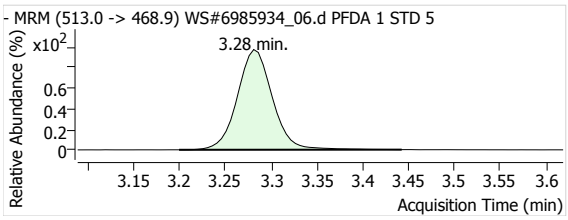
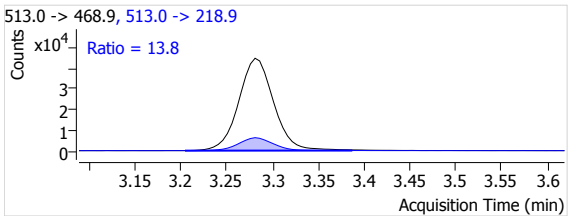




PFDA 1





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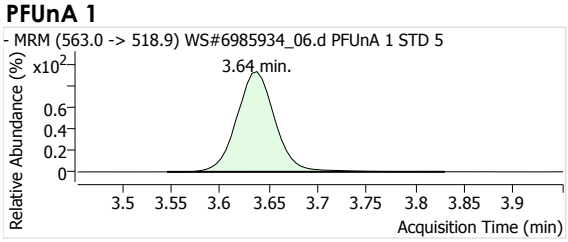

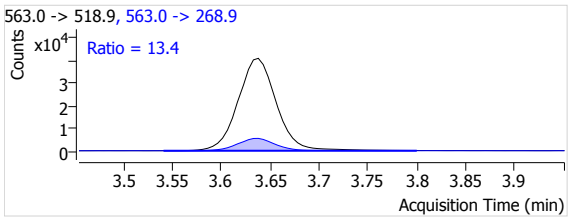

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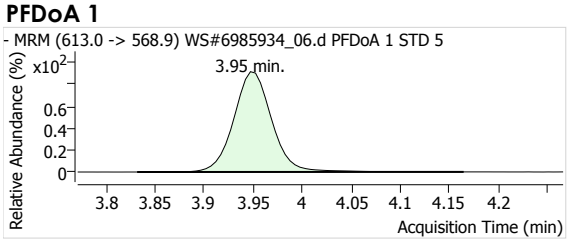

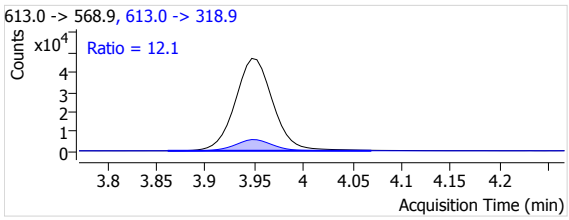

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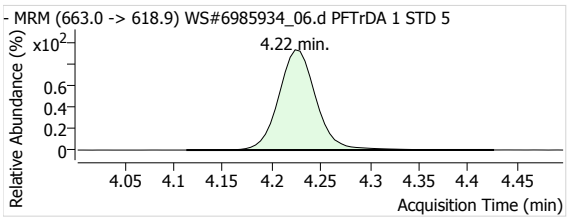

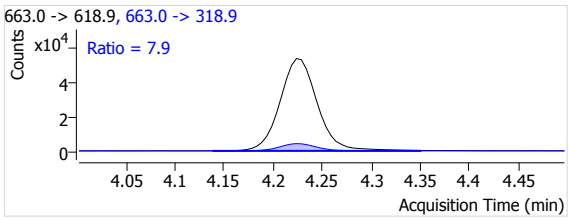

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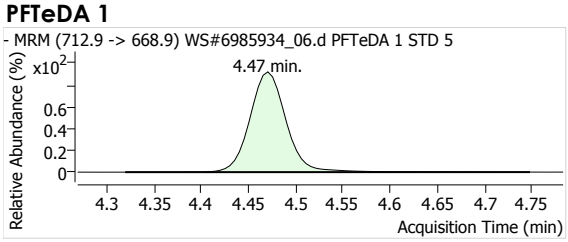

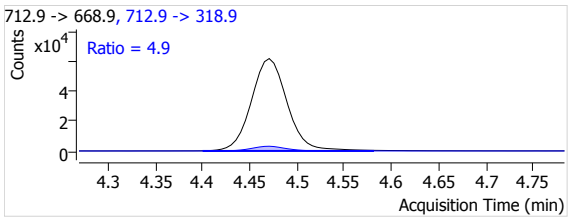

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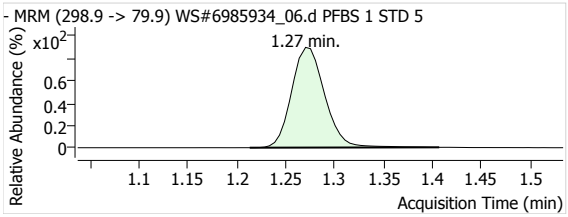

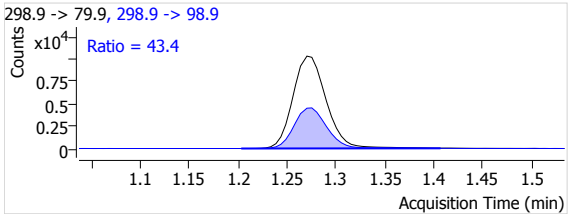

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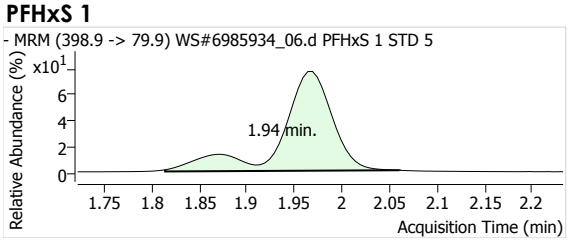

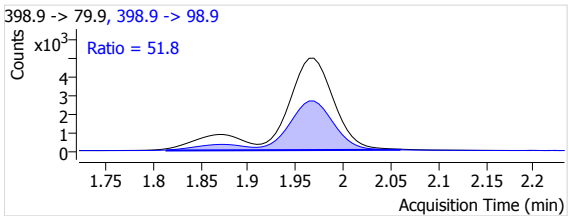

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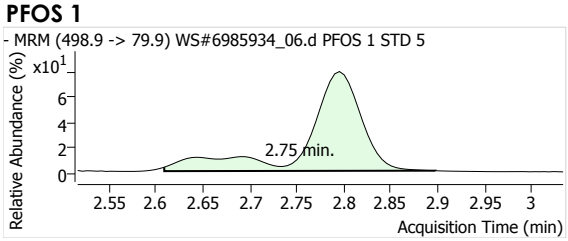

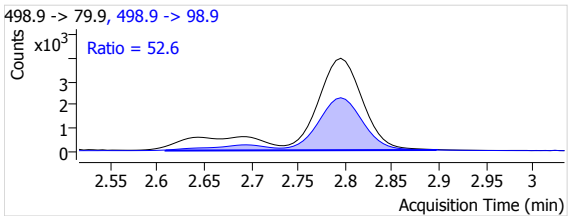

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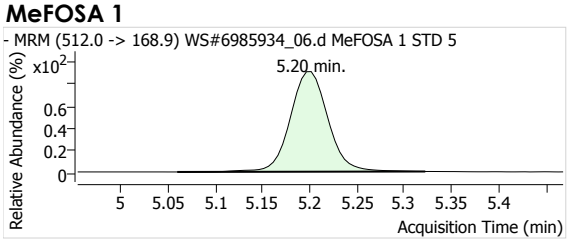

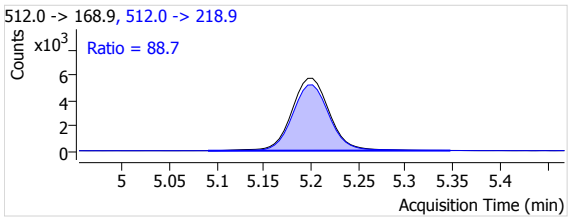

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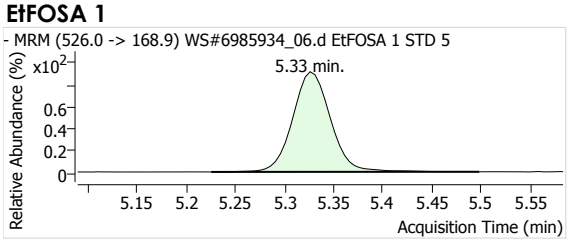
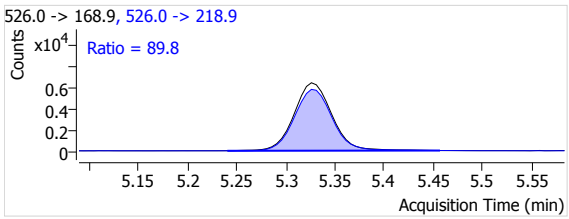
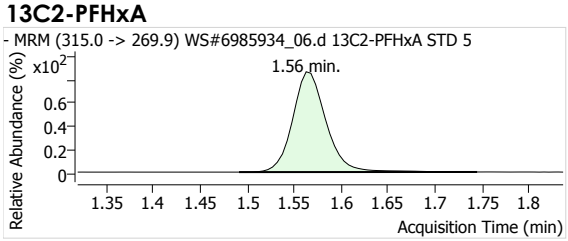
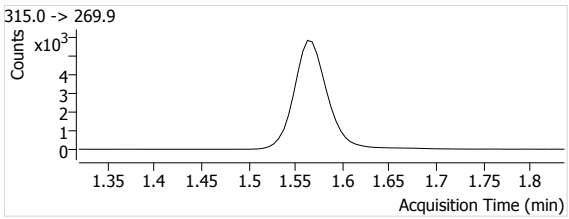




13C2-PFHxA





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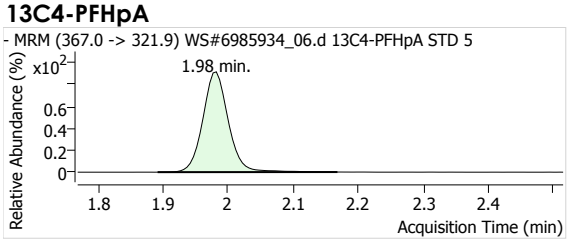

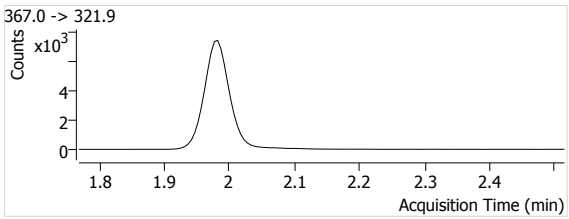

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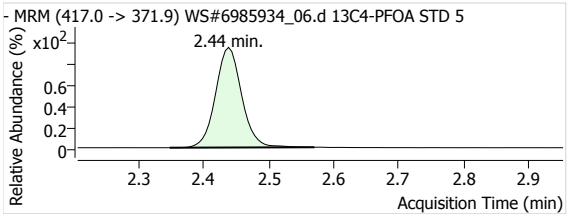

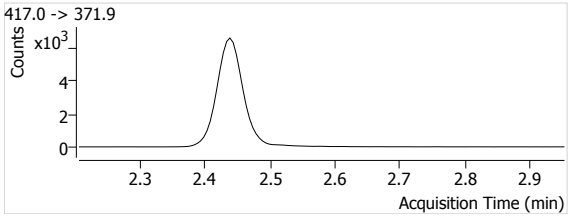

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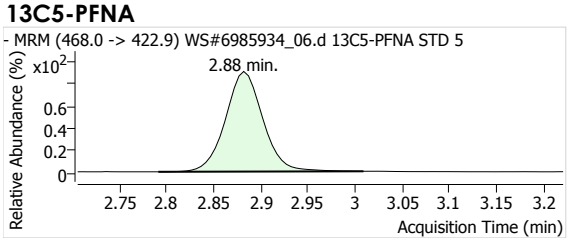

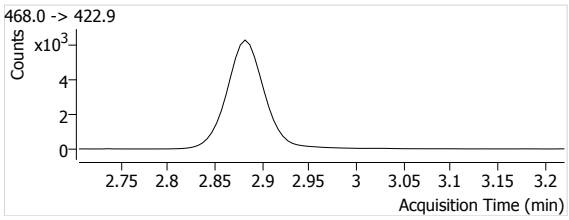

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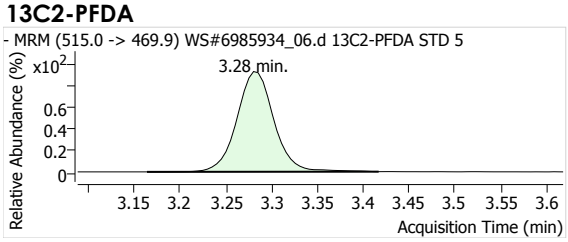

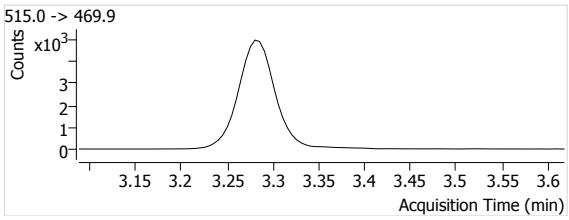

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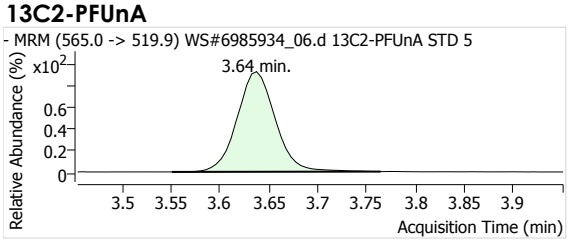

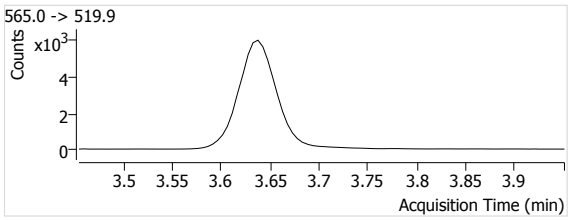

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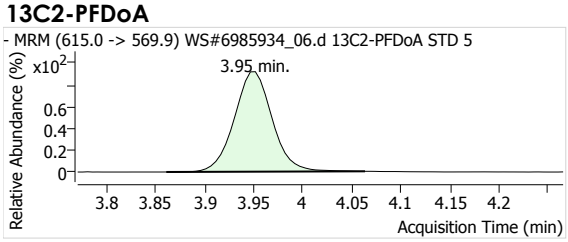

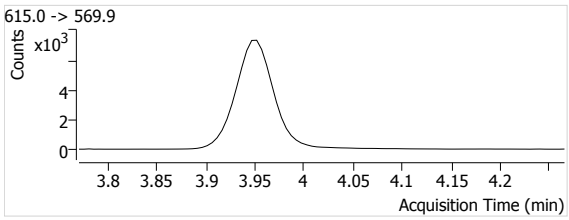

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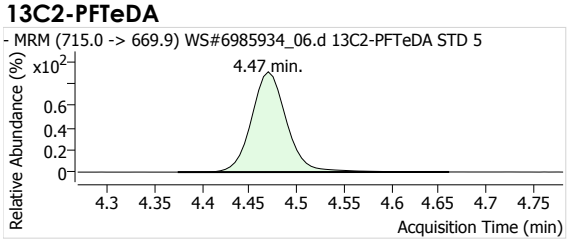

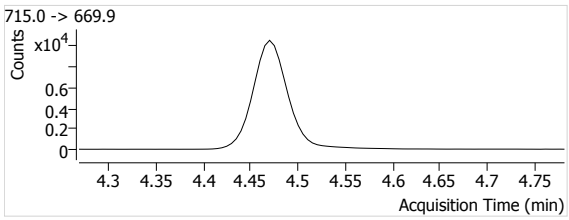

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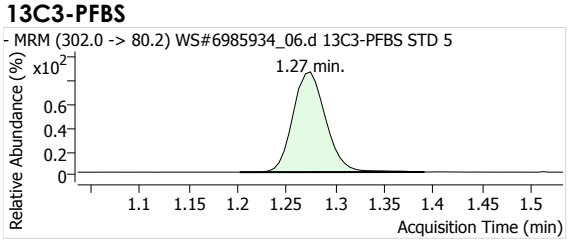

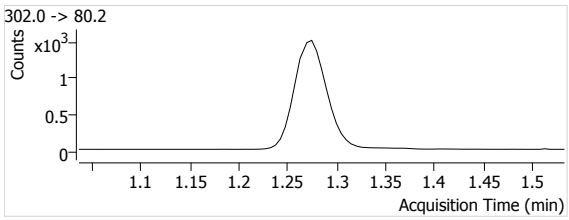

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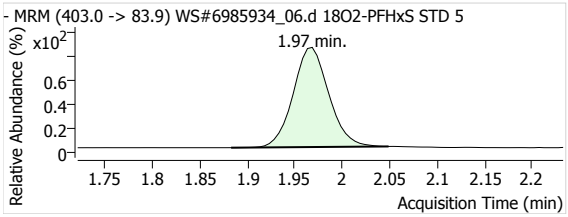
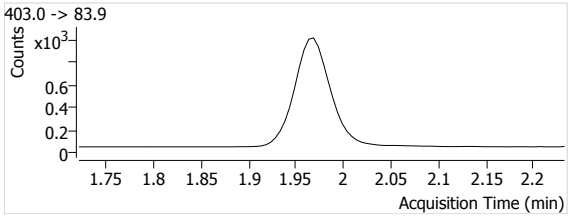
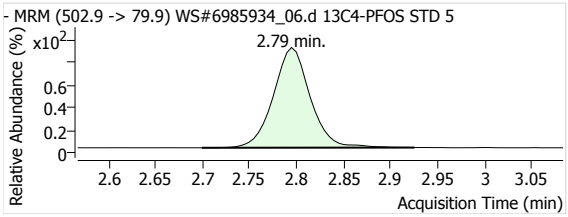
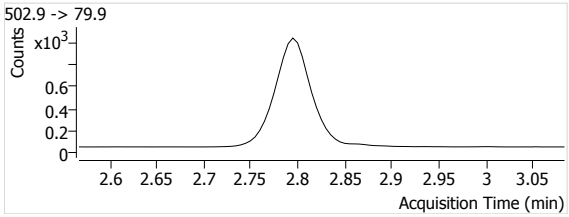


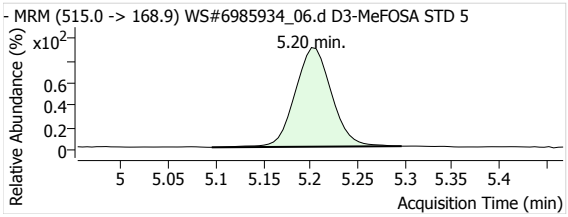


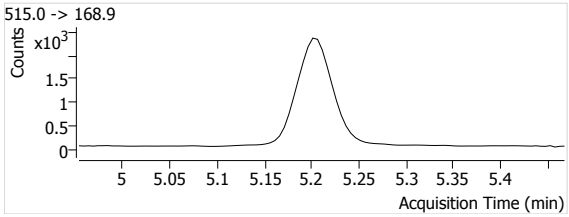
13C4-PFOS





D3-MeFOSA





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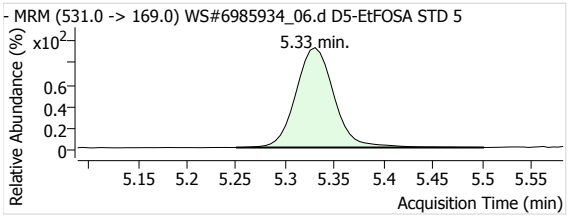
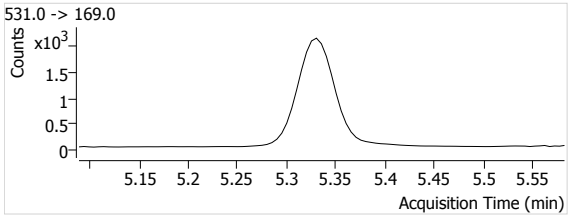




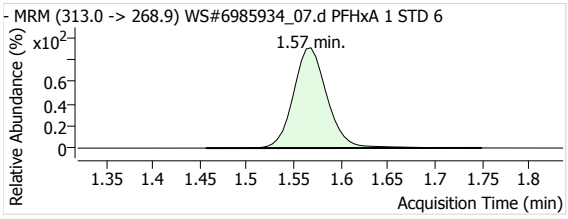
Quantitative Analysis Report

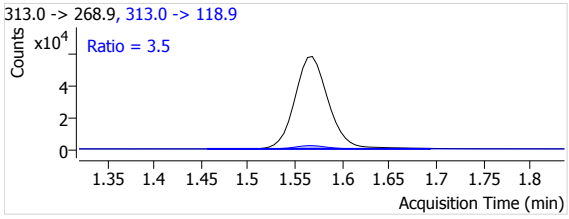
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	STD 6	**Data File**	WS#6985934_07.d
Type	Calibration	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A7
Acq. Date-Time	2020/10/07 1:55:46 PM	**Dil.**	1.0
Comment	-		
User Defined			

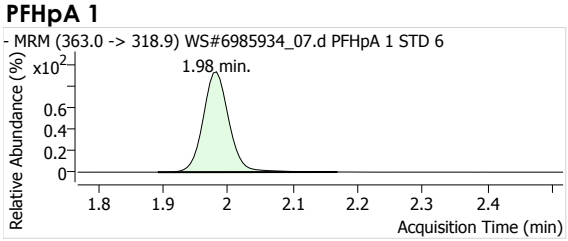
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	41.700	41.0085	98.3	147445	1.57	1836	10.0748	5113	1.57	426	3.5
PFHpA 1	µg/L	41.700	41.2613	98.9	172567	1.98	1382	8.6595	29169	1.98	1482	16.9
PFOA 1	µg/L	41.700	41.5262	99.6	171344	2.44	1249	9.3031	37336	2.44	915	21.8
PFNA 1	µg/L	41.700	42.1434	101.1	141378	2.88	891	8.5306	26272	2.88	1246	18.6
PFDA 1	µg/L	41.700	42.3494	101.6	158108	3.28	1102	11.8673	21850	3.28	193	13.8
PFUnA 1	µg/L	41.700	41.3647	99.2	147715	3.63	1516	9.0506	19812	3.63	1392	13.4
PFDoA 1	µg/L	41.700	41.0917	98.5	165401	3.95	1671	8.4152	20229	3.95	520	12.2
PFTrDA 1	µg/L	41.700	41.2646	99.0	186790	4.22	1403	7.0293	15212	4.22	408	8.1
PFTeDA 1	µg/L	41.700	41.4826	99.5	219536	4.47	3848	8.2616	11208	4.47	785	5.1
PFBS 1	µg/L	41.700	42.3817	101.6	31581	1.27	1354	9.8475	13465	1.28	854	42.6
PFHxS 1	µg/L	41.700	42.4252	101.7	24103	1.94	102	9.9970	12747	1.94	122	52.9
PFOS 1	µg/L	41.700	43.3036	103.8	21040	2.75	55	8.5564	11276	2.75	171	53.6
MeFOSA 1	µg/L	41.700	40.8623	98.0	21429	5.20	597	3.3709	19171	5.20	1019	89.5
EtFOSA 1	µg/L	41.700	41.8428	100.3	22889	5.33	522	4.1421	20904	5.33	1195	91.3
13C2-PFHxA	µg/L	100.000	101.1193	101.1	14635	1.57	803		--	--	--	--
13C4-PFHpA	µg/L	100.000	96.9261	96.9	19928	1.98	1643		--	--	--	--
13C4-PFOA	µg/L	100.000	101.4040	101.4	18418	2.44	700		--	--	--	--
13C5-PFNA	µg/L	100.000	96.3043	96.3	16573	2.88	383		--	--	--	--
13C2-PFDA	µg/L	100.000	96.8734	96.9	13323	3.28	224		--	--	--	--
13C2-PFUnA	µg/L	100.000	100.5359	100.5	16321	3.64	495		--	--	--	--
13C2-PFDoA	µg/L	100.000	100.3523	100.4	19655	3.95	733		--	--	--	--
13C2-PFTeDA	µg/L	100.000	99.0938	99.1	26573	4.47	1070		--	--	--	--
13C3-PFBS	µg/L	100.000	95.8458	95.8	3207	1.27	152		--	--	--	--
18O2-PFHxS	µg/L	100.000	91.8826	91.9	2411	1.97	134		--	--	--	--
13C4-PFOS	µg/L	100.000	94.5769	94.6	2459	2.79	117		--	--	--	--
D3-MeFOSA	µg/L	100.000	102.5653	102.6	6357	5.20	117		--	--	--	--
D5-EtFOSA	µg/L	100.000	101.2830	101.3	5526	5.33	135		--	--	--	--

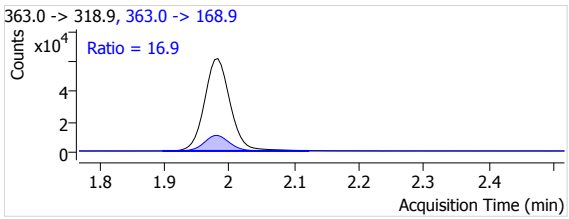
PFHxA 1





PFHpA 1





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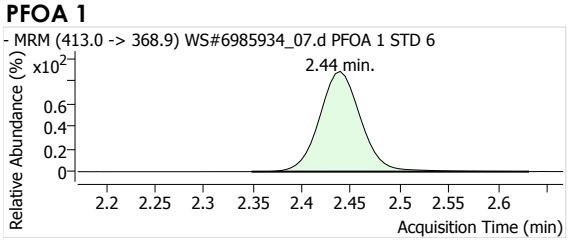

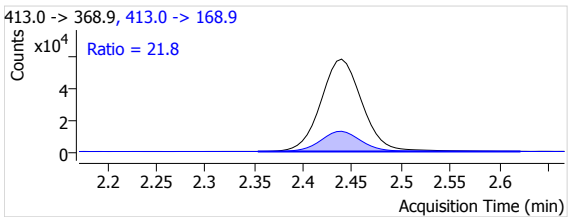

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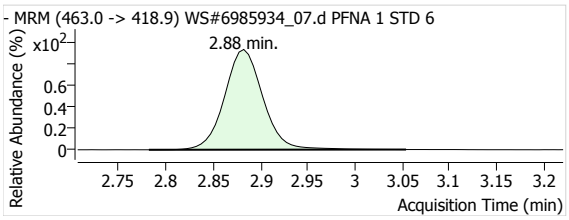

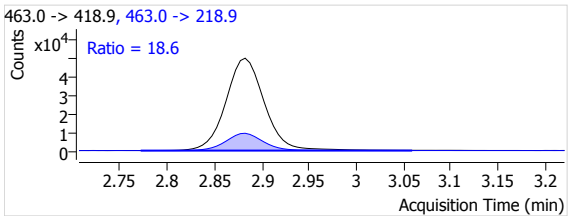

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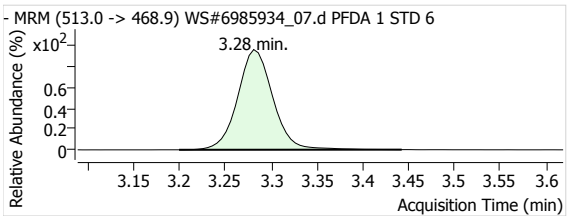
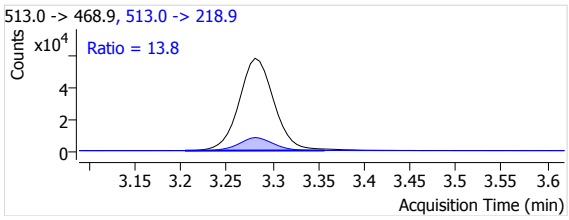
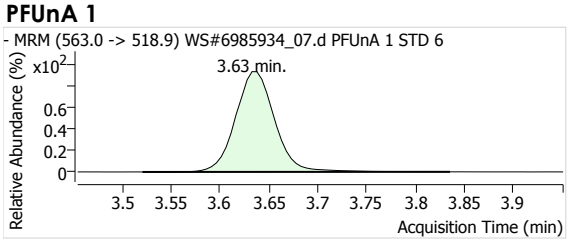
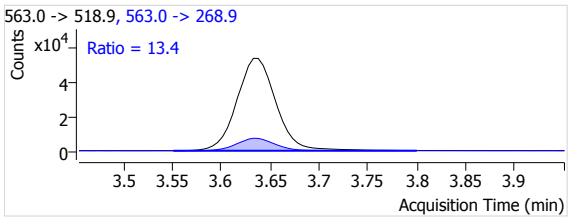




PFUnA 1





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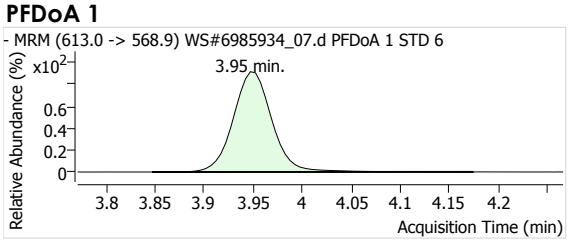

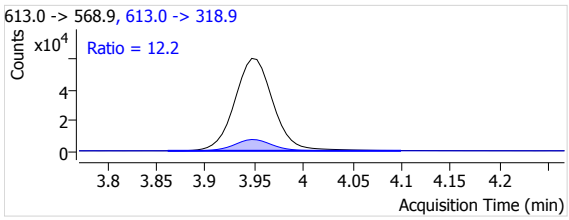

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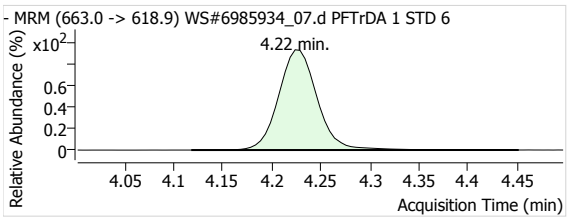

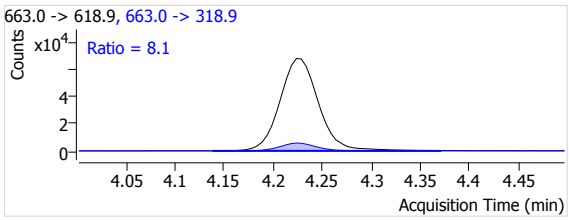

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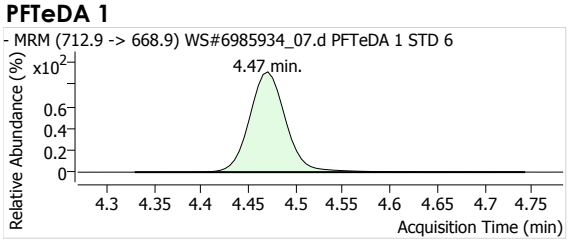

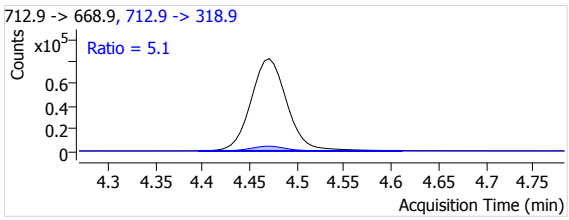

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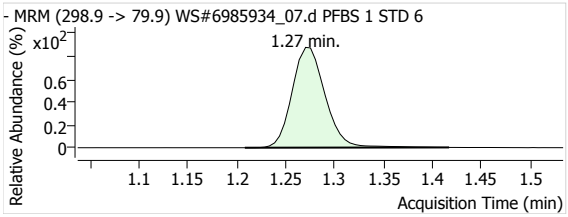

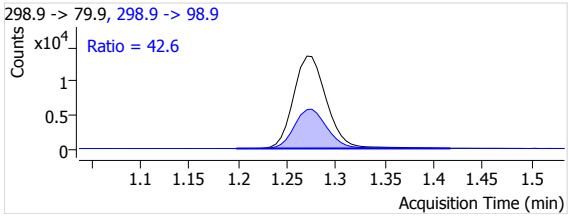

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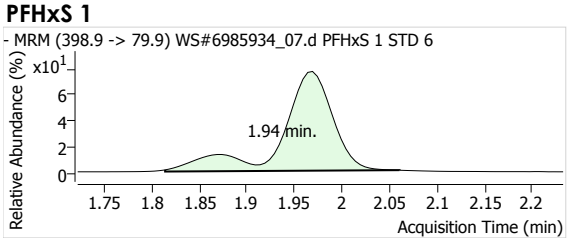
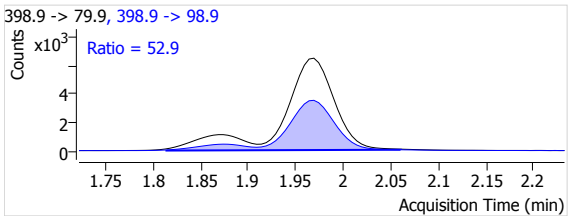
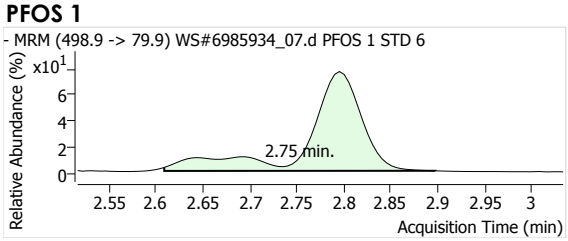
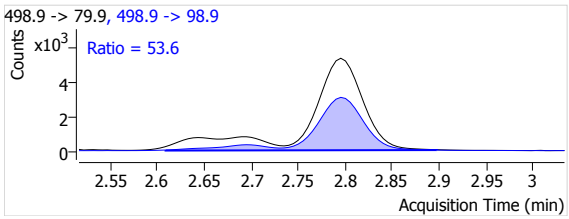


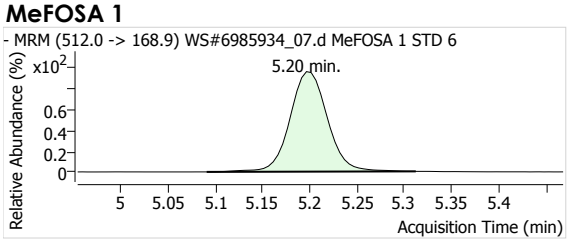


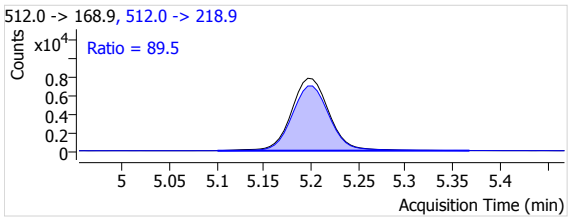
PFOS 1





MeFOSA 1





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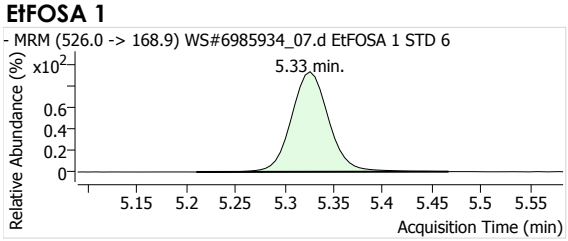
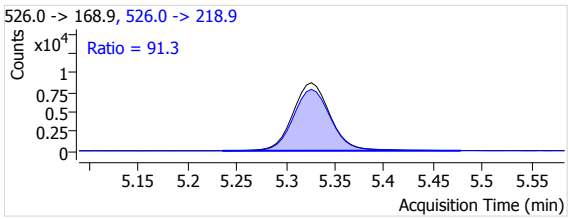
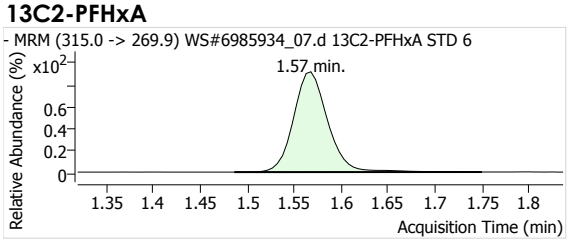
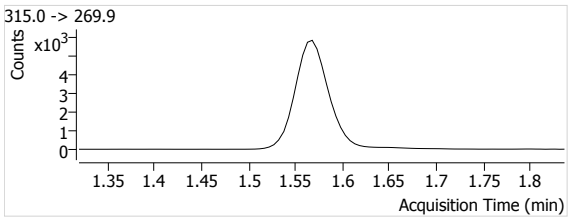




13C2-PFHxA





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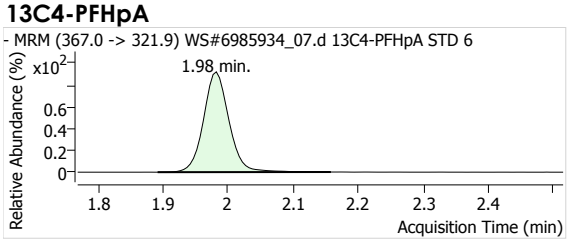

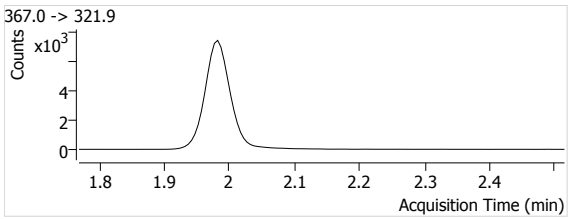

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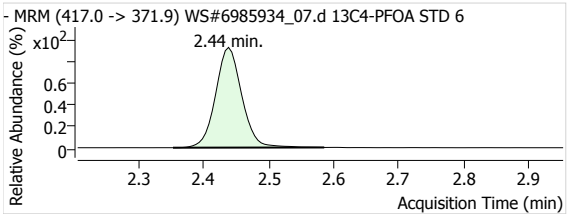

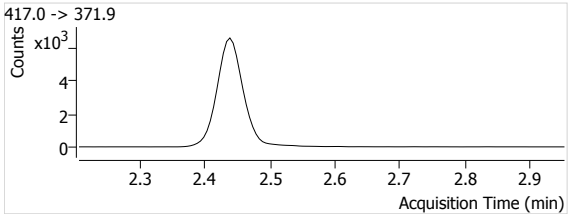

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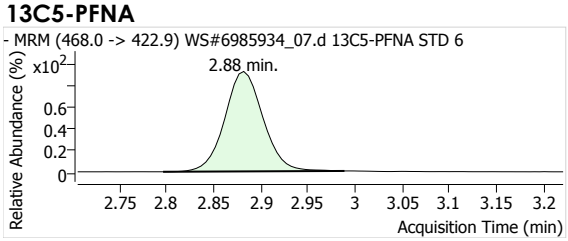

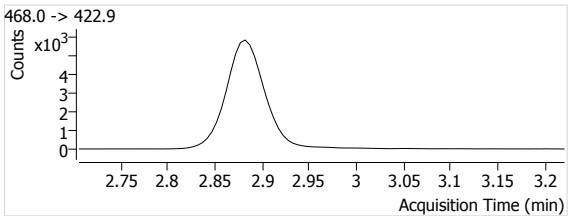

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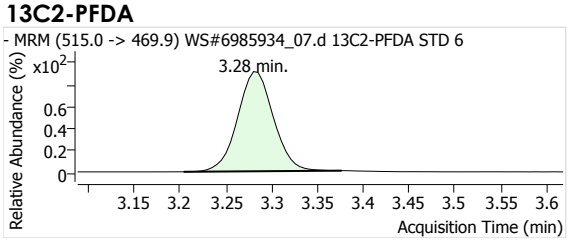

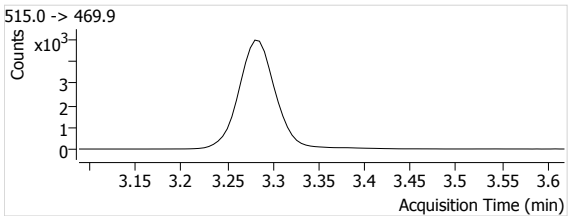

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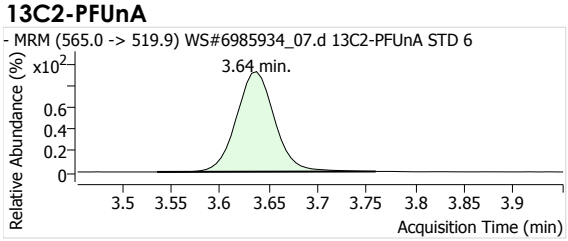

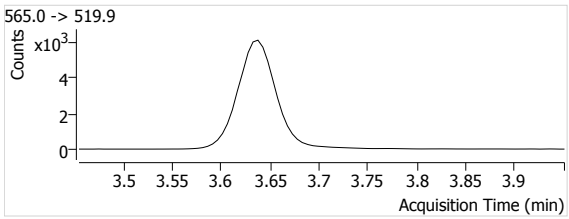

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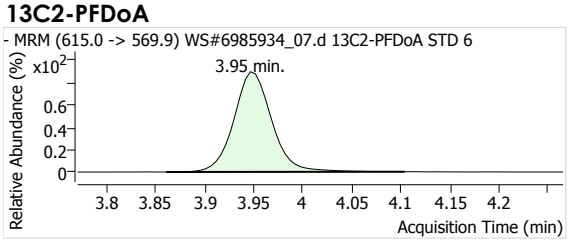

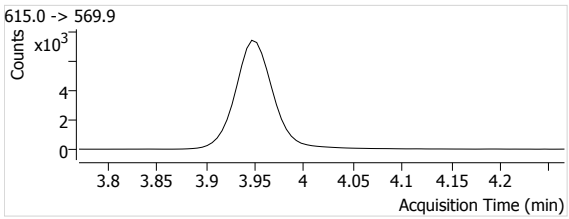

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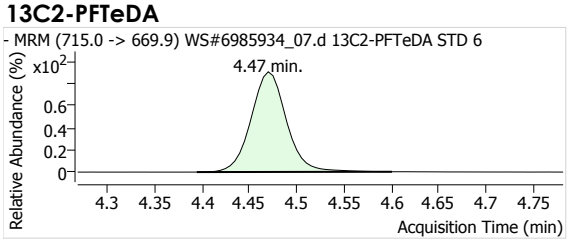

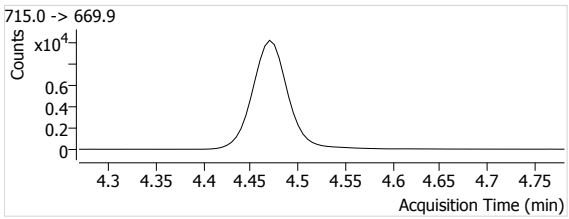

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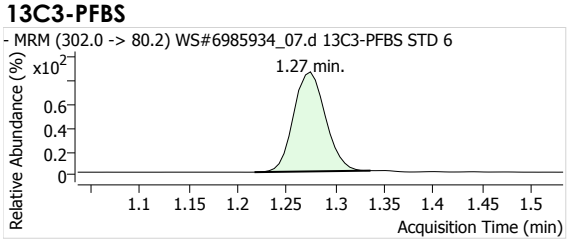

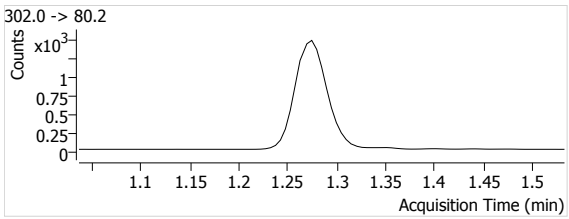

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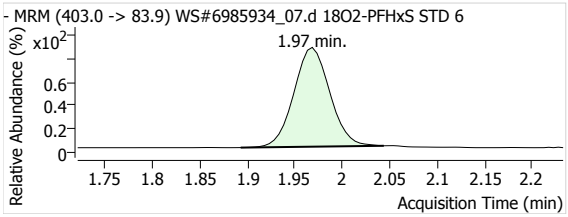

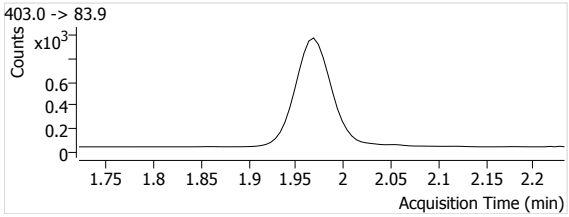

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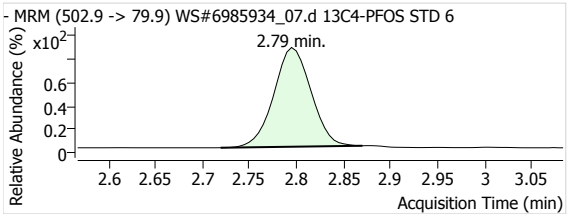
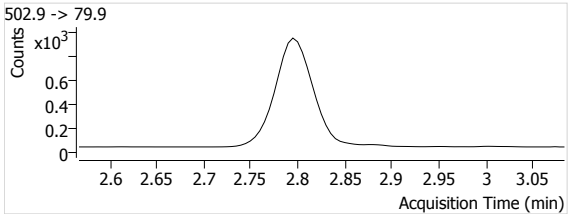
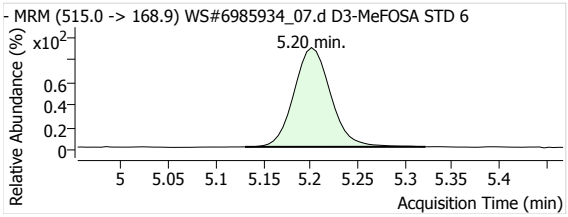
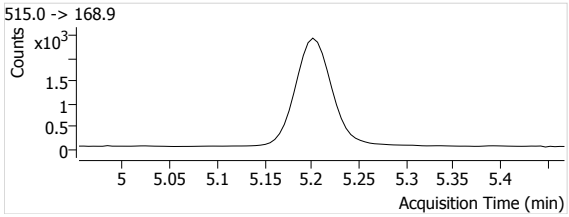


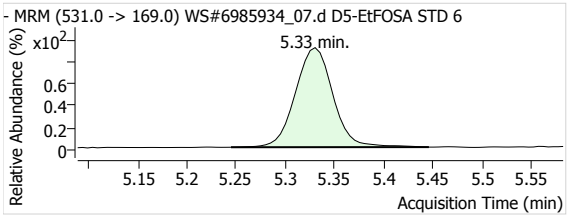


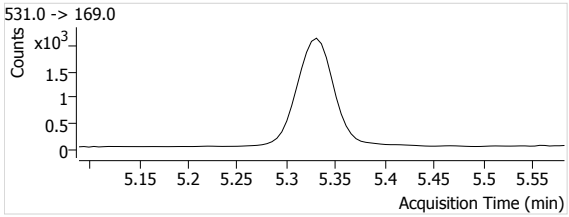
D3-MeFOSA





D5-EtFOSA





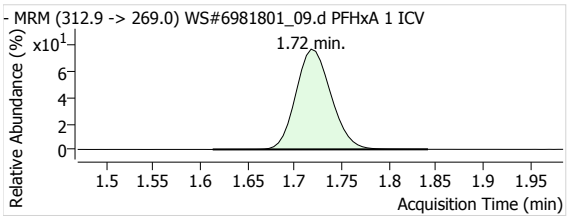
Quantitative Analysis Report

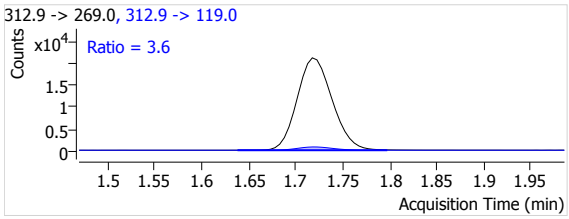
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	ICV	**Data File**	WS#6981801_09.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A9
Acq. Date-Time	2020/10/05 1:39:37 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	21.0665	105.3	55802	1.72	1658	3.6355	2016	1.72	207	3.6
PFHpA 1	µg/L	20.000	21.3040	106.5	65774	2.16	1295	4.9690	11008	2.17	1355	16.7
PFOA 1	µg/L	20.000	21.5251	107.6	48566	2.63	1116	3.3586	11835	2.63	599	24.4
PFNA 1	µg/L	20.000	21.4925	107.5	45280	3.07	859	3.9021	6945	3.06	507	15.3
PFDA 1	µg/L	20.000	21.4838	107.4	37696	3.45	1427	3.6892	6437	3.45	554	17.1
PFUnA 1	µg/L	20.000	21.9398	109.7	43562	3.78	744	3.8674	6866	3.78	500	15.8
PFDoA 1	µg/L	20.000	21.1591	105.8	41144	4.09	691	3.5010	5583	4.09	416	13.6
PFTrDA 1	µg/L	20.000	21.9035	109.5	37093	4.35	739	3.9507	3520	4.35	299	9.5
PFTeDA 1	µg/L	20.000	21.2667	106.3	32115	4.58	872	3.4205	2388	4.58	790	7.4
PFBS 1	µg/L	20.000	21.3779	106.9	21893	1.40	1590	4.1425	8524	1.40	1071	38.9
PFHxS 1	µg/L	20.000	21.7698	108.8	11907	2.08	279	4.6350	5600	2.07	601	47.0
PFOS 1	µg/L	20.000	21.5929	108.0	11157	2.88	270	4.0262	5416	2.88	444	48.5
MeFOSA 1	µg/L	20.000	21.6979	108.5	7636	5.23	341	2.0795	6282	5.23	656	82.3
EtFOSA 1	µg/L	20.000	21.1554	105.8	7201	5.36	184	1.6531	7287	5.36	1232	101.2
13C2-PFHxA	µg/L	100.000	104.4221	104.4	15349	1.72	1669		--	--	--	--
13C4-PFHpA	µg/L	100.000	106.0062	106.0	13237	2.16	1228		--	--	--	--
13C4-PFOA	µg/L	100.000	106.0739	106.1	14460	2.63	1020		--	--	--	--
13C5-PFNA	µg/L	100.000	104.7387	104.7	11604	3.07	1300		--	--	--	--
13C2-PFDA	µg/L	100.000	103.9577	104.0	10218	3.45	1138		--	--	--	--
13C2-PFUnA	µg/L	100.000	105.9543	106.0	11264	3.79	1111		--	--	--	--
13C2-PFDoA	µg/L	100.000	106.6328	106.6	11752	4.09	1055		--	--	--	--
13C2-PFTeDA	µg/L	100.000	104.2759	104.3	9389	4.58	1244		--	--	--	--
13C3-PFBS	µg/L	100.000	104.5706	104.6	5285	1.40	807		--	--	--	--
18O2-PFHxS	µg/L	100.000	101.0622	101.1	2569	2.12	532		--	--	--	--
13C4-PFOS	µg/L	100.000	103.7051	103.7	2771	2.93	379		--	--	--	--
D3-MeFOSA	µg/L	100.000	104.3478	104.3	3672	5.24	132		--	--	--	--
D5-EtFOSA	µg/L	100.000	104.2604	104.3	4356	5.36	79		--	--	--	--

PFHxA 1





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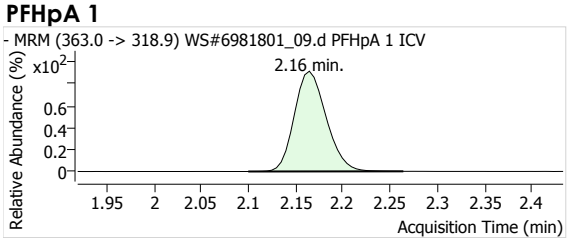

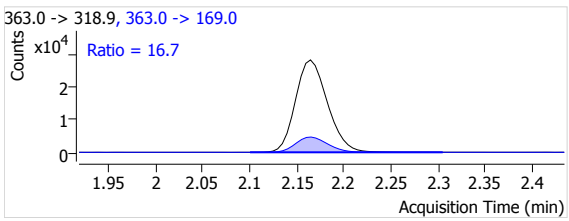

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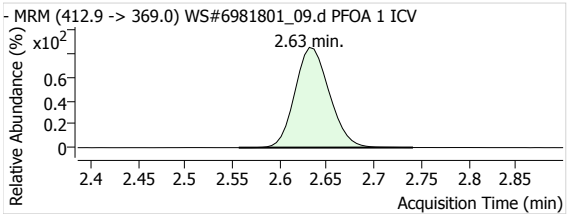

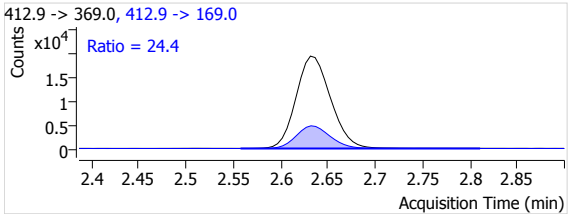

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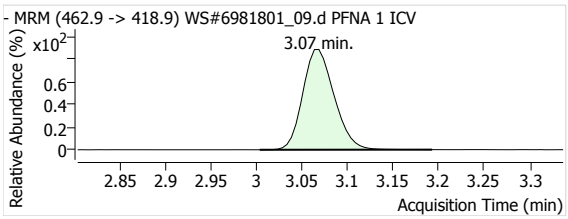

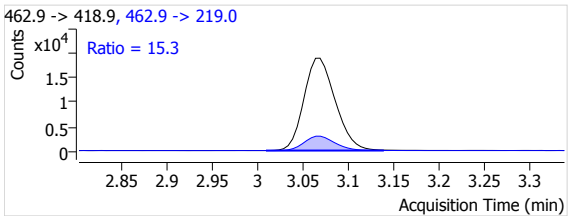

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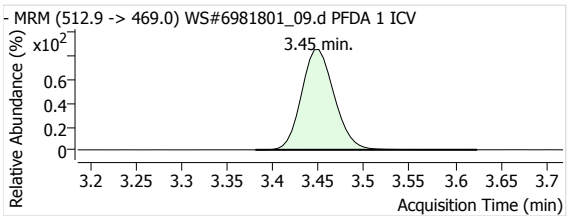

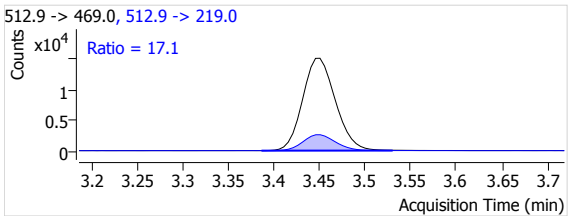

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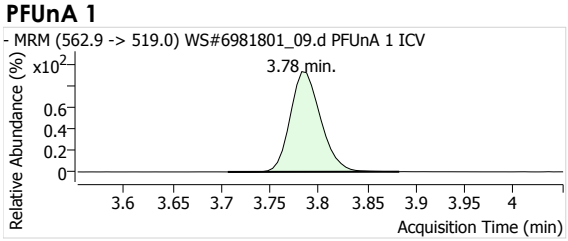

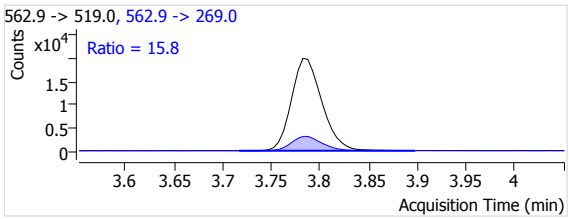

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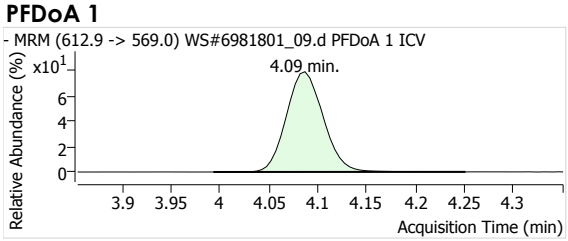

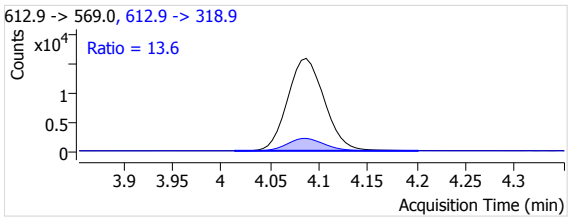

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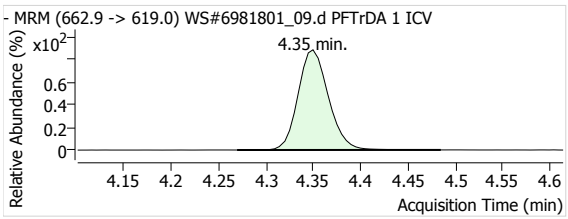

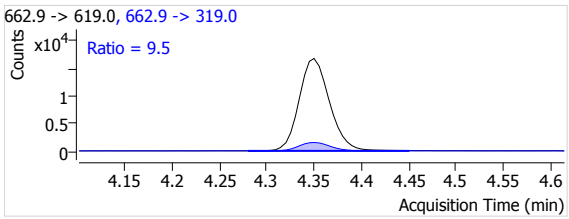

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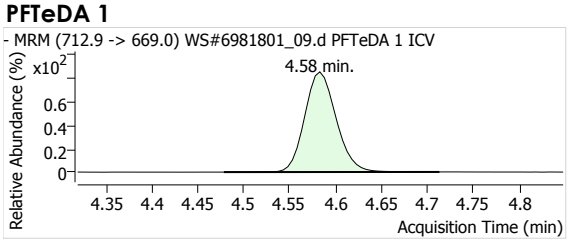

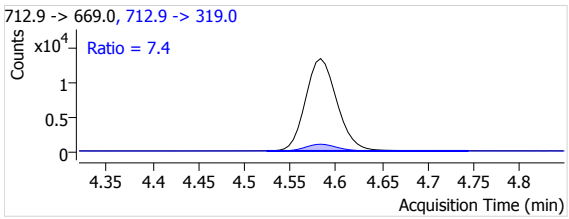

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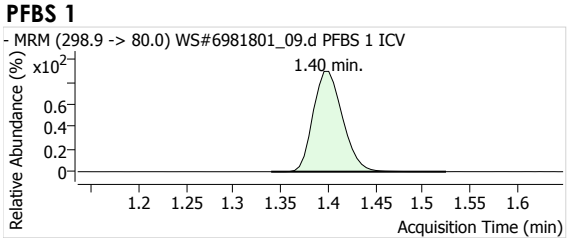

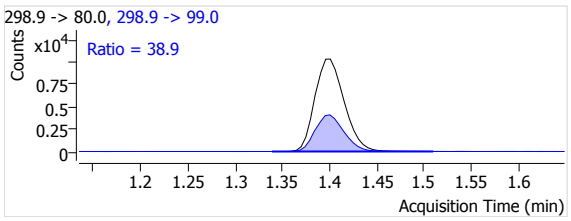

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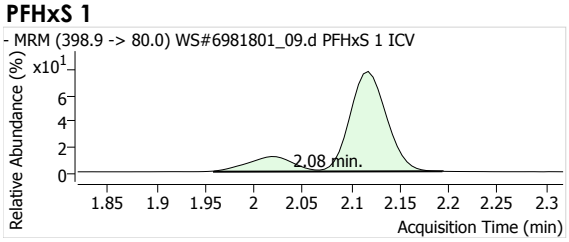

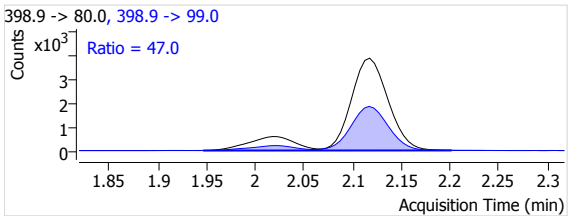

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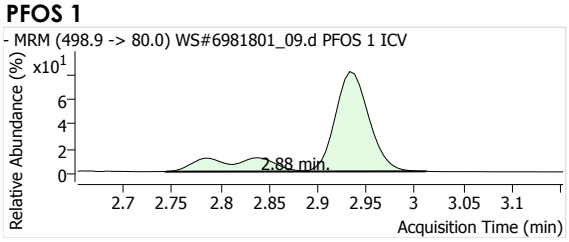
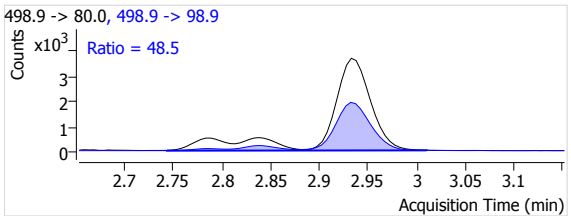
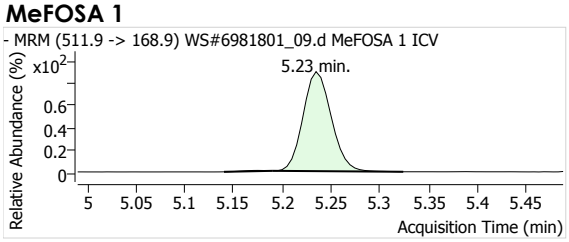
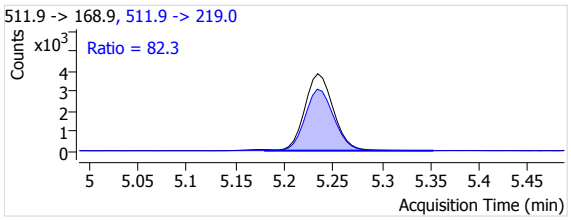




MeFOSA 1





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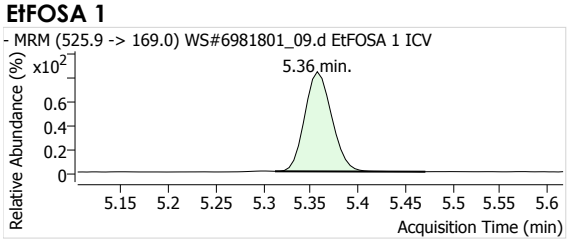

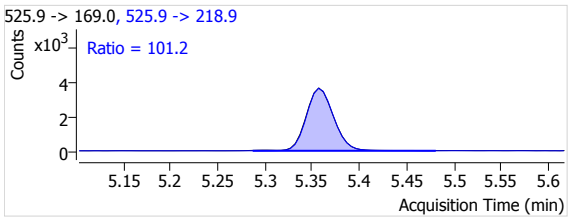

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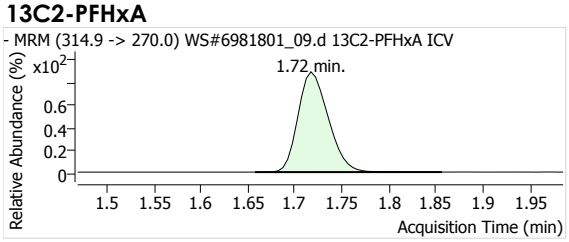

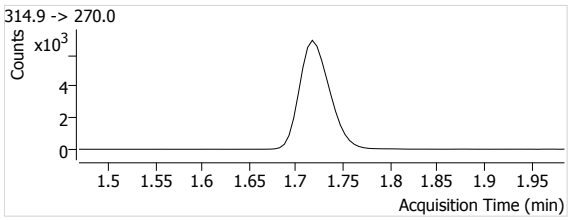

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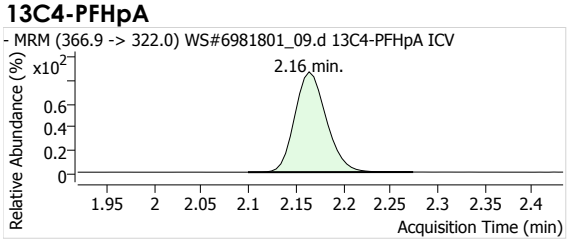

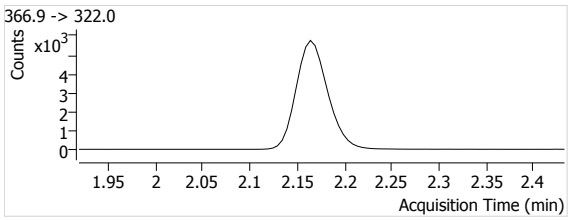

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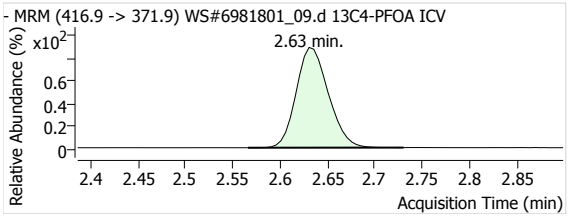

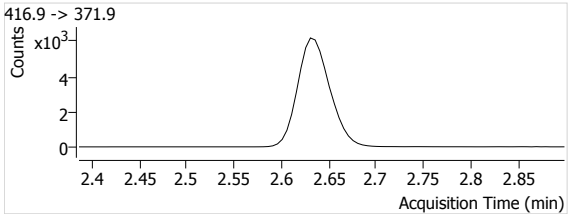

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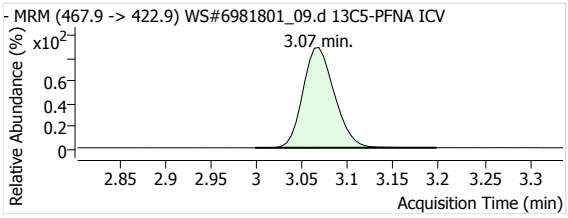

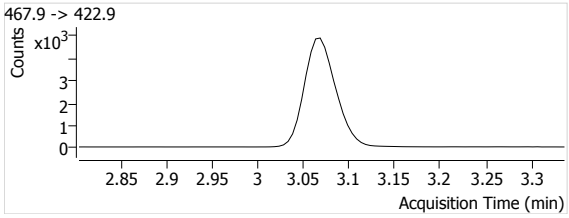

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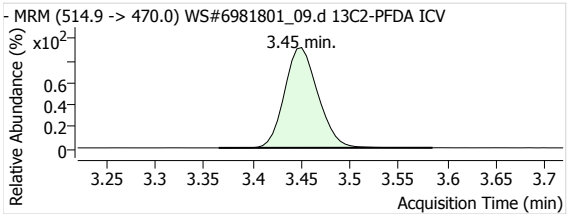

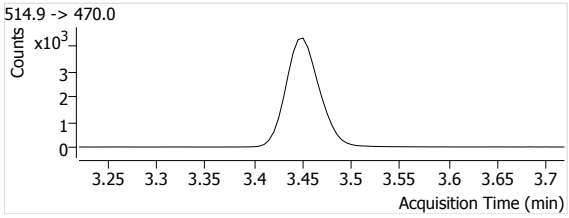

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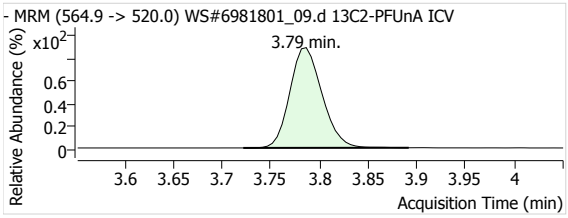

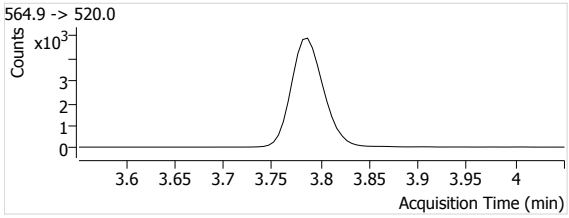

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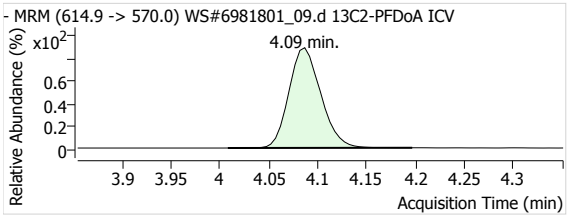

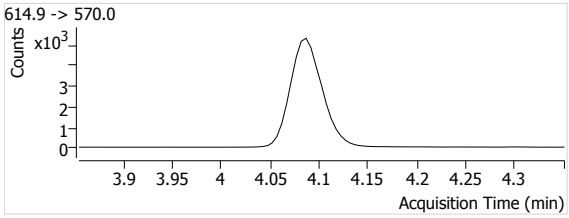

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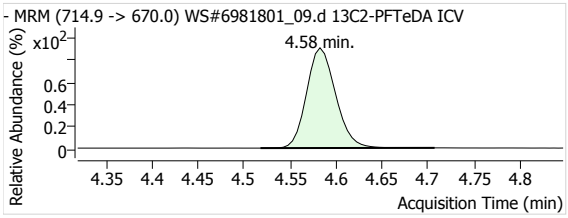

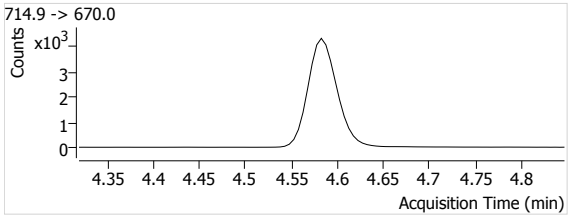

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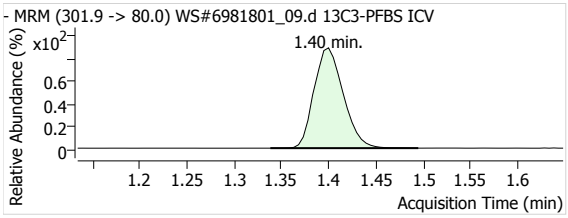

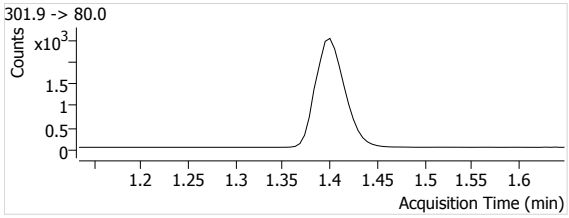

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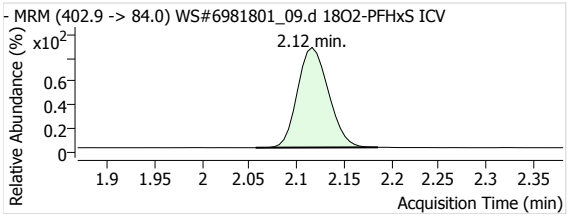

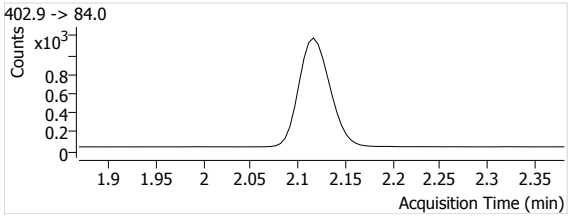

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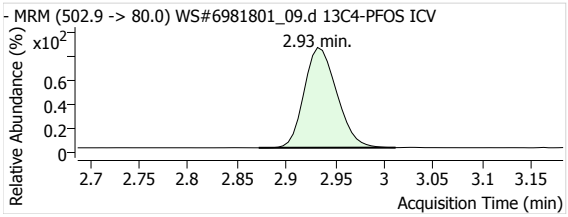
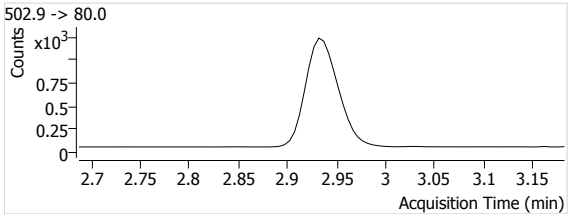
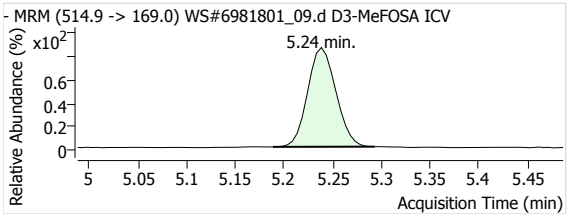
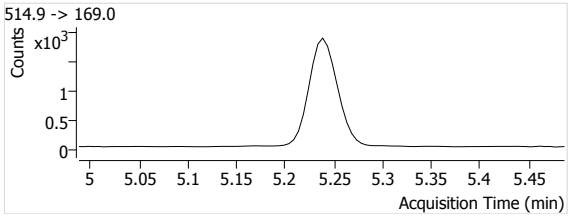




D3-MeFOSA





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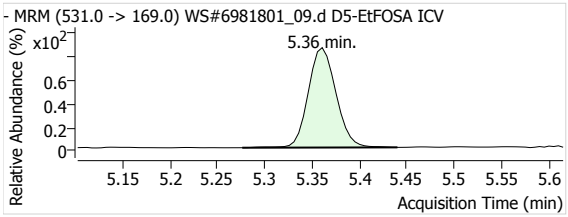
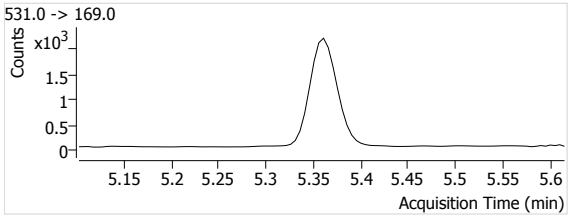




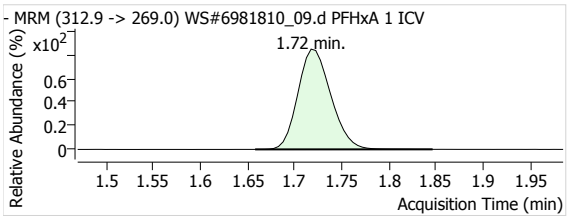
Quantitative Analysis Report

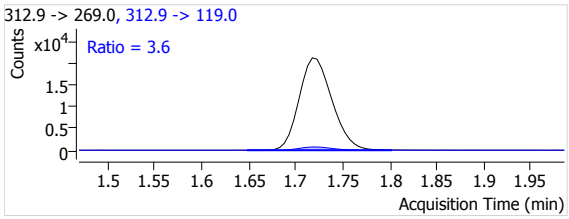
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	ICV	**Data File**	WS#6981810_09.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A9
Acq. Date-Time	2020/10/05 8:17:41 AM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	21.8872	109.4	51595	1.72	1235	3.8943	1839	1.72	216	3.6
PFHpA 1	µg/L	20.000	21.3027	106.5	60137	2.16	1130	5.1483	10195	2.17	630	17.0
PFOA 1	µg/L	20.000	21.6356	108.2	43573	2.64	481	3.4783	10617	2.64	552	24.4
PFNA 1	µg/L	20.000	21.2218	106.1	39931	3.07	787	3.9665	6212	3.06	645	15.6
PFDA 1	µg/L	20.000	22.1723	110.9	32865	3.45	554	3.9051	5907	3.45	599	18.0
PFUnA 1	µg/L	20.000	21.5788	107.9	37714	3.79	1061	4.0053	6004	3.79	390	15.9
PFDoA 1	µg/L	20.000	21.5126	107.6	36849	4.09	584	3.6611	5118	4.09	335	13.9
PFTrDA 1	µg/L	20.000	21.1935	106.0	32687	4.35	799	4.0220	3301	4.35	367	10.1
PFTeDA 1	µg/L	20.000	21.3685	106.8	28976	4.58	775	3.5654	2143	4.58	516	7.4
PFBS 1	µg/L	20.000	22.3483	111.7	20055	1.40	1201	4.4252	7823	1.40	973	39.0
PFHxS 1	µg/L	20.000	22.2293	111.1	10804	2.07	560	4.8909	4984	2.07	729	46.1
PFOS 1	µg/L	20.000	22.1131	110.6	10061	2.89	216	4.2576	4896	2.89	240	48.7
MeFOSA 1	µg/L	20.000	21.6800	108.4	6712	5.23	123	2.1492	5414	5.23	374	80.7
EtFOSA 1	µg/L	20.000	21.5780	107.9	6309	5.36	794	1.7111	6240	5.36	4135	98.9
13C2-PFHxA	µg/L	100.000	106.5546	106.6	13249	1.72	992		--	--	--	--
13C4-PFHpA	µg/L	100.000	112.5012	112.5	11681	2.16	760		--	--	--	--
13C4-PFOA	µg/L	100.000	111.0648	111.1	12527	2.64	1071		--	--	--	--
13C5-PFNA	µg/L	100.000	113.7900	113.8	10067	3.07	945		--	--	--	--
13C2-PFDA	µg/L	100.000	107.9944	108.0	8416	3.45	515		--	--	--	--
13C2-PFUnA	µg/L	100.000	110.8156	110.8	9416	3.79	435		--	--	--	--
13C2-PFDoA	µg/L	100.000	110.8969	110.9	10065	4.09	804		--	--	--	--
13C2-PFTeDA	µg/L	100.000	113.2841	113.3	8127	4.58	379		--	--	--	--
13C3-PFBS	µg/L	100.000	106.3101	106.3	4532	1.39	994		--	--	--	--
18O2-PFHxS	µg/L	100.000	107.3372	107.3	2209	2.12	1470		--	--	--	--
13C4-PFOS	µg/L	100.000	112.0436	112.0	2363	2.93	386		--	--	--	--
D3-MeFOSA	µg/L	100.000	112.2574	112.3	3123	5.23	125		--	--	--	--
D5-EtFOSA	µg/L	100.000	110.8206	110.8	3687	5.36	90		--	--	--	--

PFHxA 1





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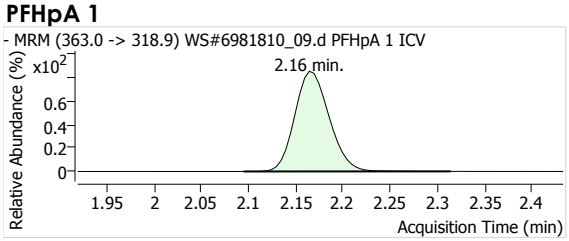

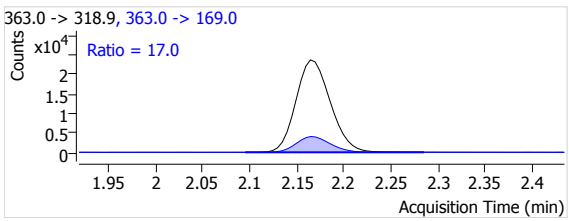

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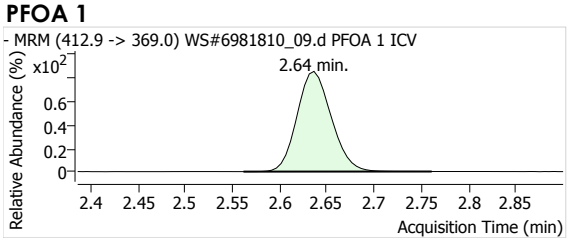

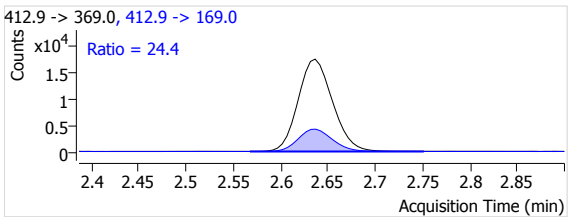

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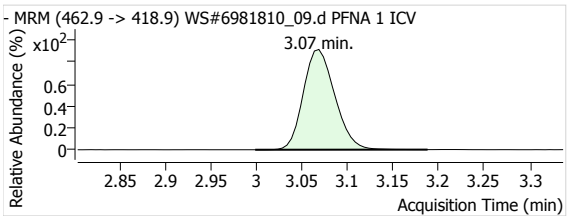

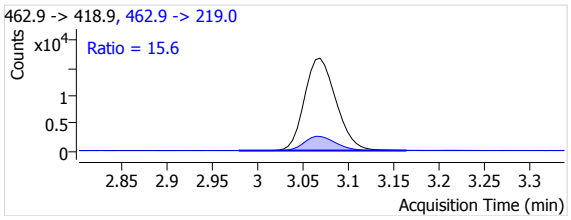

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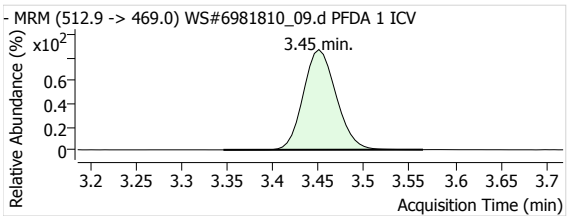

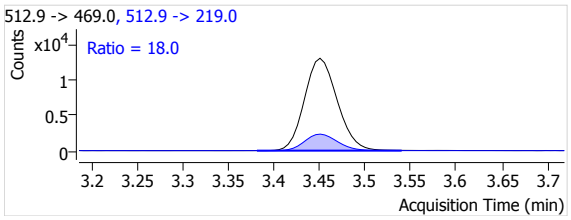

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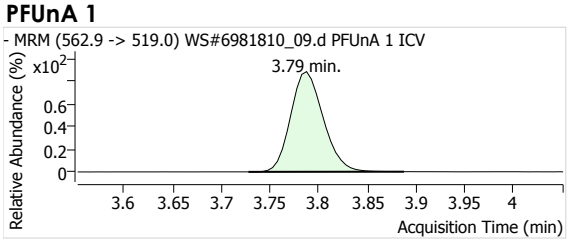

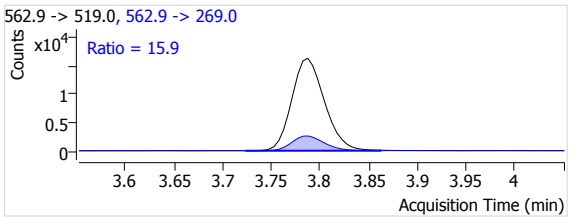

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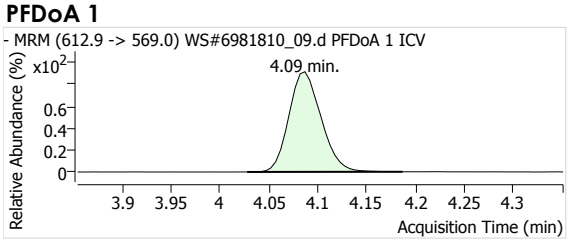

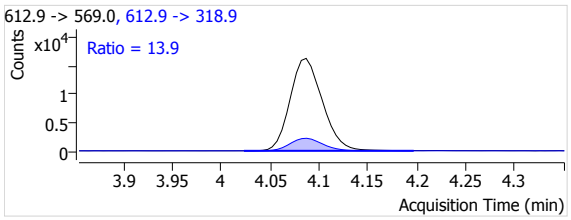

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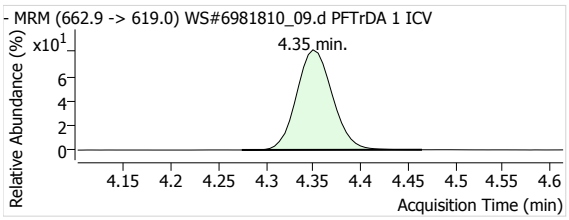

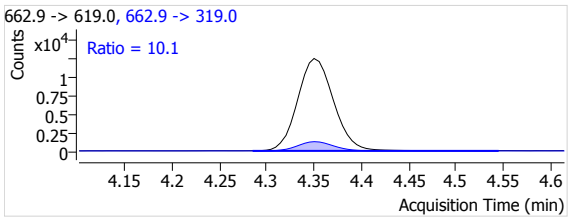

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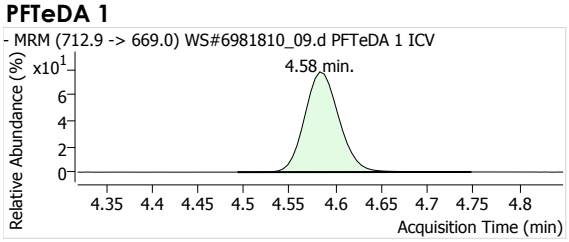

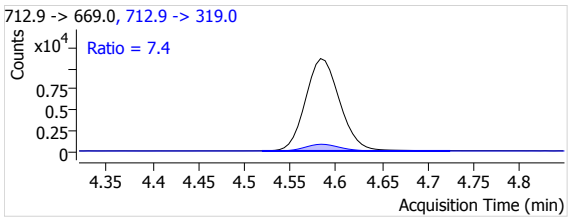

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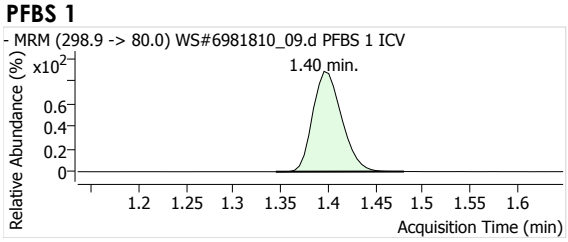

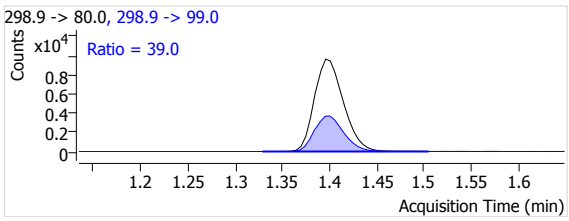

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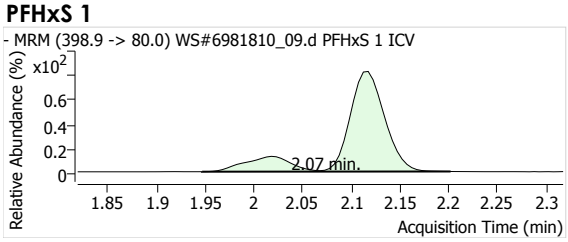

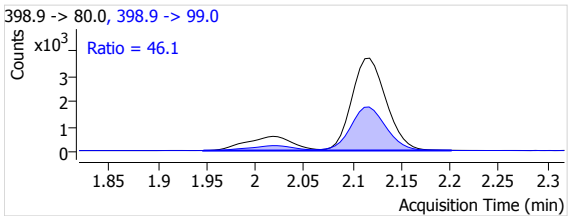

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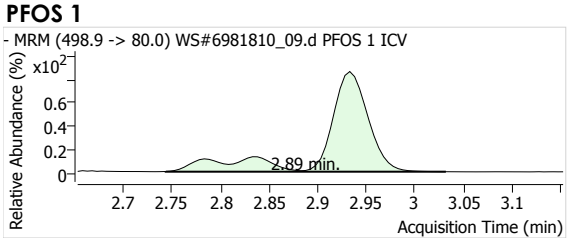

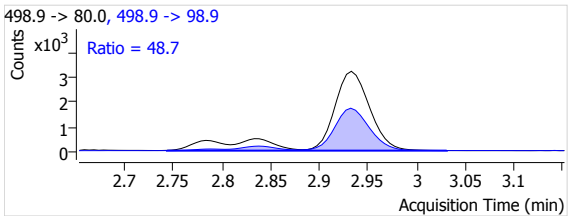

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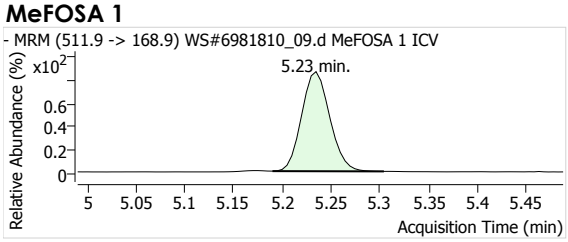

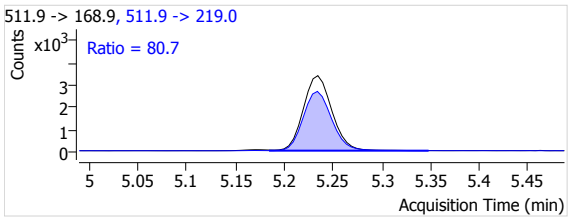

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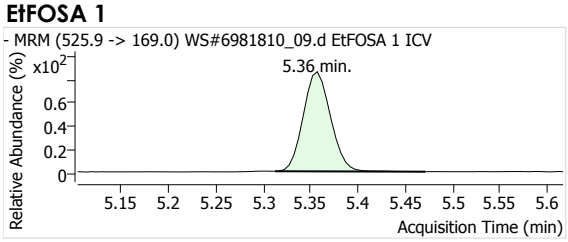

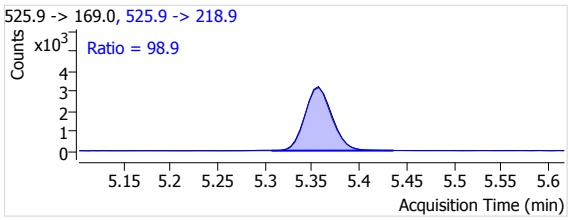

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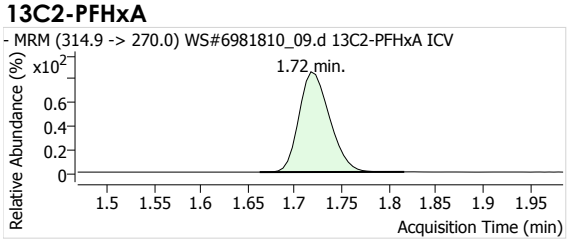

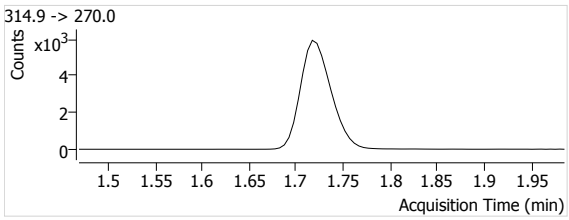

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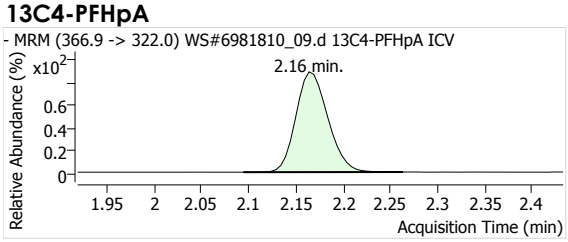

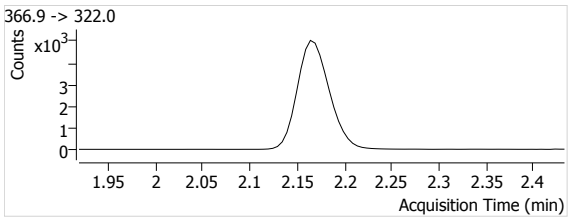

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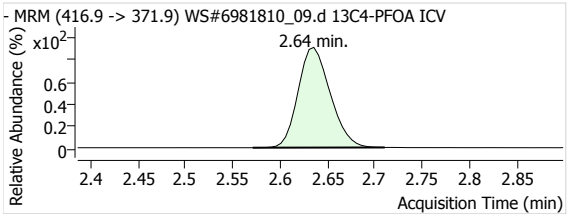

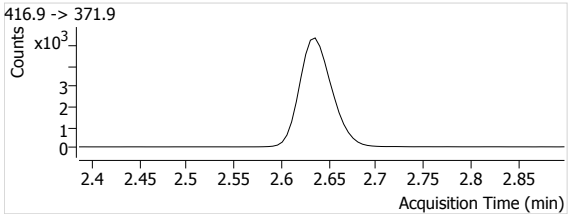

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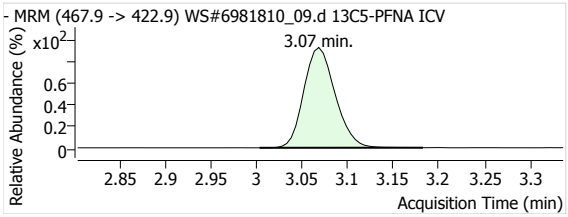

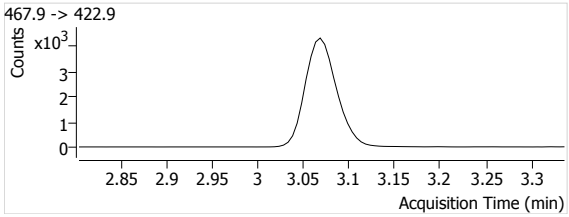

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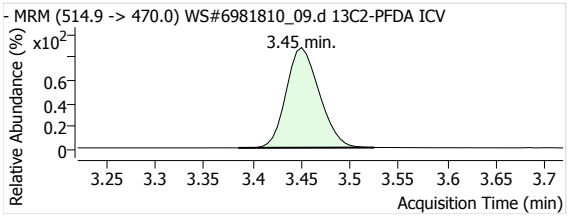

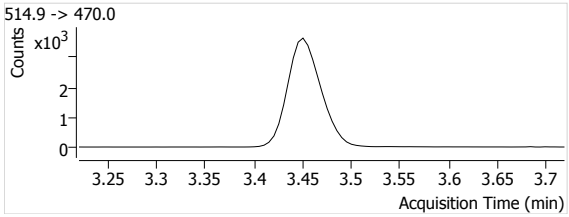

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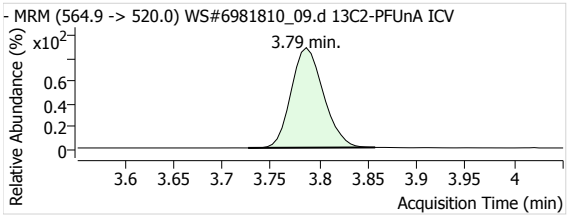

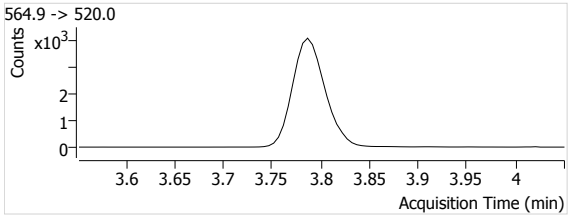

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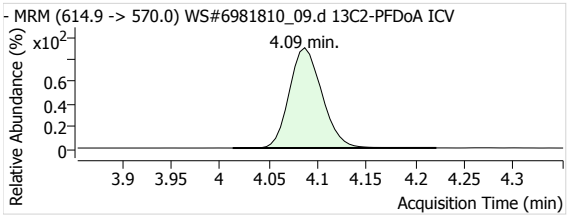
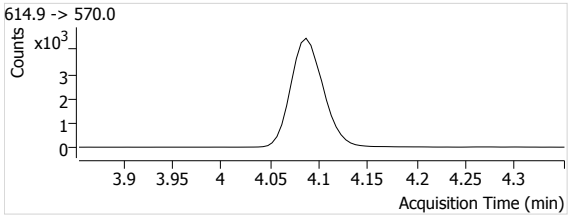
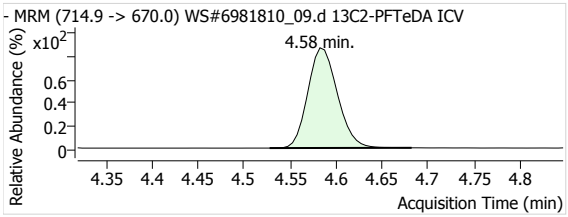
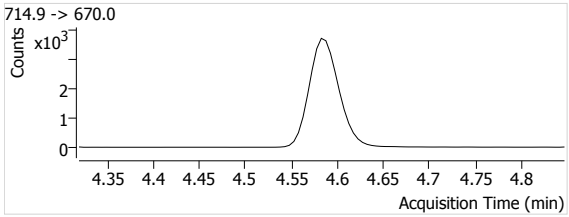


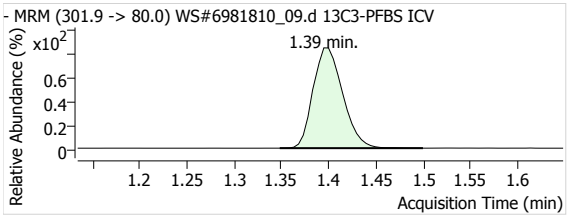


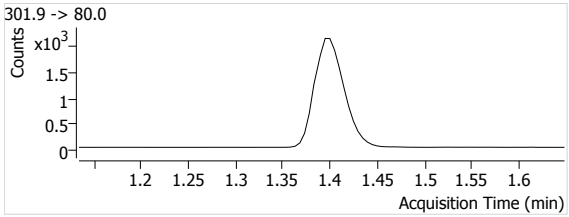
13C2-PFTeDA



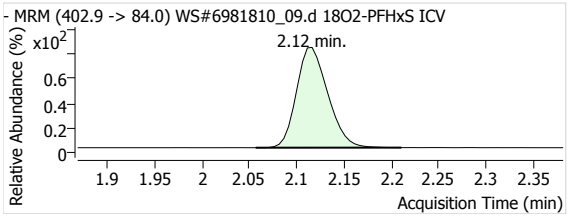


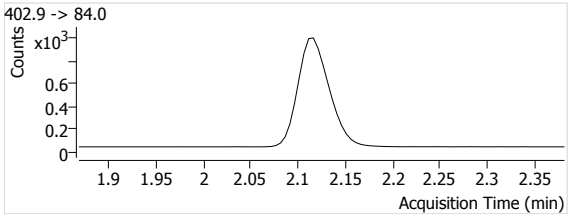
13C3-PFBS



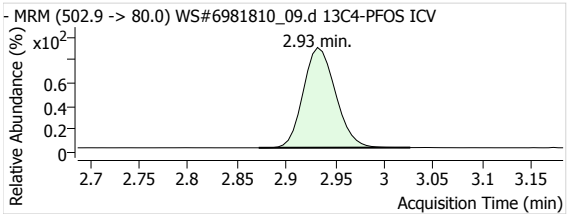


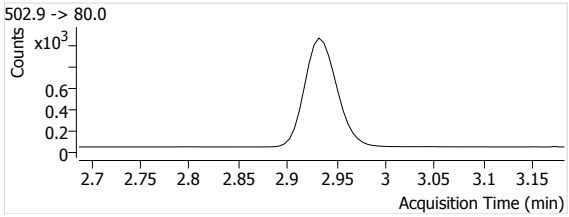
18O2-PFHxS



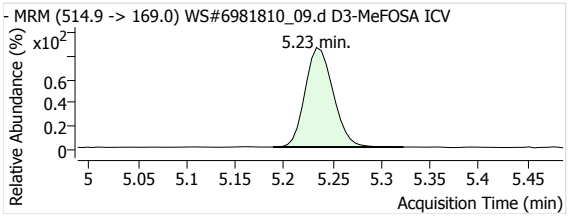


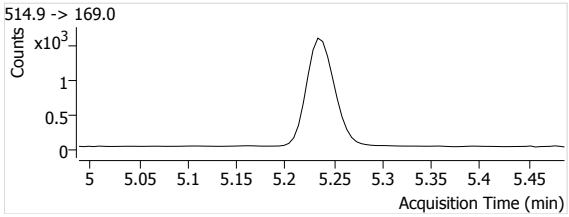
13C4-PFOS



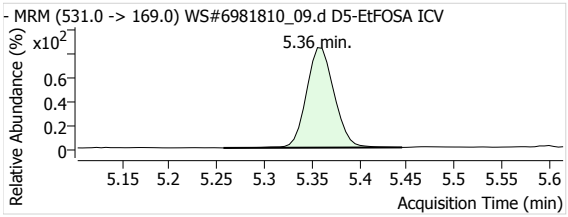


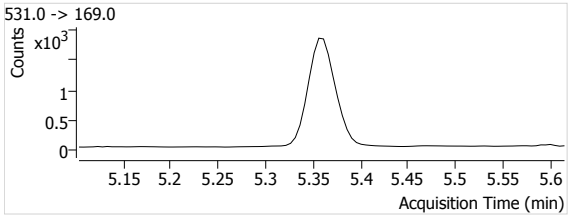
D3-MeFOSA





D5-EtFOSA





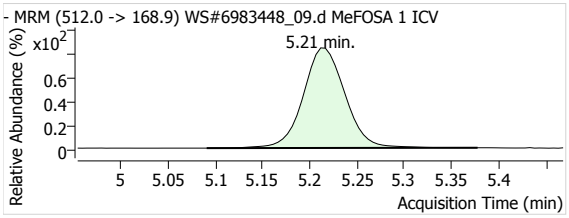
Quantitative Analysis Report

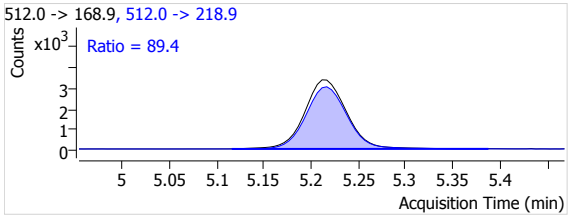
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	ICV	**Data File**	WS#6983448_09.d
Type	QC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E8
Acq. Date-Time	2020/10/06 1:22:06 PM	**Dil.**	1.0
Comment	-		
User Defined			

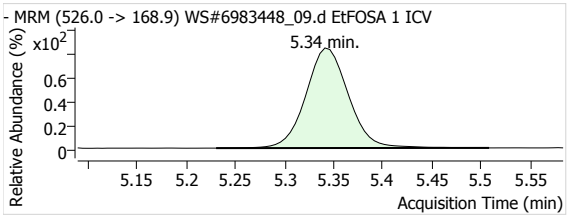
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	20.000	20.9183	104.6	10334	5.21	314	1.6751	9235	5.22	773	89.4
EtFOSA 1	µg/L	20.000	21.9448	109.7	10848	5.34	326	2.0534	9699	5.34	451	89.4
D3-MeFOSA	µg/L	100.000	101.8659	101.9	6169	5.22	77		--	--	--	--
D5-EtFOSA	µg/L	100.000	101.0714	101.1	5283	5.35	111		--	--	--	--

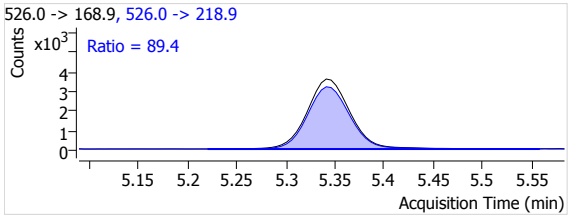
MeFOSA 1



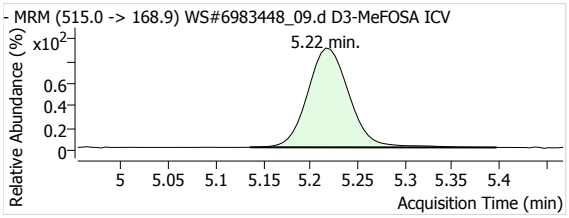


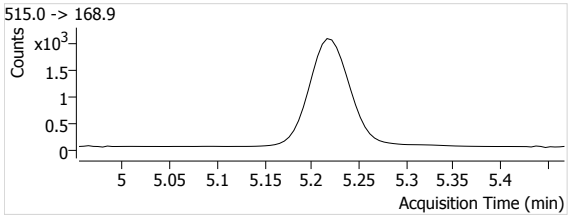
EtFOSA 1



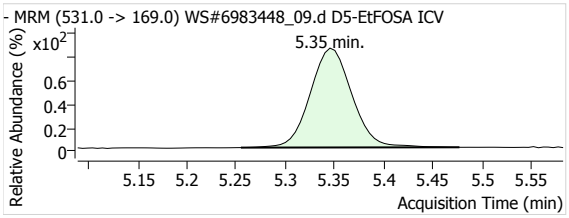


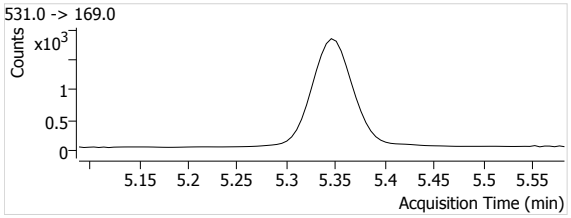
D3-MeFOSA





D5-EtFOSA





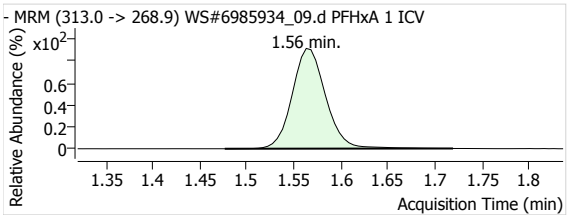
Quantitative Analysis Report

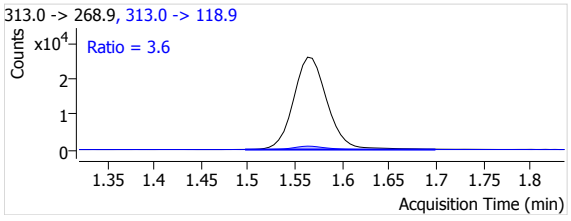
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	ICV	**Data File**	WS#6985934_09.d
Type	QC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A9
Acq. Date-Time	2020/10/07 2:09:40 PM	**Dil.**	1.0
Comment	-		
User Defined			

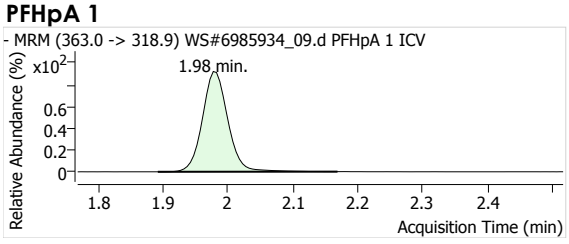
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	20.000	17.6567	88.3	64518	1.56	861	4.3391	2314	1.56	288	3.6
PFHpA 1	µg/L	20.000	17.6272	88.1	75371	1.98	993	3.6936	12407	1.98	296	16.5
PFOA 1	µg/L	20.000	17.9608	89.8	73005	2.44	1019	4.0210	15955	2.44	1008	21.9
PFNA 1	µg/L	20.000	17.4408	87.2	60864	2.88	612	3.5263	11238	2.88	353	18.5
PFDA 1	µg/L	20.000	16.8891	84.4	65917	3.29	173	4.7232	9396	3.28	184	14.3
PFUnA 1	µg/L	20.000	17.6753	88.4	63608	3.64	649	3.8653	8540	3.64	724	13.4
PFDoA 1	µg/L	20.000	17.3387	86.7	71347	3.95	901	3.5475	8965	3.95	837	12.6
PFTrDA 1	µg/L	20.000	17.5931	88.0	81477	4.22	713	2.9982	6530	4.22	252	8.0
PFTeDA 1	µg/L	20.000	17.9825	89.9	97350	4.47	992	3.5823	4691	4.47	236	4.8
PFBS 1	µg/L	20.000	16.9668	84.8	13127	1.27	313	3.9373	5560	1.27	163	42.4
PFHxS 1	µg/L	20.000	17.8723	89.4	10428	1.94	98	4.2118	5484	1.94	121	52.6
PFOS 1	µg/L	20.000	17.3989	87.0	8906	2.75	57	3.4401	4740	2.75	148	53.2
MeFOSA 1	µg/L	20.000	18.4623	92.3	9247	5.20	359	1.5239	8044	5.20	544	87.0
EtFOSA 1	µg/L	20.000	18.4821	92.4	9863	5.33	233	1.8316	8744	5.33	401	88.7
13C2-PFHxA	µg/L	100.000	102.7361	102.7	14869	1.56	650		--	--	--	--
13C4-PFHpA	µg/L	100.000	99.2510	99.3	20406	1.98	568		--	--	--	--
13C4-PFOA	µg/L	100.000	99.9615	100.0	18156	2.44	728		--	--	--	--
13C5-PFNA	µg/L	100.000	100.2964	100.3	17260	2.88	1605		--	--	--	--
13C2-PFDA	µg/L	100.000	101.4760	101.5	13956	3.29	672		--	--	--	--
13C2-PFUnA	µg/L	100.000	101.3675	101.4	16456	3.64	985		--	--	--	--
13C2-PFDoA	µg/L	100.000	102.6856	102.7	20112	3.95	738		--	--	--	--
13C2-PFTeDA	µg/L	100.000	101.3388	101.3	27175	4.47	1780		--	--	--	--
13C3-PFBS	µg/L	100.000	99.6414	99.6	3334	1.27	323		--	--	--	--
18O2-PFHxS	µg/L	100.000	94.3598	94.4	2476	1.97	463		--	--	--	--
13C4-PFOS	µg/L	100.000	99.5769	99.6	2589	2.79	278		--	--	--	--
D3-MeFOSA	µg/L	100.000	97.9025	97.9	6068	5.20	112		--	--	--	--
D5-EtFOSA	µg/L	100.000	98.6987	98.7	5385	5.33	99		--	--	--	--

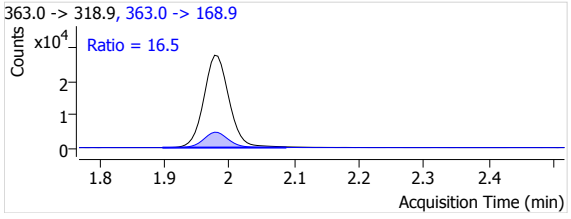
PFHxA 1



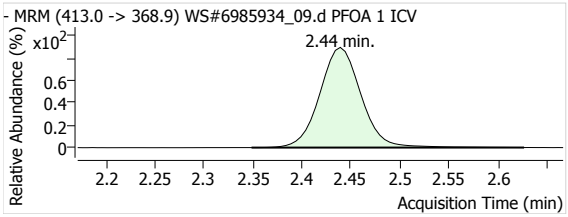


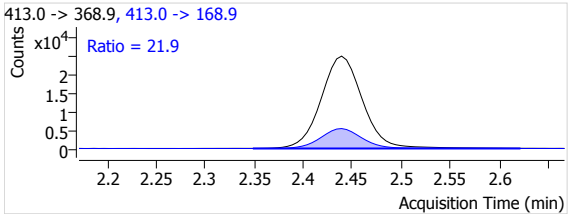
PFHpA 1





PFOA 1





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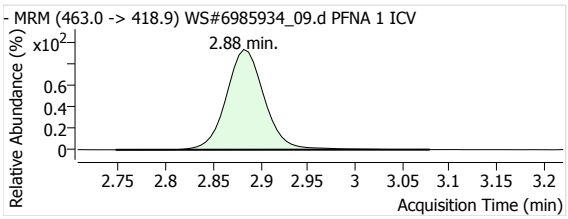
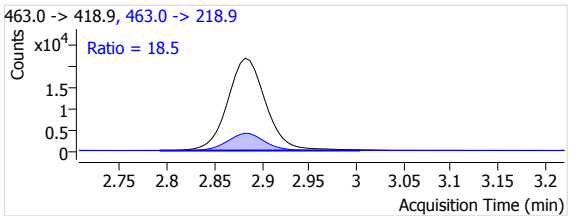
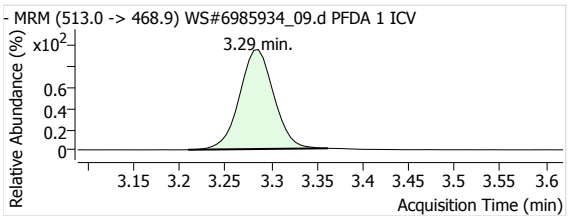
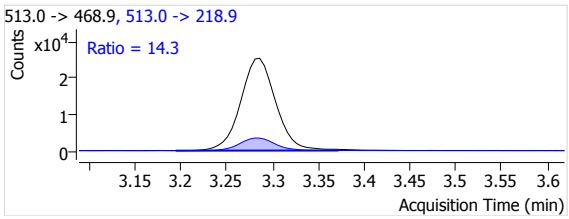




PFDA 1





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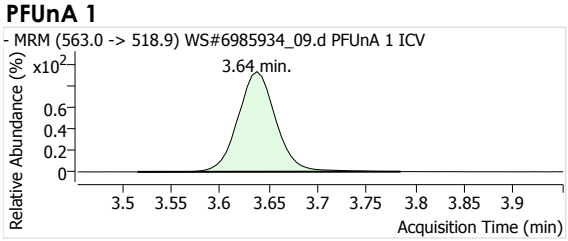

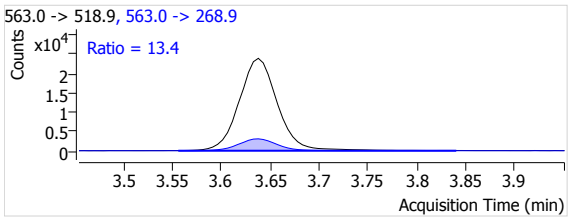

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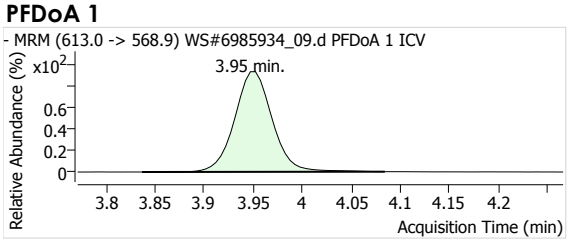

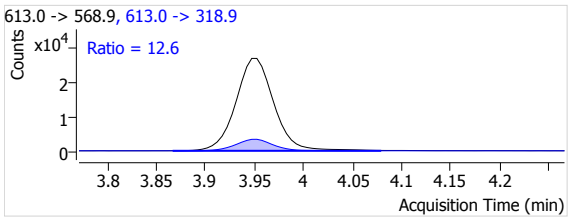

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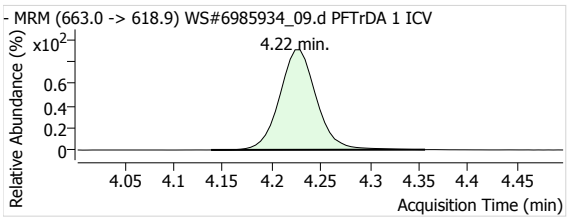
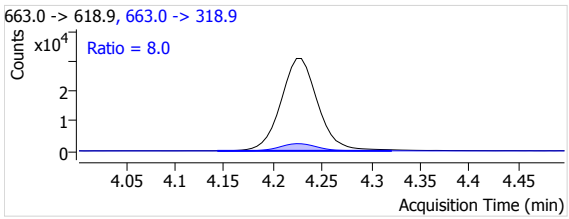
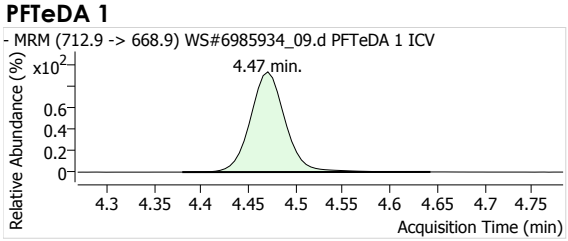
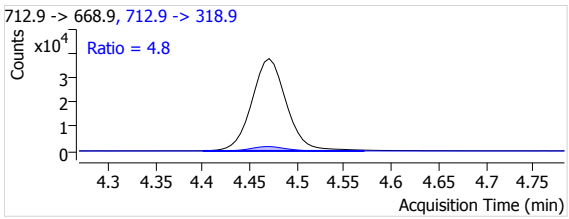


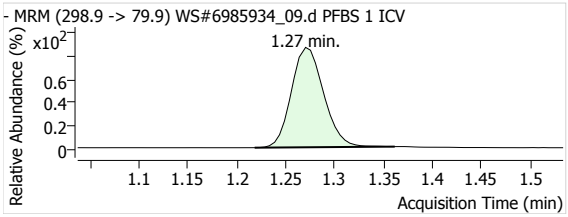


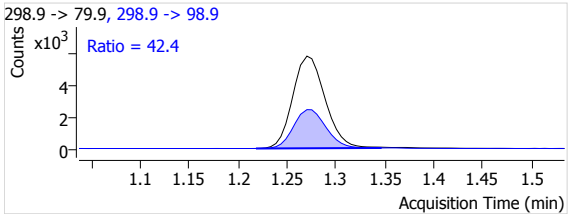
PFTeDA 1



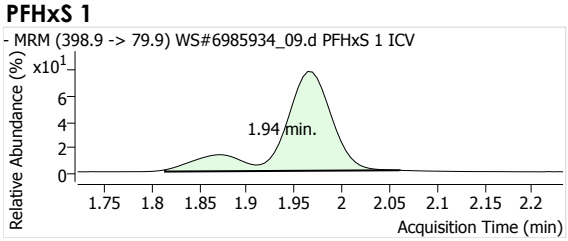


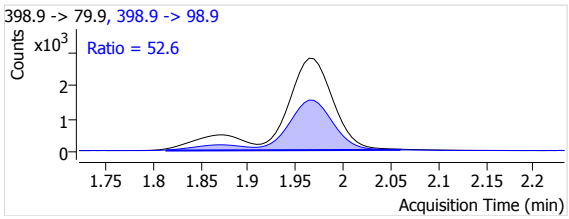
PFBS 1



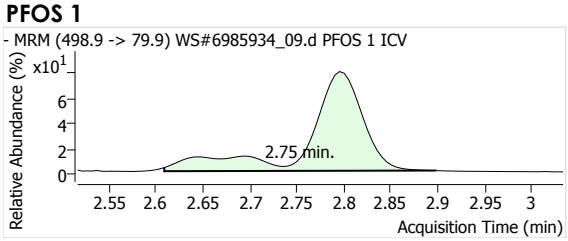


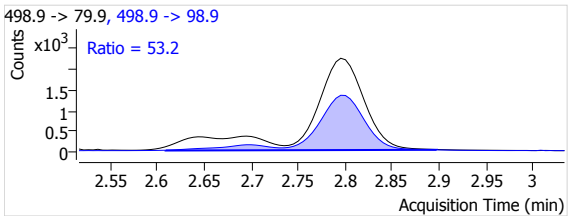
PFHxS 1



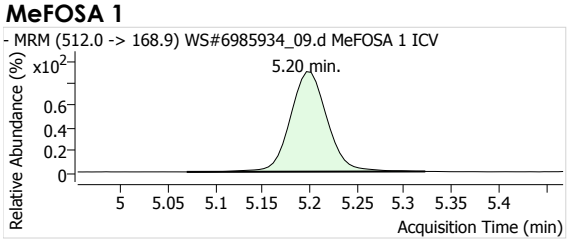


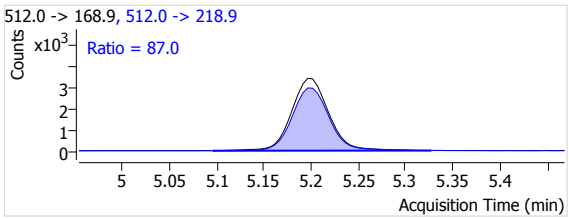
PFOS 1



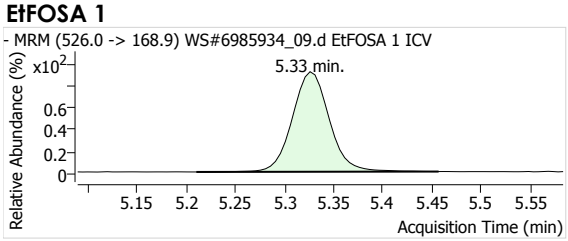


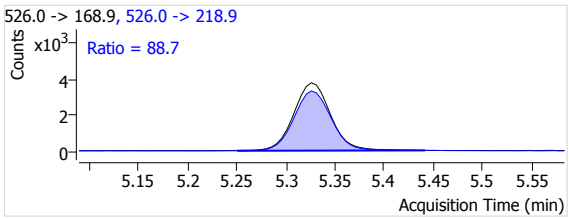
MeFOSA 1



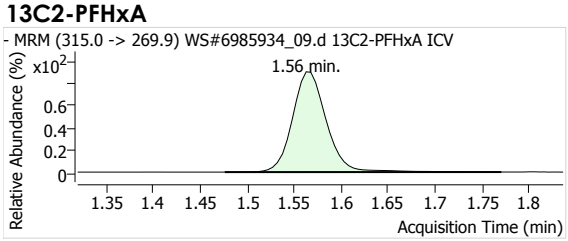


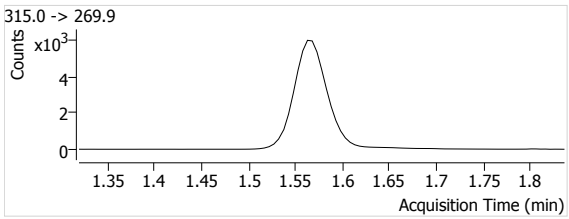
EtFOSA 1





13C2-PFHxA





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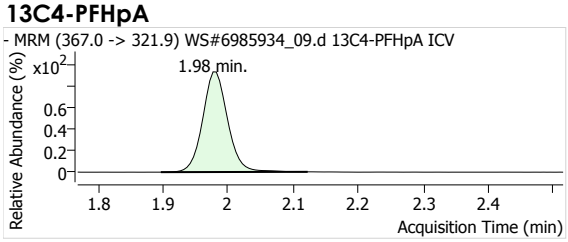

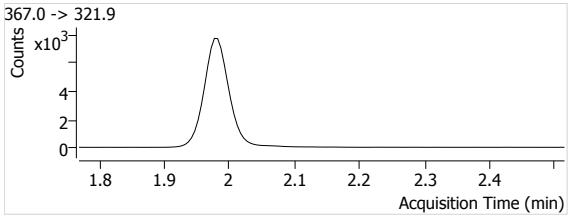

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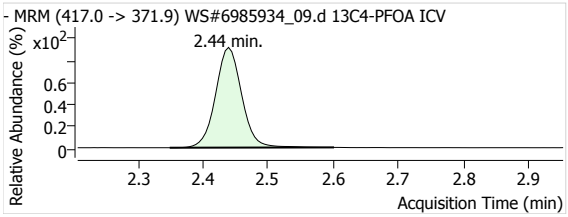
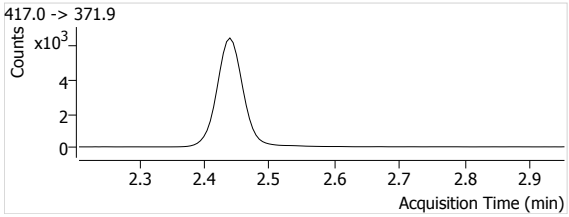
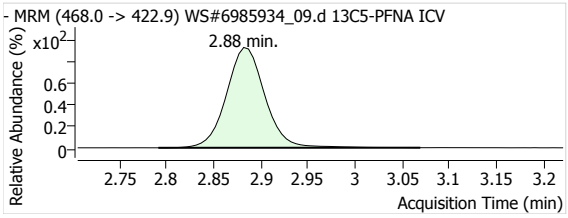
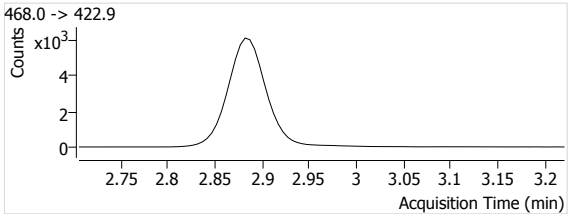


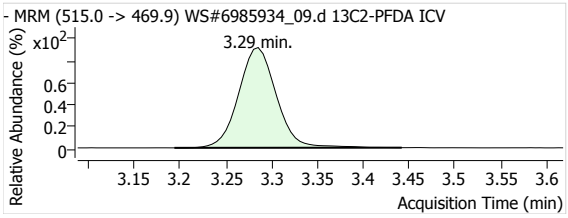


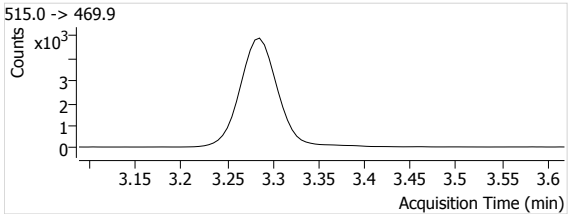
13C5-PFNA



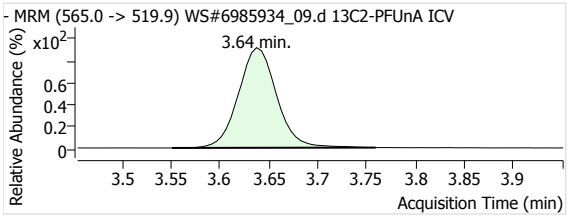


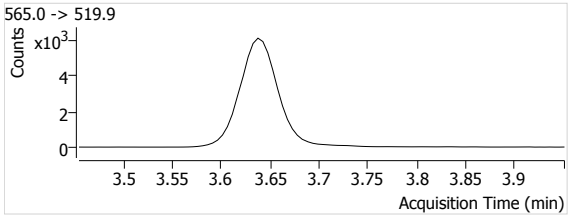
13C2-PFDA



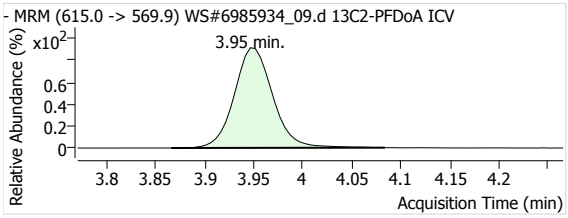


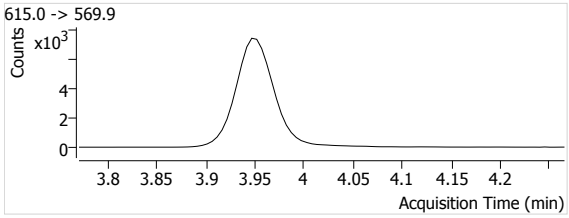
13C2-PFUnA





13C2-PFDoA





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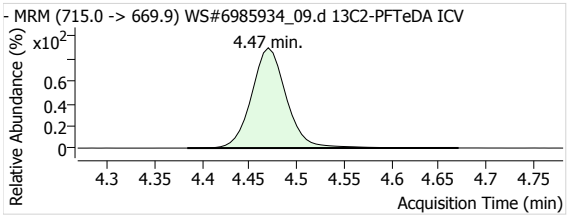
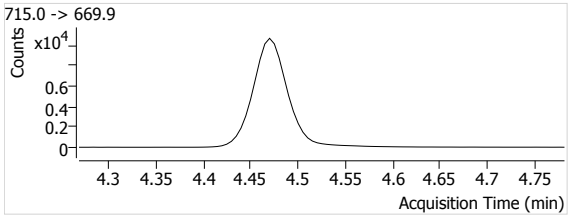
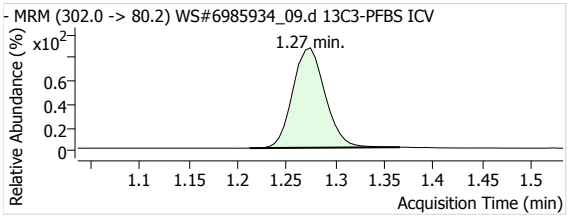
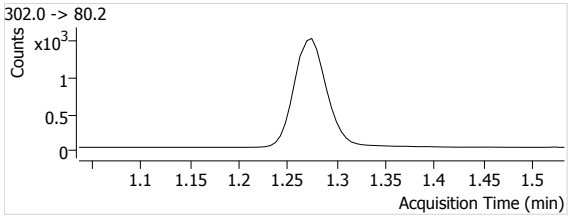


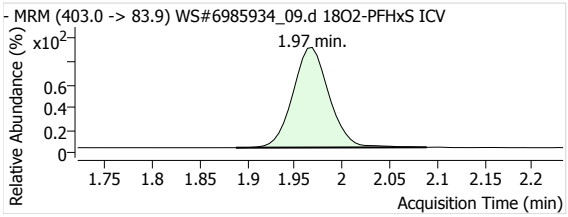


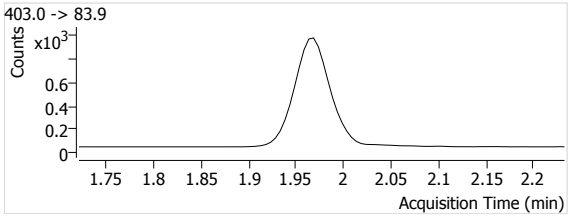
13C3-PFBS



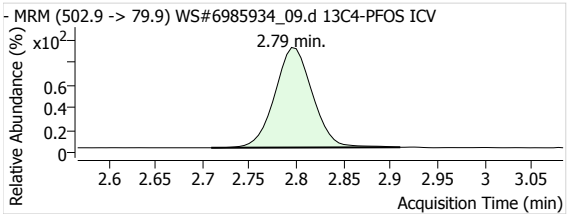


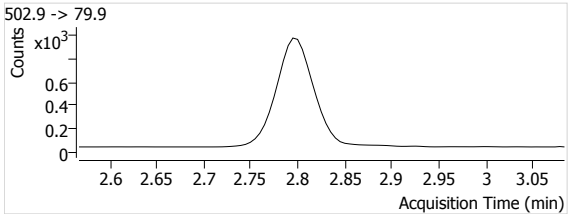
18O2-PFHxS



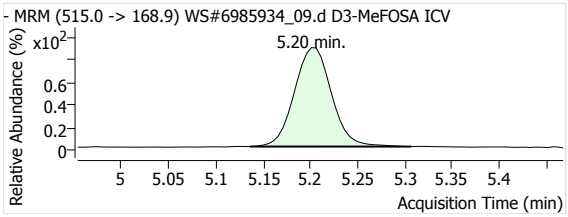


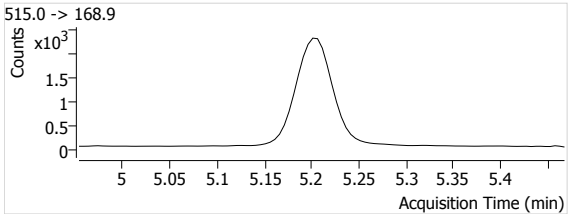
13C4-PFOS



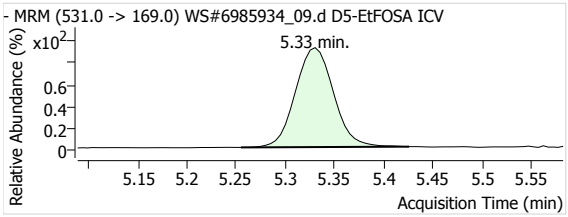


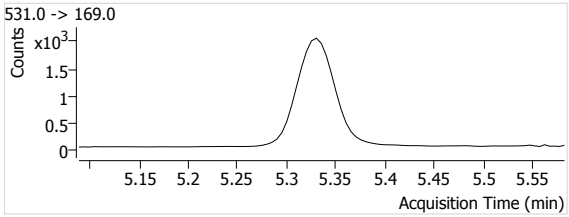
D3-MeFOSA





D5-EtFOSA





By Compound Report

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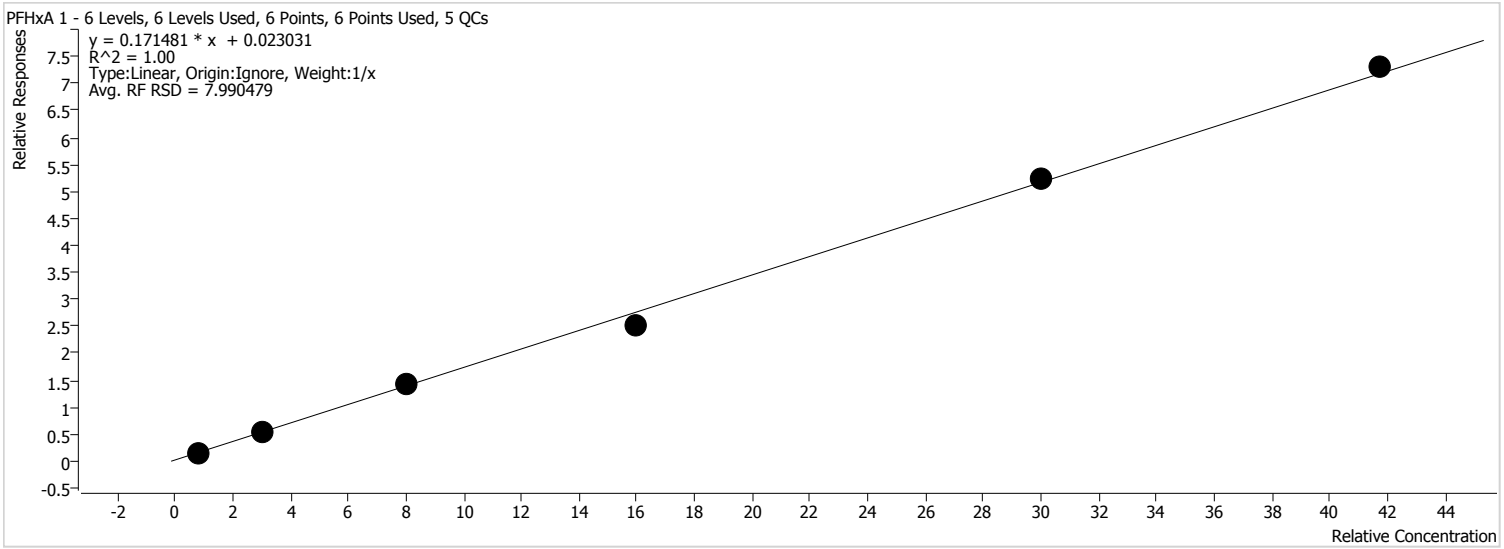
Last Calib Update 2020/10/06 11:33:46 AM
Instrument: LCMS05

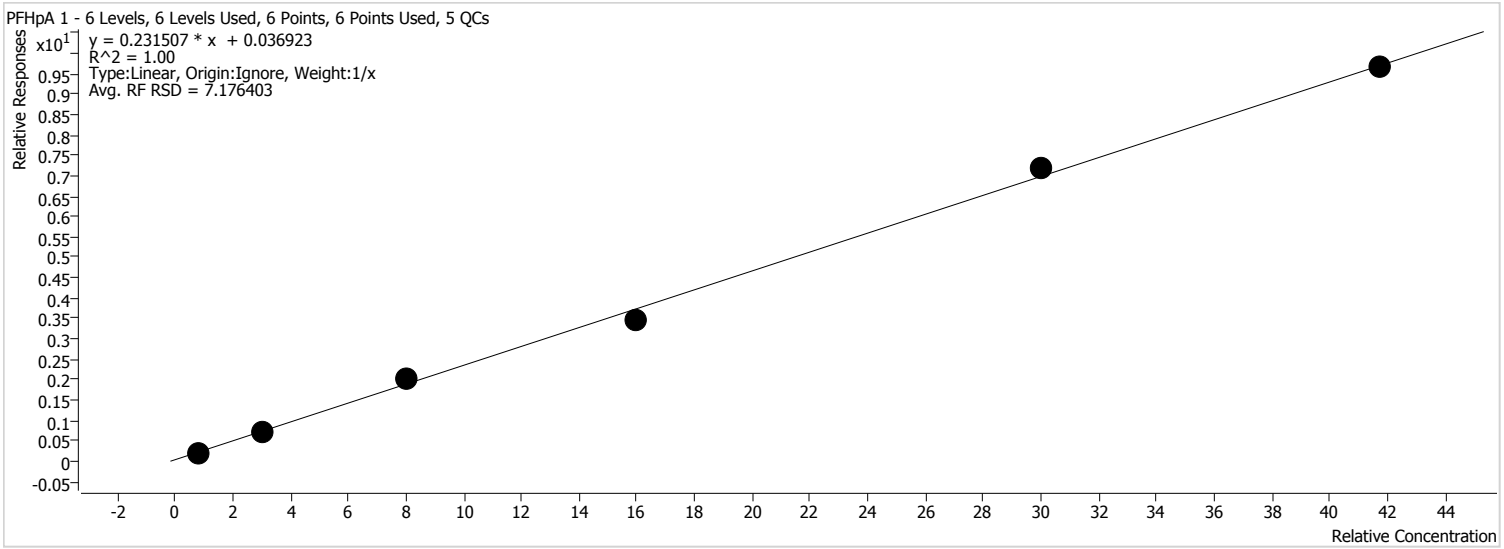
Analyte: PFHxA 1
Internal Standard: 13C2-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 12:50:37 PM	0.83	0.84	2561	0.2008	38	100.9
STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.06	7741	0.1823	228	101.9
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.27	20503	0.1802	488	103.4
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.48	36849	0.1567	559	90.5
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	30.51	74350	0.1752	1372	101.7
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	42.37	98818	0.1748	2073	101.6

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
Last Calib Update 2020/10/06 11:33:46 AM
Instrument: LCMS05

Analyte: PFHpA 1
Internal Standard: 13C4-PFHpA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
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STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.06	9167	0.2485	267	102.0
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.60	24220	0.2534	594	107.5
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.84	43350	0.2170	1321	92.7
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	30.75	88532	0.2385	1824	102.5
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	41.50	118751	0.2313	1690	99.5

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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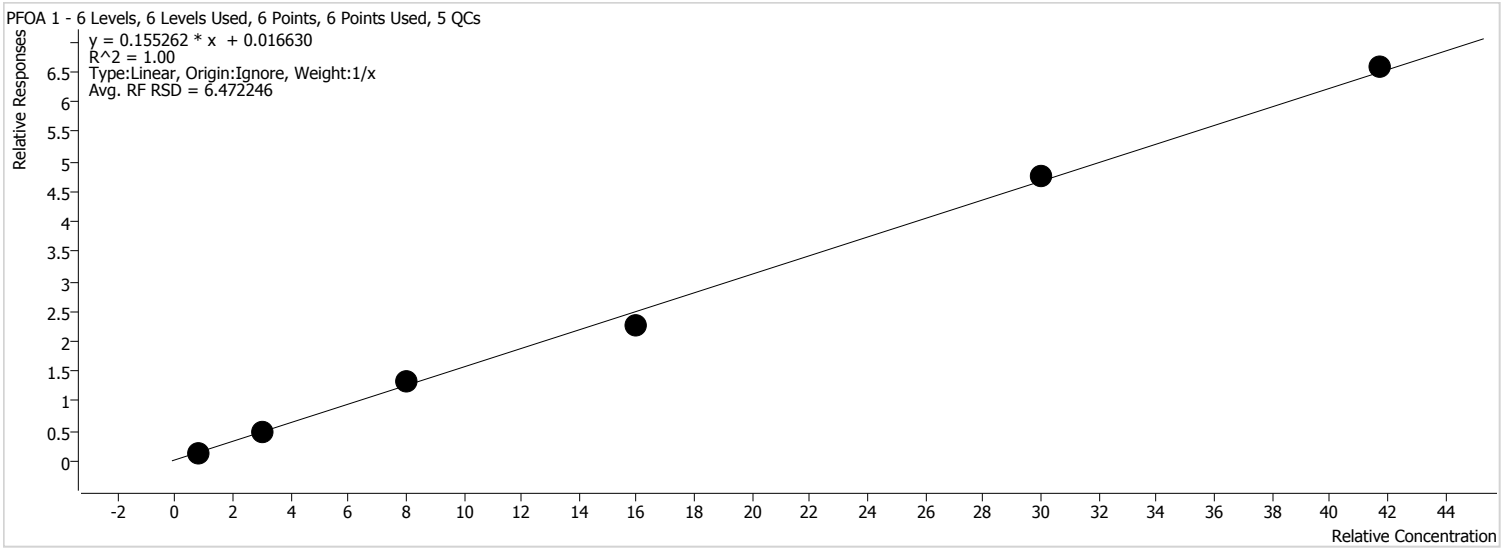
Instrument: LCMS05

Analyte: PFOA 1
Internal Standard: 13C4-PFOA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
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STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.05	6296	0.1635	87	101.7
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.41	17374	0.1654	243	105.2
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.62	31171	0.1429	320	91.4
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	30.42	64896	0.1580	706	101.4
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	42.20	88082	0.1575	783	101.2

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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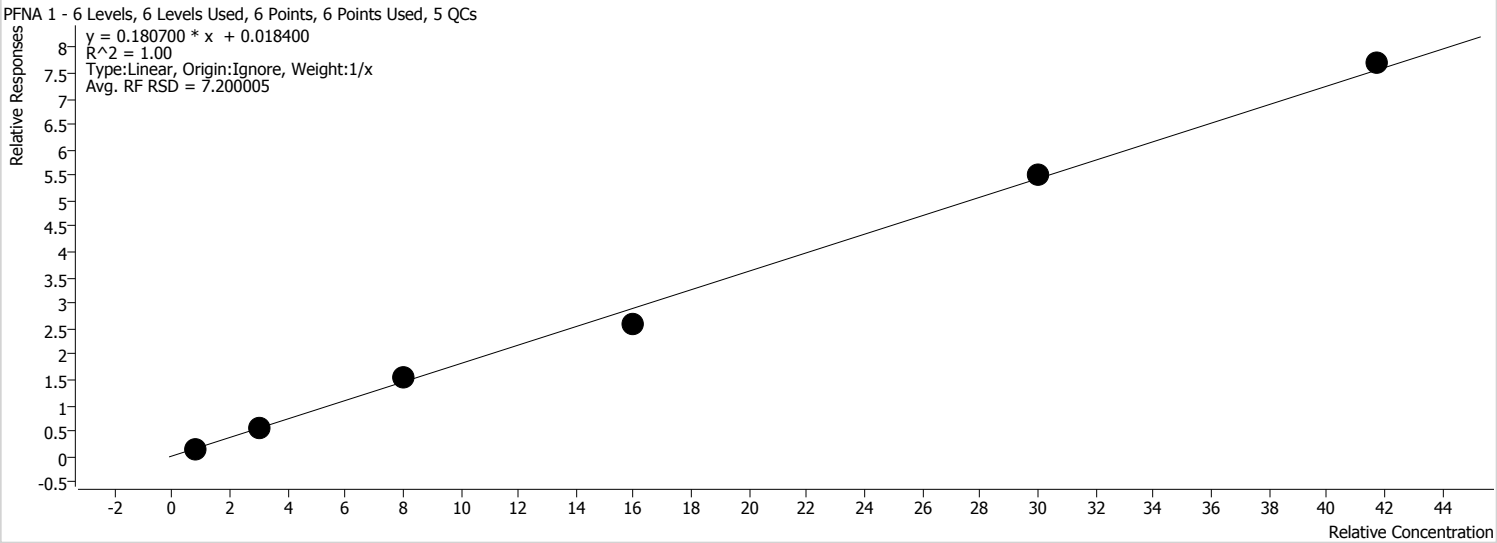
Instrument: LCMS05

Analyte: PFNA 1
Internal Standard: 13C5-PFNA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
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STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.02	5990	0.1882	144	100.8
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.38	16680	0.1916	318	104.7
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.40	29033	0.1638	922	90.0
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	30.47	59845	0.1842	1160	101.6
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	42.41	82089	0.1842	1811	101.7

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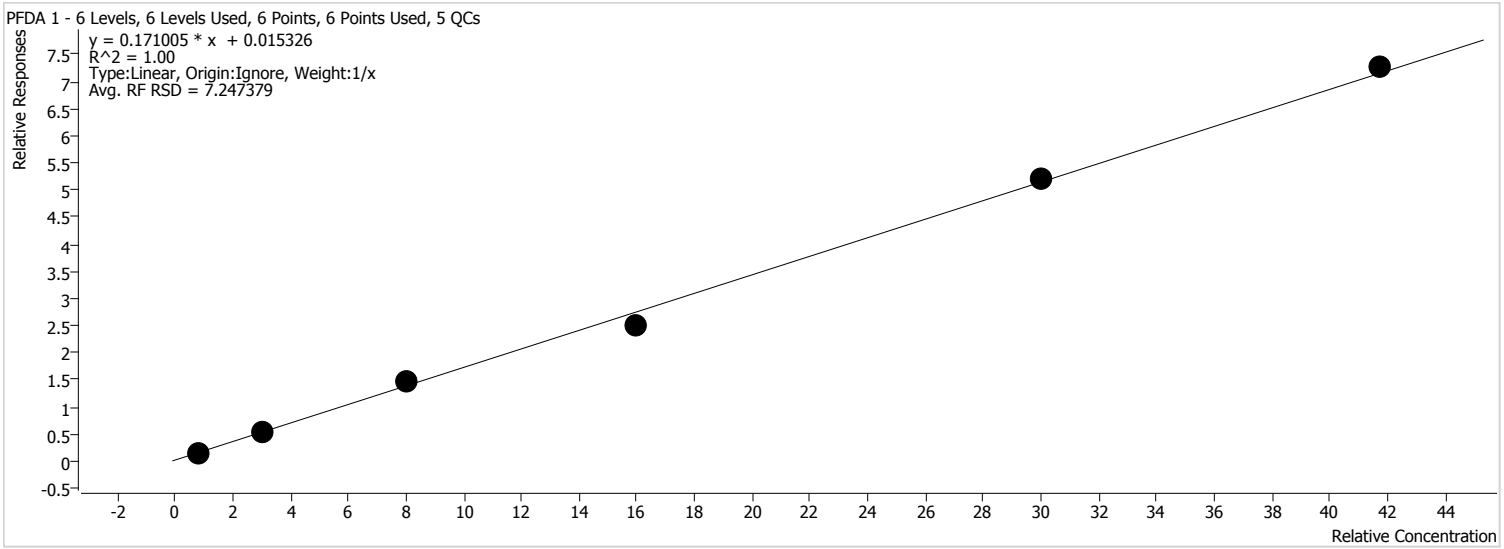
Instrument: LCMS05

Analyte: PFDA 1
Internal Standard: 13C2-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
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STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	2.95	4899	0.1730	121	98.2
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.52	13782	0.1840	454	106.5
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.42	24388	0.1551	558	90.1
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	30.47	50801	0.1742	1715	101.6
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	42.32	68432	0.1739	1616	101.5

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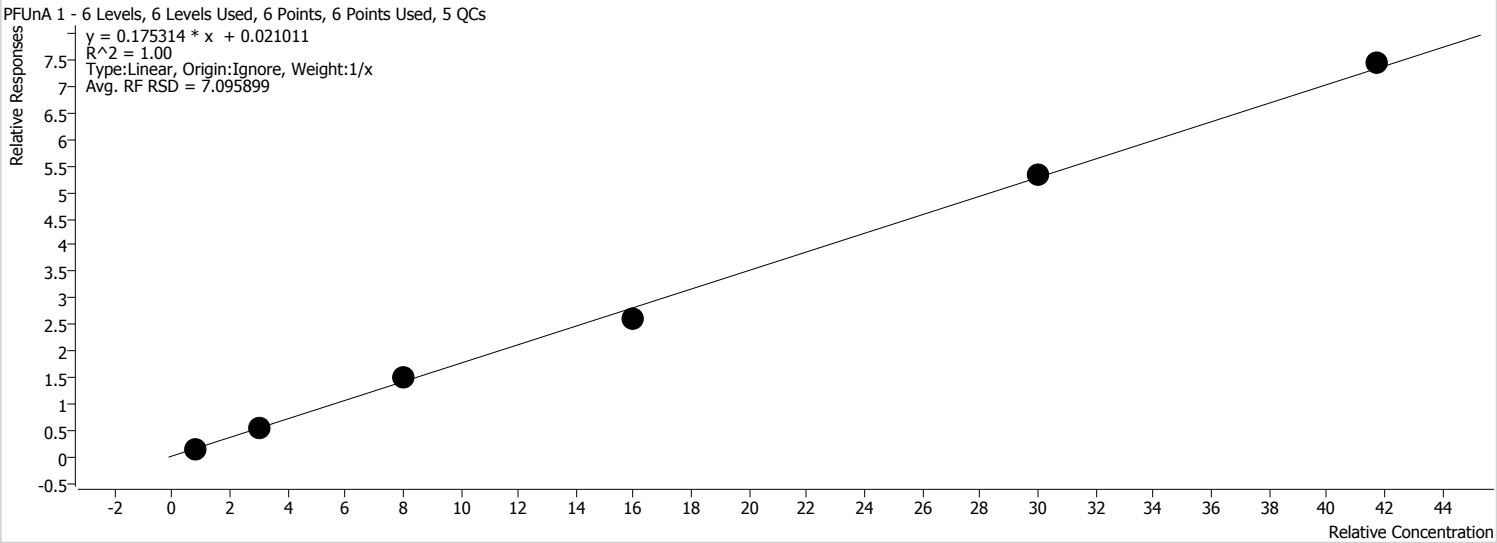
Instrument: LCMS05

Analyte: PFUnA 1
Internal Standard: 13C2-PFUnA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
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STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	2.98	5732	0.1811	134	99.3
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.37	15388	0.1860	280	104.6
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.80	27806	0.1635	536	92.5
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	30.30	55933	0.1778	754	101.0
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	42.24	75305	0.1781	1157	101.3

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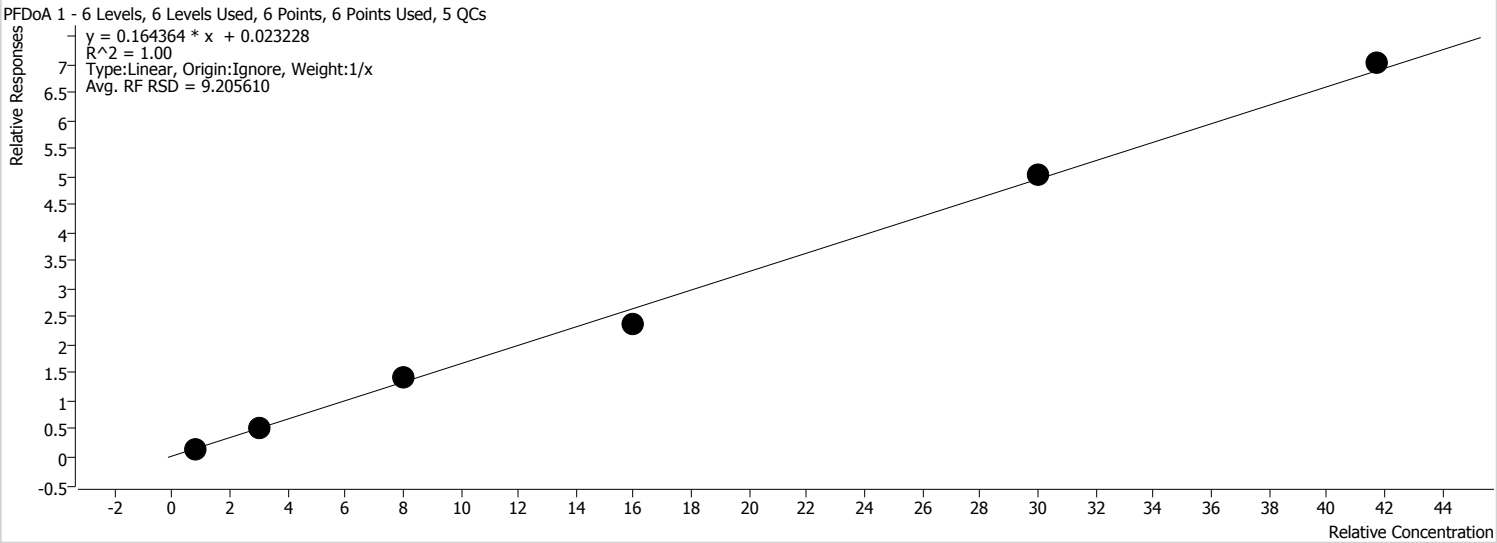
Analyte: PFDoA 1
Internal Standard: 13C2-PFDoA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
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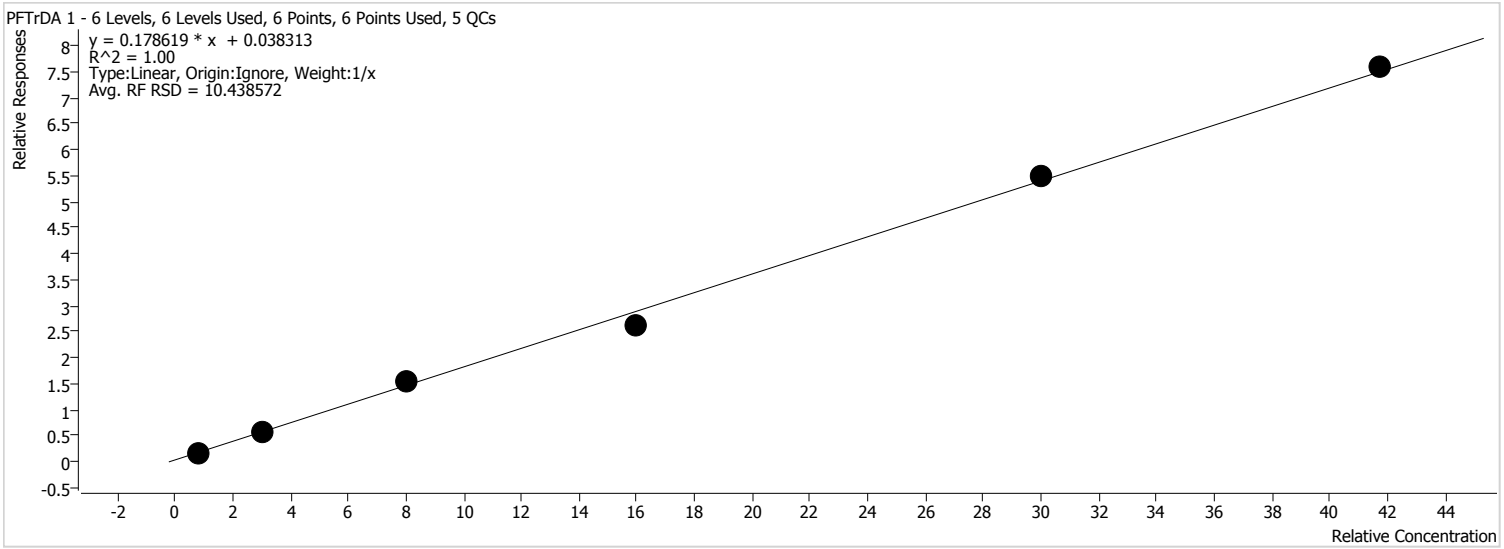
STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.00	5531	0.1720	127	99.9
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.40	15074	0.1755	208	105.0
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.20	25973	0.1473	480	88.7
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	30.60	54174	0.1684	1058	102.0
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	42.49	73587	0.1680	1620	101.9

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
Last Calib Update 2020/10/06 11:33:46 AM
Instrument: LCMS05

Analyte: PFTrDA 1
Internal Standard: 13C2-PFTeDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 12:50:37 PM	0.83	0.83	1713	0.2245	49	99.8
STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.03	5041	0.1930	104	100.9
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.44	13334	0.1932	250	105.5
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.54	23736	0.1648	603	90.9
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	30.53	49383	0.1831	1047	101.8
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	42.16	66304	0.1815	1149	101.1

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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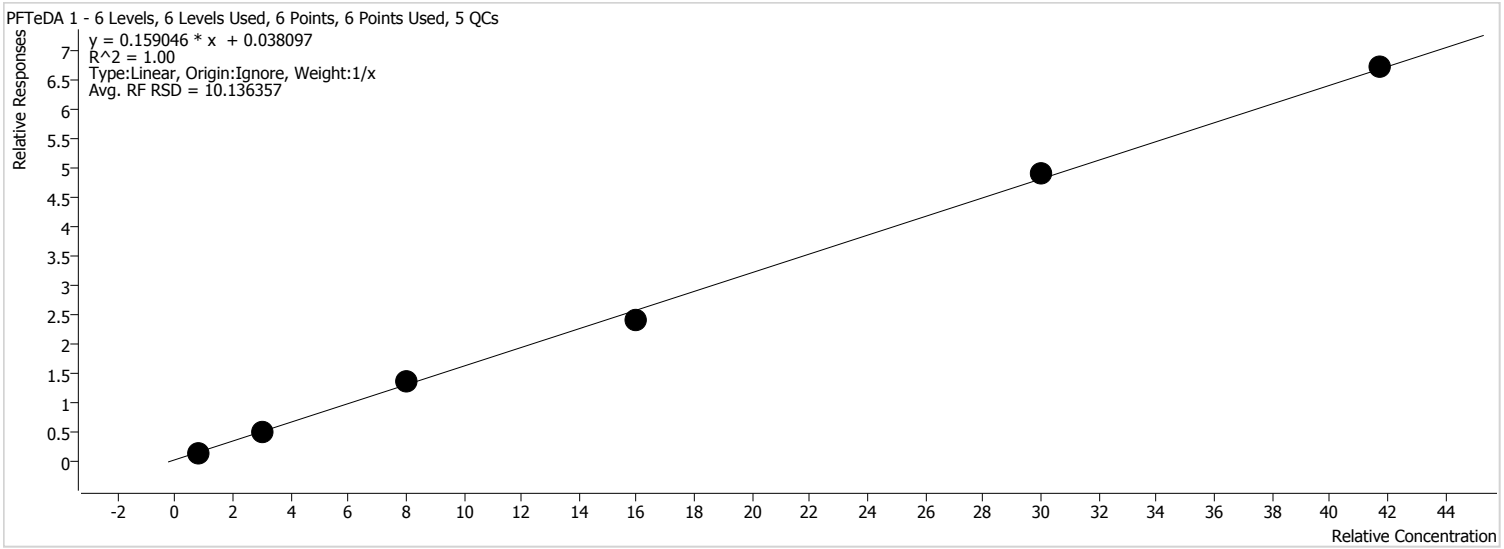
Instrument: LCMS05

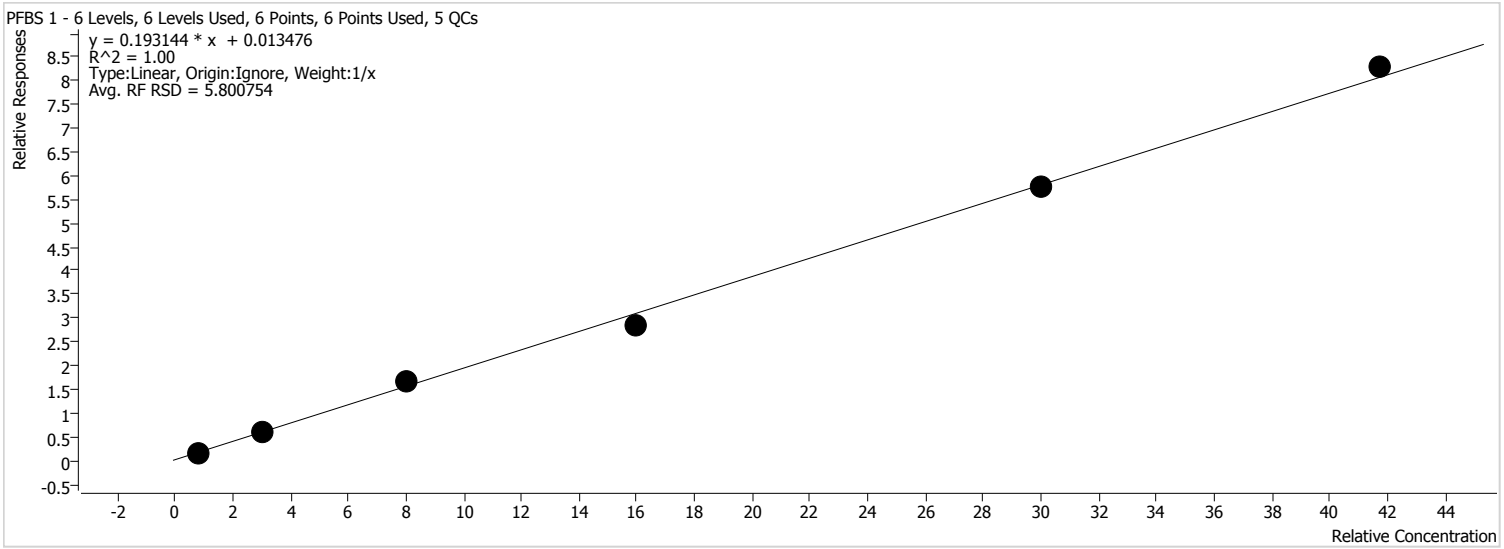
Analyte: PFTeDA 1
Internal Standard: 13C2-PFTeDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 12:50:37 PM	0.83	0.80	1527	0.2001	48	97.0
STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.08	4591	0.1758	95	102.5
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.46	11935	0.1729	392	105.7
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.84	21598	0.1499	379	92.8
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	30.48	43937	0.1629	1246	101.6
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	41.87	58664	0.1606	1135	100.4

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
Last Calib Update 2020/10/06 11:33:46 AM
Instrument: LCMS05

Analyte: PFBS 1
Internal Standard: 13C3-PFBS IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 12:50:37 PM	0.83	0.82	870	0.2060	103	98.3
STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.10	3013	0.2043	170	103.5
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.42	8017	0.2051	643	105.3
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.52	14243	0.1761	807	90.8
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	29.90	28973	0.1929	1424	99.7
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	42.77	39385	0.1984	2928	102.6

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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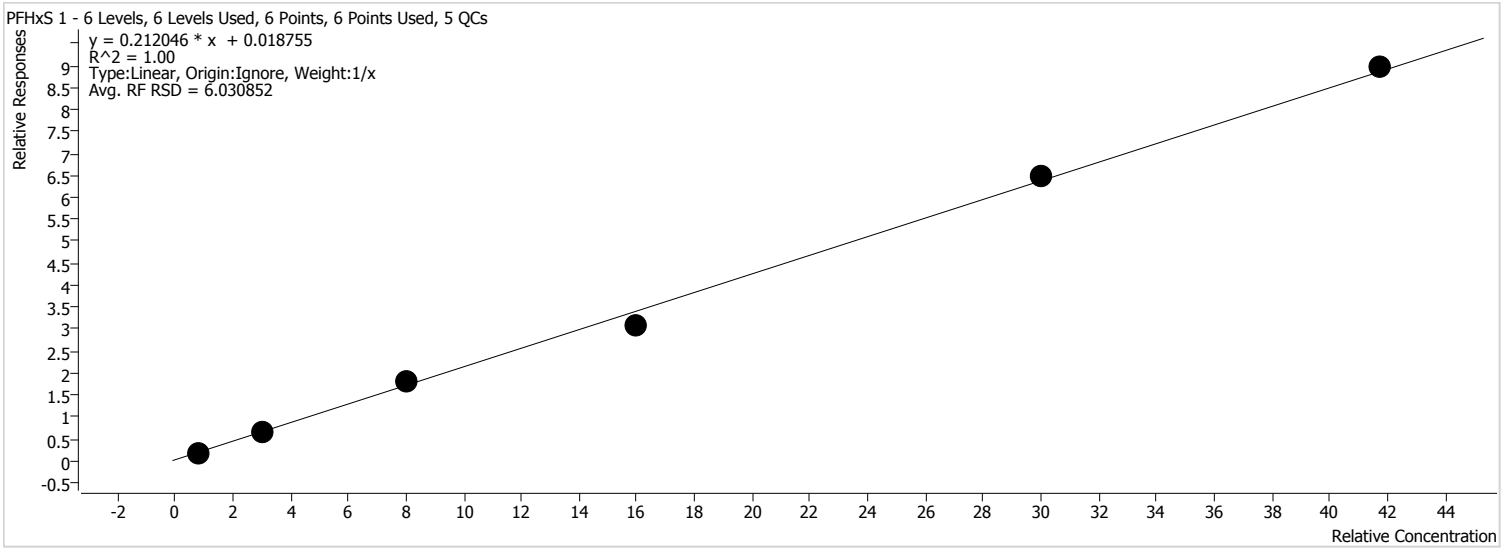
Instrument: LCMS05

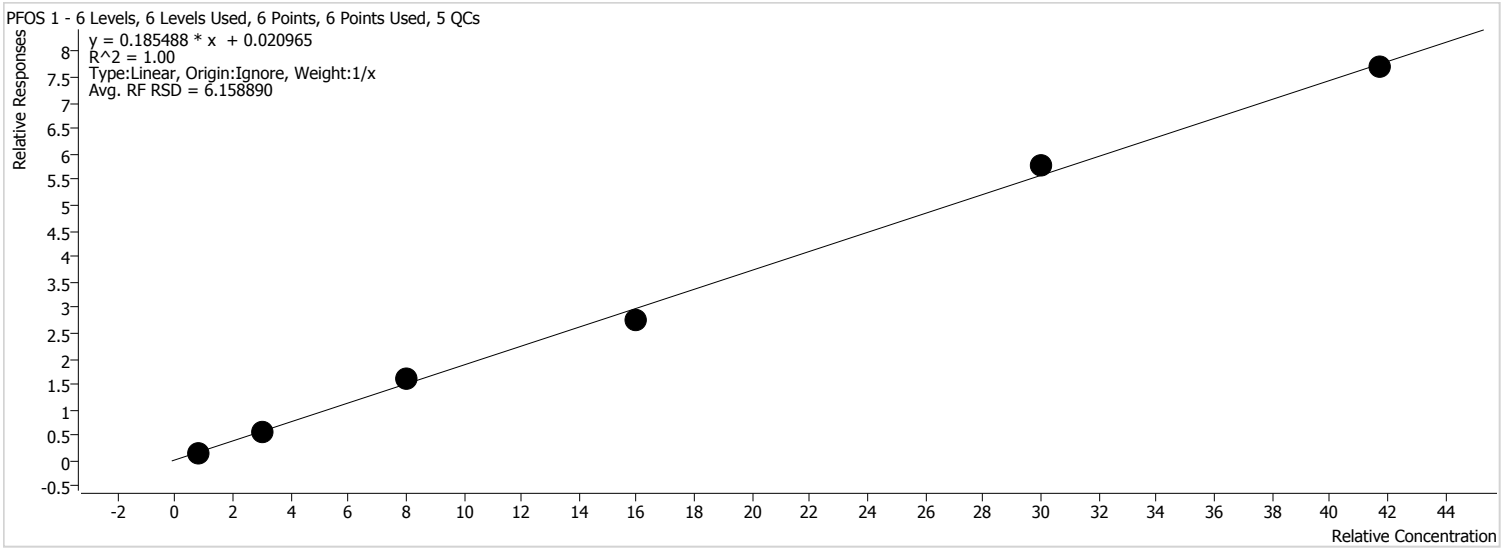
Analyte: PFHxS 1
Internal Standard: 18O2-PFHxS IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 12:50:37 PM	0.83	0.81	480	0.2304	71	98.0
STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.12	1637	0.2265	82	103.9
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.35	4368	0.2236	324	104.3
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.52	7876	0.1937	213	90.8
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	30.58	16234	0.2168	285	101.9
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	42.15	22147	0.2148	262	101.1

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
Last Calib Update 2020/10/06 11:33:46 AM
Instrument: LCMS05

Analyte: PFOS 1
Internal Standard: 13C4-PFOS IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 12:50:37 PM	0.83	0.81	463	0.2058	57	97.3
STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.04	1548	0.1949	108	101.3
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.51	4178	0.1999	154	106.3
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.77	7378	0.1726	197	92.3
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	31.07	15130	0.1928	315	103.6
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	41.33	20396	0.1844	272	99.1

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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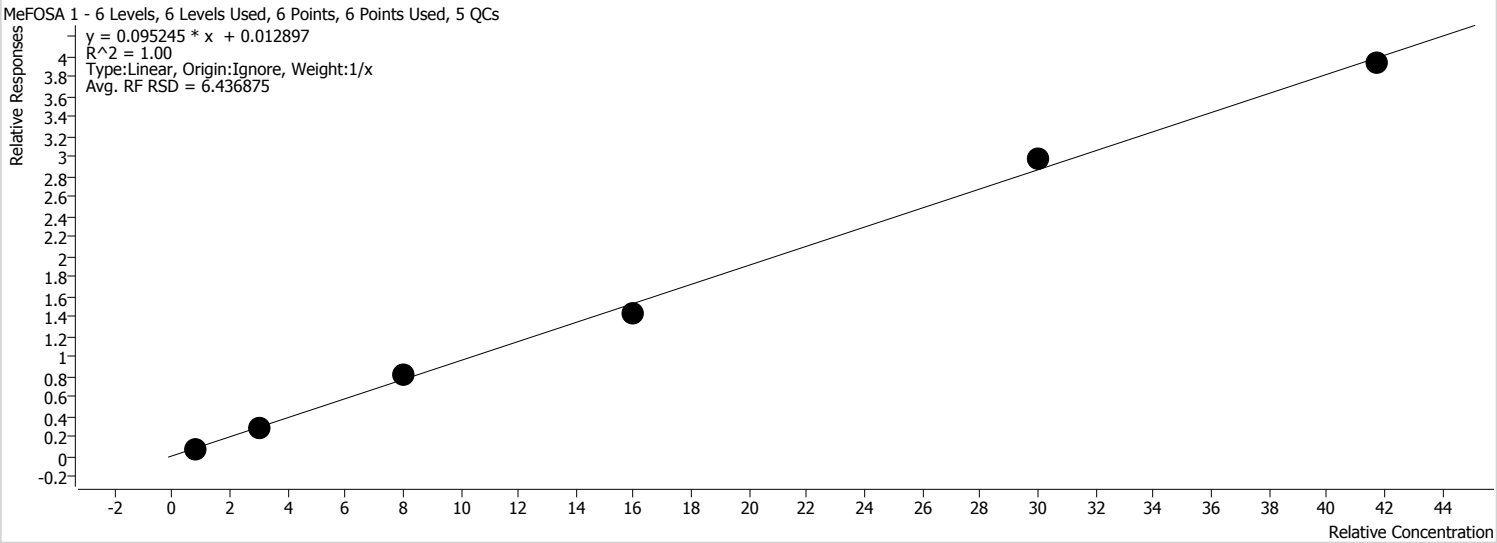
Instrument: LCMS05

Analyte: MeFOSA 1
Internal Standard: D3-MeFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 12:50:37 PM	0.83	0.81	329	0.1080	39	97.1
STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.06	1049	0.1013	114	101.8
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.41	2812	0.1017	111	105.1
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.93	5051	0.0897	109	93.3
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	31.22	10468	0.0996	582	104.1
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	41.11	14137	0.0942	774	98.6

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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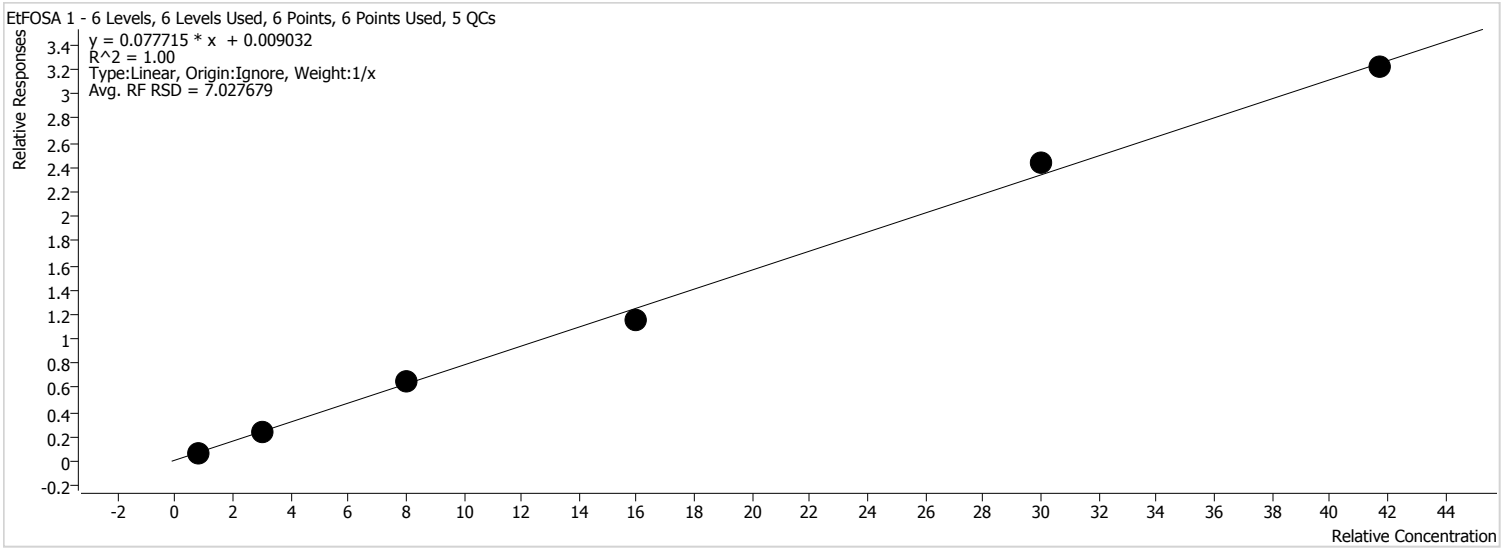
Instrument: LCMS05

Analyte: EtFOSA 1
Internal Standard: D5-EtFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 12:50:37 PM	0.83	0.83	312	0.0888	11	100.2
STD 2	STD 2	x	2020/10/05 12:57:37 PM	3.00	3.00	1010	0.0807	60	99.9
STD 3	STD 3	x	2020/10/05 1:04:39 PM	8.00	8.36	2717	0.0823	84	104.5
STD 4	STD 4	x	2020/10/05 1:11:39 PM	16.00	14.68	4803	0.0718	178	91.7
STD 5	STD 5	x	2020/10/05 1:18:38 PM	30.00	31.41	10199	0.0817	248	104.7
STD 6	STD 6	x	2020/10/05 1:25:37 PM	41.70	41.26	13305	0.0771	212	98.9

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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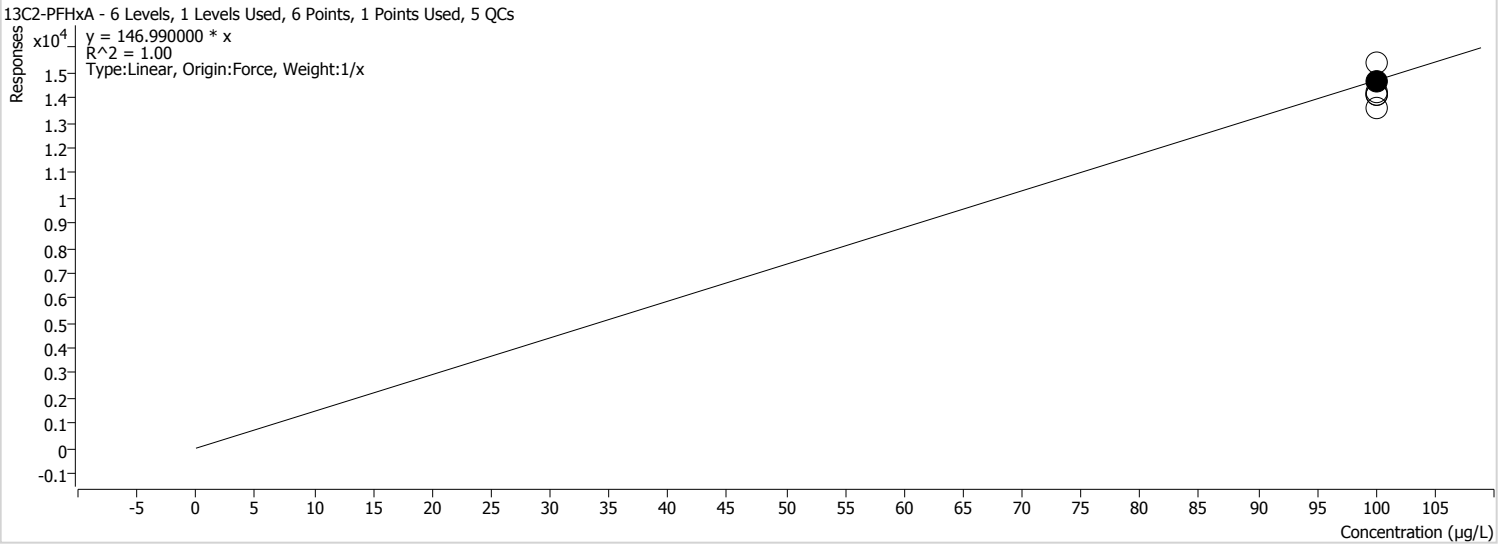
Instrument: LCMS05

Analyte: 13C2-PFHxA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	104.54	15367	153.6700	1150	104.5
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	96.27	14151	141.5100	2010	96.3
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	96.77	14224	142.2400	1243	96.8
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	14699	146.9900	801	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	96.25	14148	141.4800	1184	96.3
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	92.24	13558	135.5800	1132	92.2

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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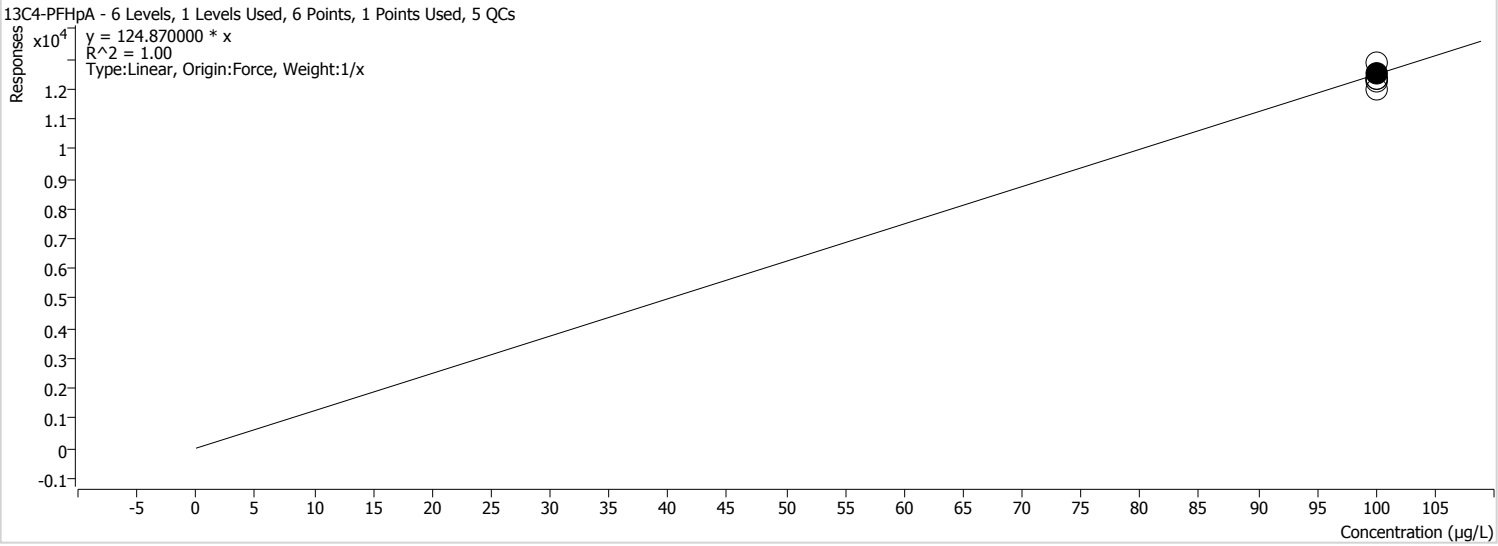
Instrument: LCMS05

Analyte: 13C4-PFHpA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	102.87	12845	128.4500	1137	102.9
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	98.49	12298	122.9800	1222	98.5
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	95.68	11948	119.4800	1057	95.7
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	12487	124.8700	960	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	99.10	12374	123.7400	1040	99.1
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	98.61	12314	123.1400	1105	98.6

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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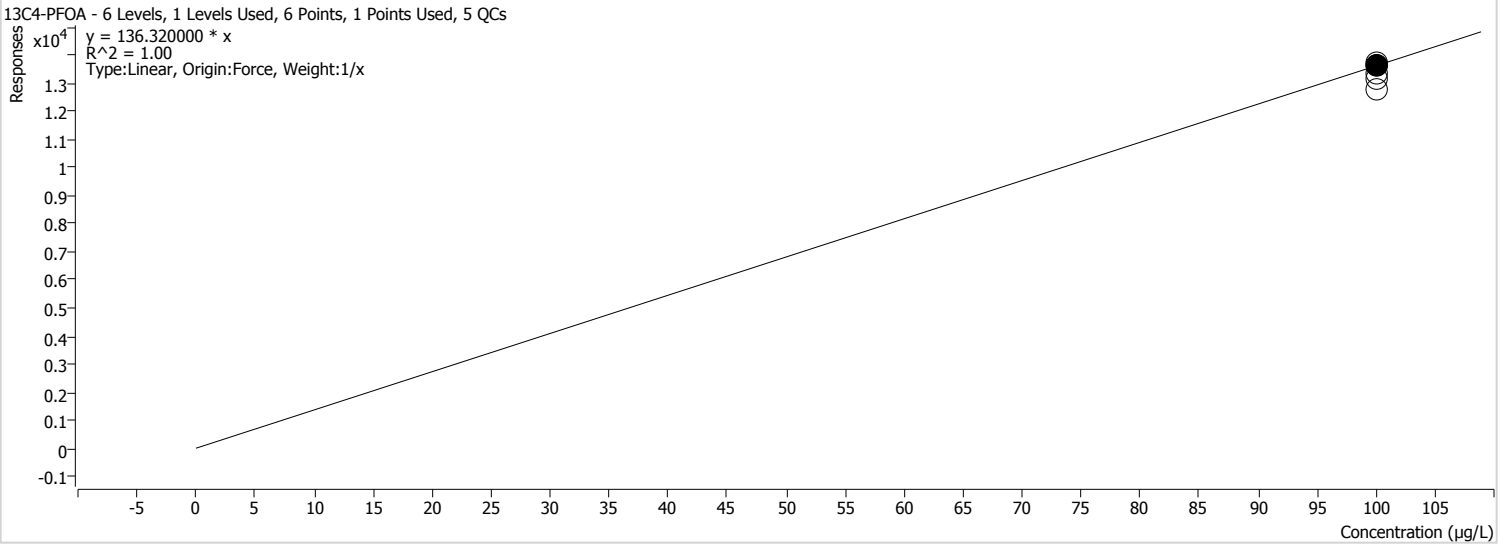
Instrument: LCMS05

Analyte: 13C4-PFOA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	100.54	13706	137.0600	1733	100.5
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	94.18	12838	128.3800	1210	94.2
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	96.35	13134	131.3400	1387	96.3
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	13632	136.3200	1450	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	100.45	13693	136.9300	880	100.4
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	98.36	13408	134.0800	1317	98.4

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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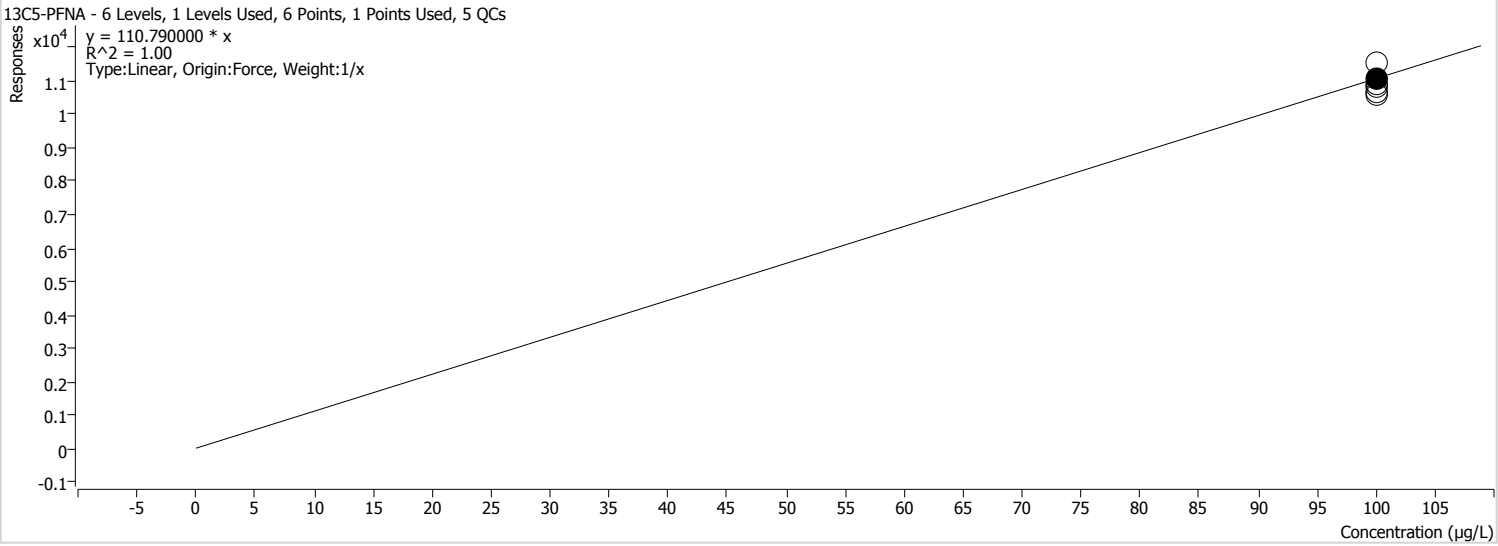
Analyte: 13C5-PFNA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	104.01	11523	115.2300	1317	104.0
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	95.76	10609	106.0900	1176	95.8
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	98.23	10883	108.8300	571	98.2
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	11079	110.7900	671	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	97.77	10832	108.3200	596	97.8
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	96.44	10685	106.8500	1043	96.4

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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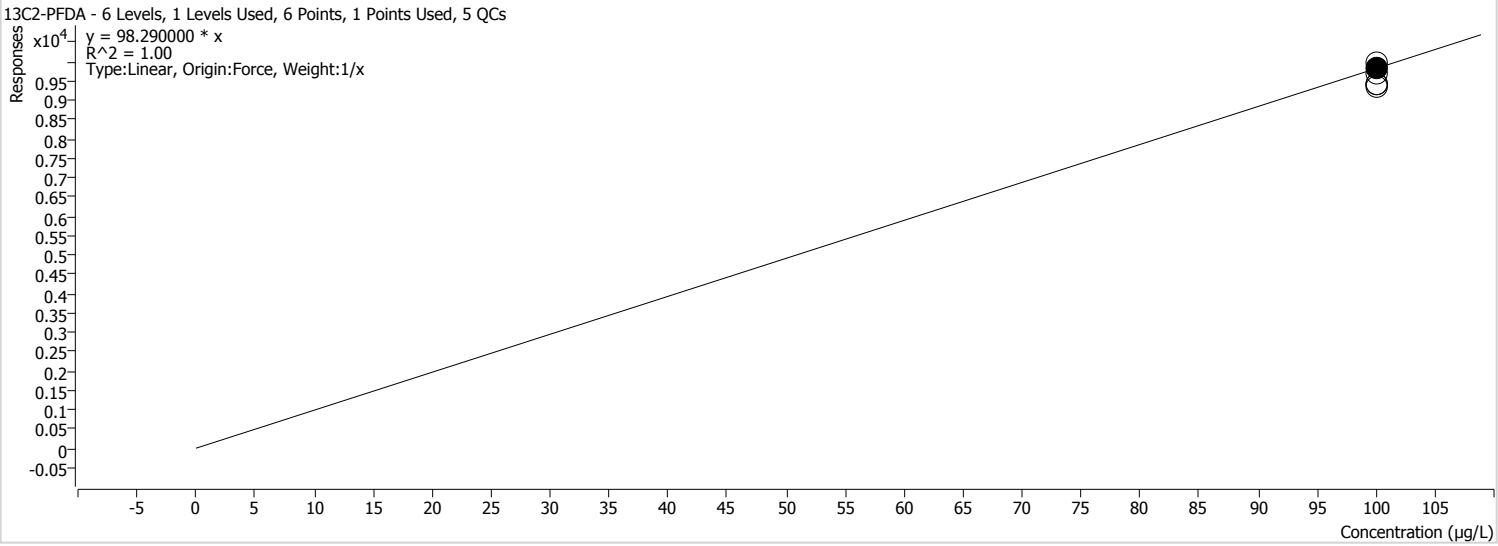
Instrument: LCMS05

Analyte: 13C2-PFDA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	101.25	9952	99.5200	572	101.3
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	96.02	9438	94.3800	589	96.0
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	95.25	9362	93.6200	976	95.2
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	9829	98.2900	528	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	98.89	9720	97.2000	1010	98.9
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	95.99	9435	94.3500	1180	96.0

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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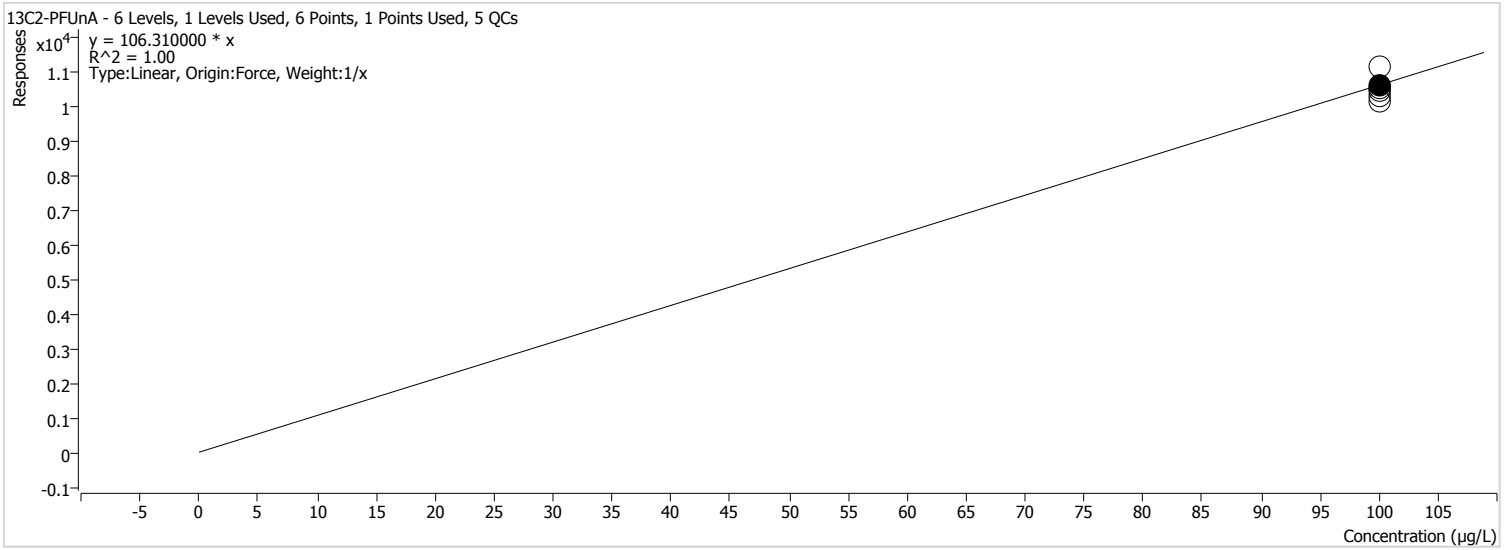
Analyte: 13C2-PFUnA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	104.72	11133	111.3300	664	104.7
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	99.27	10553	105.5300	631	99.3
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	97.25	10339	103.3900	822	97.3
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	10631	106.3100	523	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	98.65	10488	104.8800	793	98.7
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	95.38	10140	101.4000	614	95.4

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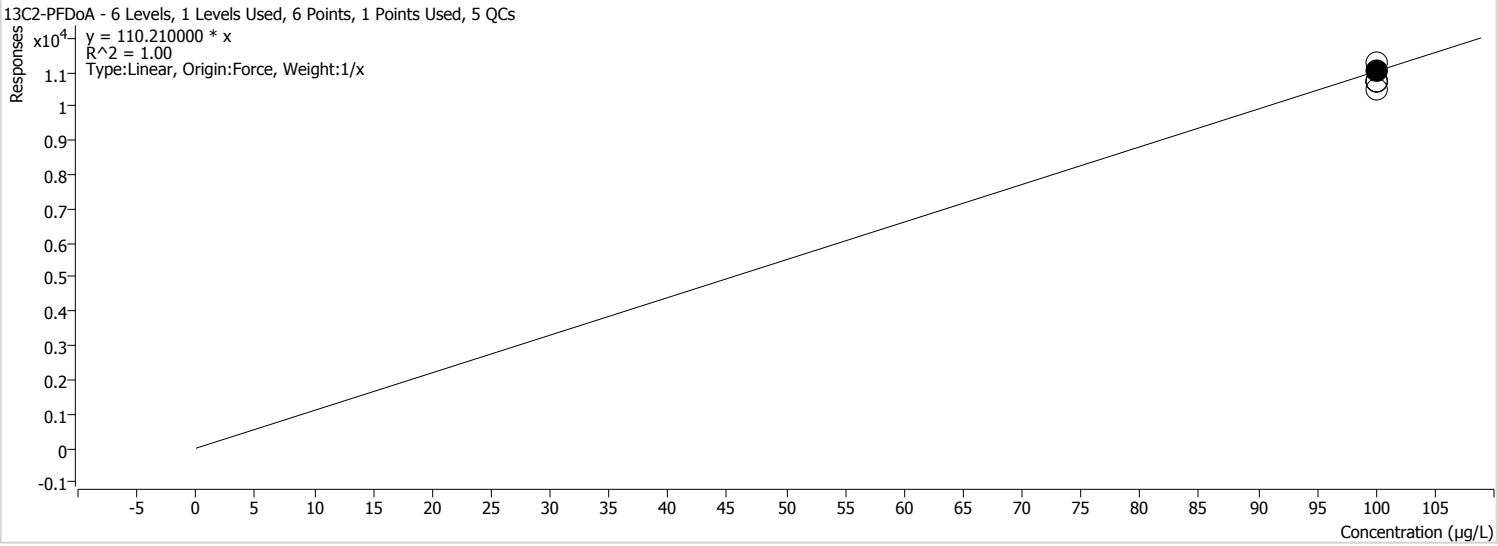
Analyte: 13C2-PFDoA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	102.03	11245	112.4500	898	102.0
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	97.25	10718	107.1800	687	97.3
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	97.44	10739	107.3900	537	97.4
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	11021	110.2100	516	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	97.30	10723	107.2300	375	97.3
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	95.29	10502	105.0200	623	95.3

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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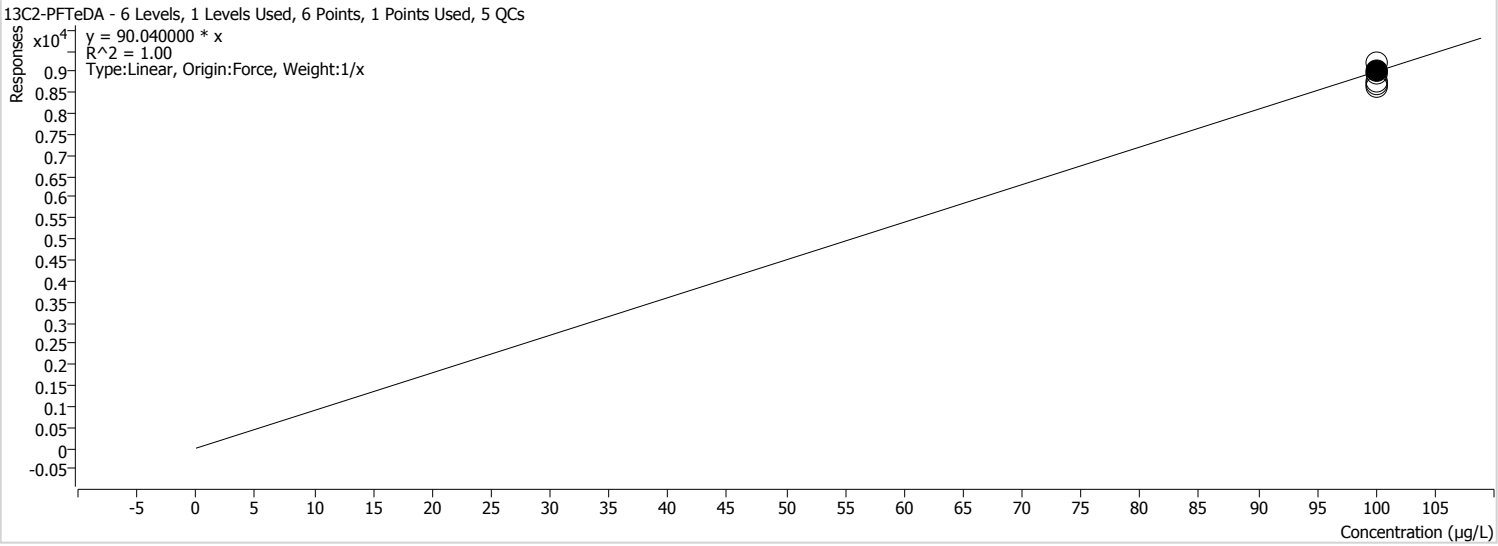
Instrument: LCMS05

Analyte: 13C2-PFTeDA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	102.10	9193	91.9300	1037	102.1
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	96.69	8706	87.0600	374	96.7
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	95.82	8628	86.2800	826	95.8
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	9004	90.0400	834	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	99.87	8992	89.9200	994	99.9
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	97.29	8760	87.6000	726	97.3

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
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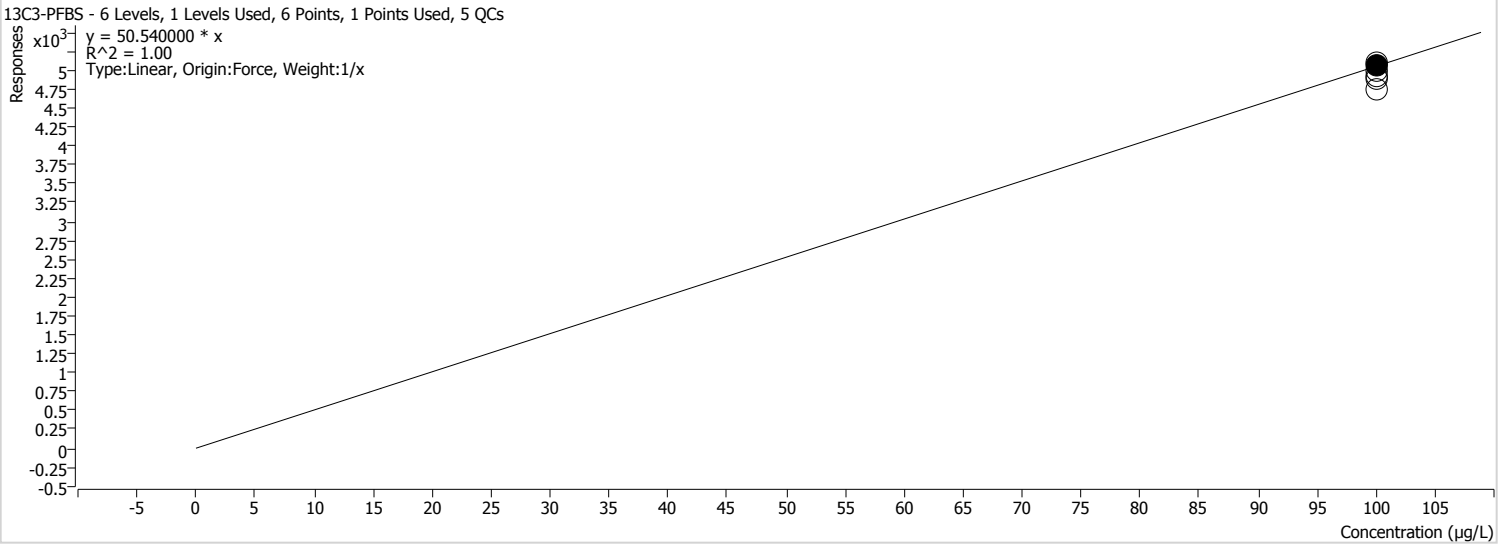
Instrument: LCMS05

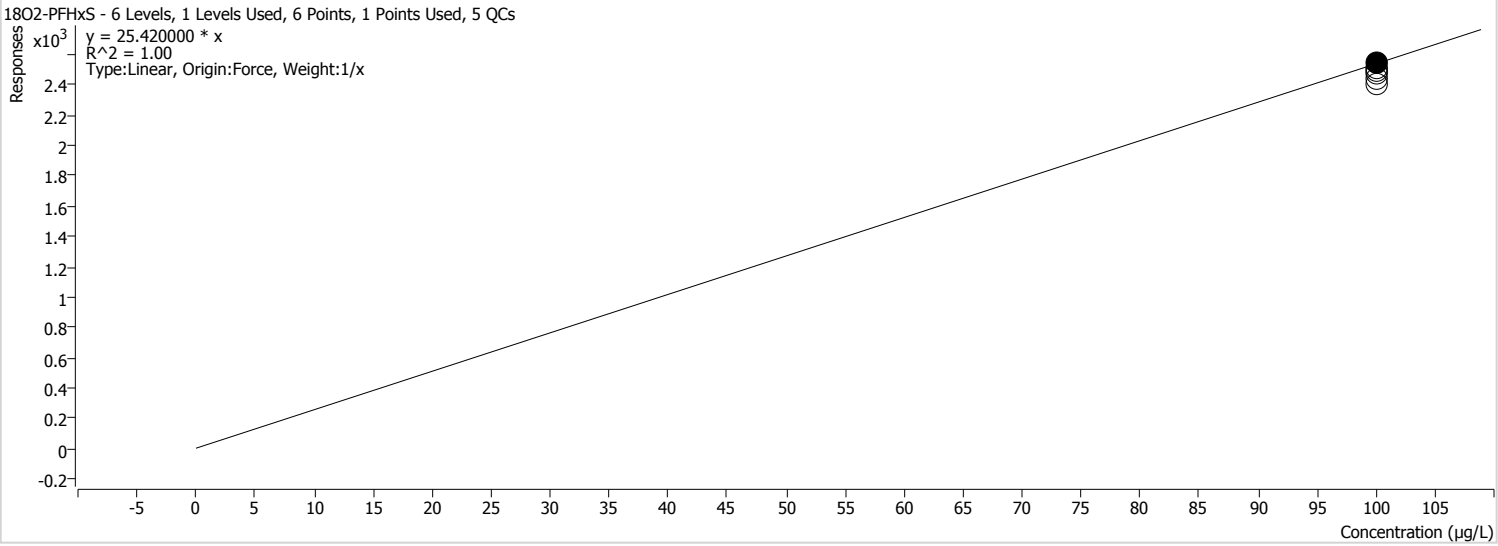
Analyte: 13C3-PFBS
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	100.67	5088	50.8800	935	100.7
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	97.25	4915	49.1500	602	97.2
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	96.70	4887	48.8700	721	96.7
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	5054	50.5400	1077	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	99.05	5006	50.0600	516	99.1
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	94.18	4760	47.6000	1125	94.2

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
Last Calib Update 2020/10/06 11:33:46 AM
Instrument: LCMS05

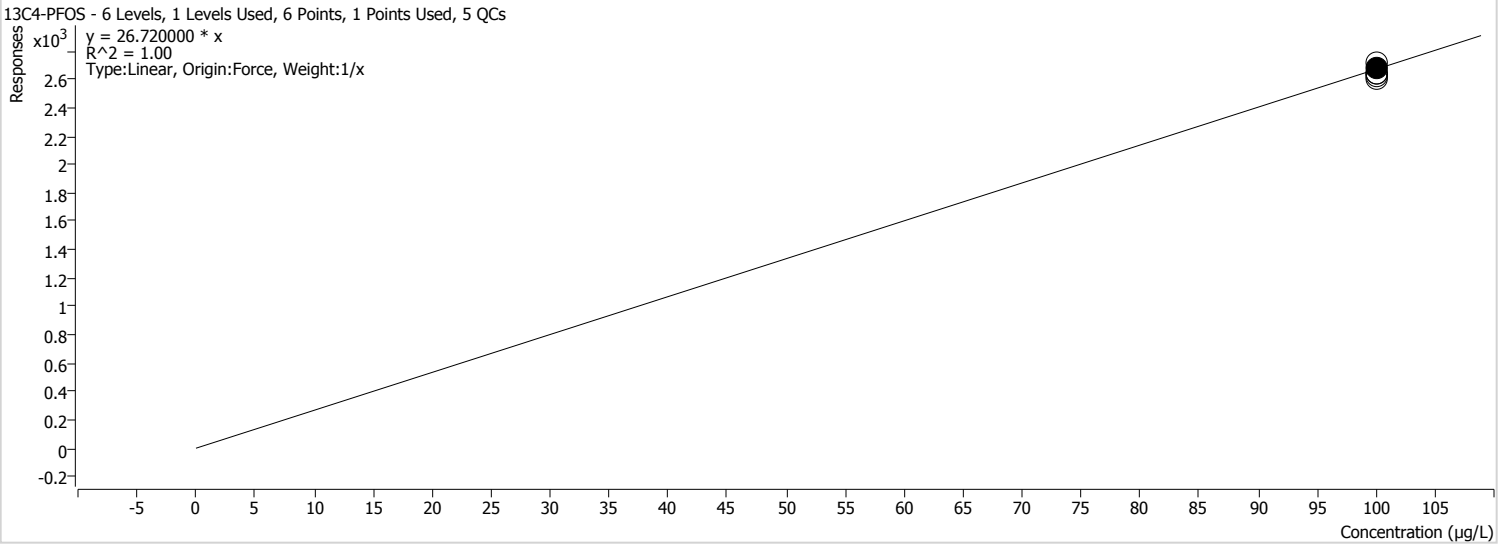
Analyte: 18O2-PFHxS
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	98.82	2512	25.1200	1122	98.8
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	94.77	2409	24.0900	610	94.8
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	96.07	2442	24.4200	553	96.1
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	2542	25.4200	583	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	98.19	2496	24.9600	446	98.2
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	97.29	2473	24.7300	649	97.3

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
Last Calib Update 2020/10/06 11:33:46 AM
Instrument: LCMS05

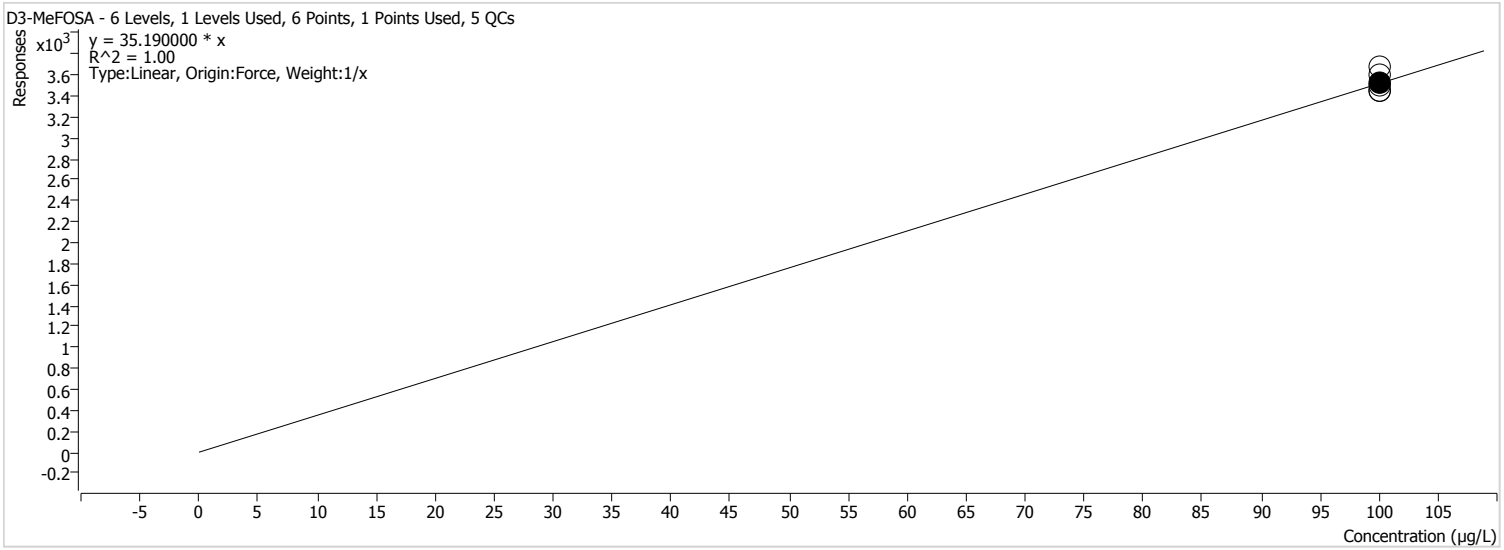
Analyte: 13C4-PFOS
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	101.46	2711	27.1100	481	101.5
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	99.06	2647	26.4700	368	99.1
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	97.79	2613	26.1300	802	97.8
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	2672	26.7200	692	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	97.90	2616	26.1600	273	97.9
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	99.29	2653	26.5300	240	99.3

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
Last Calib Update 2020/10/06 11:33:46 AM
Instrument: LCMS05

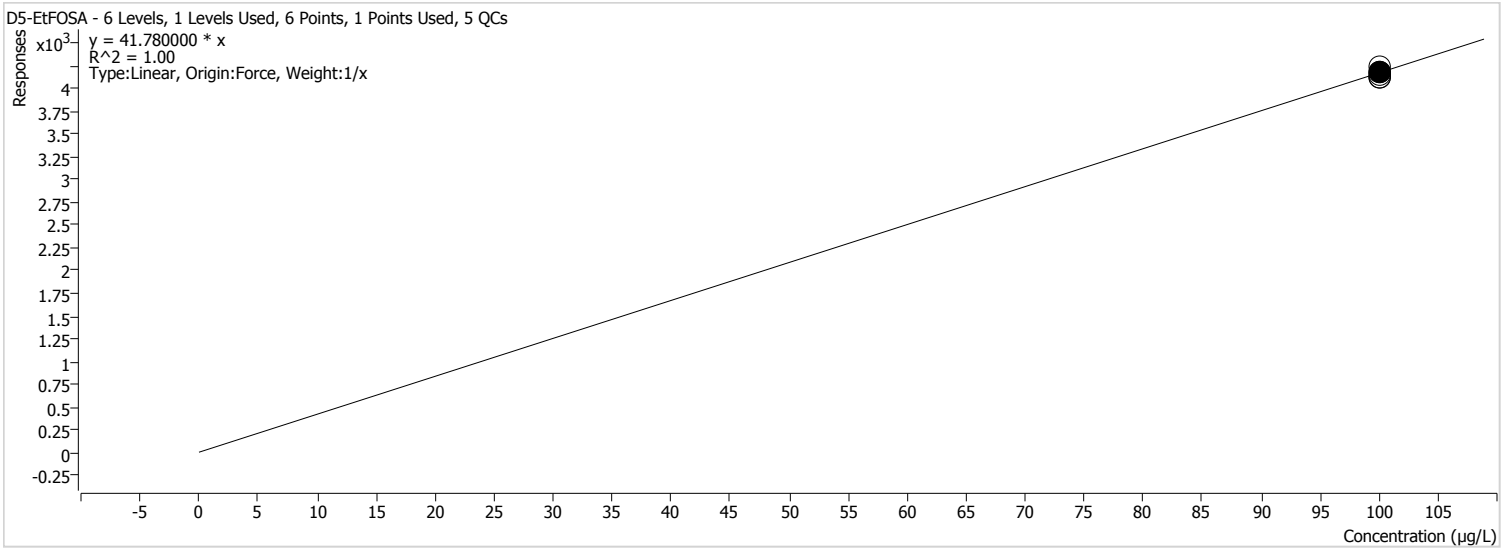
Analyte: D3-MeFOSA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	104.29	3670	36.7000	184	104.3
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	98.10	3452	34.5200	97	98.1
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	98.21	3456	34.5600	103	98.2
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	3519	35.1900	168	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	99.60	3505	35.0500	134	99.6
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	102.27	3599	35.9900	150	102.3

Batch Path T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin
Last Calib Update 2020/10/06 11:33:46 AM
Instrument: LCMS05

Analyte: D5-EtFOSA
Internal Standard:

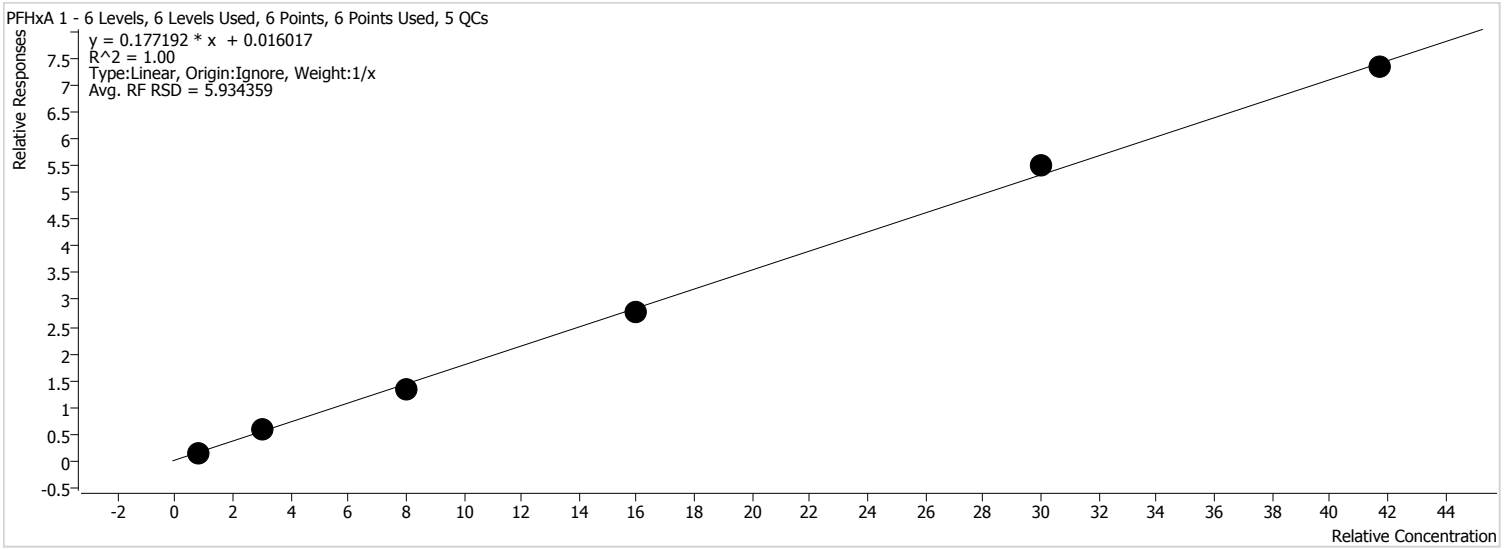


Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 12:50:37 PM	100.00	101.34	4234	42.3400	82	101.3
STD 2	STD 2		2020/10/05 12:57:37 PM	100.00	99.90	4174	41.7400	96	99.9
STD 3	STD 3		2020/10/05 1:04:39 PM	100.00	98.73	4125	41.2500	69	98.7
STD 4	STD 4	x	2020/10/05 1:11:39 PM	100.00	100.00	4178	41.7800	111	100.0
STD 5	STD 5		2020/10/05 1:18:38 PM	100.00	99.64	4163	41.6300	114	99.6
STD 6	STD 6		2020/10/05 1:25:37 PM	100.00	99.04	4138	41.3800	109	99.0

By Compound Report

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

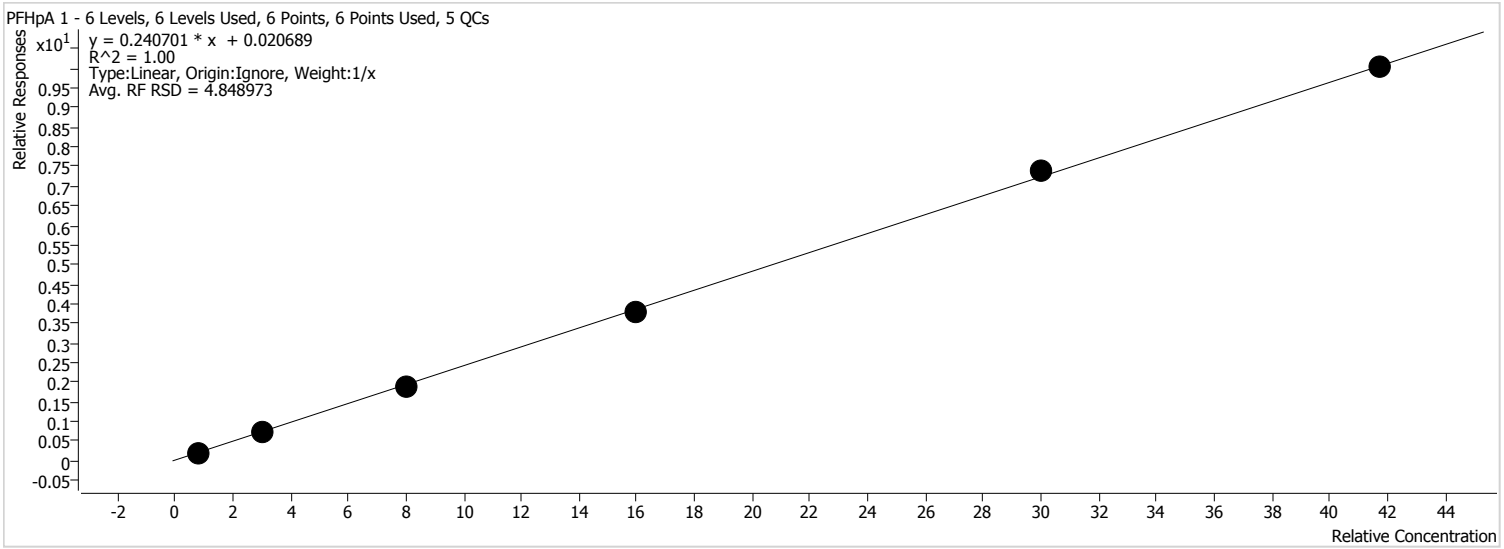
Analyte: PFHxA 1
Internal Standard: 13C2-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.82	1850	0.1948	50	99.0
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.19	7128	0.1940	210	106.5
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.56	17132	0.1694	429	94.5
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.57	34509	0.1735	881	97.3
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	31.13	67868	0.1844	1741	103.8
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.25	91744	0.1757	1849	98.9

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

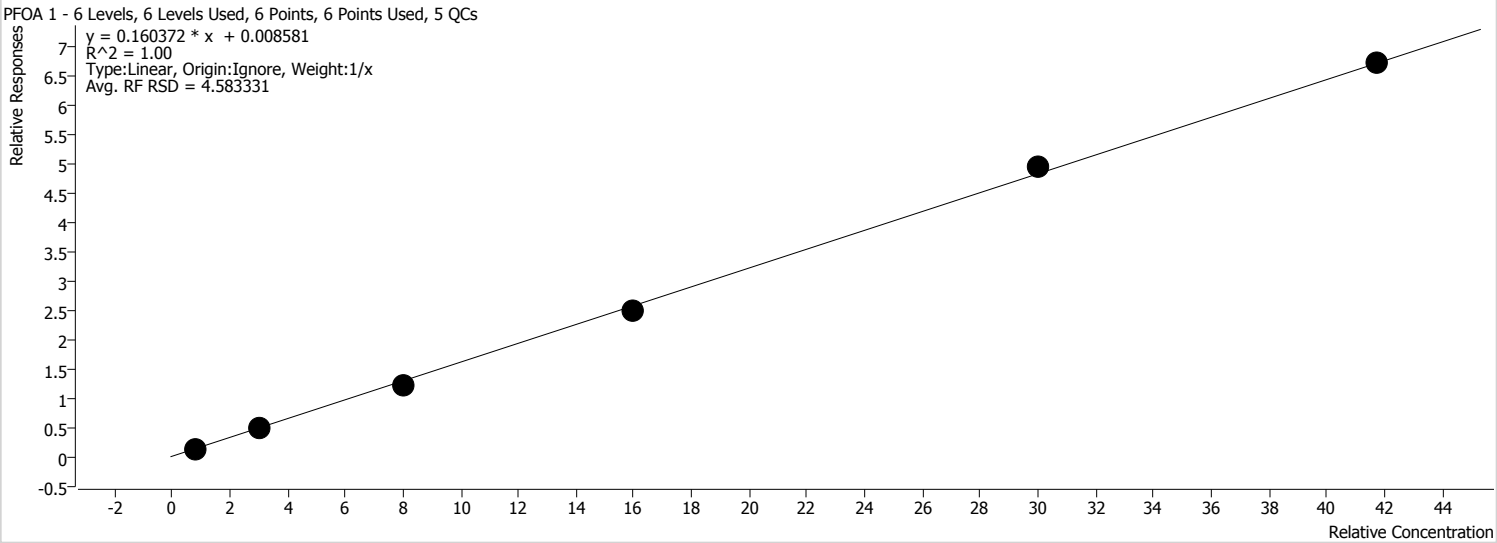
Analyte: PFHpA 1
Internal Standard: 13C4-PFHpA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.83	2083	0.2670	51	100.6
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.08	7945	0.2543	242	102.8
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.73	19672	0.2352	426	96.6
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.75	39569	0.2382	855	98.4
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	30.60	79327	0.2462	1258	102.0
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.53	108807	0.2402	2217	99.6

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

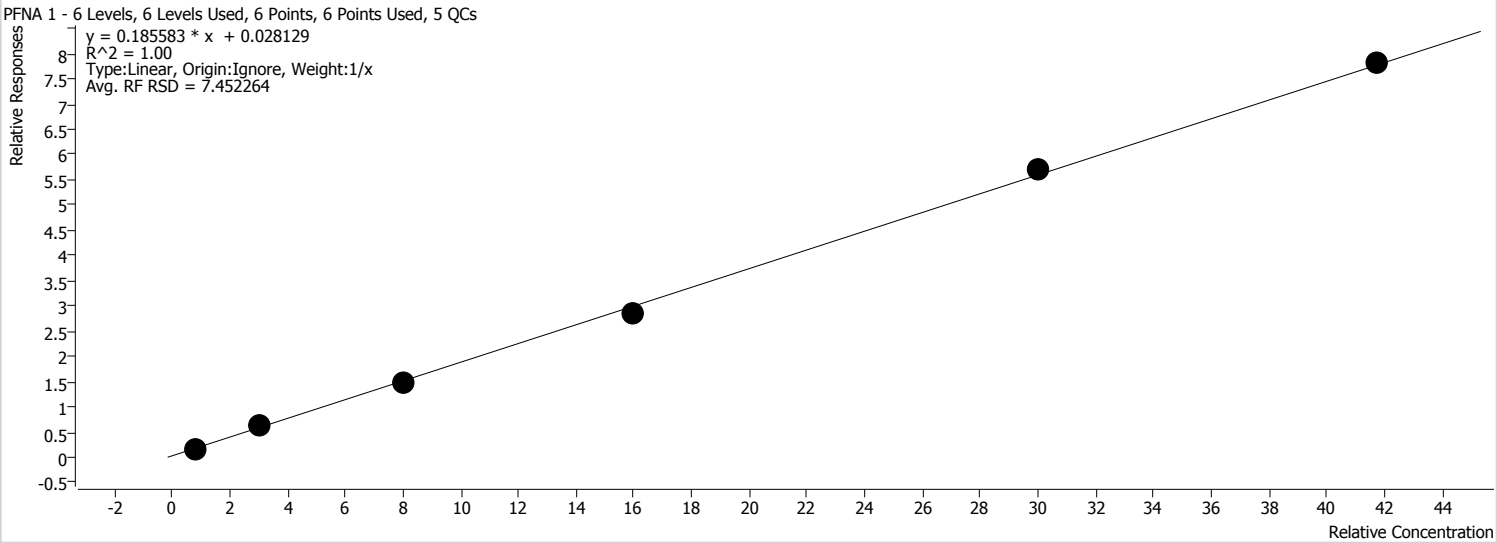
Analyte: PFOA 1
Internal Standard: 13C4-PFOA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.85	1432	0.1753	21	102.9
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.05	5511	0.1659	102	101.7
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.67	13642	0.1548	152	95.9
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.55	28233	0.1564	485	97.2
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	30.73	57697	0.1646	682	102.4
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.67	80010	0.1605	774	99.9

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

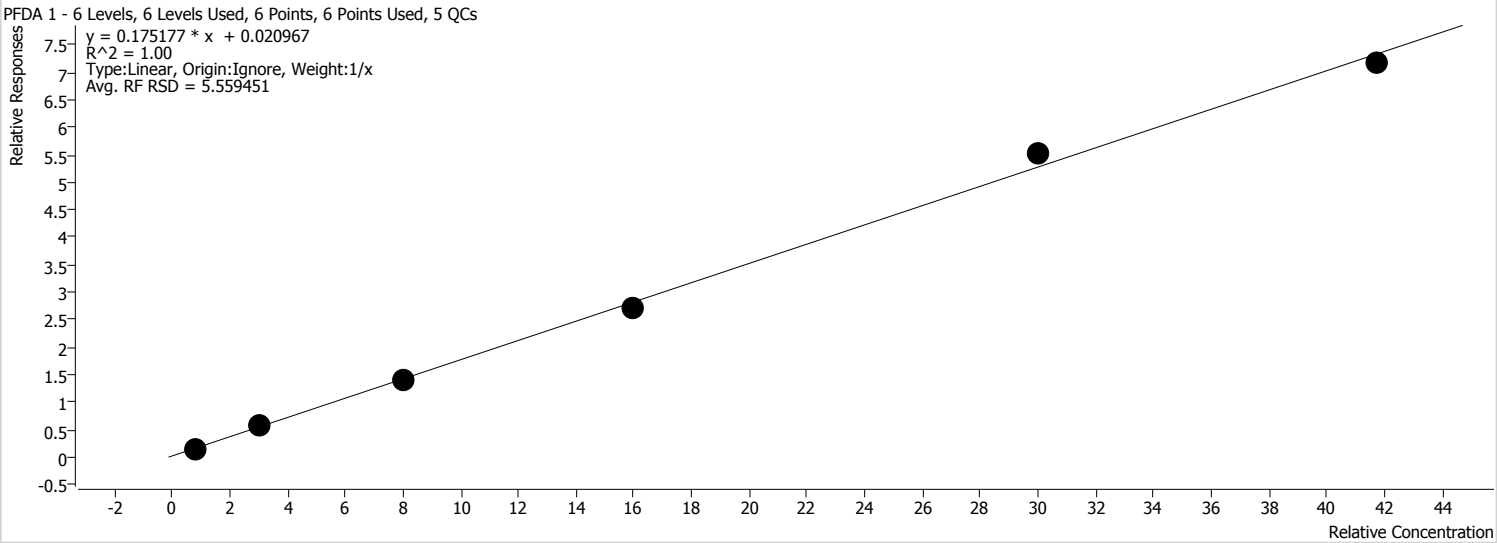
Analyte: PFNA 1
Internal Standard: 13C5-PFNA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.81	1353	0.2157	32	98.0
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.21	5291	0.2077	111	106.9
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.78	12625	0.1841	261	97.3
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.29	25351	0.1791	573	95.6
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	30.57	51892	0.1901	1369	101.9
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.87	71864	0.1870	1878	100.4

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

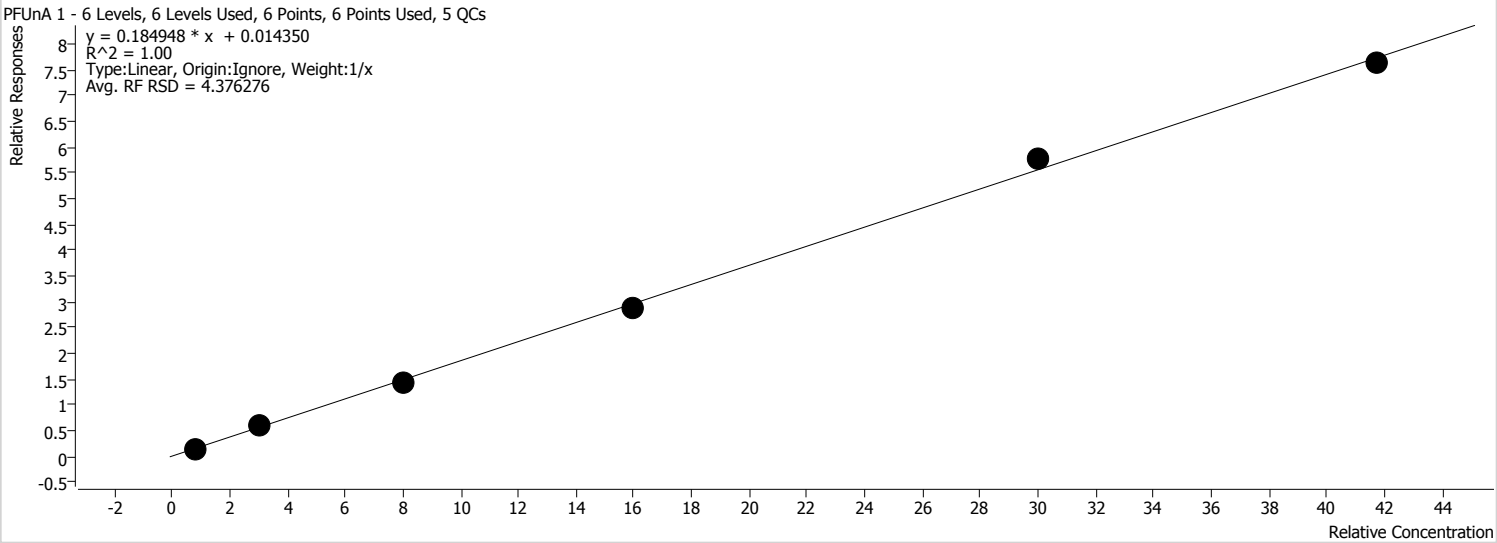
Analyte: PFDA 1
Internal Standard: 13C2-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.81	1090	0.1956	49	97.3
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.12	4375	0.1890	144	103.9
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.99	10668	0.1777	292	99.9
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.42	21209	0.1701	915	96.4
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	31.48	43169	0.1845	751	104.9
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	40.71	60121	0.1715	1548	97.6

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

Analyte: PFUnA 1
Internal Standard: 13C2-PFUnA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.83	1270	0.2015	27	99.6
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.09	4935	0.1952	87	103.0
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.81	12010	0.1823	222	97.6
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.64	24695	0.1816	575	97.7
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	31.07	49450	0.1920	845	103.6
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.10	67598	0.1826	1039	98.6

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
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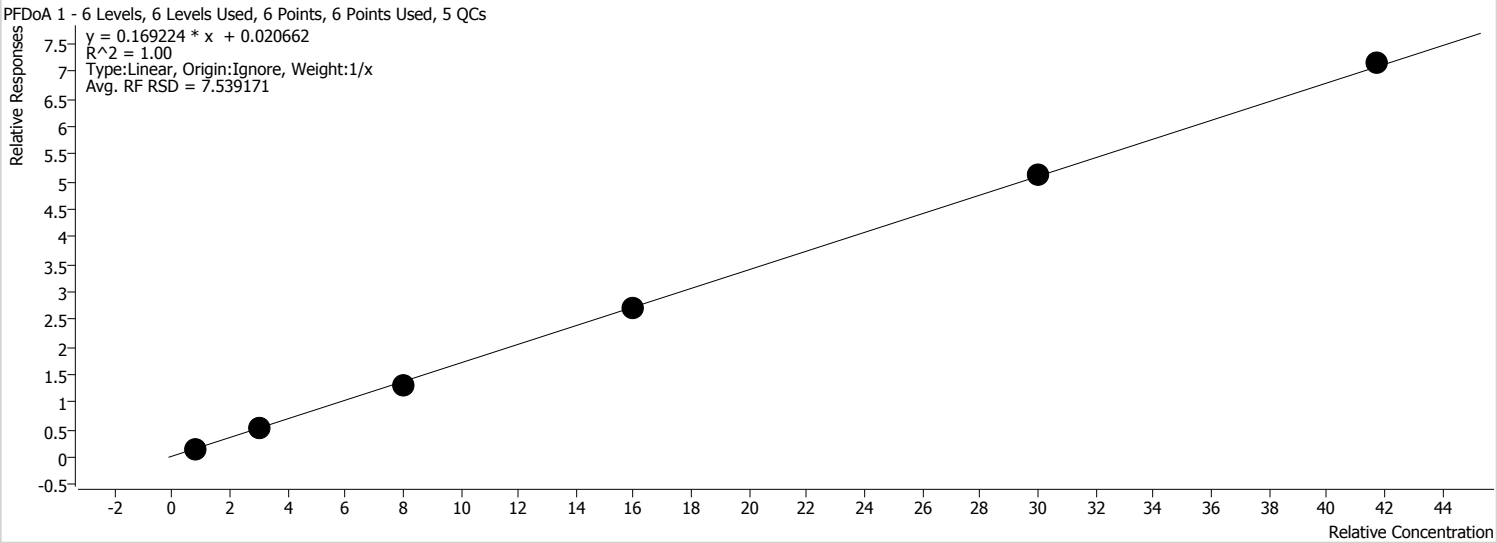
Instrument: LCMS05

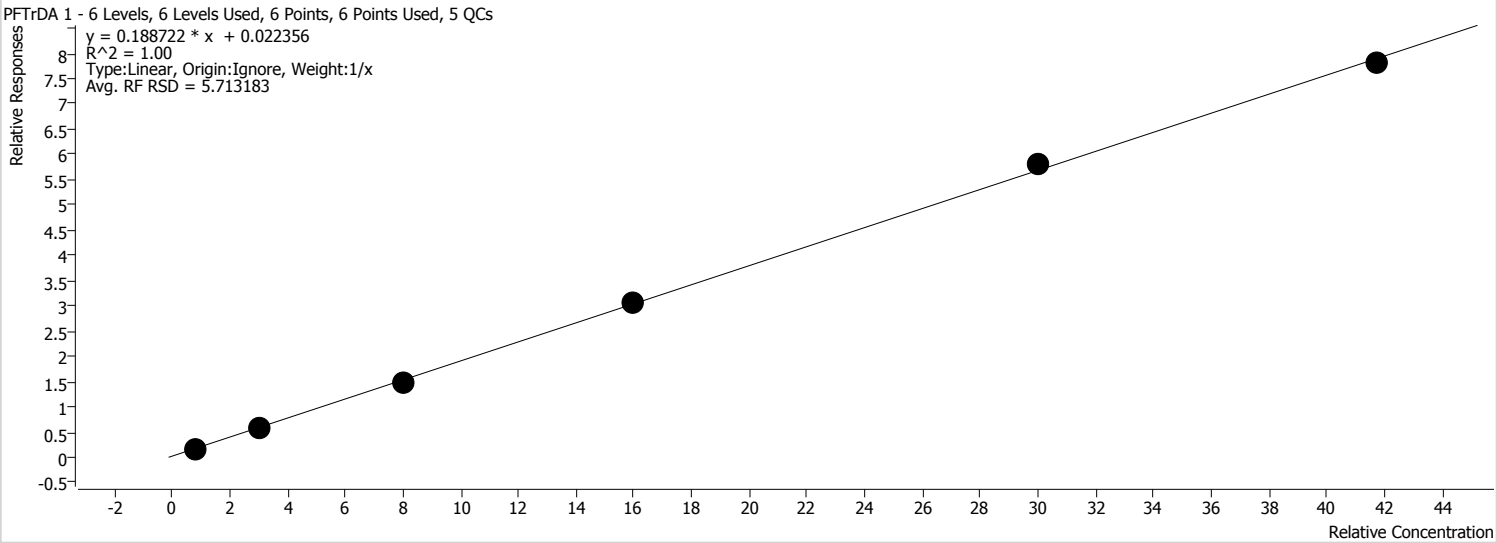
Analyte: PFDoA 1
Internal Standard: 13C2-PFDoA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.85	1324	0.1989	31	102.8
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.09	4914	0.1814	112	103.1
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.51	11801	0.1614	421	93.9
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.75	24383	0.1679	550	98.5
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	30.26	48503	0.1714	1198	100.9
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	42.06	66996	0.1712	812	100.9

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

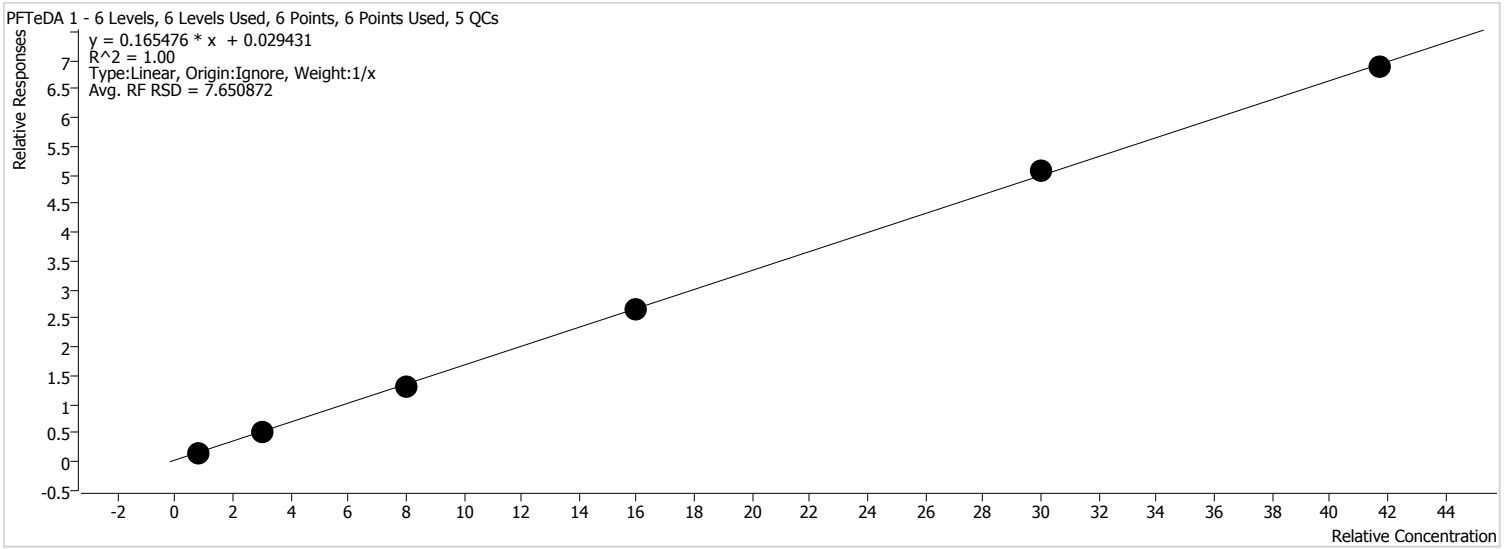
Analyte: PFTrDA 1
Internal Standard: 13C2-PFTeDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.83	1136	0.2165	16	100.4
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.03	4229	0.1978	73	100.9
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.80	10605	0.1867	229	97.5
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	16.06	21906	0.1908	433	100.4
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	30.63	43542	0.1934	724	102.1
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.18	59656	0.1869	1047	98.8

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

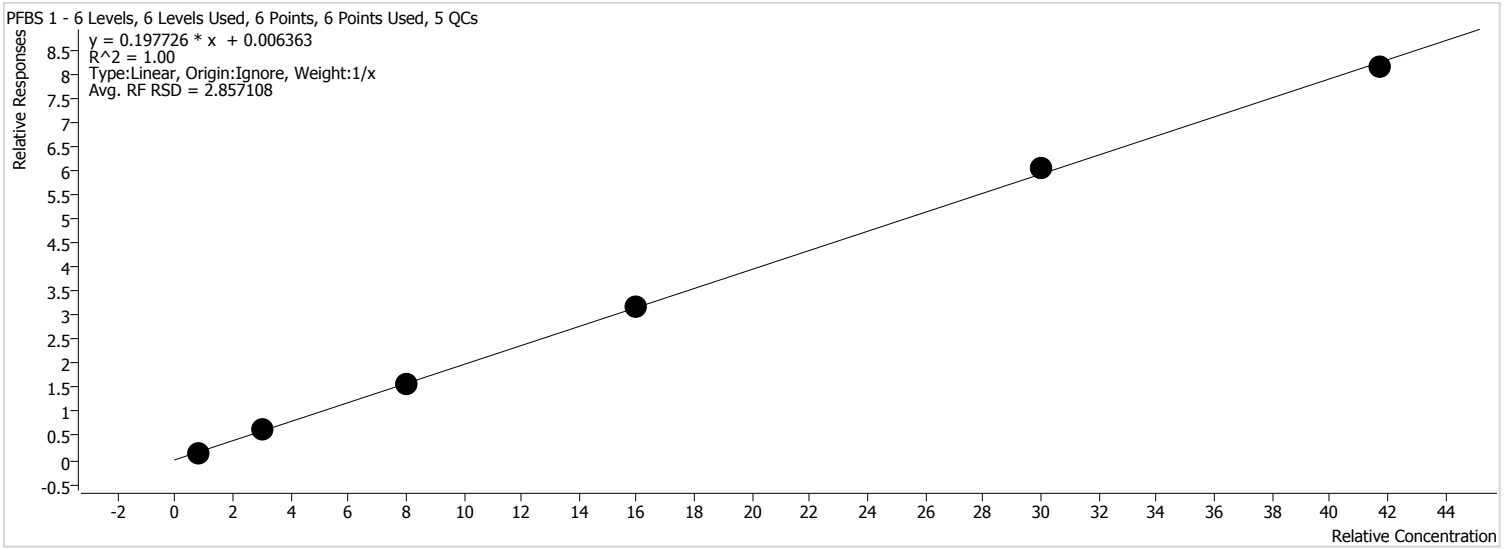
Analyte: PFTeDA 1
Internal Standard: 13C2-PFTeDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.82	1047	0.1995	27	99.2
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.06	3818	0.1786	99	102.0
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.87	9455	0.1665	247	98.4
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.97	19167	0.1670	294	99.8
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	30.46	38036	0.1690	799	101.5
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.35	52600	0.1648	1162	99.2

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

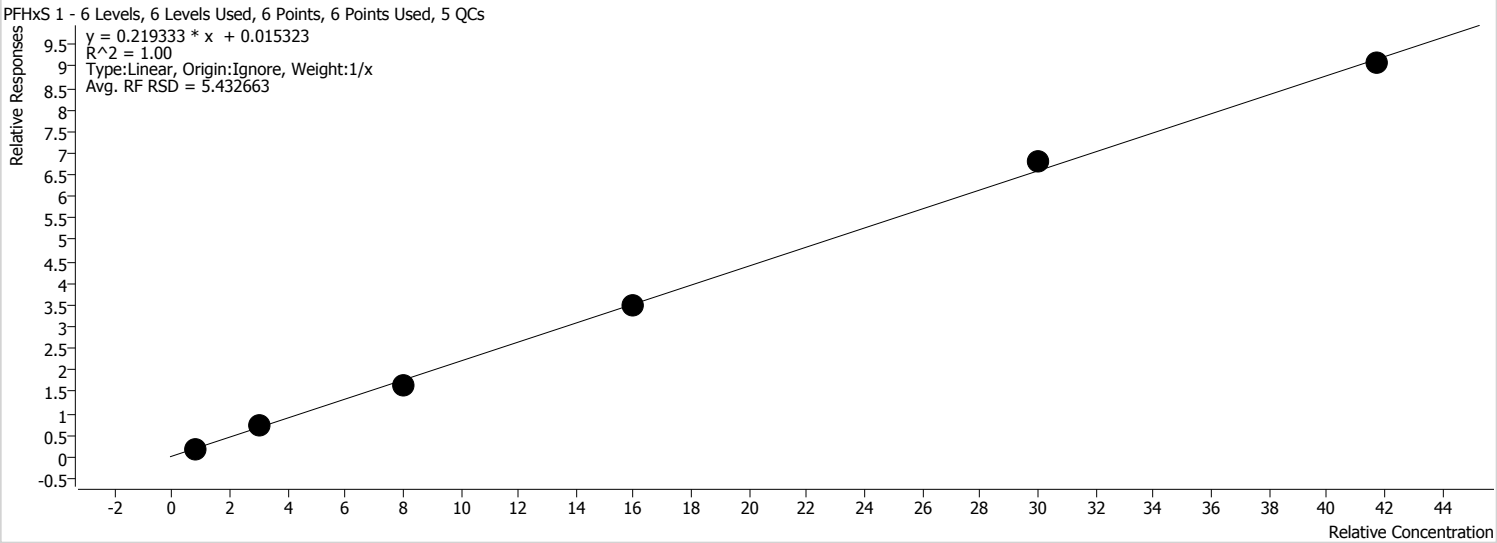
Analyte: PFBS 1
Internal Standard: 13C3-PFBS IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.79	643	0.1959	79	95.2
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.16	2688	0.2104	371	105.4
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.93	6672	0.1969	520	99.2
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.98	13495	0.1979	1212	99.9
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	30.51	26616	0.2013	1809	101.7
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.16	36590	0.1953	1930	98.7

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

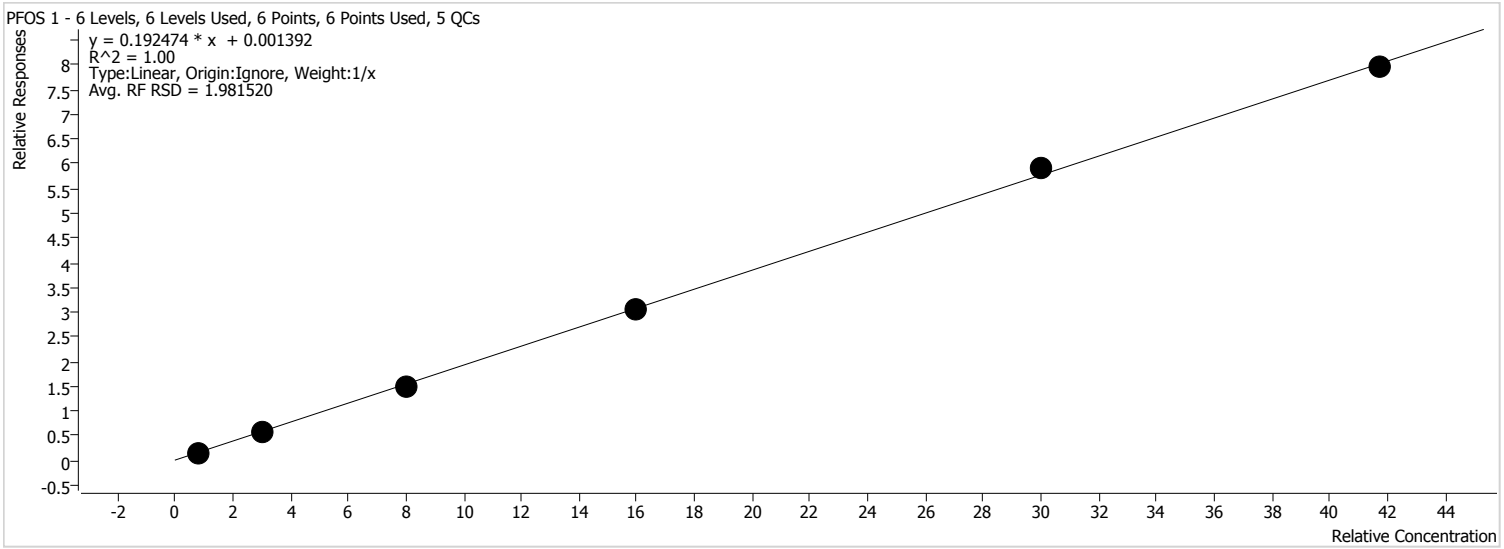
Analyte: PFHxS 1
Internal Standard: 18O2-PFHxS IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.83	359	0.2381	210	100.1
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.16	1439	0.2363	184	105.4
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.47	3452	0.2067	296	93.4
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.81	7170	0.2177	580	98.8
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	31.00	14163	0.2272	588	103.3
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.25	19828	0.2173	851	98.9

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

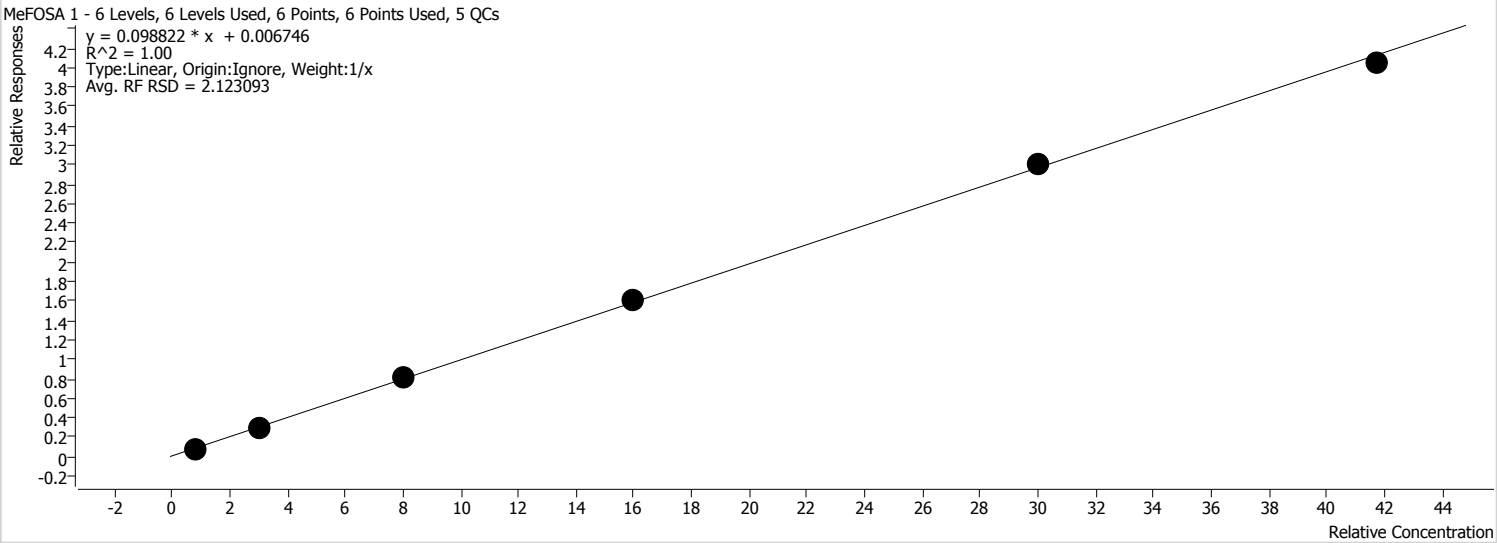
Analyte: PFOS 1
Internal Standard: 13C4-PFOS IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.83	304	0.1937	25	99.8
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.07	1258	0.1974	99	102.3
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.77	3224	0.1871	140	97.1
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	15.96	6481	0.1921	151	99.7
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	30.61	13061	0.1965	274	102.0
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.29	18019	0.1906	347	99.0

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

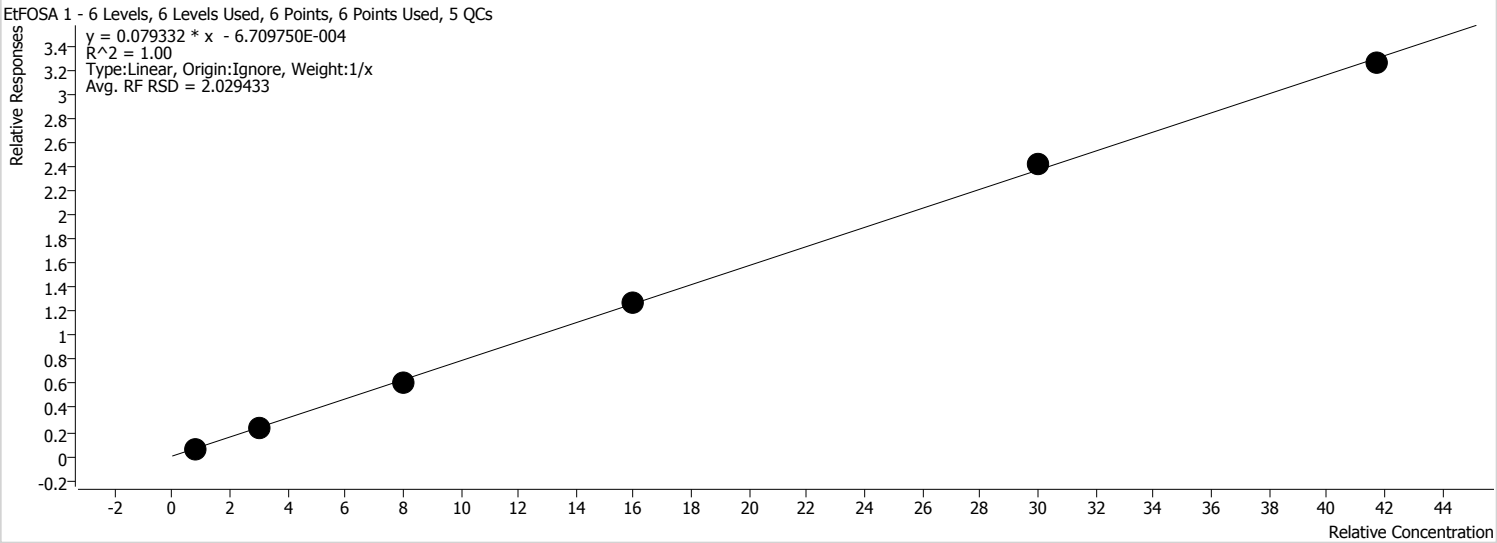
Analyte: MeFOSA 1
Internal Standard: D3-MeFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.80	216	0.1031	25	96.1
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.01	867	0.1015	97	100.4
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	8.20	2248	0.1022	141	102.5
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	16.26	4489	0.1008	114	101.6
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	30.44	8747	0.1005	138	101.5
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	40.81	11890	0.0969	928	97.9

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

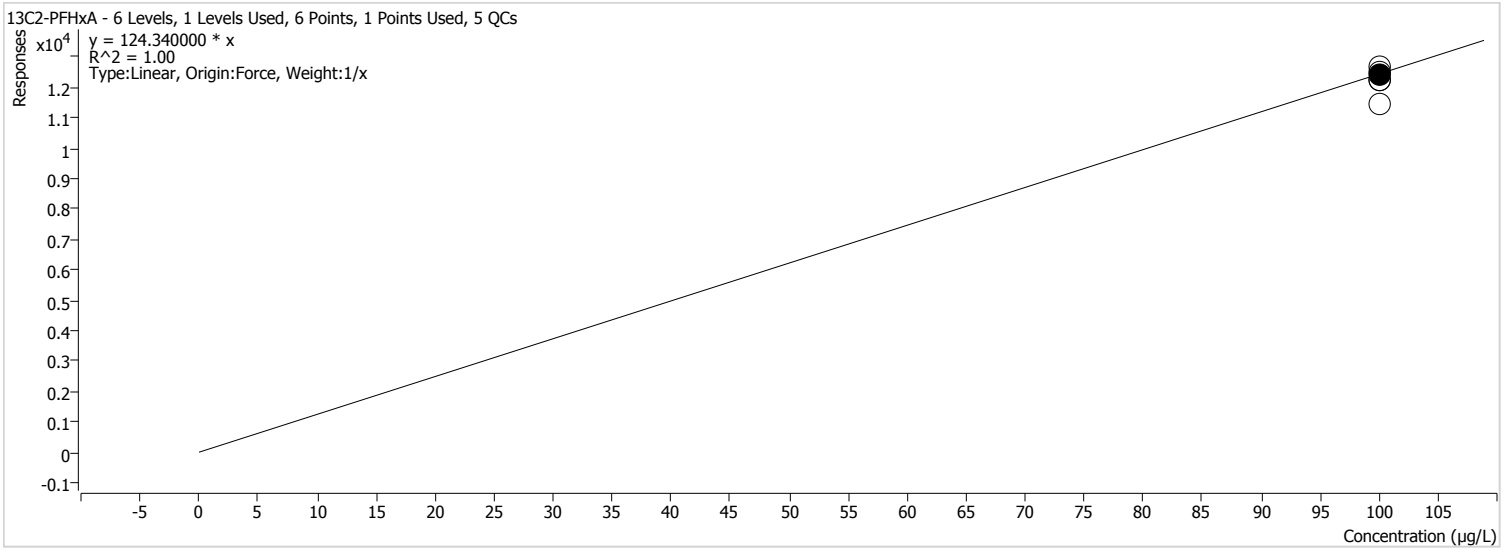
Analyte: EtFOSA 1
Internal Standard: D5-EtFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/05 7:28:47 AM	0.83	0.83	193	0.0786	88	100.0
STD 2	STD 2	x	2020/10/05 7:35:46 AM	3.00	3.05	804	0.0805	159	101.7
STD 3	STD 3	x	2020/10/05 7:42:45 AM	8.00	7.75	2044	0.0767	421	96.8
STD 4	STD 4	x	2020/10/05 7:49:44 AM	16.00	16.07	4240	0.0797	1589	100.5
STD 5	STD 5	x	2020/10/05 7:56:43 AM	30.00	30.68	8320	0.0811	3072	102.3
STD 6	STD 6	x	2020/10/05 8:03:43 AM	41.70	41.15	11543	0.0783	1938	98.7

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

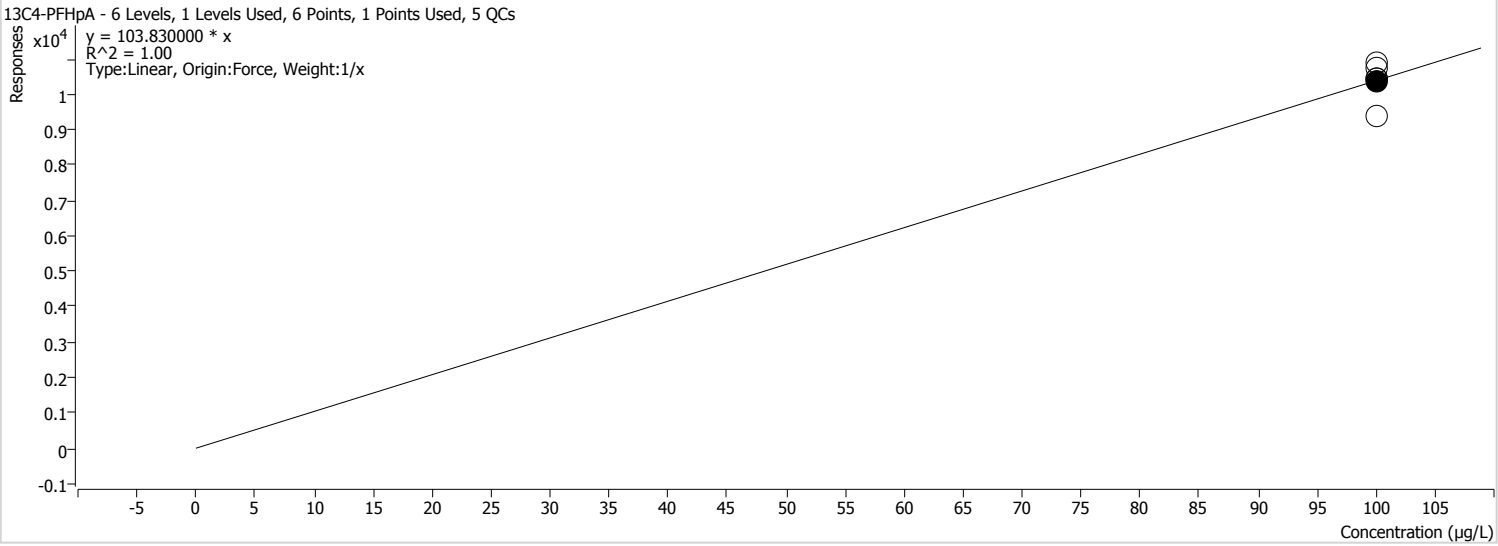
Analyte: 13C2-PFHxA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	92.05	11445	114.4500	1097	92.0
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	98.50	12248	122.4800	1906	98.5
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	101.65	12639	126.3900	1069	101.6
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	12434	124.3400	1130	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	98.66	12268	122.6800	1054	98.7
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	100.72	12524	125.2400	892	100.7

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

Analyte: 13C4-PFHpA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	90.53	9400	94.0000	315	90.5
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	100.30	10414	104.1400	551	100.3
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	100.70	10456	104.5600	952	100.7
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	10383	103.8300	1197	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	103.44	10740	107.4000	939	103.4
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	104.60	10861	108.6100	920	104.6

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
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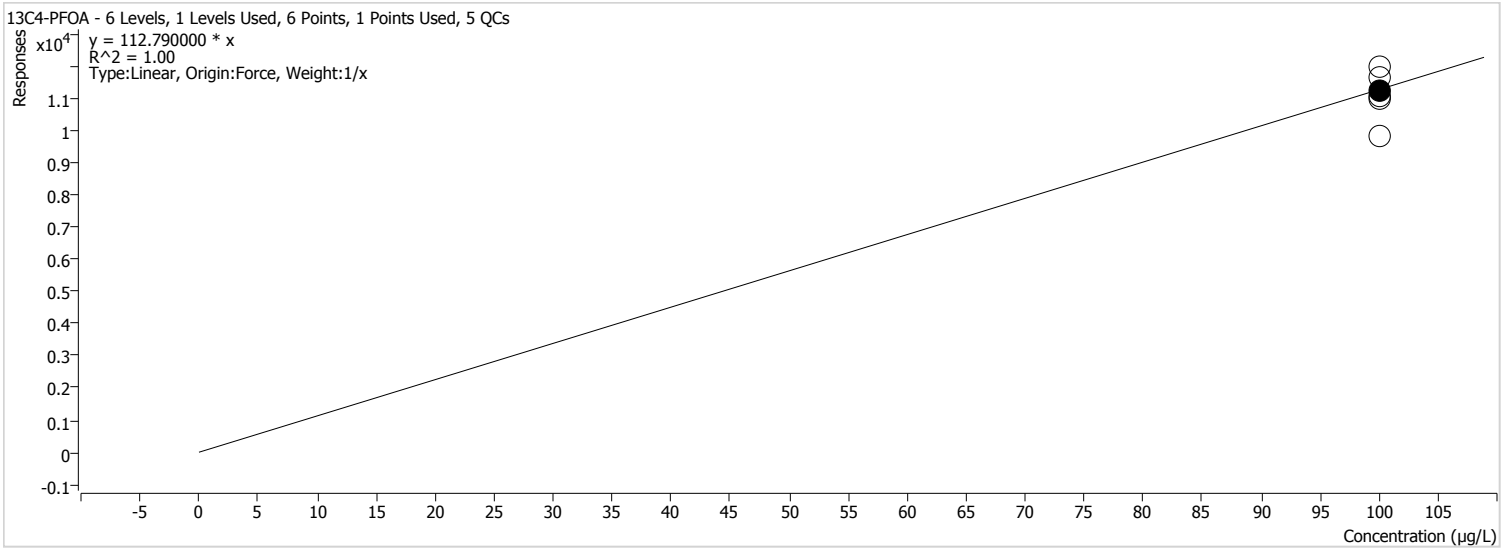
Instrument: LCMS05

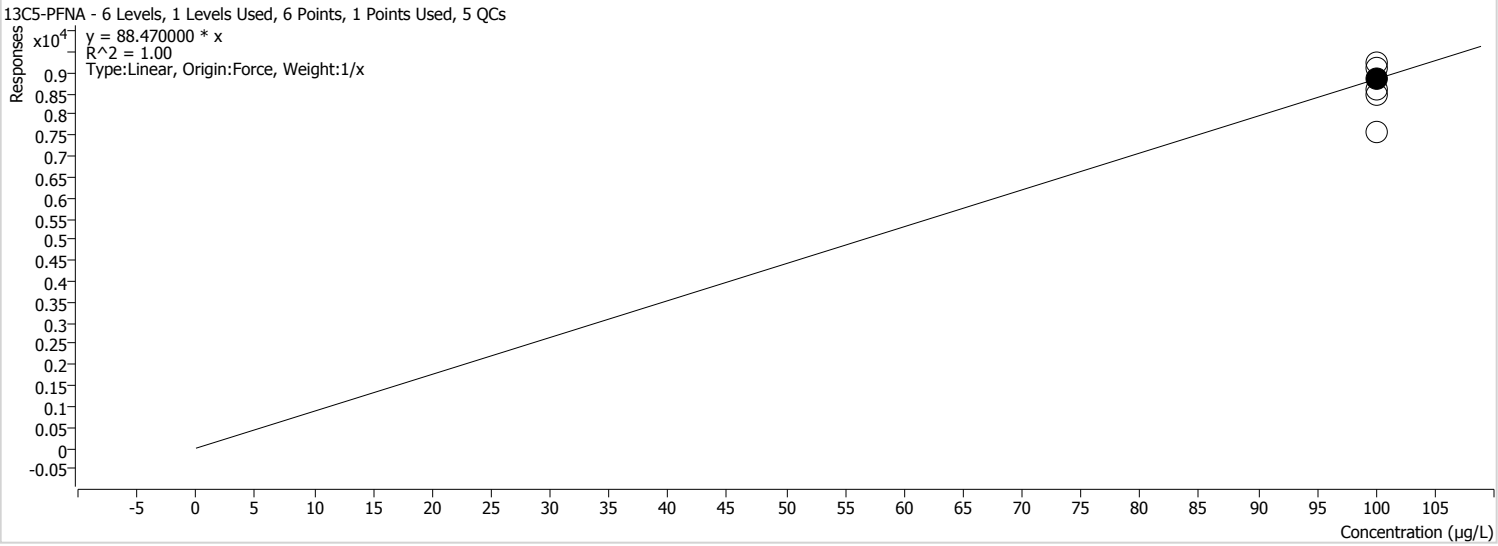
Analyte: 13C4-PFOA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	87.25	9841	98.4100	1026	87.3
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	98.16	11072	110.7200	583	98.2
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	97.65	11014	110.1400	1401	97.7
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	11279	112.7900	853	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	103.62	11687	116.8700	1032	103.6
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	106.01	11957	119.5700	1041	106.0

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

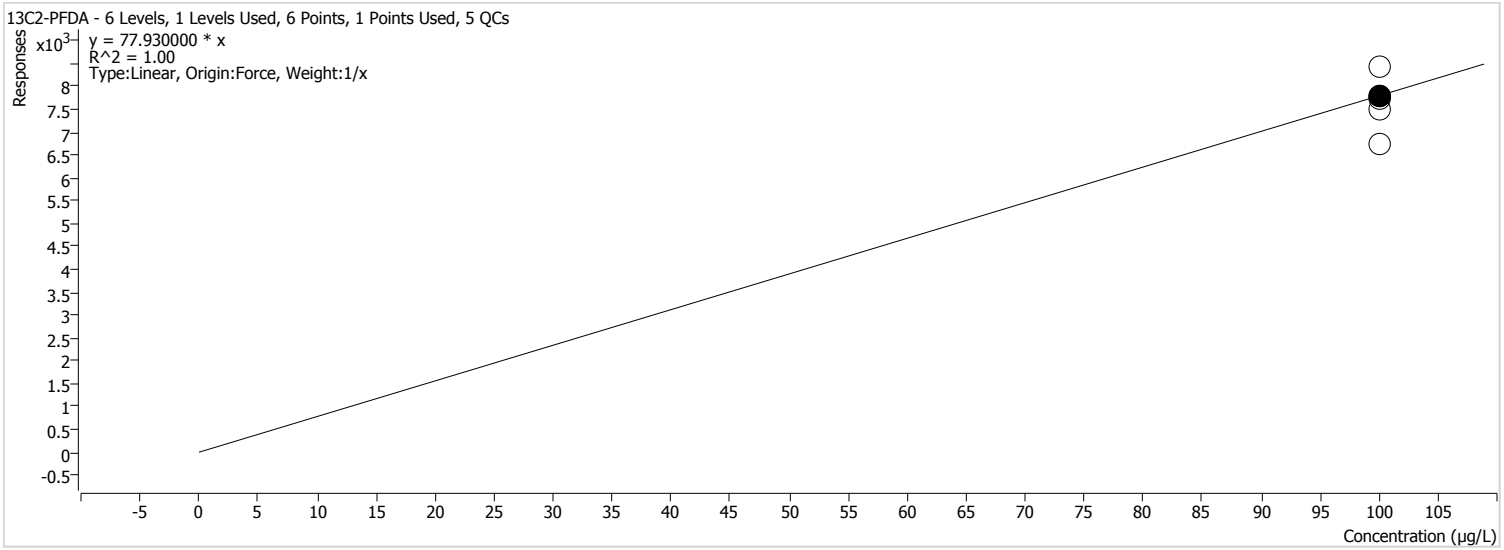
Analyte: 13C5-PFNA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	85.42	7557	75.5700	865	85.4
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	95.98	8491	84.9100	795	96.0
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	96.90	8573	85.7300	794	96.9
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	8847	88.4700	1167	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	102.87	9101	91.0100	439	102.9
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	104.17	9216	92.1600	454	104.2

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

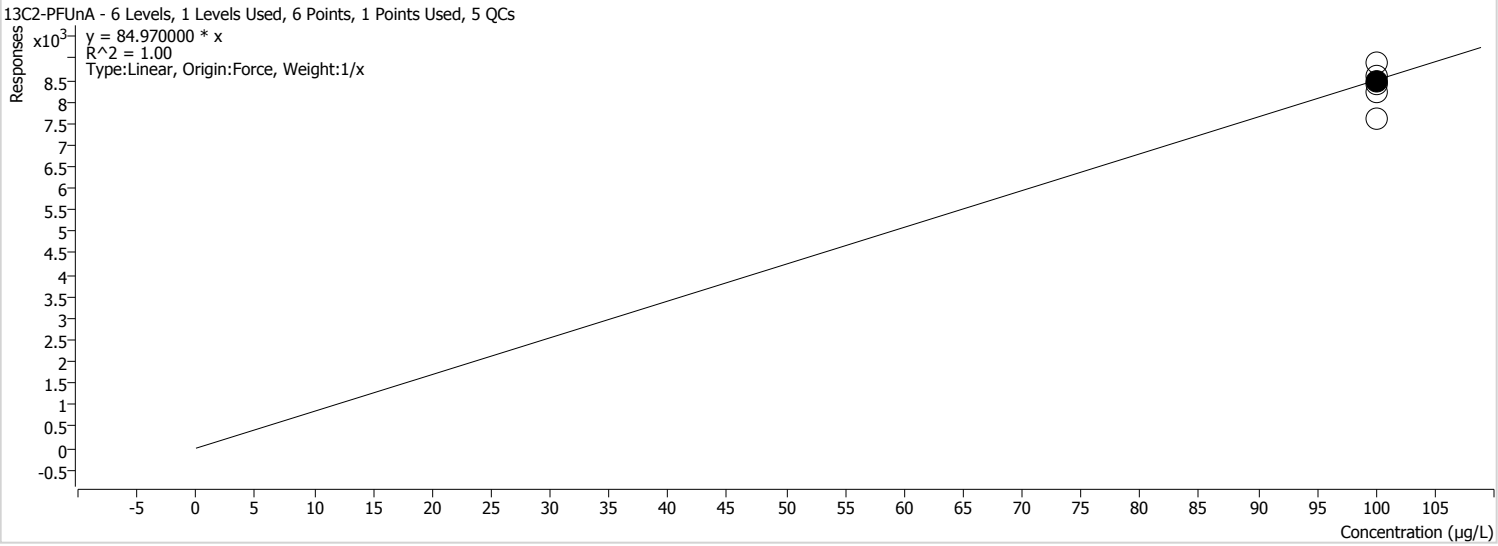
Analyte: 13C2-PFDA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	86.14	6713	67.1300	366	86.1
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	99.02	7717	77.1700	741	99.0
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	96.30	7505	75.0500	524	96.3
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	7793	77.9300	960	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	100.06	7798	77.9800	501	100.1
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	107.85	8405	84.0500	757	107.9

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

Analyte: 13C2-PFUnA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	89.38	7595	75.9500	378	89.4
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	99.16	8426	84.2600	852	99.2
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	96.93	8236	82.3600	814	96.9
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	8497	84.9700	622	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	101.02	8584	85.8400	361	101.0
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	104.46	8876	88.7600	752	104.5

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
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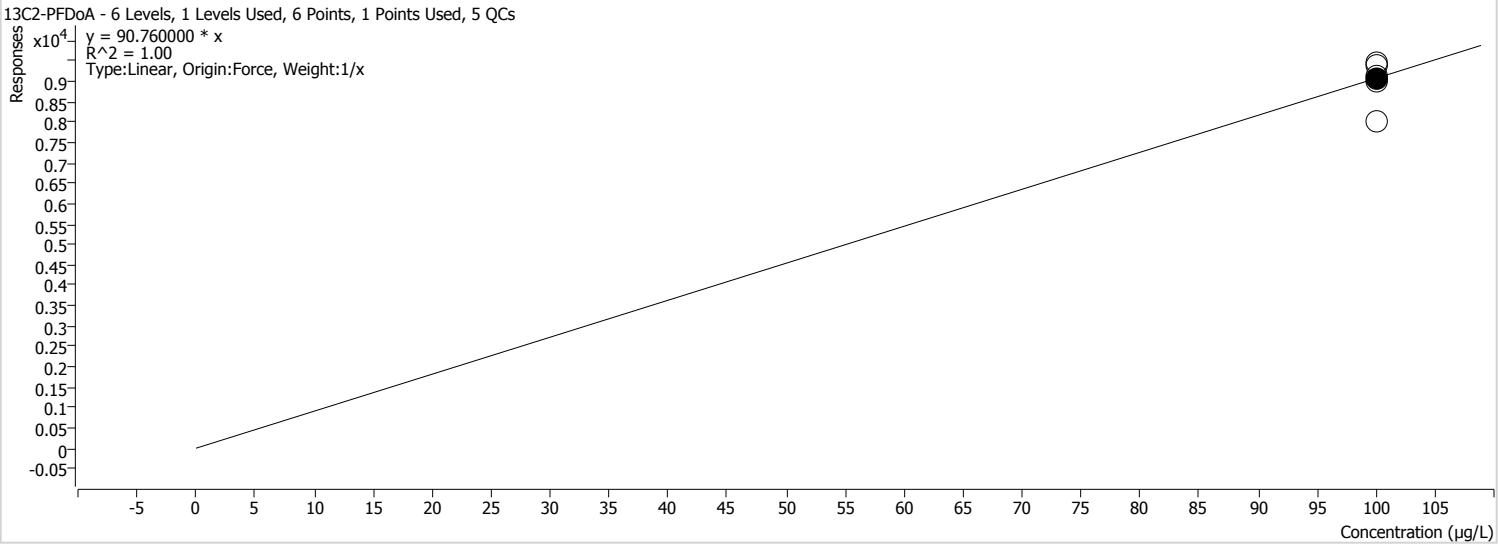
Instrument: LCMS05

Analyte: 13C2-PFDoA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	88.36	8020	80.2000	408	88.4
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	99.49	9030	90.3000	701	99.5
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	100.69	9139	91.3900	827	100.7
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	9076	90.7600	649	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	103.93	9433	94.3300	377	103.9
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	103.42	9386	93.8600	621	103.4

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
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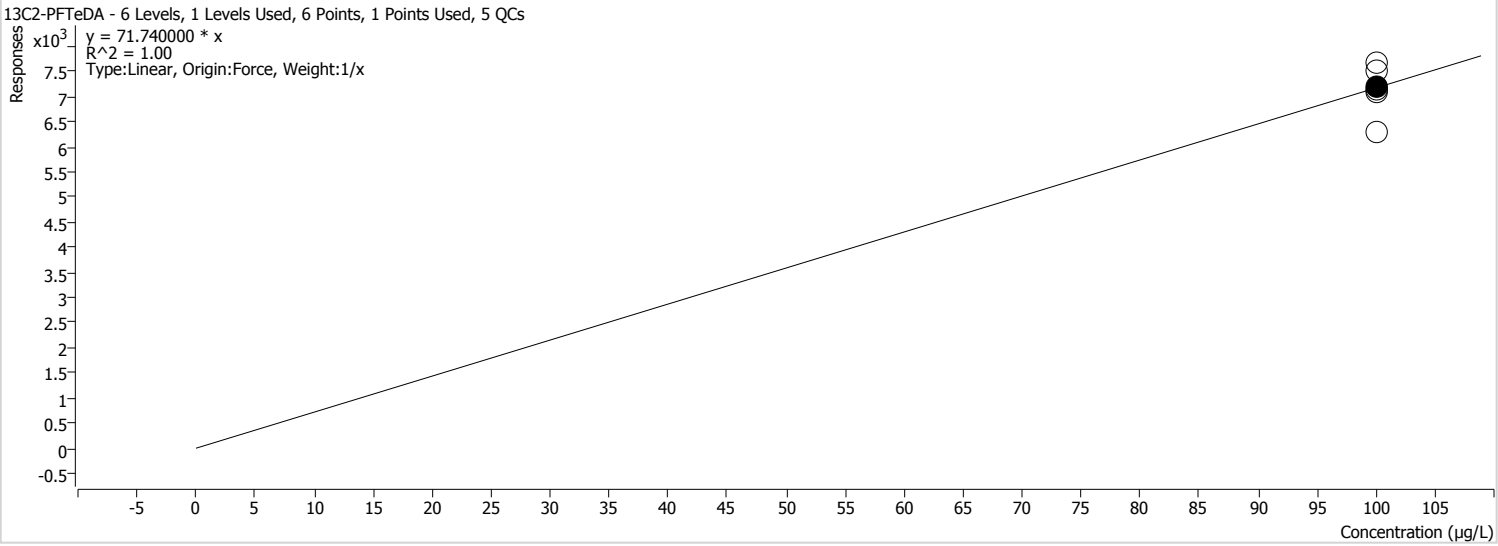
Instrument: LCMS05

Analyte: 13C2-PFTeDA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	88.12	6322	63.2200	529	88.1
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	99.34	7127	71.2700	774	99.3
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	98.97	7100	71.0000	808	99.0
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	7174	71.7400	687	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	104.59	7503	75.0300	965	104.6
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	106.69	7654	76.5400	640	106.7

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
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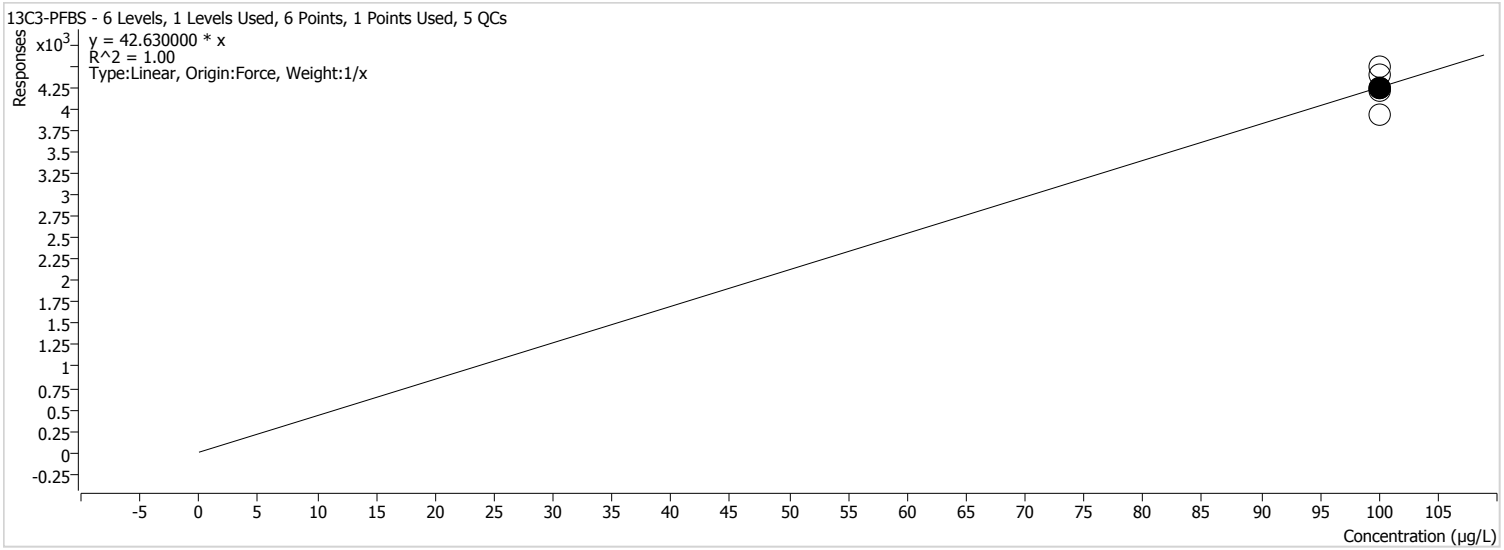
Instrument: LCMS05

Analyte: 13C3-PFBS
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	92.75	3954	39.5400	846	92.8
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	99.88	4258	42.5800	766	99.9
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	99.37	4236	42.3600	695	99.4
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	4263	42.6300	798	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	103.38	4407	44.0700	590	103.4
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	105.40	4493	44.9300	545	105.4

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
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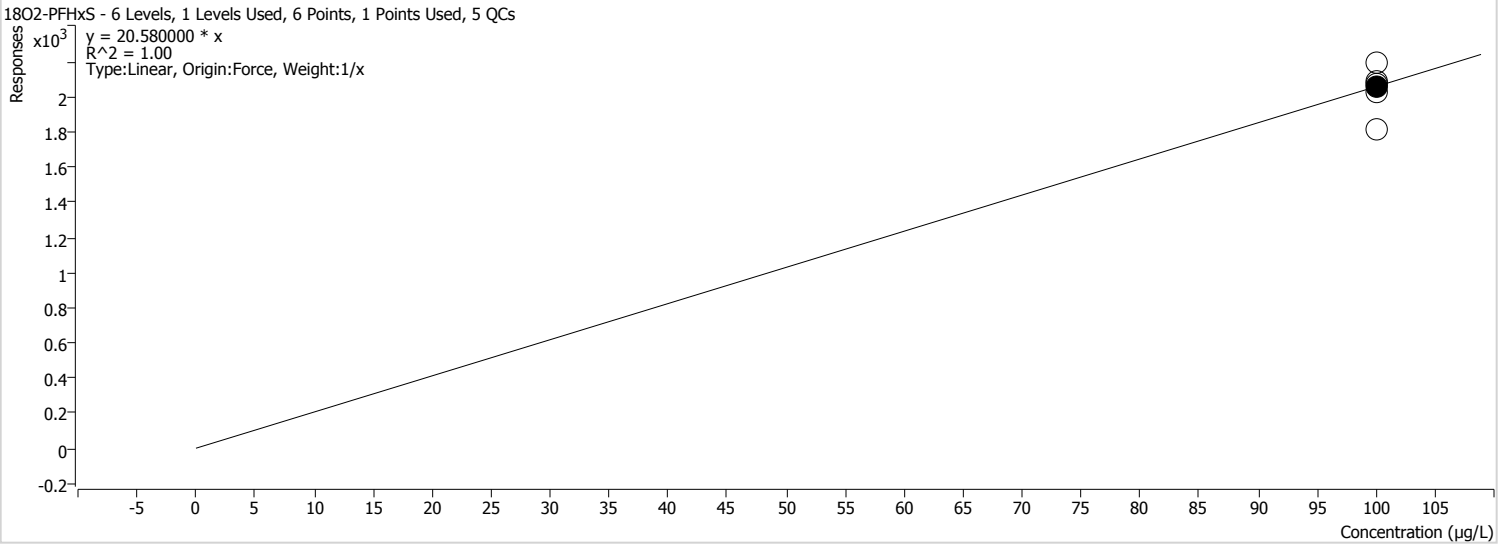
Instrument: LCMS05

Analyte: 18O2-PFHxS
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	88.29	1817	18.1700	1323	88.3
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	98.64	2030	20.3000	1431	98.6
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	101.41	2087	20.8700	432	101.4
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	2058	20.5800	450	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	100.97	2078	20.7800	470	101.0
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	106.32	2188	21.8800	707	106.3

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
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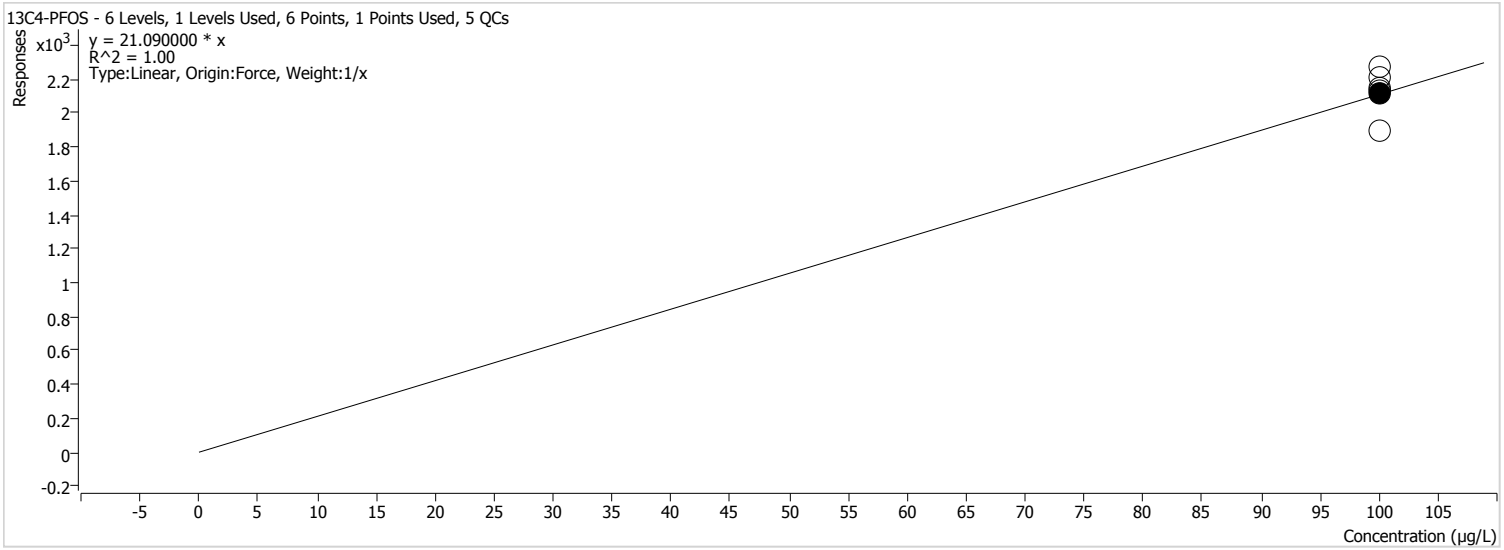
Instrument: LCMS05

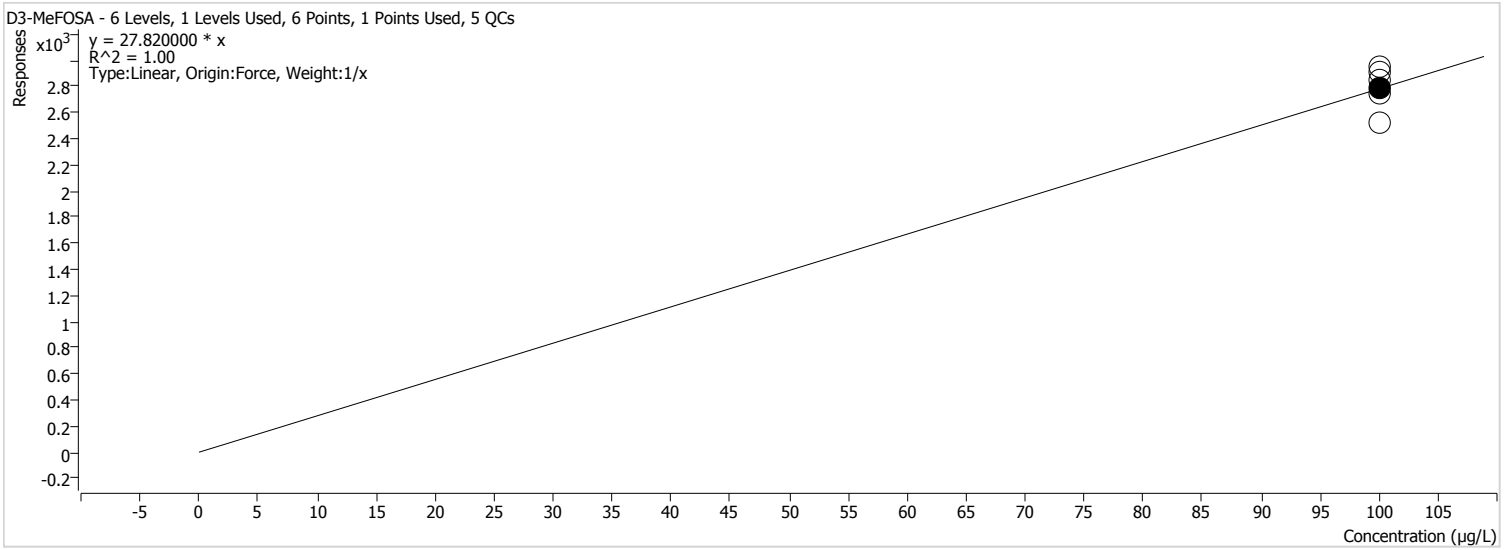
Analyte: 13C4-PFOS
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	89.57	1889	18.8900	461	89.6
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	100.76	2125	21.2500	491	100.8
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	102.13	2154	21.5400	582	102.1
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	2109	21.0900	514	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	105.07	2216	22.1600	612	105.1
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	107.49	2267	22.6700	303	107.5

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
Last Calib Update 2020/10/06 8:20:41 AM
Instrument: LCMS05

Analyte: D3-MeFOSA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	90.76	2525	25.2500	104	90.8
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	102.37	2848	28.4800	112	102.4
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	98.85	2750	27.5000	100	98.8
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	2782	27.8200	100	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	104.28	2901	29.0100	91	104.3
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	105.79	2943	29.4300	114	105.8

Batch Path T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin
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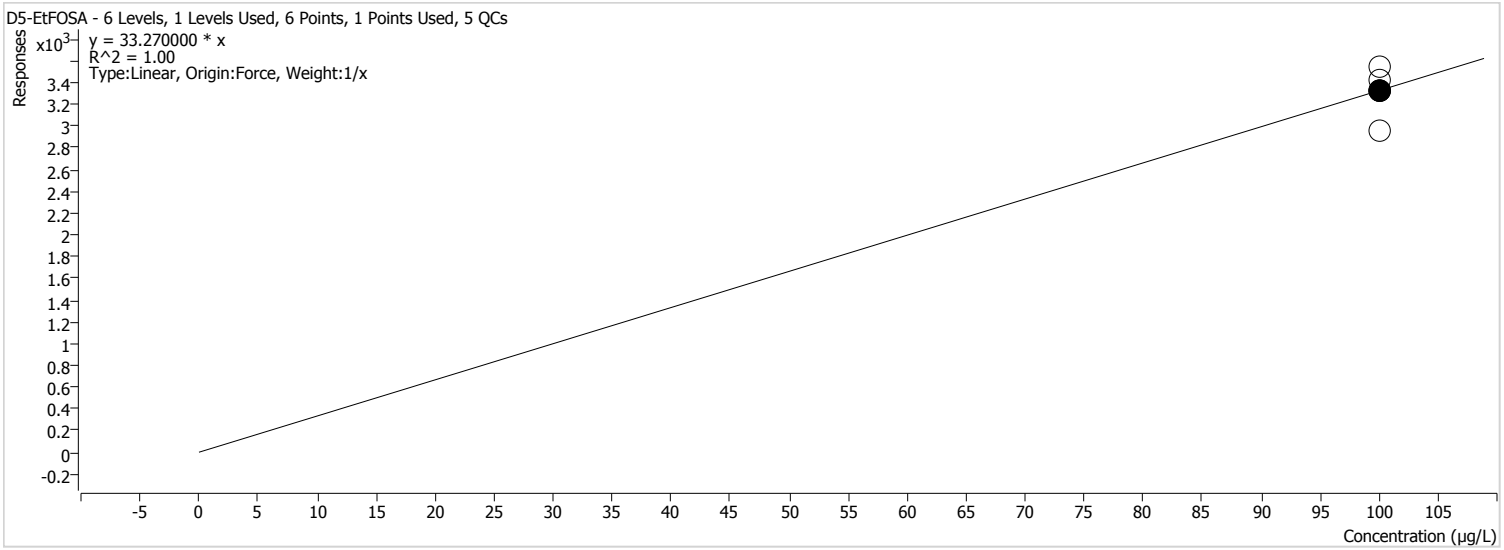
Instrument: LCMS05

Analyte: D5-EtFOSA
Internal Standard:

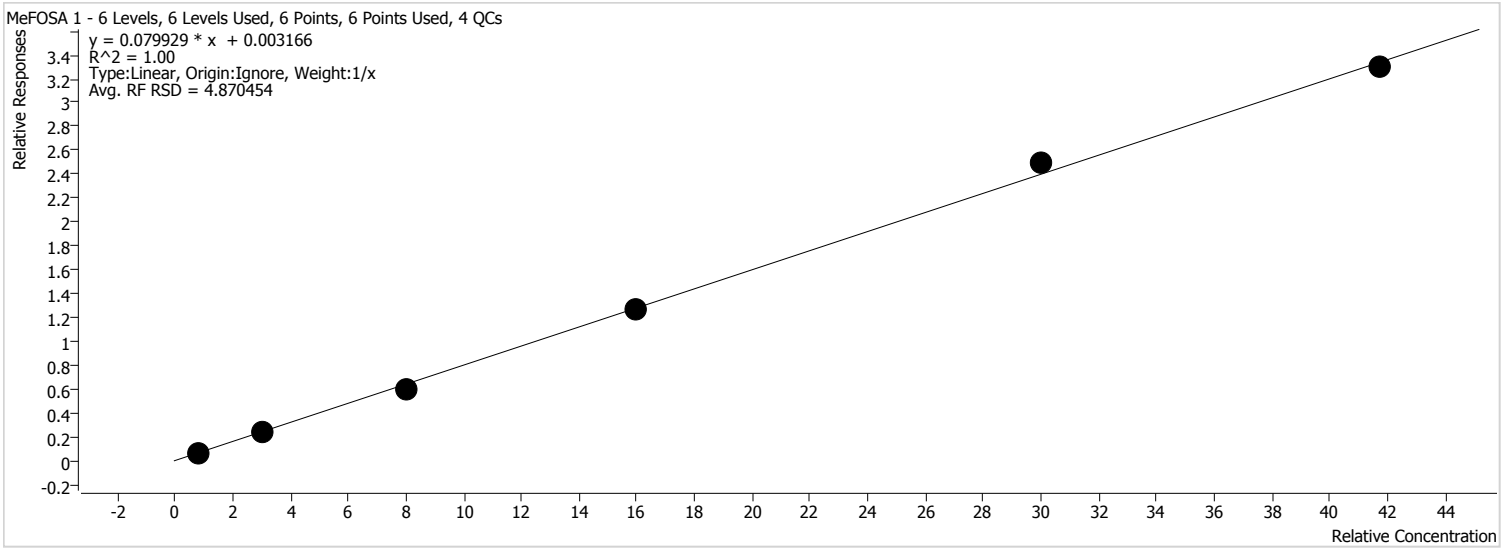


Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/05 7:28:47 AM	100.00	88.97	2960	29.6000	94	89.0
STD 2	STD 2		2020/10/05 7:35:46 AM	100.00	100.09	3330	33.3000	125	100.1
STD 3	STD 3		2020/10/05 7:42:45 AM	100.00	100.09	3330	33.3000	100	100.1
STD 4	STD 4	x	2020/10/05 7:49:44 AM	100.00	100.00	3327	33.2700	82	100.0
STD 5	STD 5		2020/10/05 7:56:43 AM	100.00	102.77	3419	34.1900	66	102.8
STD 6	STD 6		2020/10/05 8:03:43 AM	100.00	106.31	3537	35.3700	95	106.3

By Compound Report

Batch Path T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin
Last Calib Update 2020/10/07 9:33:11 AM
Instrument: LCMS04

Analyte: MeFOSA 1
Internal Standard: D3-MeFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/06 12:33:36 PM	0.83	0.87	410	0.0875	15	104.7
STD 2	STD 2	x	2020/10/06 12:40:32 PM	3.00	2.97	1417	0.0803	59	99.2
STD 3	STD 3	x	2020/10/06 12:47:28 PM	8.00	7.59	3703	0.0762	226	94.9
STD 4	STD 4	x	2020/10/06 12:54:23 PM	16.00	15.80	7669	0.0791	446	98.8
STD 5	STD 5	x	2020/10/06 1:01:19 PM	30.00	31.15	15277	0.0831	523	103.8
STD 6	STD 6	x	2020/10/06 1:08:15 PM	41.70	41.15	19667	0.0789	1198	98.7

Batch Path T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin
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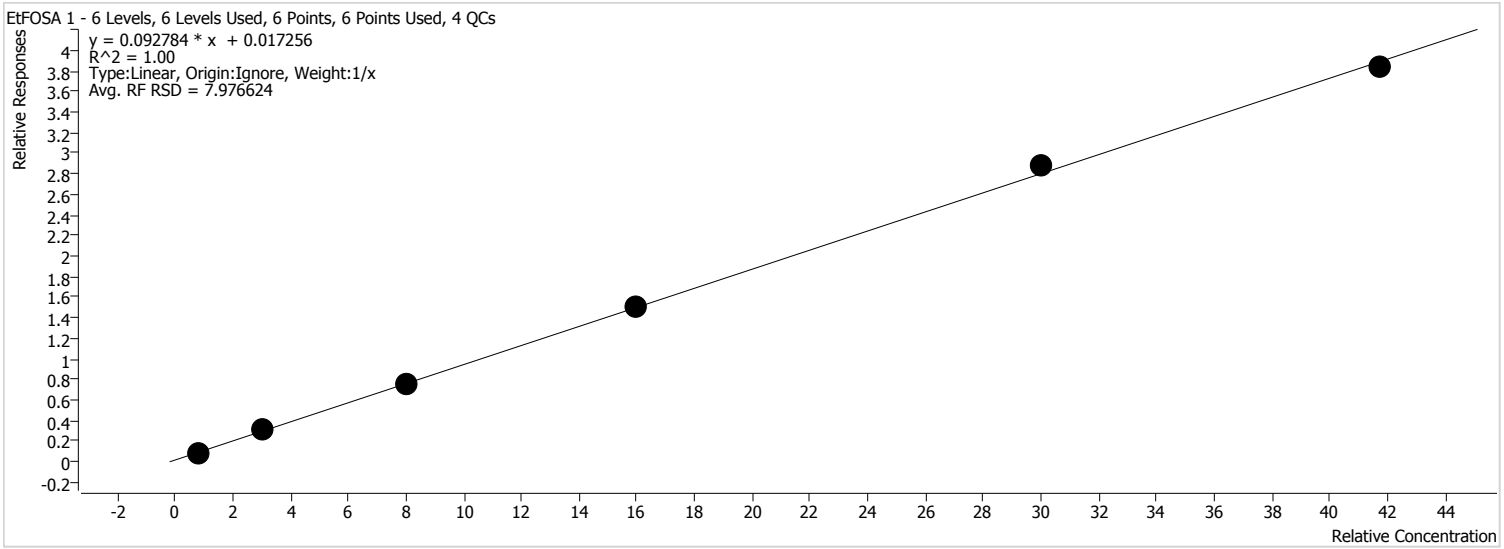
Instrument: LCMS04

Analyte: EtFOSA 1
Internal Standard: D5-EtFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/06 12:33:36 PM	0.83	0.82	444	0.1124	17	98.8
STD 2	STD 2	x	2020/10/06 12:40:32 PM	3.00	3.08	1561	0.1009	35	102.6
STD 3	STD 3	x	2020/10/06 12:47:28 PM	8.00	7.84	3880	0.0930	75	97.9
STD 4	STD 4	x	2020/10/06 12:54:23 PM	16.00	15.93	7817	0.0935	163	99.6
STD 5	STD 5	x	2020/10/06 1:01:19 PM	30.00	30.78	15471	0.0958	368	102.6
STD 6	STD 6	x	2020/10/06 1:08:15 PM	41.70	41.09	20407	0.0918	454	98.5

Batch Path T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin
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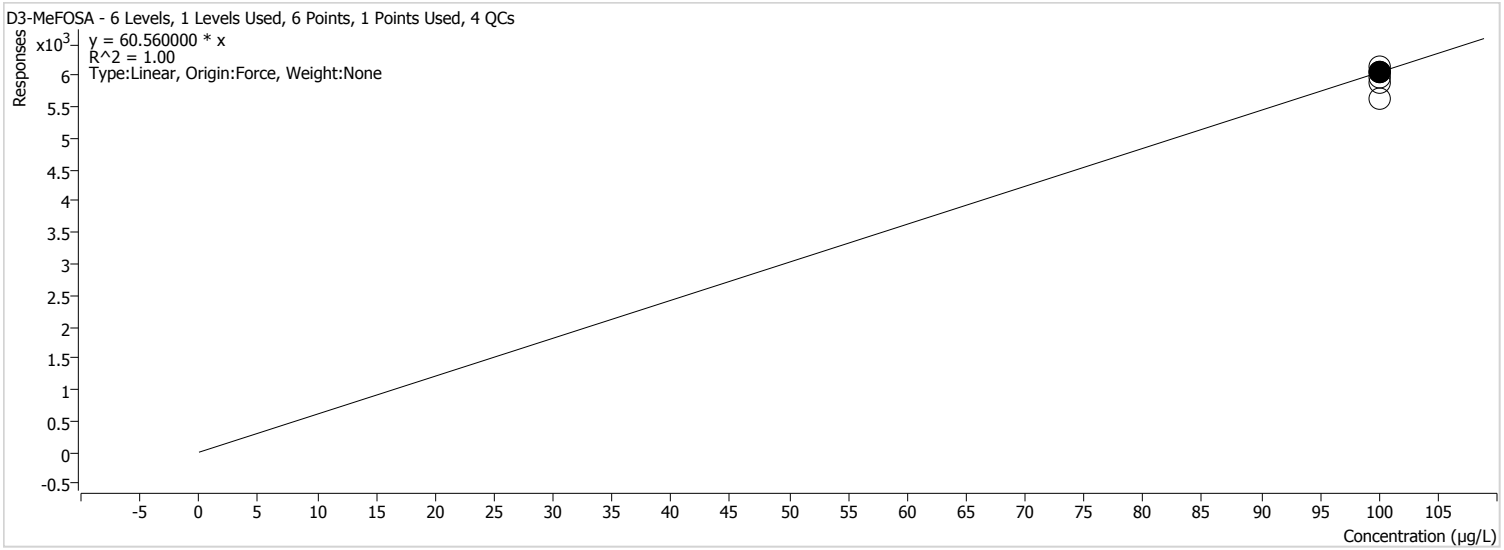
Instrument: LCMS04

Analyte: D3-MeFOSA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/06 12:33:36 PM	100.00	93.21	5645	56.4500	76	93.2
STD 2	STD 2		2020/10/06 12:40:32 PM	100.00	97.11	5881	58.8100	104	97.1
STD 3	STD 3		2020/10/06 12:47:28 PM	100.00	100.28	6073	60.7300	81	100.3
STD 4	STD 4	x	2020/10/06 12:54:23 PM	100.00	100.00	6056	60.5600	95	100.0
STD 5	STD 5		2020/10/06 1:01:19 PM	100.00	101.21	6129	61.2900	105	101.2
STD 6	STD 6		2020/10/06 1:08:15 PM	100.00	98.65	5974	59.7400	91	98.6

Batch Path T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin
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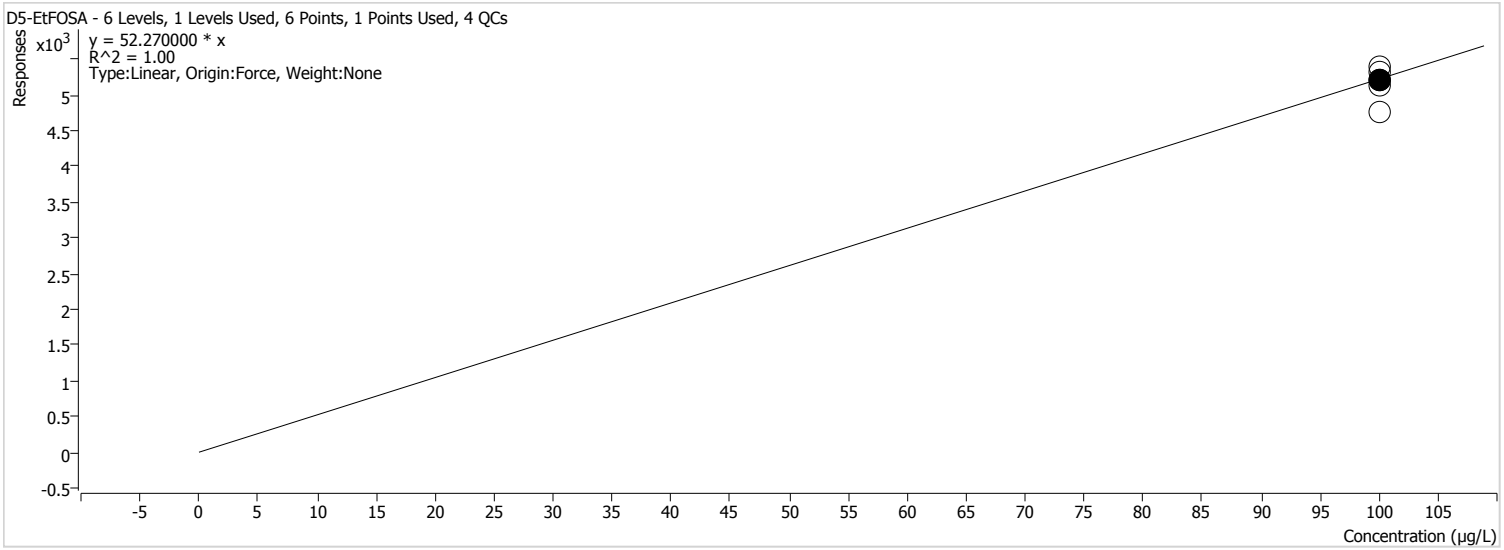
Instrument: LCMS04

Analyte: D5-EtFOSA
Internal Standard:

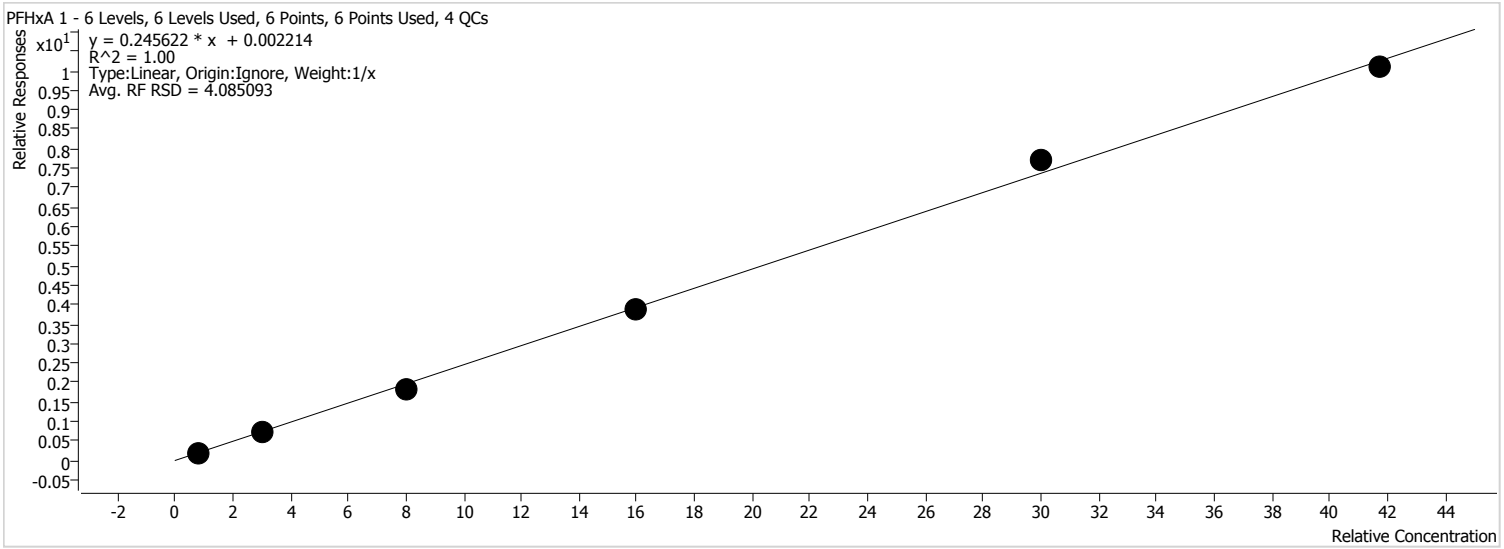


Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/06 12:33:36 PM	100.00	91.03	4758	47.5800	72	91.0
STD 2	STD 2		2020/10/06 12:40:32 PM	100.00	98.62	5155	51.5500	182	98.6
STD 3	STD 3		2020/10/06 12:47:28 PM	100.00	99.73	5213	52.1300	115	99.7
STD 4	STD 4	x	2020/10/06 12:54:23 PM	100.00	100.00	5227	52.2700	79	100.0
STD 5	STD 5		2020/10/06 1:01:19 PM	100.00	103.02	5385	53.8500	76	103.0
STD 6	STD 6		2020/10/06 1:08:15 PM	100.00	101.95	5329	53.2900	86	102.0

By Compound Report

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

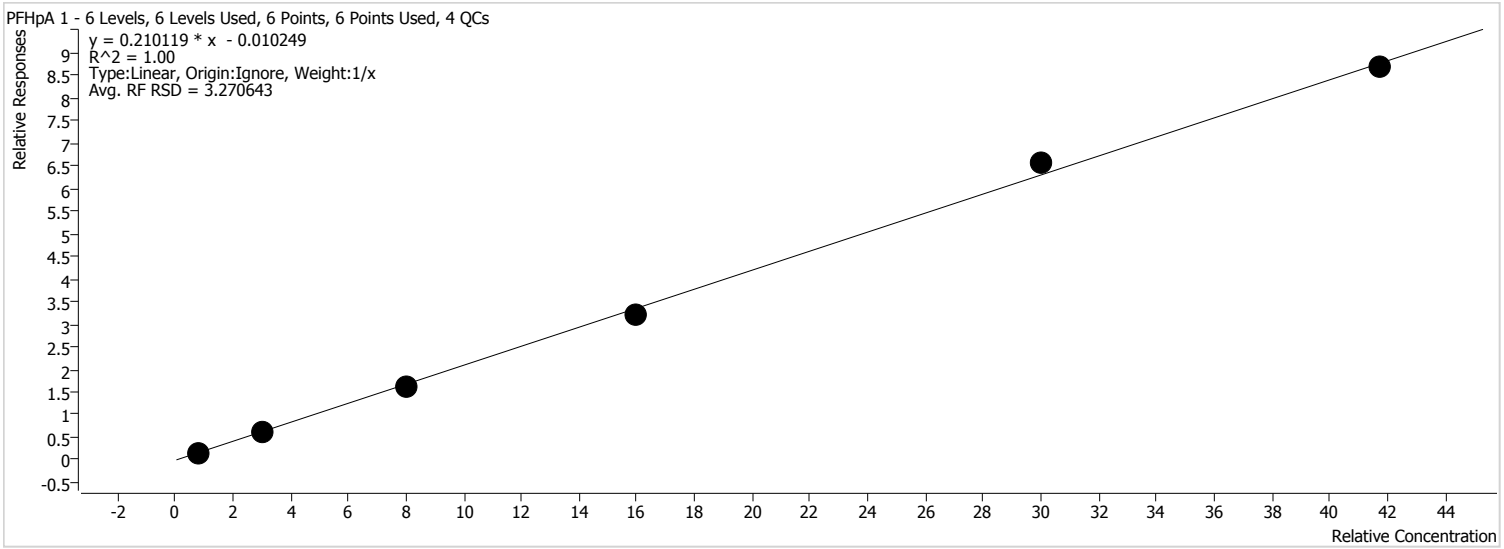
Analyte: PFHxA 1
Internal Standard: 13C2-PFHxA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.86	2994	0.2579	97	103.9
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	3.02	11266	0.2479	268	100.6
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.55	28427	0.2322	532	94.4
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.69	55795	0.2409	543	98.0
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	31.40	111900	0.2572	1545	104.7
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	41.01	147445	0.2416	1836	98.3

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

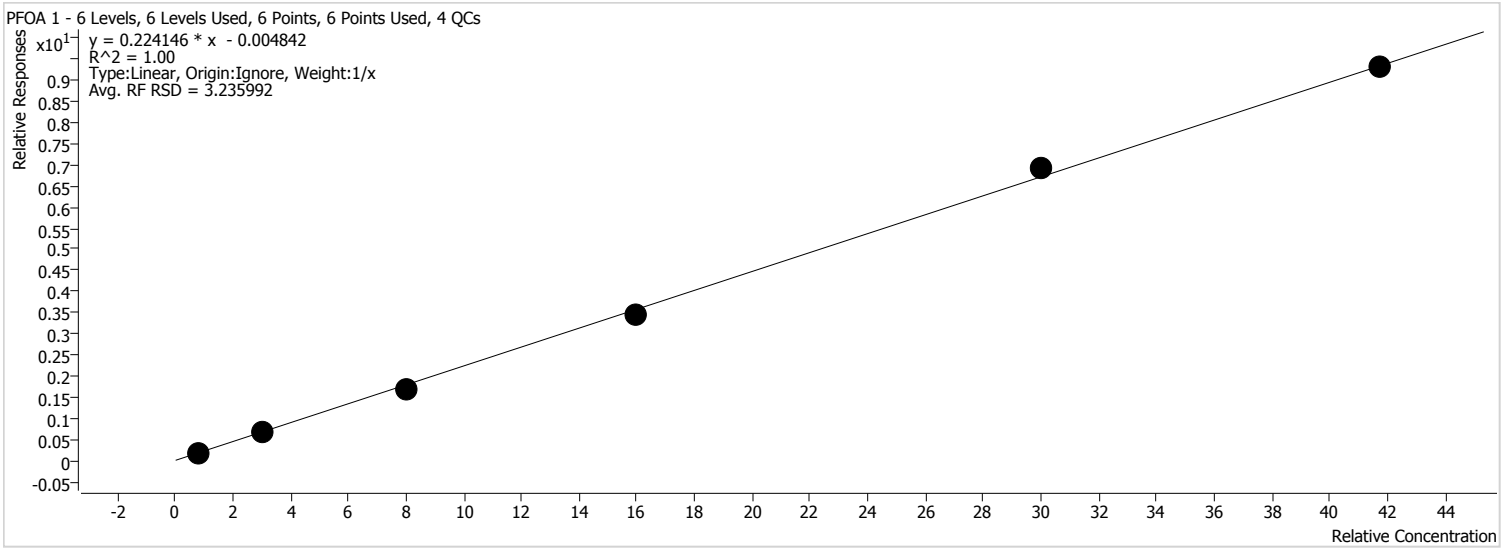
Analyte: PFHpA 1
Internal Standard: 13C4-PFHpA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.86	3272	0.2044	40	103.2
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	3.04	13286	0.2097	245	101.4
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.67	33423	0.2001	471	95.8
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.41	66373	0.2018	834	96.3
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	31.29	131269	0.2188	1040	104.3
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	41.26	172567	0.2077	1382	98.9

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

Analyte: PFOA 1
Internal Standard: 13C4-PFOA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.88	3267	0.2305	47	105.4
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	2.98	12387	0.2207	124	99.2
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.64	31601	0.2135	471	95.5
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.51	63039	0.2169	886	96.9
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	31.00	127200	0.2315	1365	103.3
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	41.53	171344	0.2231	1249	99.6

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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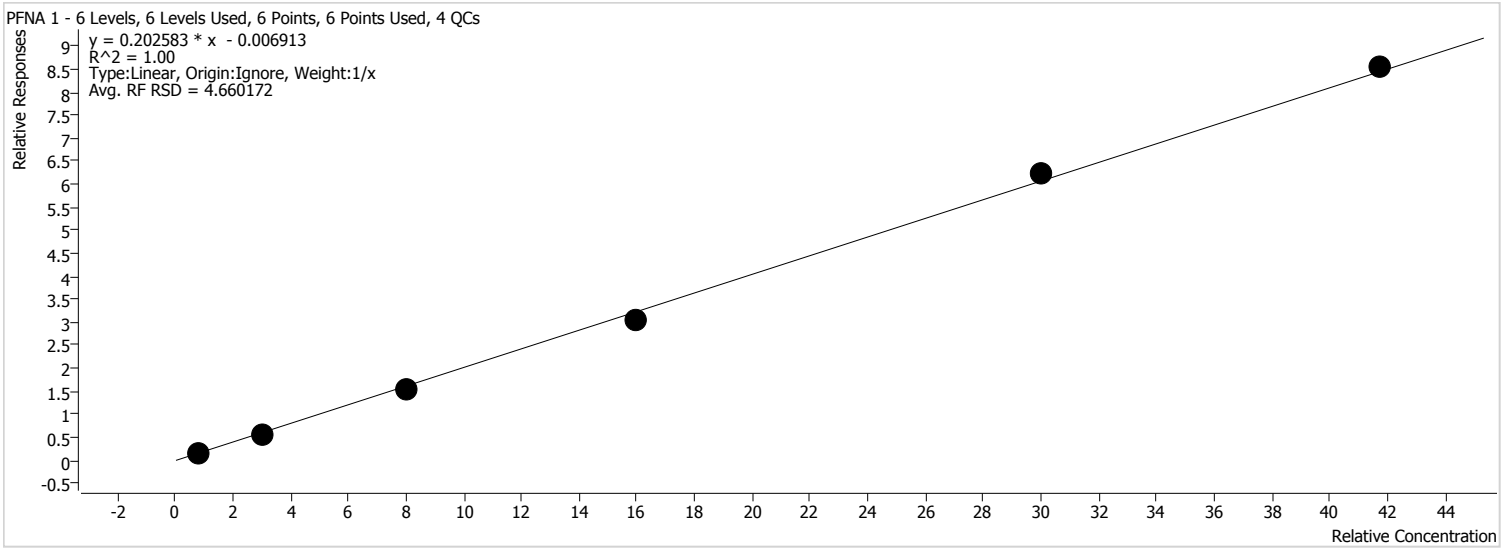
Instrument: LCMS04

Analyte: PFNA 1
Internal Standard: 13C5-PFNA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.91	2873	0.2137	32	109.6
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	2.91	10180	0.1939	106	96.9
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.58	26796	0.1911	225	94.7
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.23	52987	0.1924	480	95.2
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	30.76	106529	0.2075	735	102.5
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	42.14	141378	0.2046	891	101.1

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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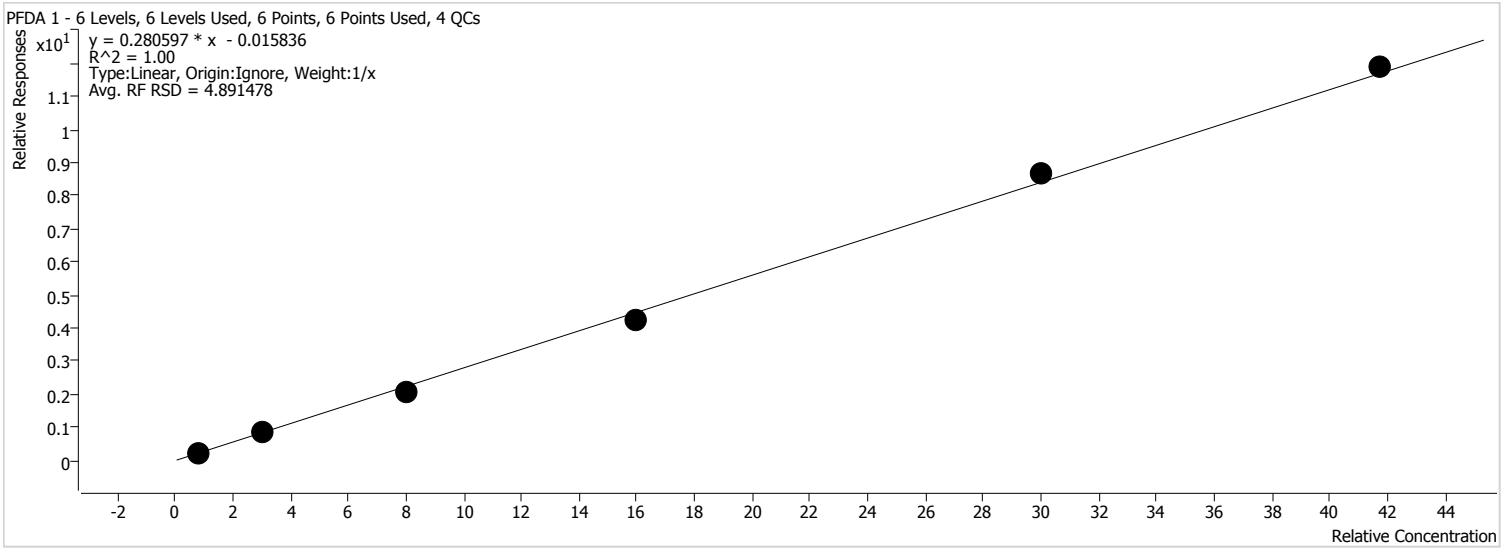
Instrument: LCMS04

Analyte: PFDA 1
Internal Standard: 13C2-PFDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.91	2966	0.2876	48	109.3
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	3.00	11223	0.2757	141	100.2
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.37	28830	0.2565	253	92.1
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.04	57811	0.2627	351	94.0
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	30.86	118695	0.2881	862	102.9
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	42.35	158108	0.2846	1102	101.6

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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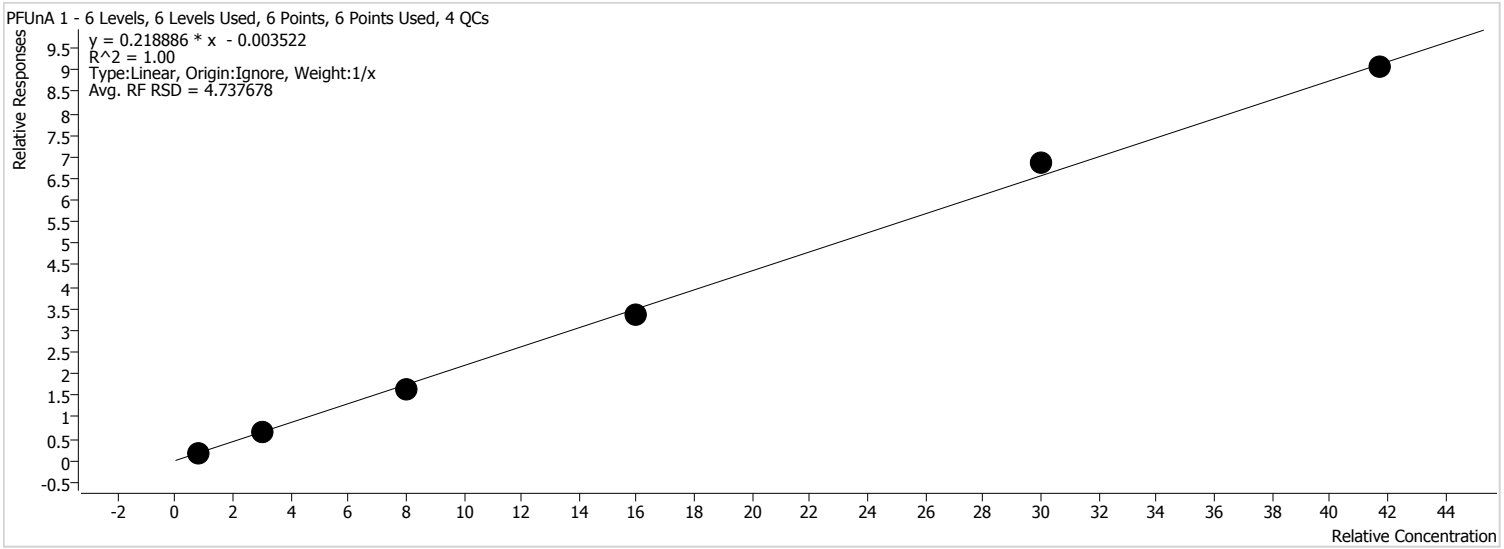
Instrument: LCMS04

Analyte: PFUnA 1
Internal Standard: 13C2-PFUnA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.89	2846	0.2296	29	106.8
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	2.99	10537	0.2173	108	99.8
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.45	26869	0.2034	237	93.1
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.40	54659	0.2104	590	96.2
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	31.44	110806	0.2292	1195	104.8
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	41.36	147715	0.2170	1516	99.2

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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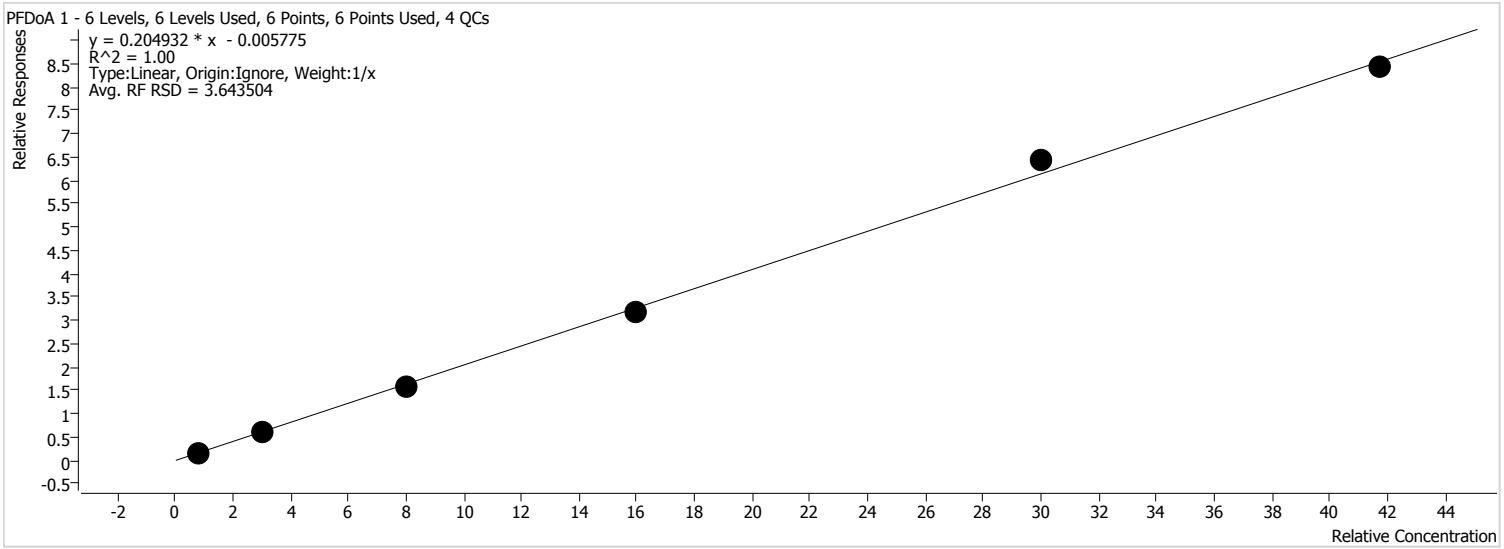
Instrument: LCMS04

Analyte: PFDoA 1
Internal Standard: 13C2-PFDoA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.88	3173	0.2097	48	105.7
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	2.95	12178	0.1997	178	98.4
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.63	31099	0.1948	383	95.4
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.54	62276	0.1987	881	97.1
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	31.43	126226	0.2145	1394	104.8
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	41.09	165401	0.2018	1671	98.5

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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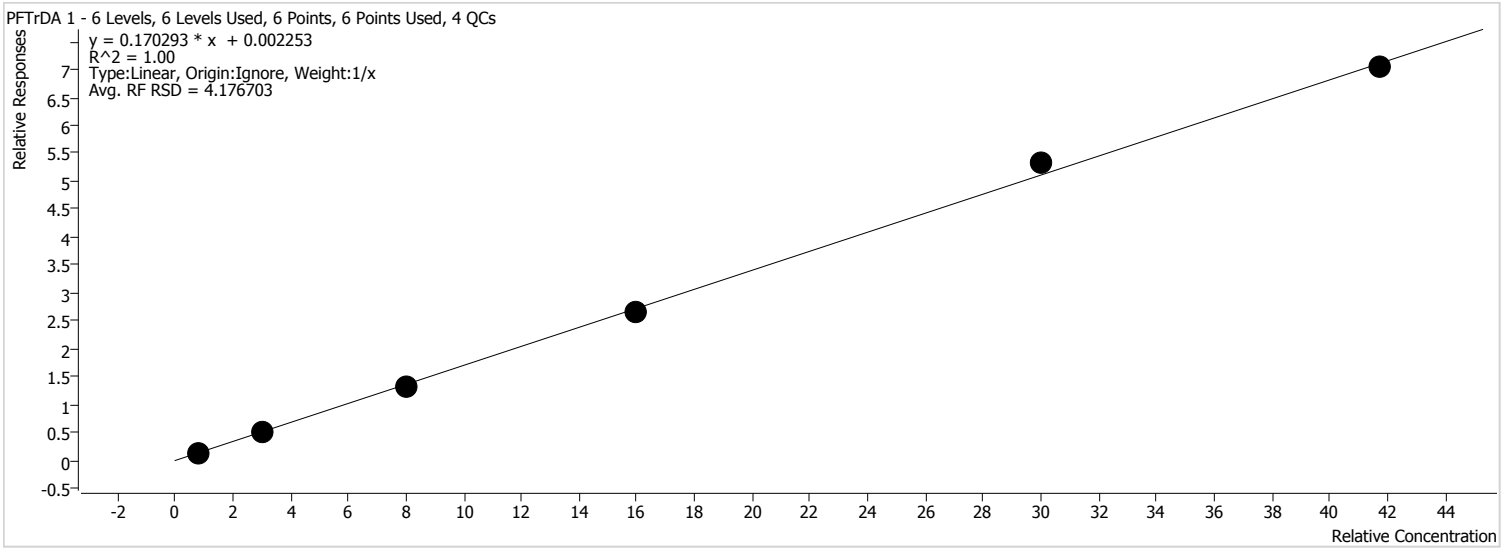
Instrument: LCMS04

Analyte: PFTrDA 1
Internal Standard: 13C2-PFTeDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.87	3681	0.1819	39	105.2
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	2.97	13626	0.1691	244	98.9
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.65	35092	0.1632	323	95.7
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.56	71118	0.1658	1034	97.3
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	31.21	143348	0.1772	1557	104.0
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	41.26	186790	0.1686	1403	99.0

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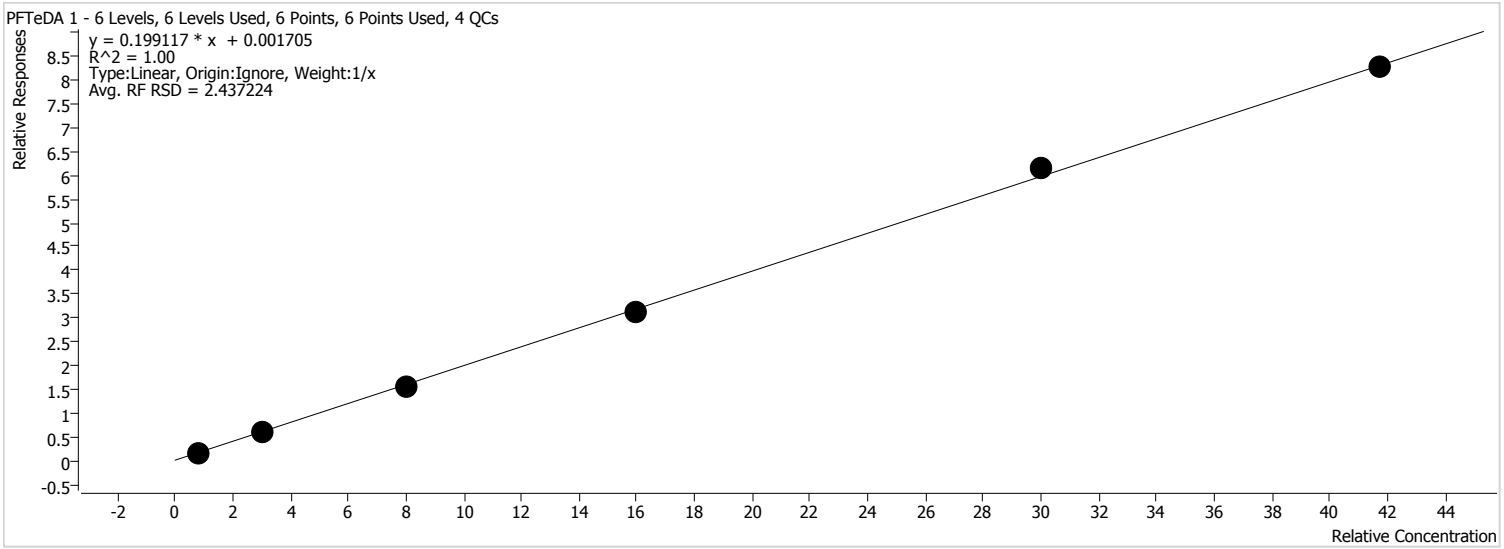
Instrument: LCMS04

Analyte: PFTeDA 1
Internal Standard: 13C2-PFTeDA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.84	4141	0.2046	50	101.7
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	3.04	16305	0.2024	276	101.4
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.80	41771	0.1942	634	97.4
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.58	83226	0.1940	1744	97.4
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	30.79	165311	0.2044	2386	102.6
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	41.48	219536	0.1981	3848	99.5

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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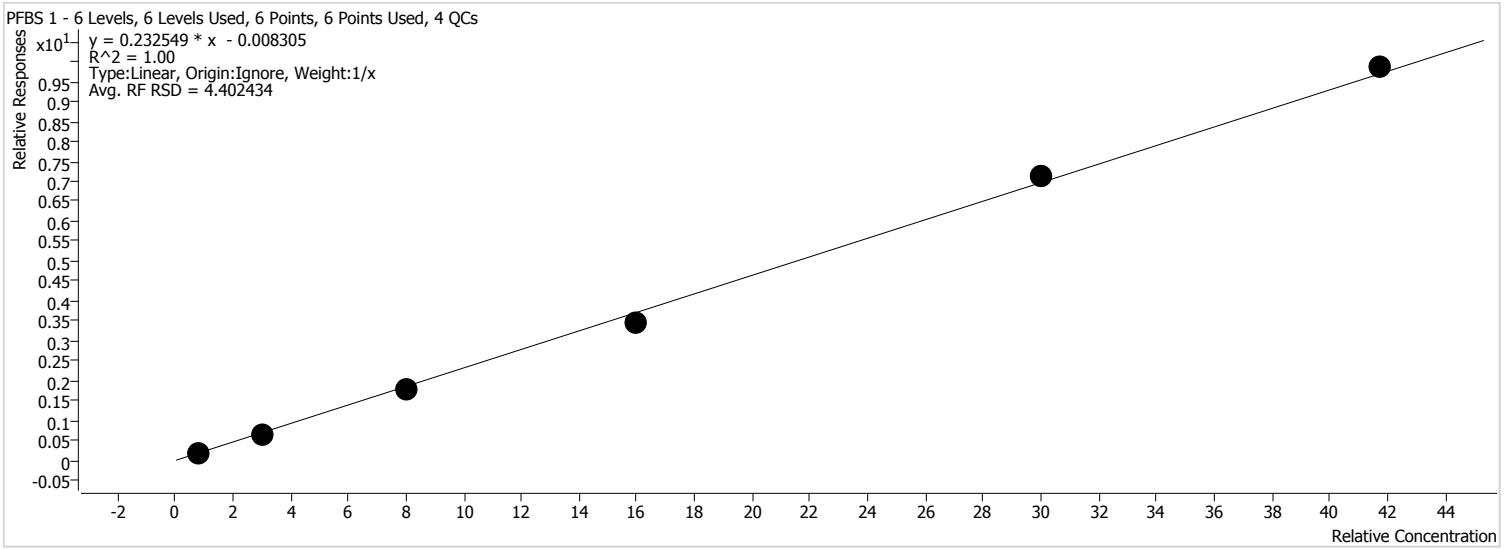
Instrument: LCMS04

Analyte: PFBS 1
Internal Standard: 13C3-PFBS IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.90	618	0.2428	79	108.7
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	2.91	2293	0.2227	109	97.0
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.79	5977	0.2254	316	97.4
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	14.92	11582	0.2163	197	93.3
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	30.63	23676	0.2371	1018	102.1
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	42.38	31581	0.2362	1354	101.6

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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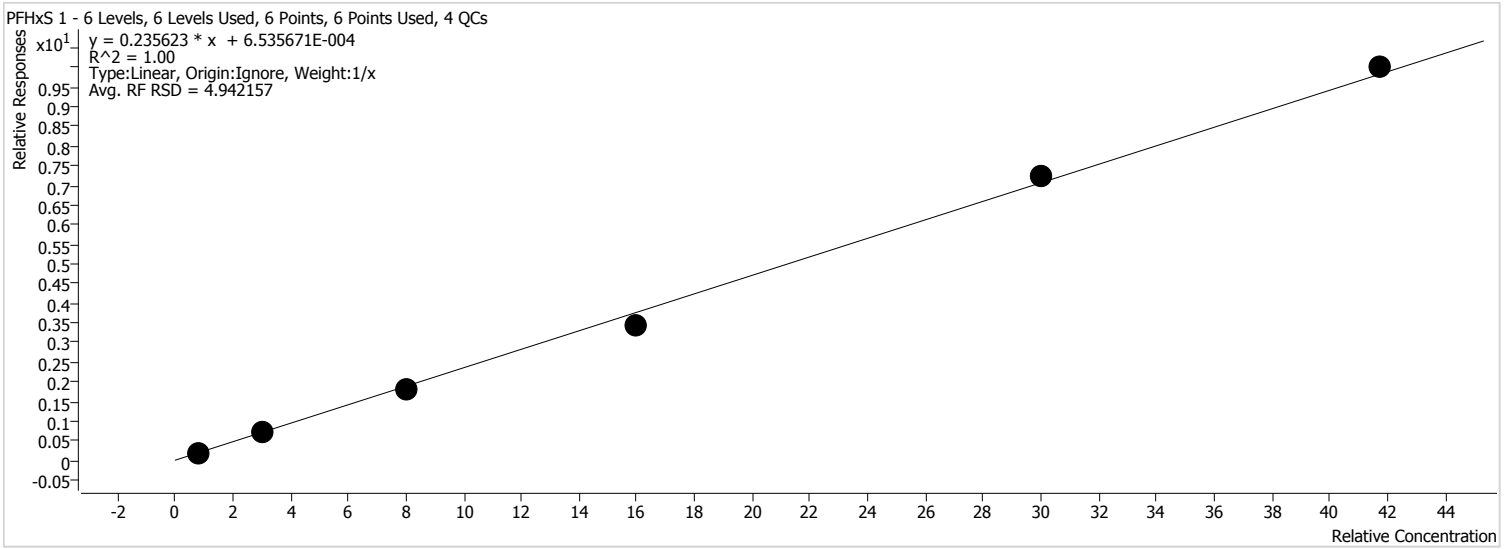
Instrument: LCMS04

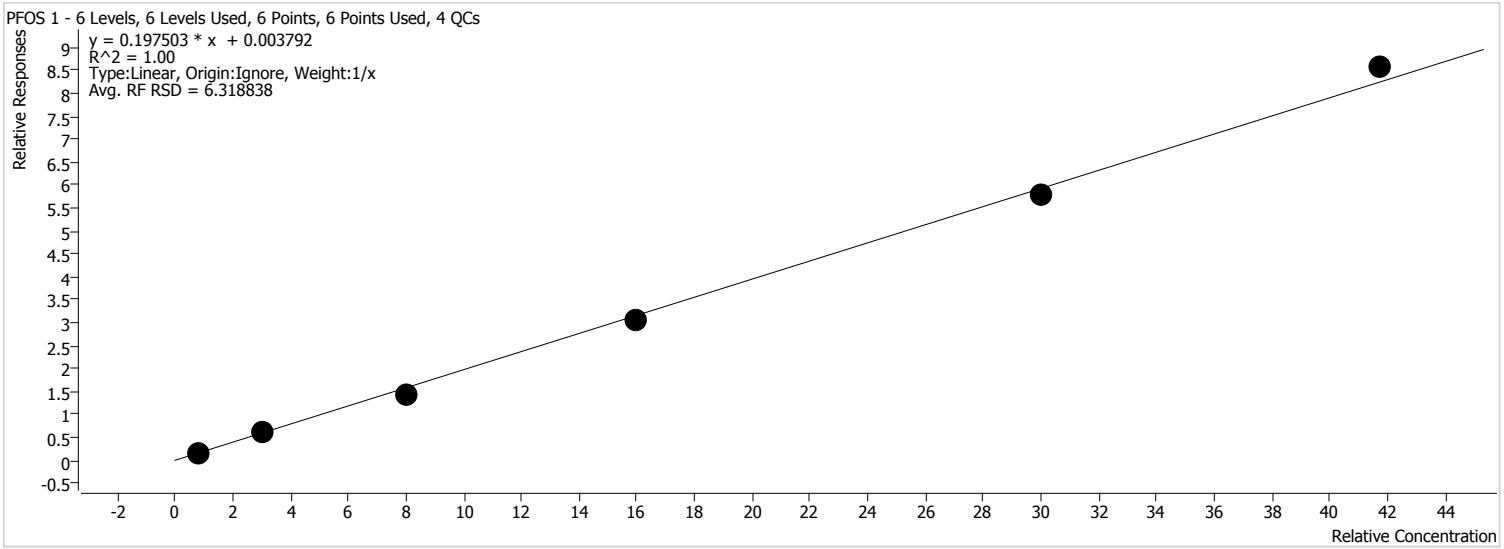
Analyte: PFHxS 1
Internal Standard: 18O2-PFHxS IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.87	486	0.2470	105	104.5
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	3.10	1891	0.2433	86	103.2
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.70	4757	0.2269	111	96.3
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	14.70	9092	0.2166	123	91.9
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	30.74	18341	0.2415	110	102.5
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	42.43	24103	0.2397	102	101.7

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

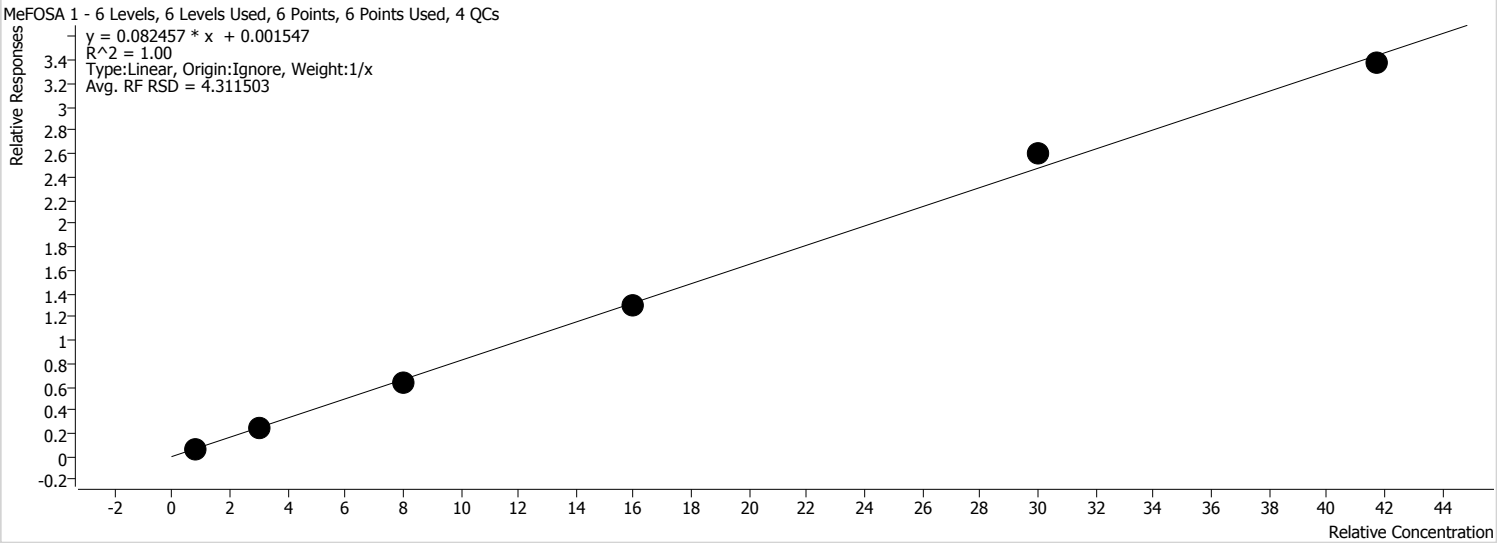
Analyte: PFOS 1
Internal Standard: 13C4-PFOS IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.89	412	0.2165	34	107.3
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	3.07	1636	0.2037	52	102.5
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.28	3899	0.1803	49	91.0
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.56	8000	0.1923	56	97.3
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	29.42	15779	0.1938	52	98.1
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	43.30	21040	0.2052	55	103.8

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

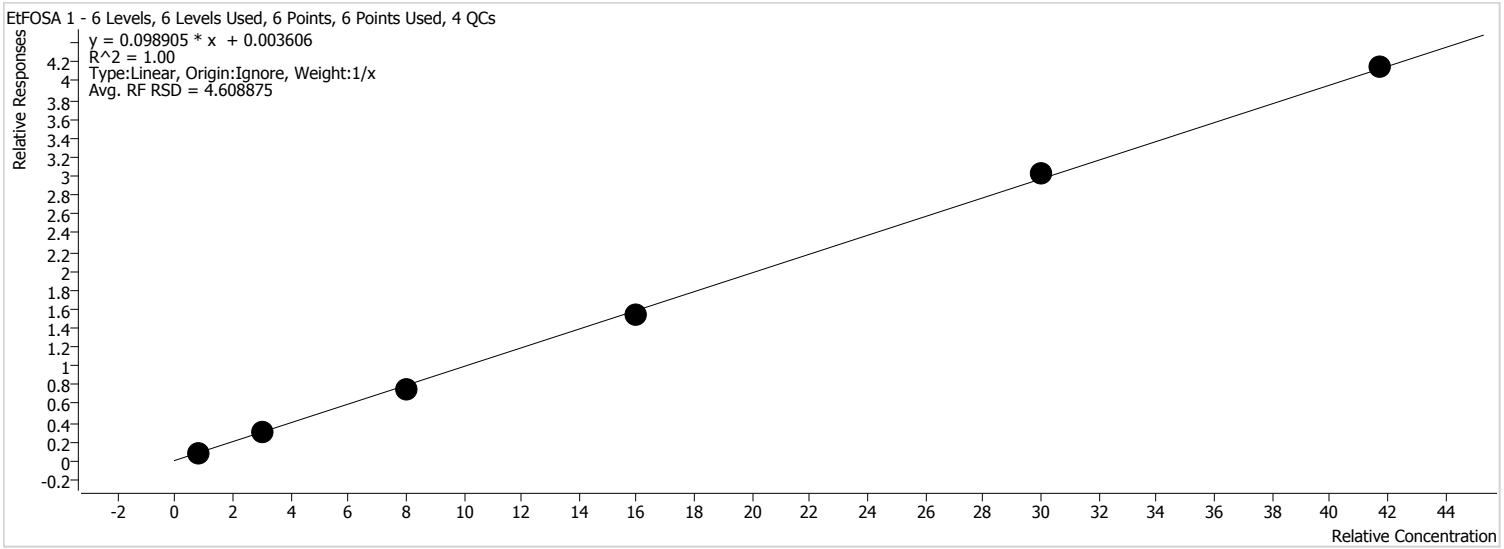
Analyte: MeFOSA 1
Internal Standard: D3-MeFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.86	421	0.0873	26	103.6
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	3.02	1560	0.0834	79	100.5
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.60	3925	0.0786	129	95.0
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.61	7988	0.0806	386	97.6
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	31.58	16062	0.0868	780	105.3
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	40.86	21429	0.0808	597	98.0

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

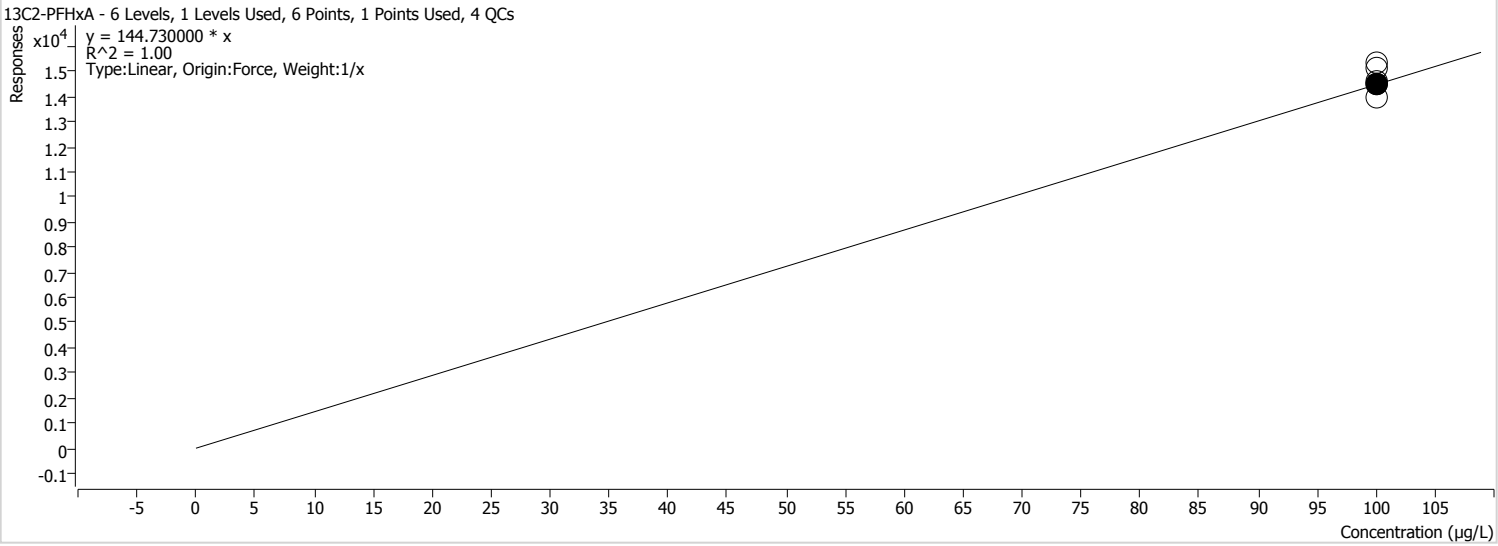
Analyte: EtFOSA 1
Internal Standard: D5-EtFOSA IS



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1	x	2020/10/07 1:21:06 PM	0.83	0.87	442	0.1078	11	104.6
STD 2	STD 2	x	2020/10/07 1:28:02 PM	3.00	3.02	1687	0.1007	62	100.6
STD 3	STD 3	x	2020/10/07 1:34:57 PM	8.00	7.60	4192	0.0944	119	95.0
STD 4	STD 4	x	2020/10/07 1:41:53 PM	16.00	15.59	8430	0.0966	183	97.4
STD 5	STD 5	x	2020/10/07 1:48:51 PM	30.00	30.62	17335	0.1011	319	102.1
STD 6	STD 6	x	2020/10/07 1:55:46 PM	41.70	41.84	22889	0.0993	522	100.3

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

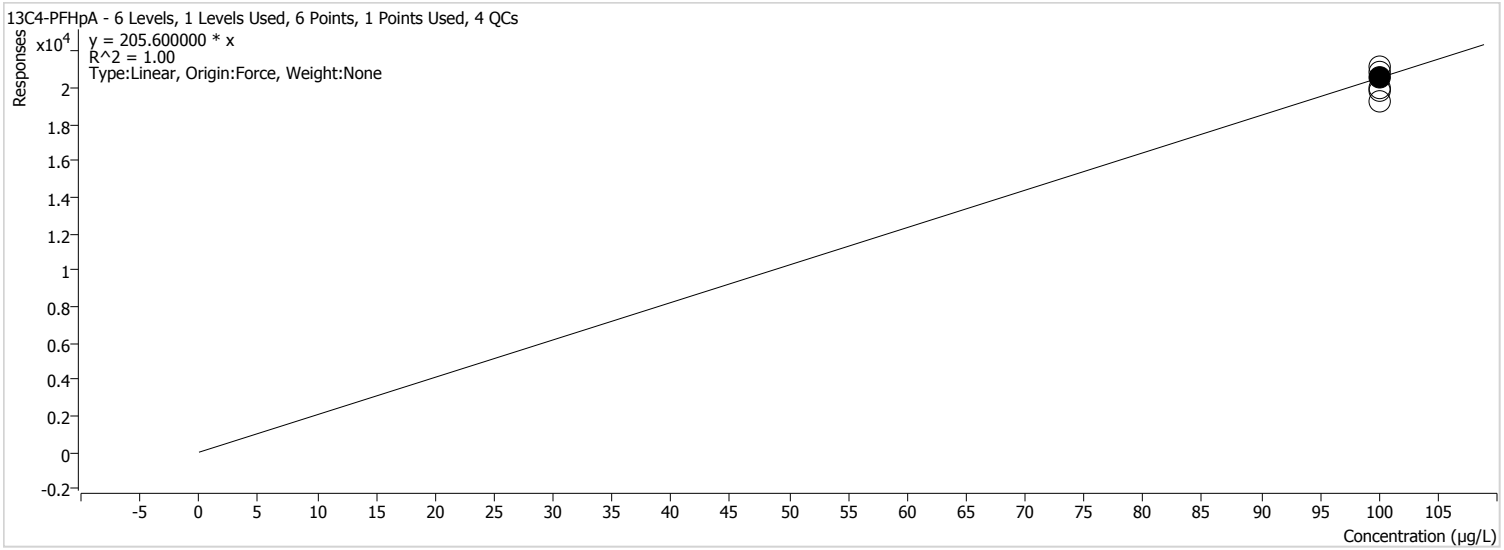
Analyte: 13C2-PFHxA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	96.64	13987	139.8700	756	96.6
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	104.66	15148	151.4800	623	104.7
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	105.76	15306	153.0600	640	105.8
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	14473	144.7300	250	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	100.21	14504	145.0400	1451	100.2
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	101.12	14635	146.3500	803	101.1

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

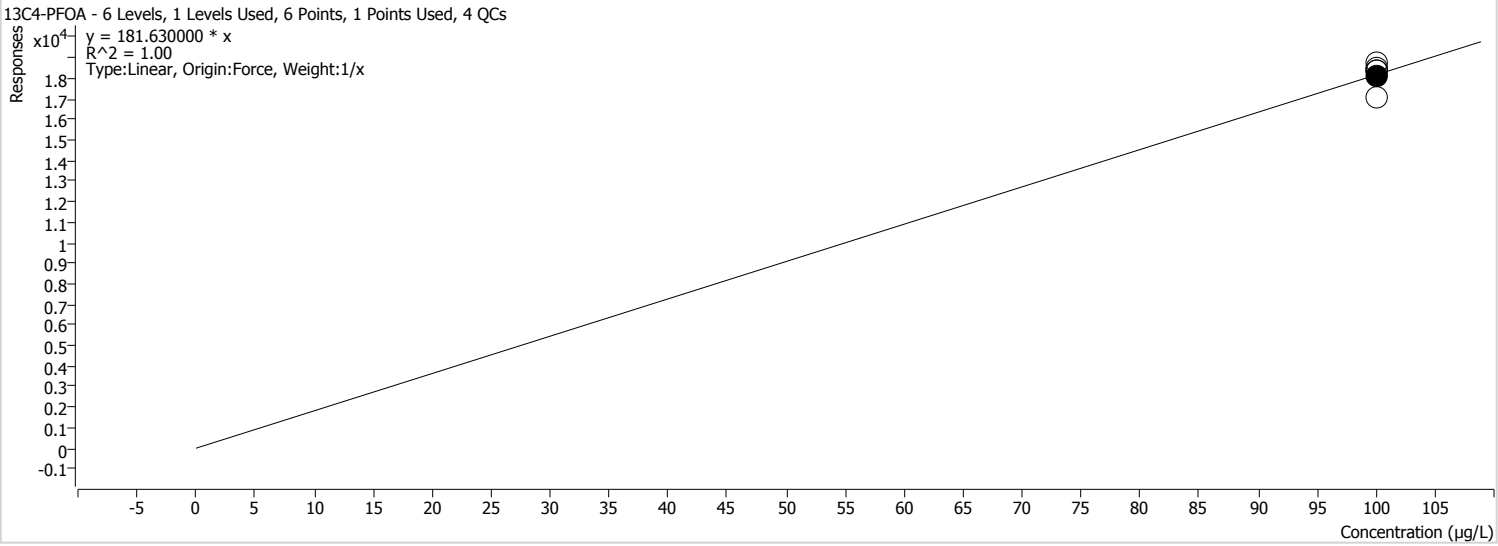
Analyte: 13C4-PFHpA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	93.80	19286	192.8600	512	93.8
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	102.71	21118	211.1800	681	102.7
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	101.56	20881	208.8100	857	101.6
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	20560	205.6000	738	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	97.26	19997	199.9700	1350	97.3
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	96.93	19928	199.2800	1643	96.9

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

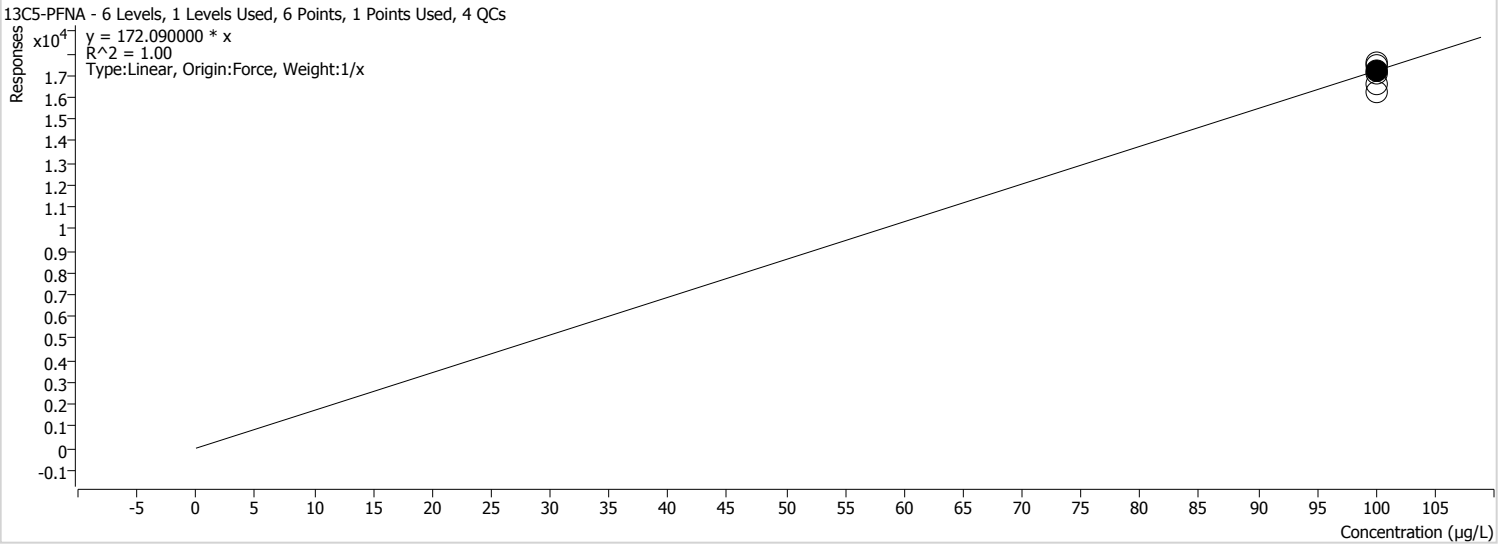
Analyte: 13C4-PFOA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	94.03	17078	170.7800	1065	94.0
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	102.98	18705	187.0500	479	103.0
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	101.86	18501	185.0100	416	101.9
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	18163	181.6300	747	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	100.84	18316	183.1600	526	100.8
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	101.40	18418	184.1800	700	101.4

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

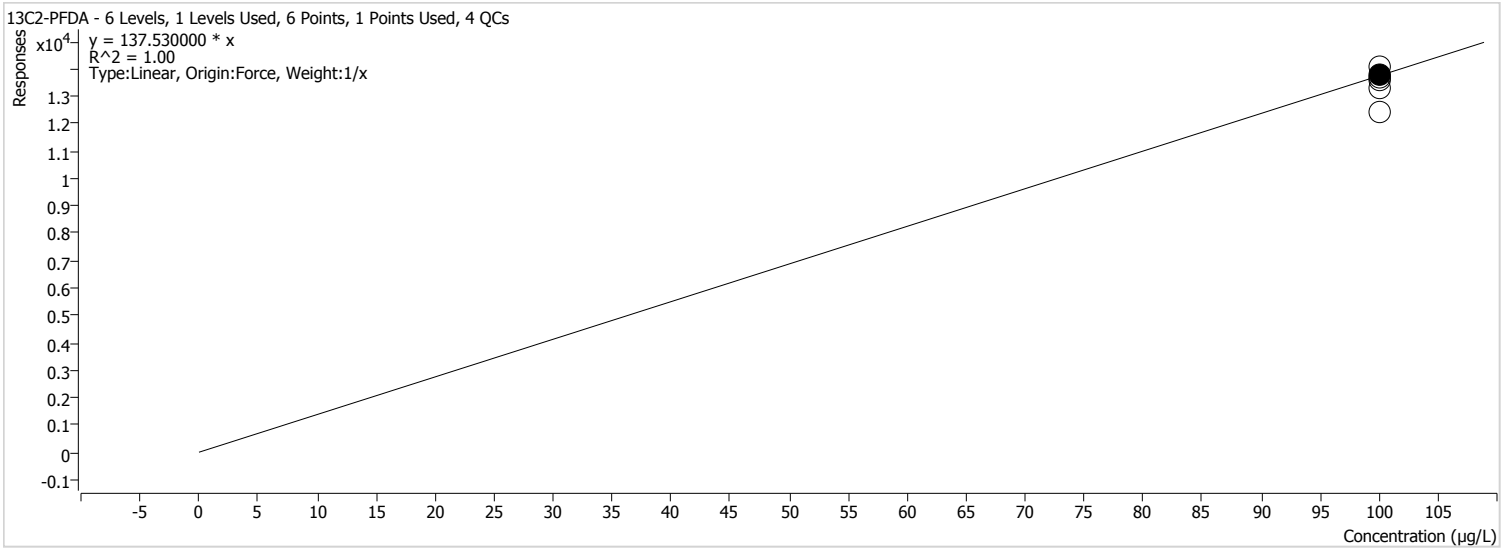
Analyte: 13C5-PFNA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	94.13	16198	161.9800	1021	94.1
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	101.68	17498	174.9800	534	101.7
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	101.87	17531	175.3100	778	101.9
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	17209	172.0900	602	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	99.45	17115	171.1500	406	99.5
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	96.30	16573	165.7300	383	96.3

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

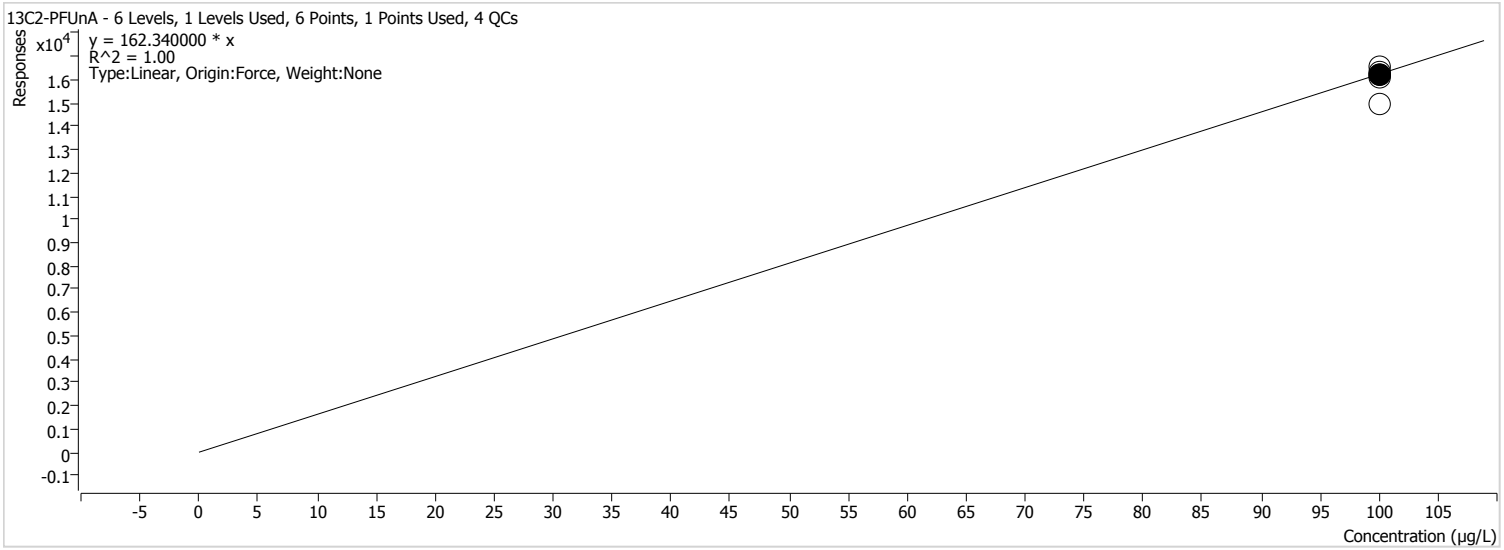
Analyte: 13C2-PFDA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	90.34	12424	124.2400	713	90.3
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	98.65	13567	135.6700	632	98.6
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	102.14	14047	140.4700	694	102.1
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	13753	137.5300	717	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	99.85	13732	137.3200	982	99.8
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	96.87	13323	133.2300	224	96.9

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

Analyte: 13C2-PFUnA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	91.99	14933	149.3300	546	92.0
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	99.57	16165	161.6500	785	99.6
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	101.71	16511	165.1100	1004	101.7
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	16234	162.3400	1353	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	99.25	16112	161.1200	477	99.2
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	100.54	16321	163.2100	495	100.5

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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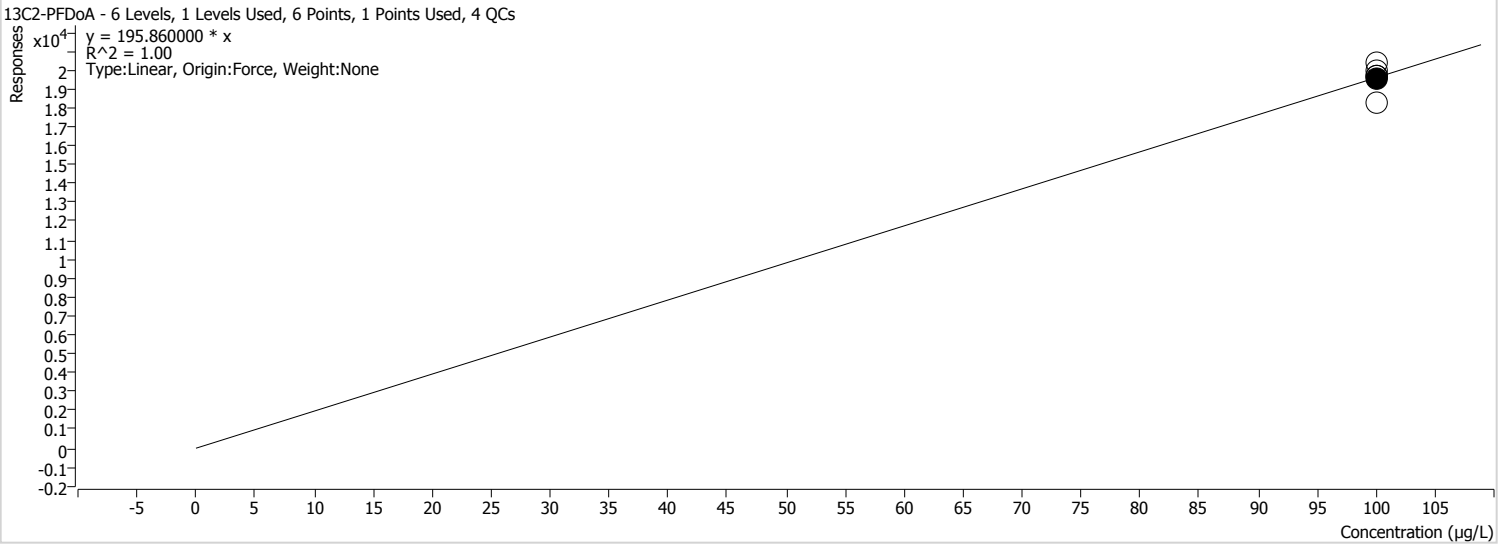
Instrument: LCMS04

Analyte: 13C2-PFDoA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	93.09	18232	182.3200	800	93.1
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	103.76	20323	203.2300	906	103.8
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	101.87	19953	199.5300	637	101.9
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	19586	195.8600	718	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	100.14	19614	196.1400	300	100.1
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	100.35	19655	196.5500	733	100.4

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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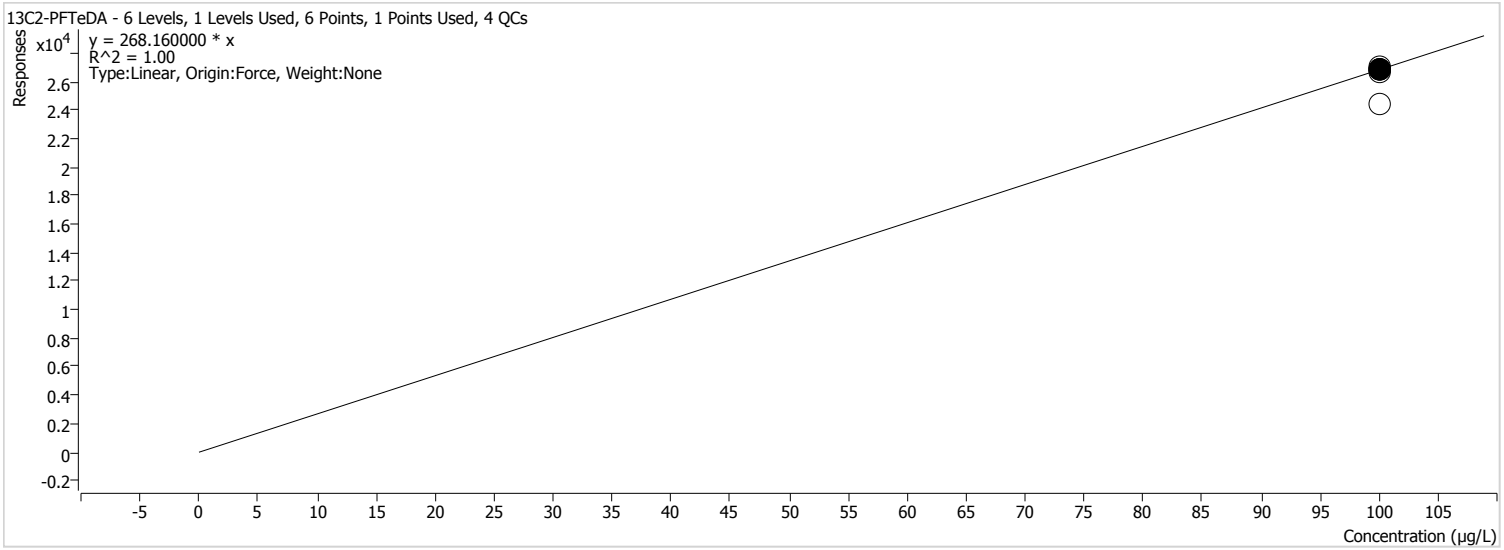
Instrument: LCMS04

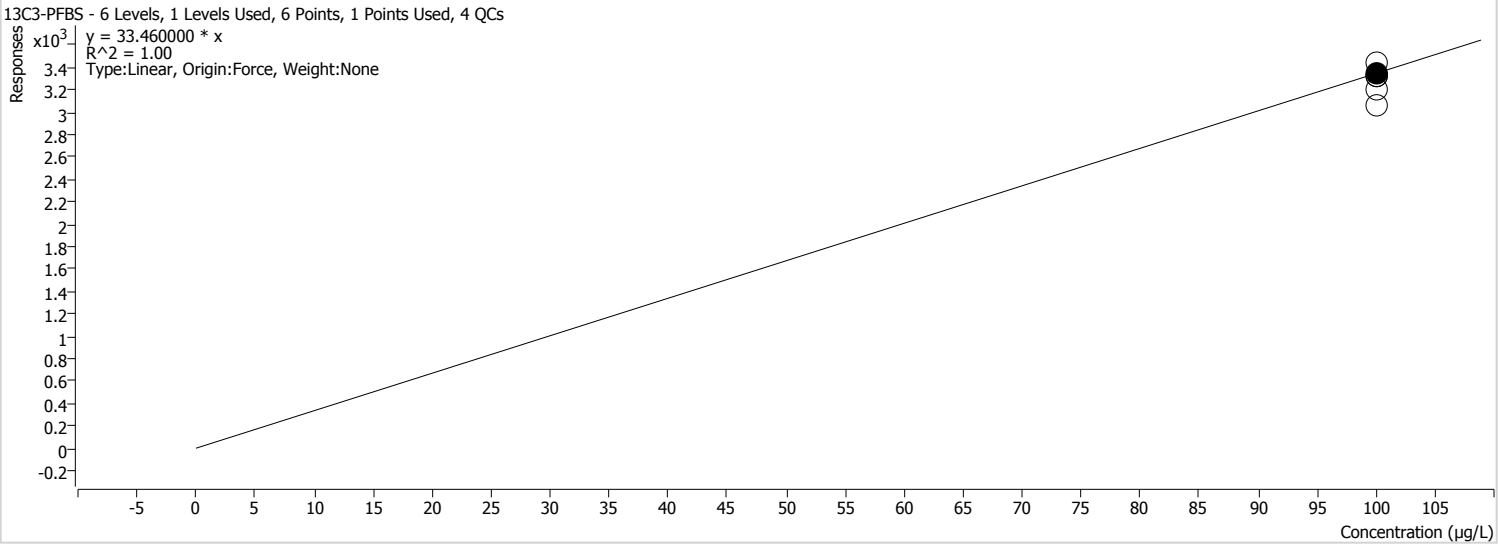
Analyte: 13C2-PFTeDA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	90.94	24386	243.8600	932	90.9
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	100.13	26852	268.5200	1098	100.1
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	100.24	26880	268.8000	1790	100.2
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	26816	268.1600	1314	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	100.53	26958	269.5800	1463	100.5
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	99.09	26573	265.7300	1070	99.1

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

Analyte: 13C3-PFBS
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	91.66	3067	30.6700	163	91.7
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	102.57	3432	34.3200	258	102.6
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	99.07	3315	33.1500	244	99.1
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	3346	33.4600	296	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	99.46	3328	33.2800	361	99.5
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	95.85	3207	32.0700	152	95.8

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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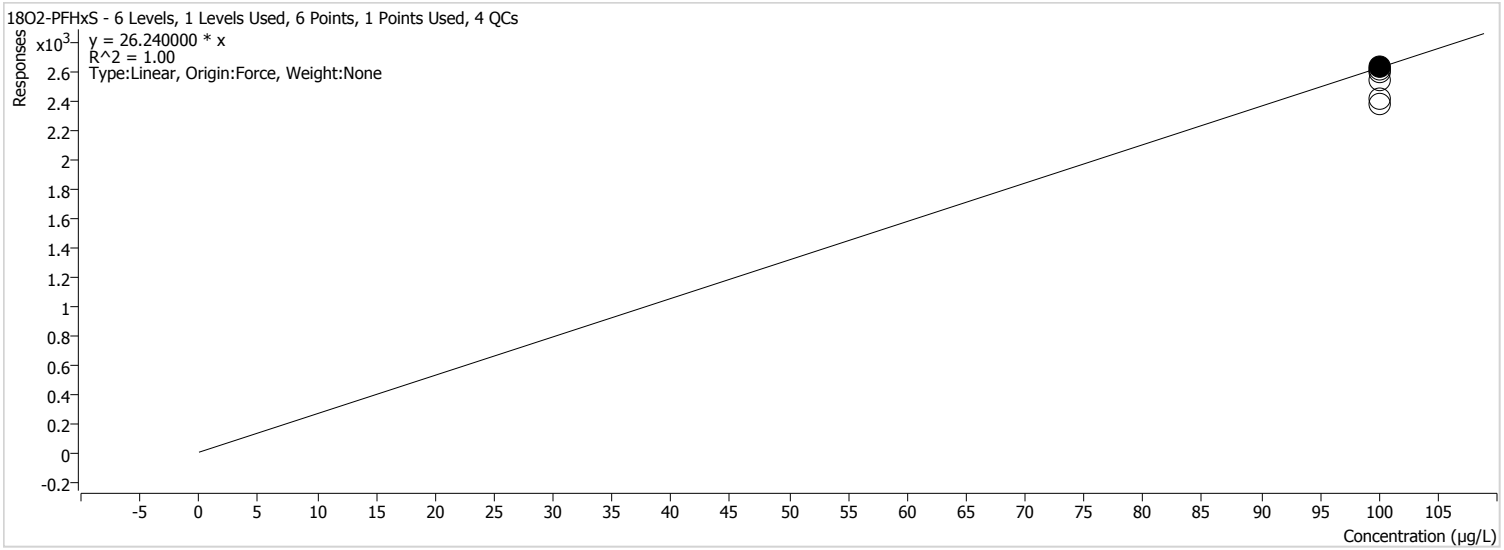
Instrument: LCMS04

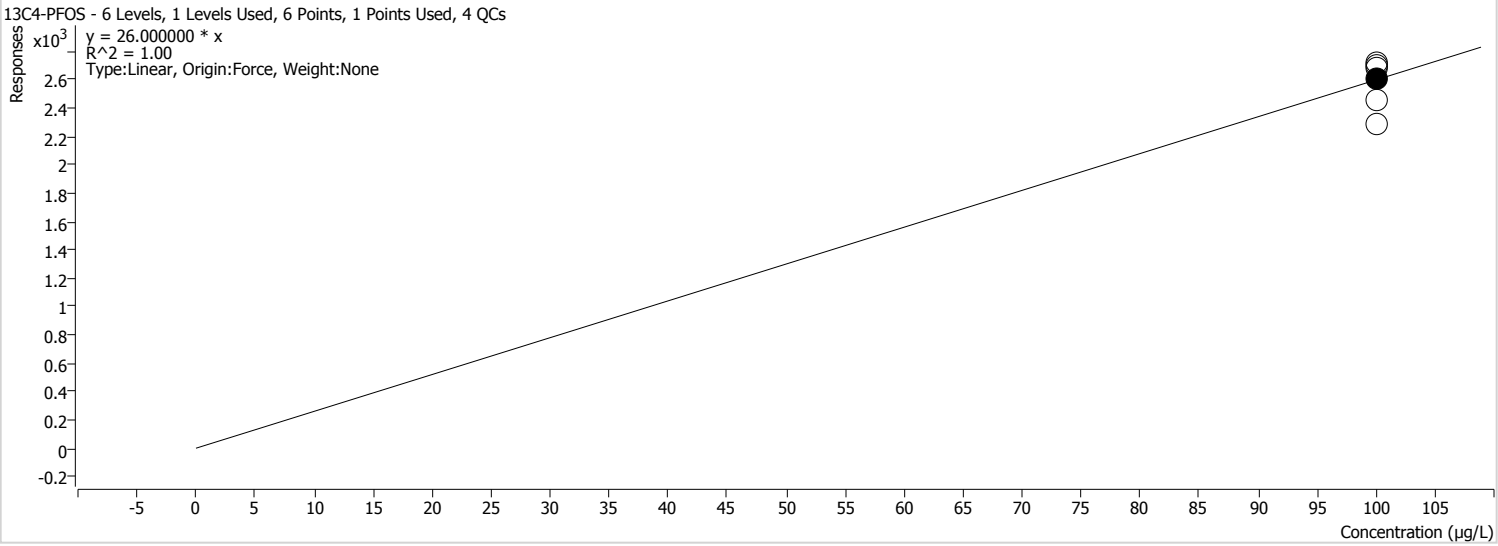
Analyte: 18O2-PFHxS
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	90.43	2373	23.7300	258	90.4
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	98.74	2591	25.9100	130	98.7
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	99.89	2621	26.2100	276	99.9
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	2624	26.2400	262	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	96.49	2532	25.3200	236	96.5
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	91.88	2411	24.1100	134	91.9

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

Analyte: 13C4-PFOS
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	88.23	2294	22.9400	136	88.2
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	102.96	2677	26.7700	395	103.0
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	103.96	2703	27.0300	308	104.0
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	2600	26.0000	339	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	104.38	2714	27.1400	619	104.4
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	94.58	2459	24.5900	117	94.6

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
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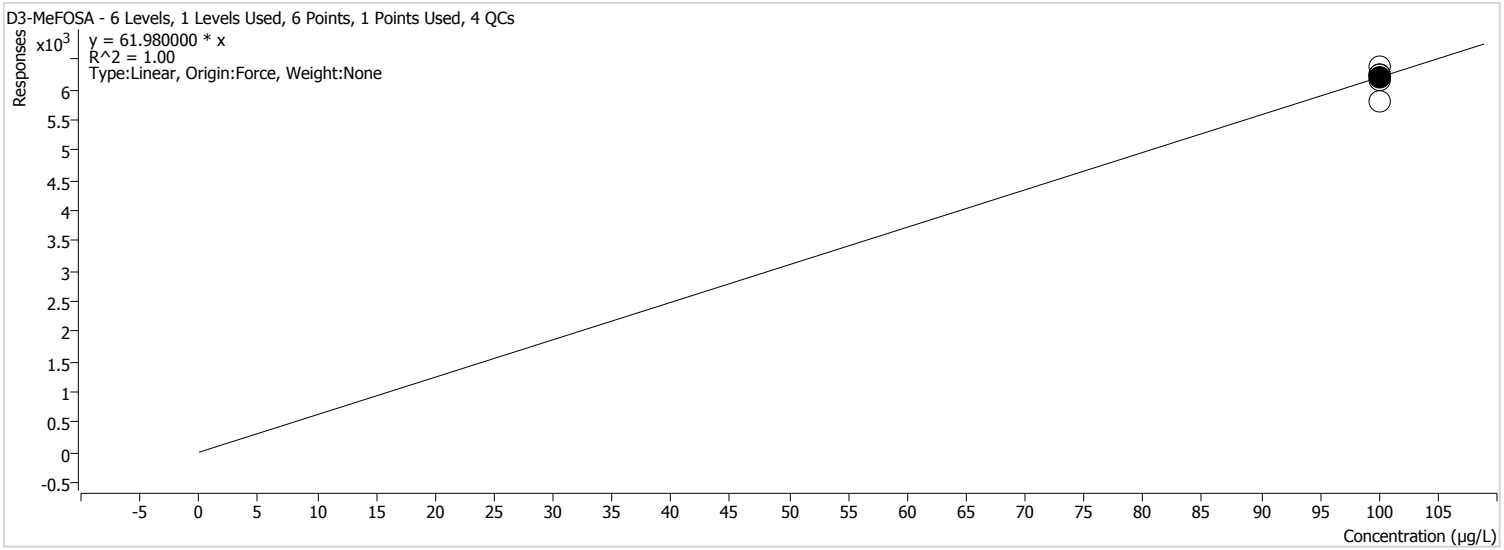
Instrument: LCMS04

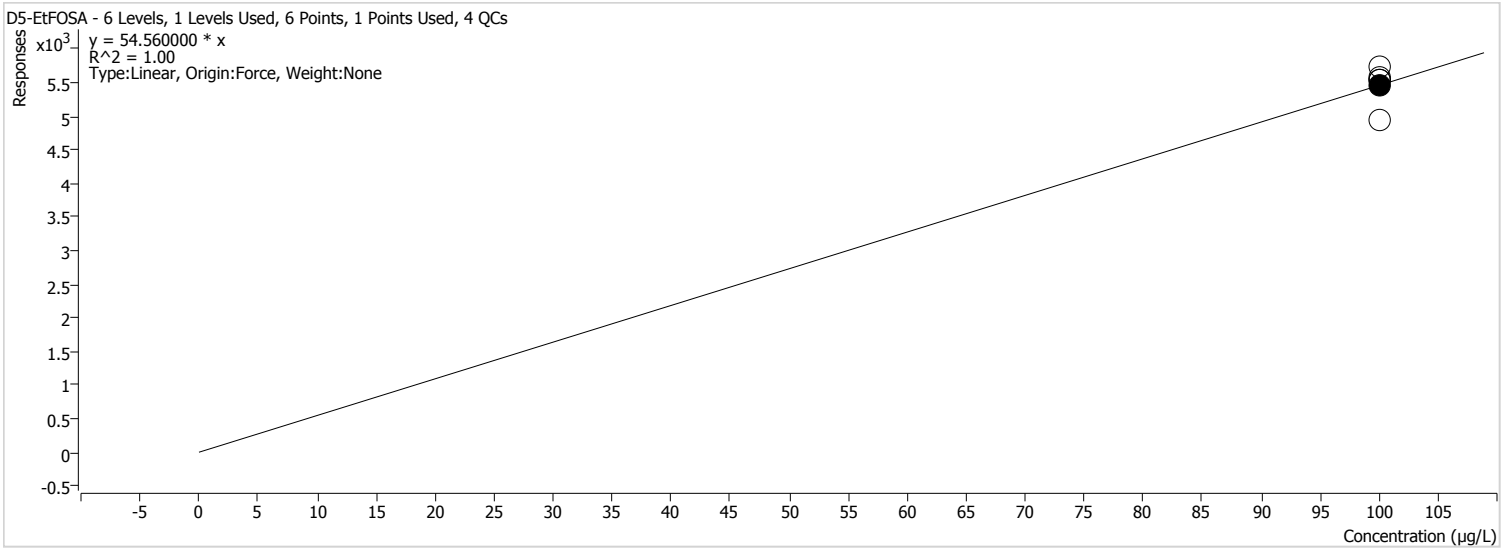
Analyte: D3-MeFOSA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	93.72	5809	58.0900	108	93.7
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	100.61	6236	62.3600	89	100.6
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	100.76	6245	62.4500	113	100.8
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	6198	61.9800	100	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	99.47	6165	61.6500	113	99.5
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	102.57	6357	63.5700	117	102.6

Batch Path T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin
Last Calib Update 2020/10/09 3:33:18 PM
Instrument: LCMS04

Analyte: D5-EtFOSA
Internal Standard:



Sample	Level	Enabled	Acquisition Time	Exp. Conc.	Concentration	Response	RF	S/N	Accuracy
STD 1	STD 1		2020/10/07 1:21:06 PM	100.00	90.52	4939	49.3900	101	90.5
STD 2	STD 2		2020/10/07 1:28:02 PM	100.00	102.38	5586	55.8600	132	102.4
STD 3	STD 3		2020/10/07 1:34:57 PM	100.00	101.72	5550	55.5000	124	101.7
STD 4	STD 4	x	2020/10/07 1:41:53 PM	100.00	100.00	5456	54.5600	167	100.0
STD 5	STD 5		2020/10/07 1:48:51 PM	100.00	104.80	5718	57.1800	127	104.8
STD 6	STD 6		2020/10/07 1:55:46 PM	100.00	101.28	5526	55.2600	135	101.3

6. Continuing Calibration

Bureau Veritas Canada (2019)
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1-800-668-0639
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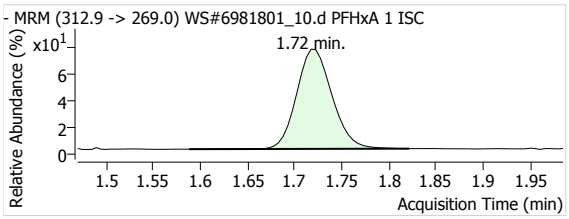
Quantitative Analysis Report

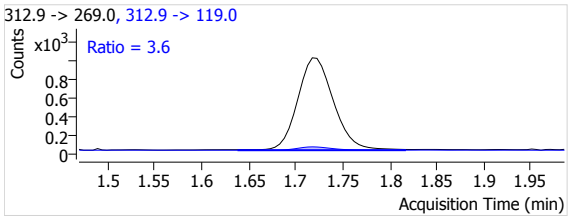
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	ISC	**Data File**	WS#6981801_10.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A2
Acq. Date-Time	2020/10/05 1:46:35 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	0.830	0.8232	99.2	2572	1.72	64	0.1642	93	1.72	42	3.6
PFHpA 1	µg/L	0.830	0.8072	97.3	2989	2.16	71	0.2238	516	2.16	30	17.3
PFOA 1	µg/L	0.830	0.7975	96.1	2041	2.63	19	0.1405	542	2.63	119	26.6
PFNA 1	µg/L	0.830	0.8374	100.9	1980	3.06	46	0.1697	312	3.06	98	15.8
PFDA 1	µg/L	0.830	0.8714	105.0	1695	3.45	65	0.1643	282	3.45	92	16.6
PFUnA 1	µg/L	0.830	0.8452	101.8	1931	3.78	43	0.1692	329	3.79	67	17.0
PFDoA 1	µg/L	0.830	0.8063	97.1	1857	4.09	42	0.1557	259	4.08	24	13.9
PFTrDA 1	µg/L	0.830	0.7923	95.5	1708	4.34	27	0.1798	138	4.35	99	8.1
PFTeDA 1	µg/L	0.830	0.7978	96.1	1567	4.58	42	0.1650	124	4.58	49	7.9
PFBS 1	µg/L	0.830	0.8433	101.6	929	1.40	89	0.1763	348	1.40	92	37.5
PFHxS 1	µg/L	0.830	0.7980	96.1	488	2.08	53	0.1880	228	2.07	199	46.8
PFOS 1	µg/L	0.830	0.7947	95.8	472	2.88	102	0.1684	224	2.88	119	47.4
MeFOSA 1	µg/L	0.830	0.7103	85.6	302	5.23	21	0.0806	292	5.23	165	96.7
EtFOSA 1	µg/L	0.830	0.8524	102.7	330	5.36	17	0.0753	301	5.36	45	91.2
13C2-PFHxA	µg/L	100.000	106.5719	106.6	15665	1.72	1546		--	--	--	--
13C4-PFHpA	µg/L	100.000	106.9592	107.0	13356	2.16	819		--	--	--	--
13C4-PFOA	µg/L	100.000	106.5948	106.6	14531	2.63	1049		--	--	--	--
13C5-PFNA	µg/L	100.000	105.2983	105.3	11666	3.06	570		--	--	--	--
13C2-PFDA	µg/L	100.000	104.9344	104.9	10314	3.45	910		--	--	--	--
13C2-PFUnA	µg/L	100.000	107.3653	107.4	11414	3.78	1130		--	--	--	--
13C2-PFDoA	µg/L	100.000	108.1844	108.2	11923	4.08	546		--	--	--	--
13C2-PFTeDA	µg/L	100.000	105.4865	105.5	9498	4.58	1277		--	--	--	--
13C3-PFBS	µg/L	100.000	104.2343	104.2	5268	1.40	1003		--	--	--	--
18O2-PFHxS	µg/L	100.000	102.2030	102.2	2598	2.12	280		--	--	--	--
13C4-PFOS	µg/L	100.000	104.9401	104.9	2804	2.93	272		--	--	--	--
D3-MeFOSA	µg/L	100.000	106.5359	106.5	3749	5.24	175		--	--	--	--
D5-EtFOSA	µg/L	100.000	104.9306	104.9	4384	5.36	109		--	--	--	--

PFHxA 1





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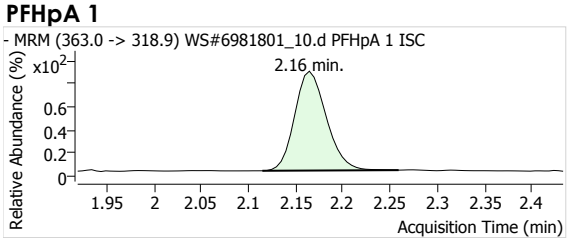

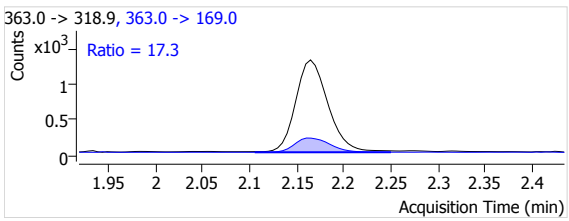

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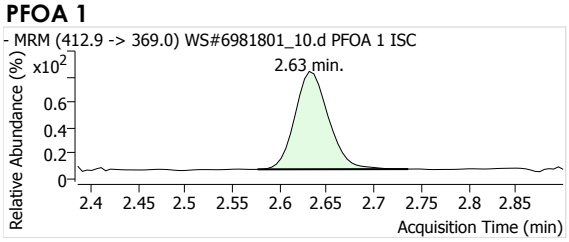

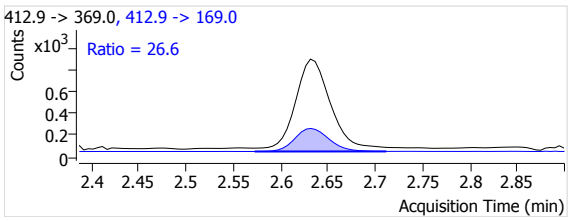

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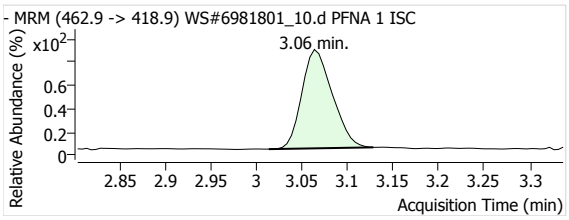

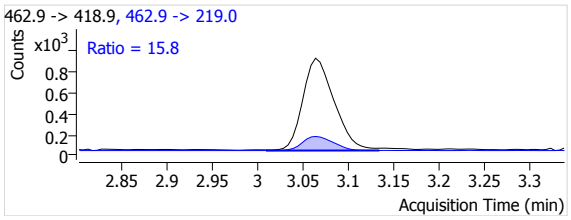

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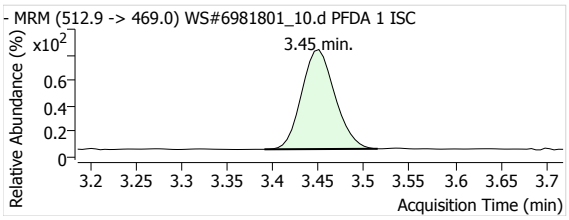

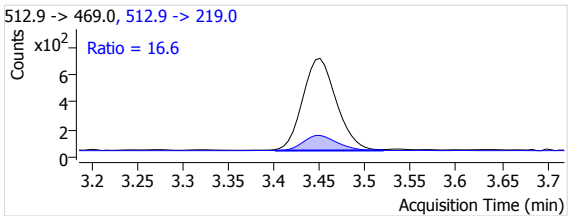

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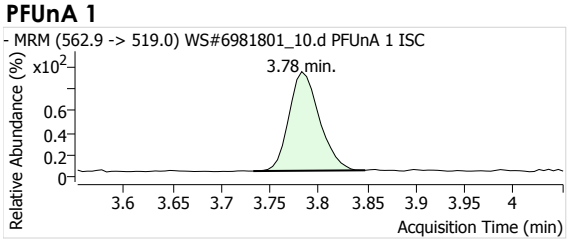

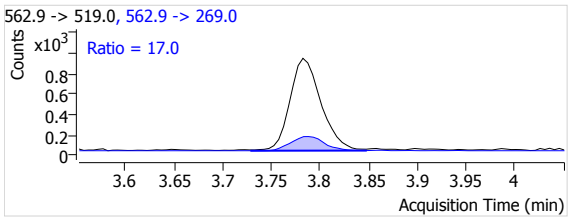

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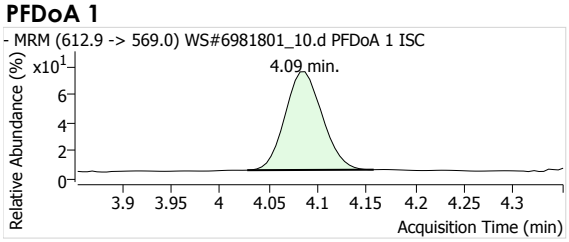

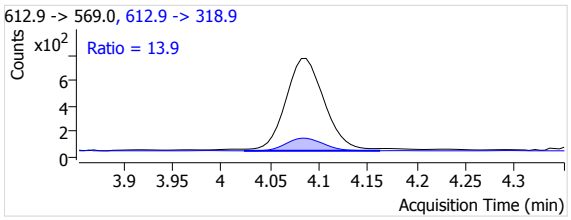

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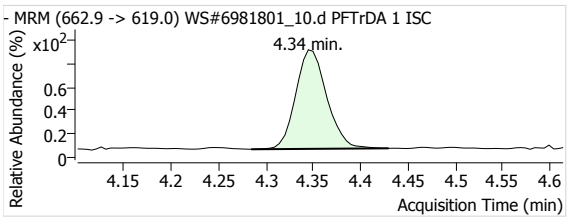

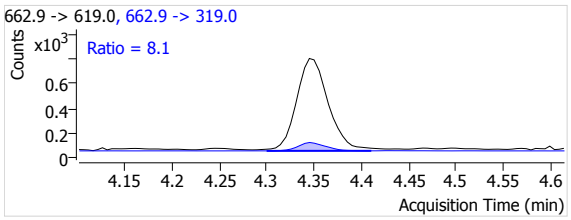

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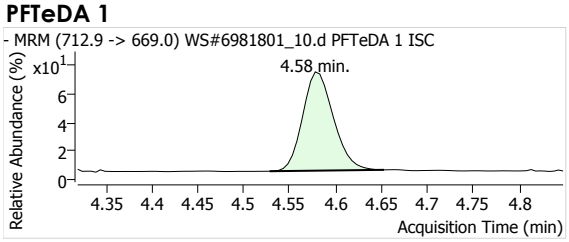

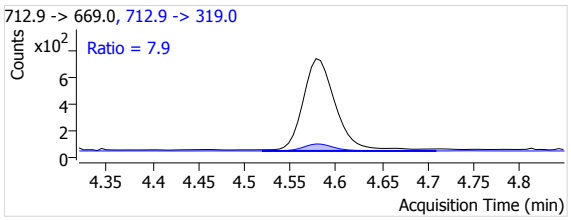

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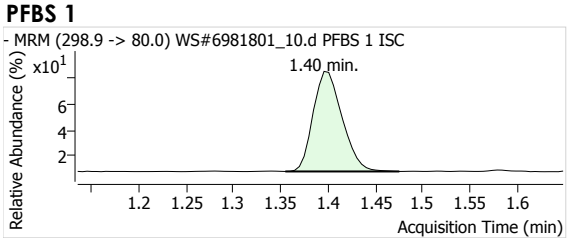

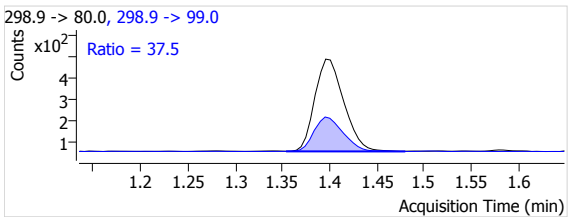

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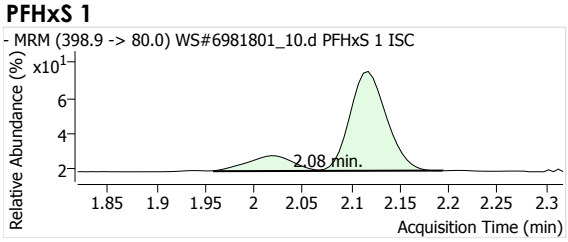

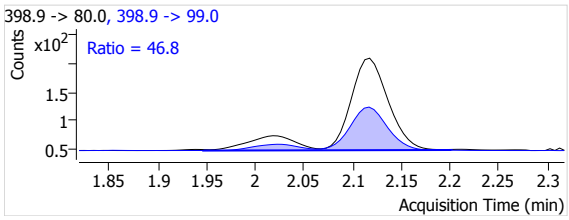

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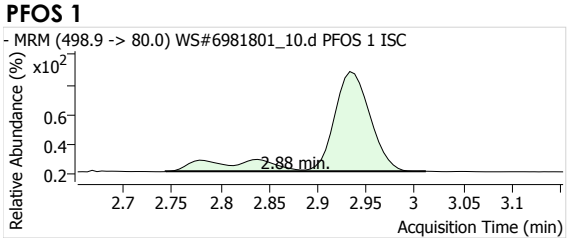

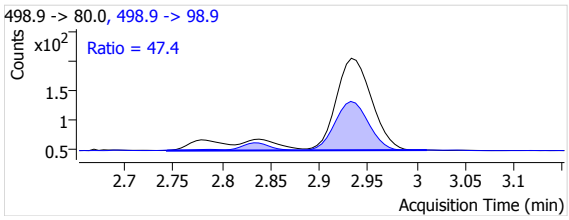

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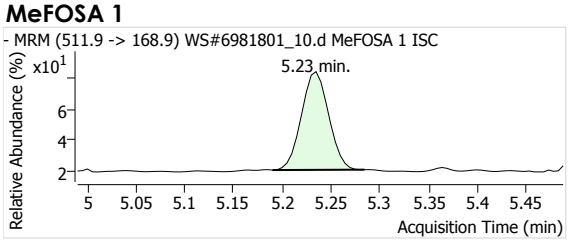

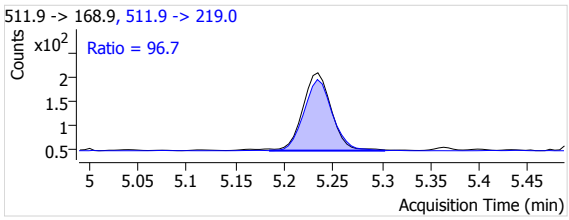

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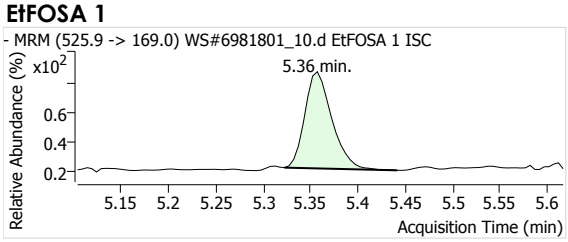

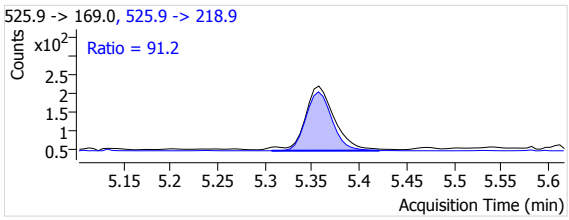

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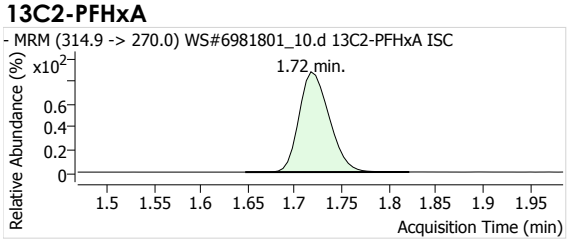

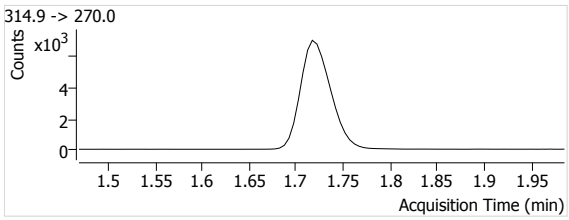

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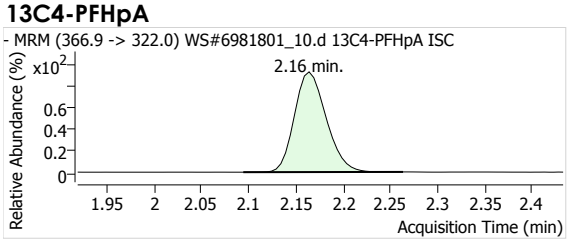

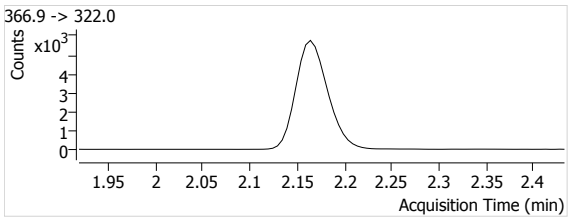

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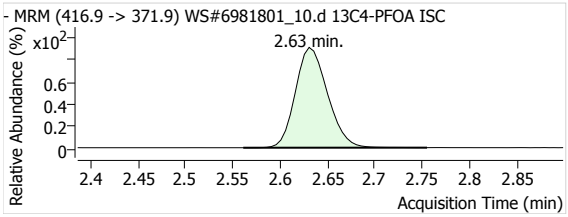

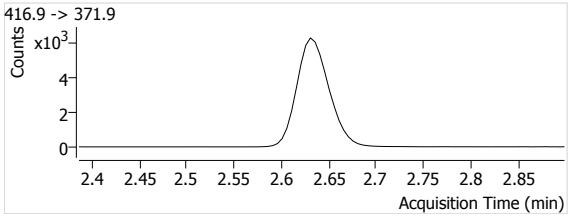

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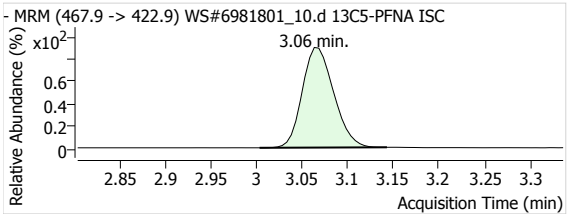

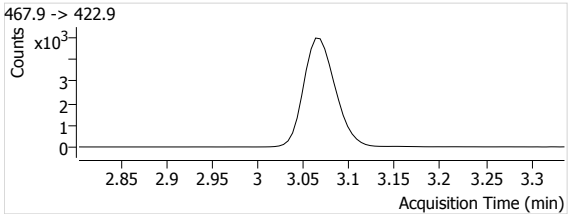

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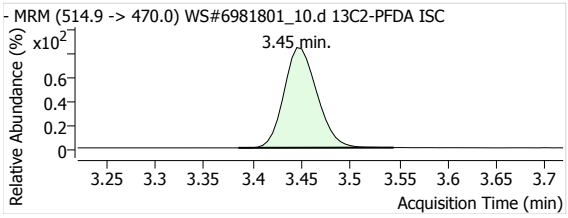

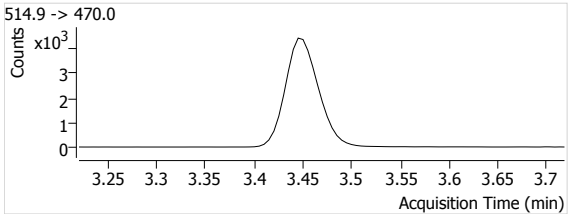

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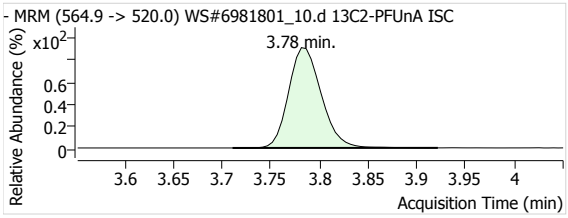

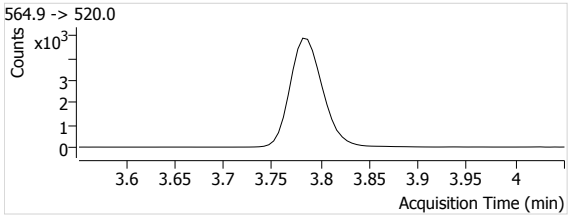

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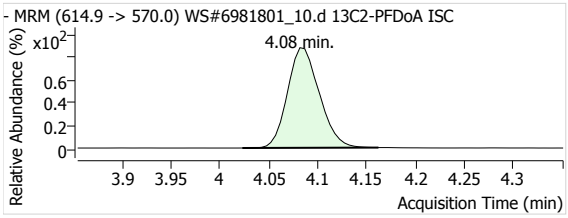

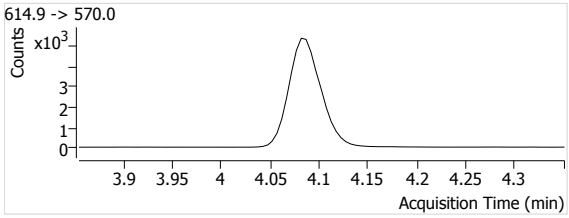

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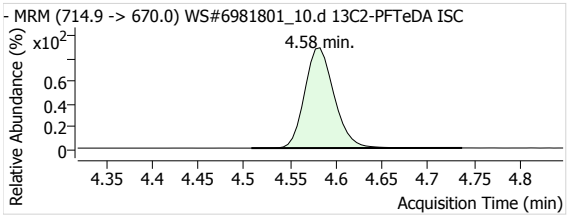

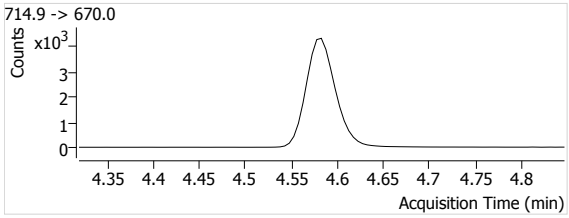

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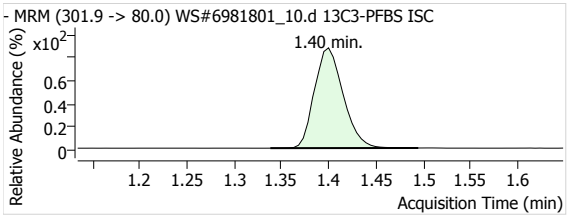

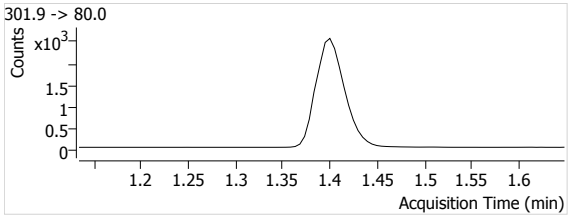

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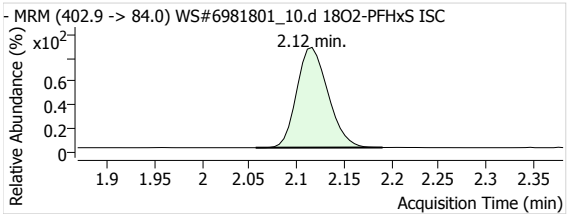
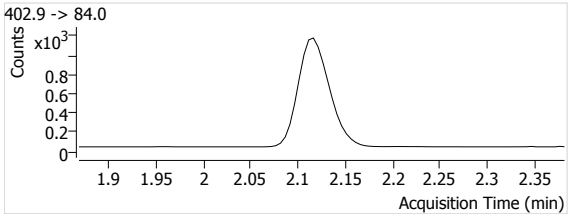
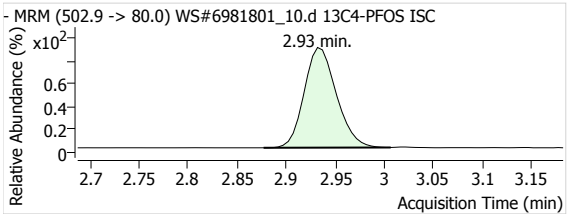
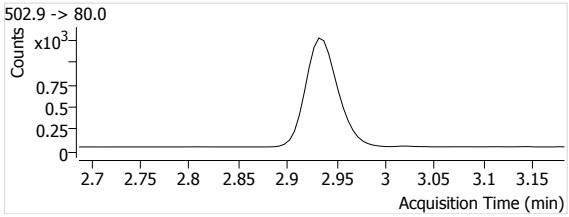




13C4-PFOS





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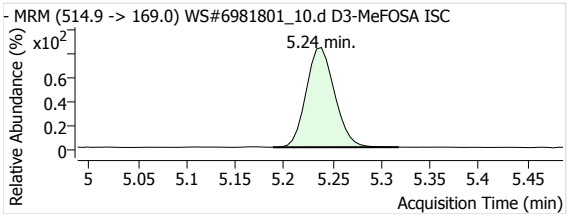

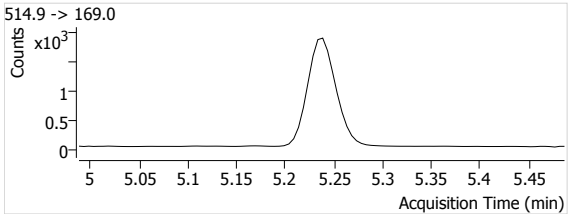

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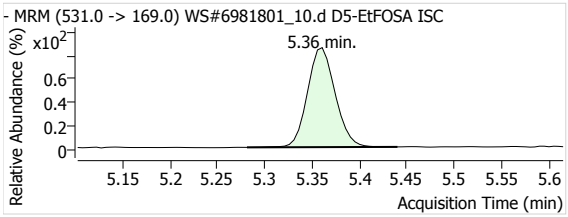
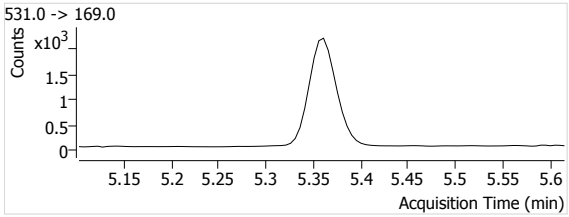




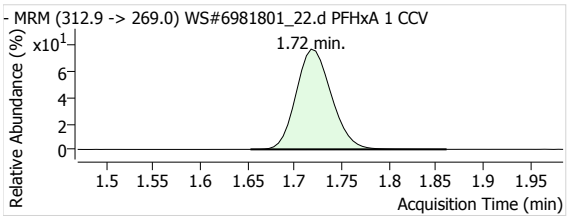
Quantitative Analysis Report

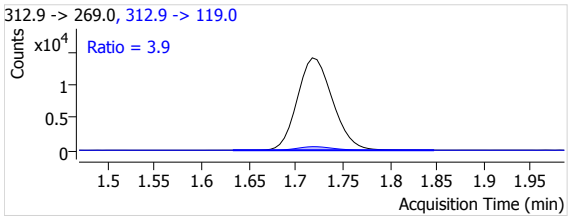
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	CCV	**Data File**	WS#6981801_22.d
Type	CC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A5
Acq. Date-Time	2020/10/05 3:10:30 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	14.3646	89.8	36710	1.72	832	2.4863	1429	1.72	177	3.9
PFHpA 1	µg/L	16.000	14.8061	92.5	43599	2.16	1061	3.4646	7348	2.17	416	16.9
PFOA 1	µg/L	16.000	14.6023	91.3	31359	2.63	329	2.2838	7552	2.63	337	24.1
PFNA 1	µg/L	16.000	14.1765	88.6	28750	3.06	748	2.5801	4593	3.06	494	16.0
PFDA 1	µg/L	16.000	15.0530	94.1	24745	3.45	592	2.5895	4299	3.45	675	17.4
PFUnA 1	µg/L	16.000	14.7251	92.0	27527	3.78	672	2.6025	4503	3.78	334	16.4
PFDoA 1	µg/L	16.000	14.6170	91.4	26455	4.08	420	2.4257	3841	4.08	841	14.5
PFTrDA 1	µg/L	16.000	15.1970	95.0	24530	4.35	584	2.7528	2379	4.35	223	9.7
PFTeDA 1	µg/L	16.000	14.6716	91.7	21133	4.58	489	2.3716	1579	4.58	636	7.5
PFBS 1	µg/L	16.000	14.8444	92.8	14279	1.40	1422	2.8806	5624	1.40	759	39.4
PFHxS 1	µg/L	16.000	14.8085	92.6	7872	2.08	262	3.1588	3643	2.07	499	46.3
PFOS 1	µg/L	16.000	14.6423	91.5	7294	2.88	257	2.7369	3594	2.88	259	49.3
MeFOSA 1	µg/L	16.000	14.7178	92.0	5100	5.23	111	1.4147	4094	5.23	399	80.3
EtFOSA 1	µg/L	16.000	14.7731	92.3	4809	5.36	155	1.1571	4788	5.36	413	99.6
13C2-PFHxA	µg/L	100.000	100.4490	100.4	14765	1.72	1124		--	--	--	--
13C4-PFHpA	µg/L	100.000	100.7768	100.8	12584	2.16	1149		--	--	--	--
13C4-PFOA	µg/L	100.000	100.7262	100.7	13731	2.63	1444		--	--	--	--
13C5-PFNA	µg/L	100.000	100.5777	100.6	11143	3.07	1095		--	--	--	--
13C2-PFDA	µg/L	100.000	97.2225	97.2	9556	3.45	658		--	--	--	--
13C2-PFUnA	µg/L	100.000	99.4921	99.5	10577	3.78	736		--	--	--	--
13C2-PFDoA	µg/L	100.000	98.9565	99.0	10906	4.09	558		--	--	--	--
13C2-PFTeDA	µg/L	100.000	98.9671	99.0	8911	4.58	723		--	--	--	--
13C3-PFBS	µg/L	100.000	98.0807	98.1	4957	1.40	586		--	--	--	--
18O2-PFHxS	µg/L	100.000	98.0330	98.0	2492	2.12	1348		--	--	--	--
13C4-PFOS	µg/L	100.000	99.7380	99.7	2665	2.93	379		--	--	--	--
D3-MeFOSA	µg/L	100.000	102.4439	102.4	3605	5.24	167		--	--	--	--
D5-EtFOSA	µg/L	100.000	99.4734	99.5	4156	5.36	113		--	--	--	--

PFHxA 1





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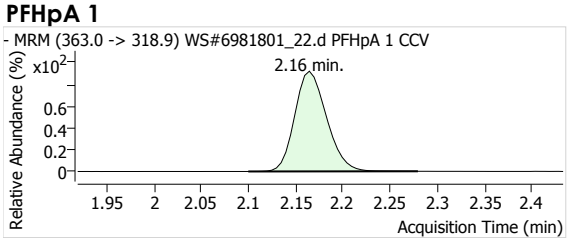

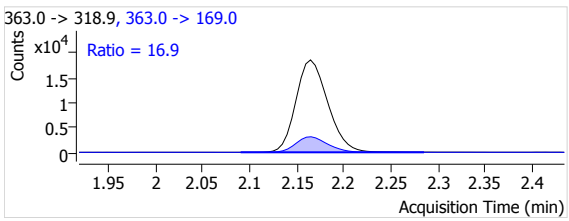

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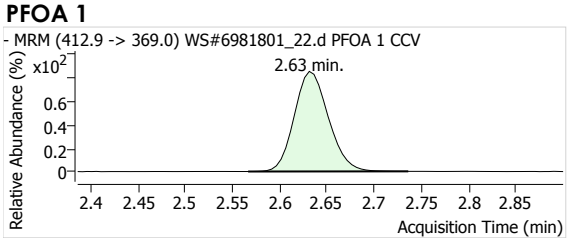

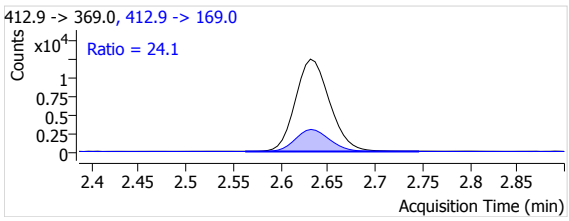

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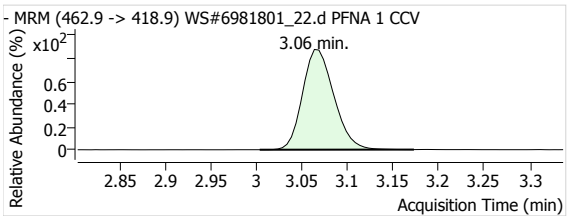

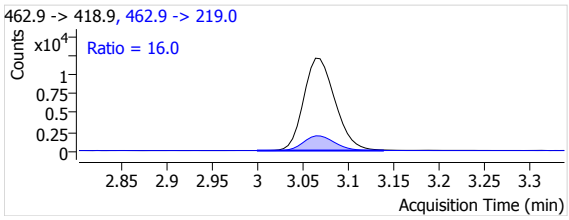

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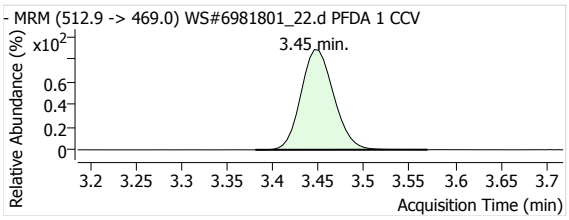

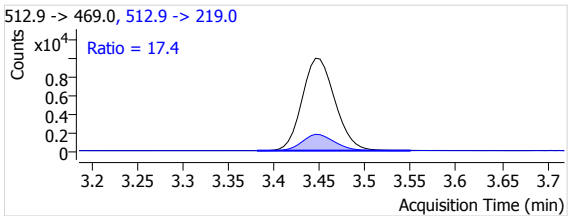

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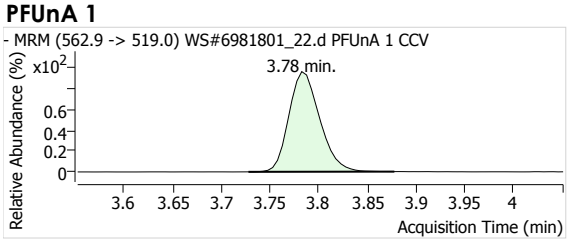

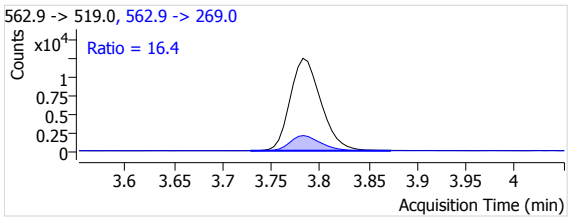

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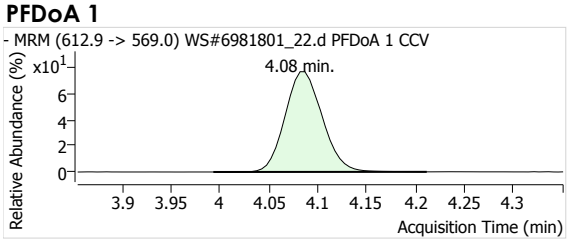

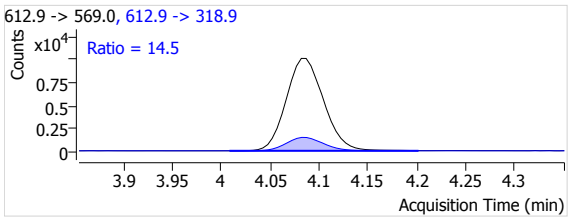

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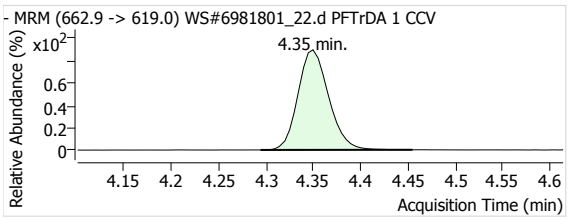

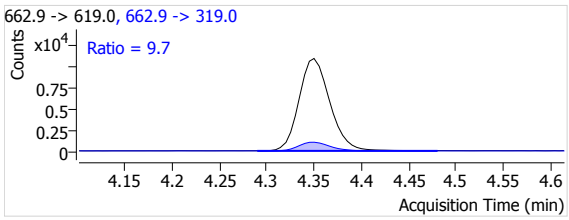

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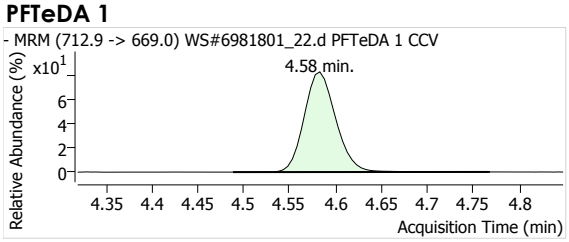

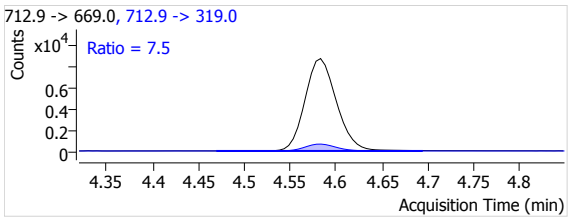

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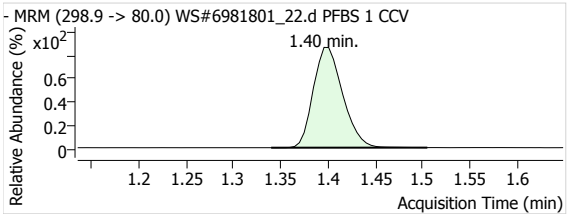

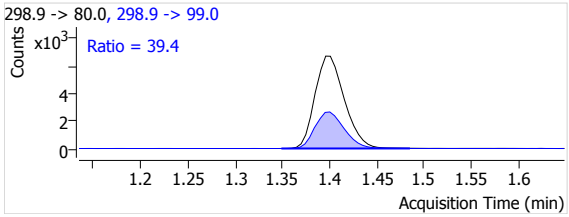

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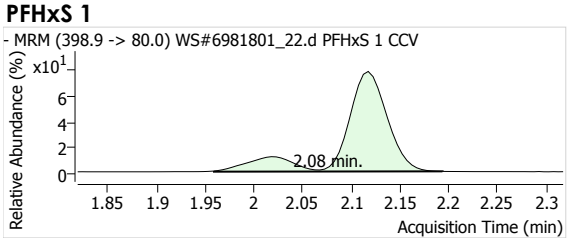

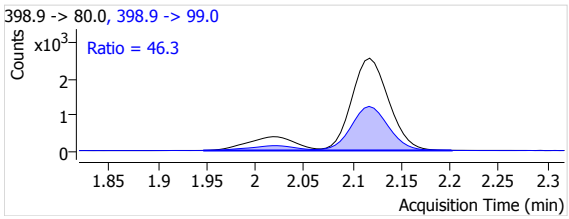

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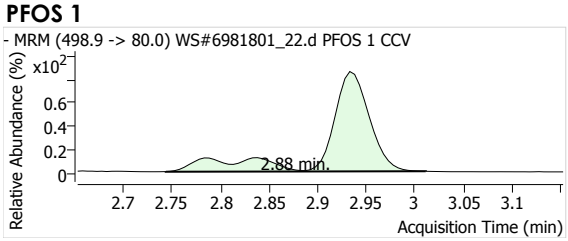

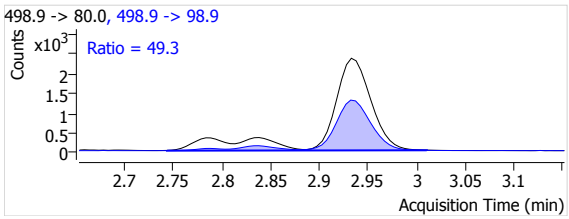

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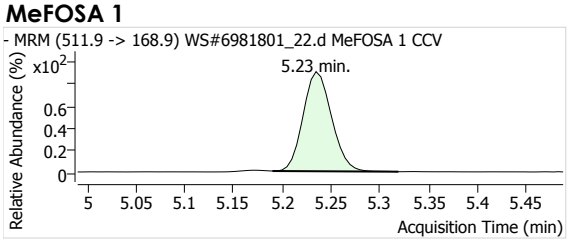

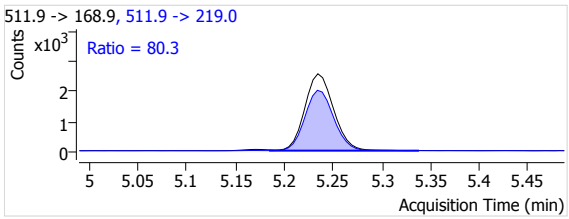

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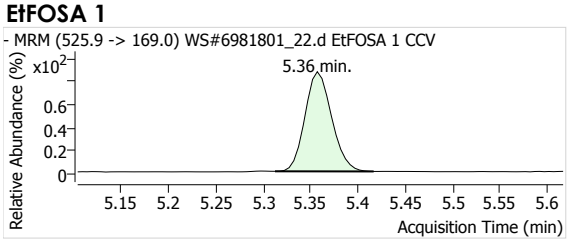
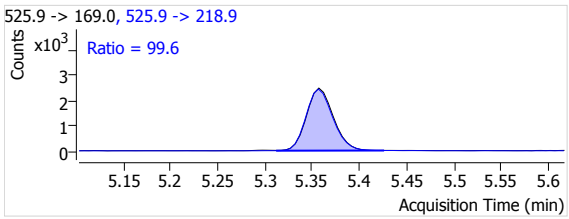
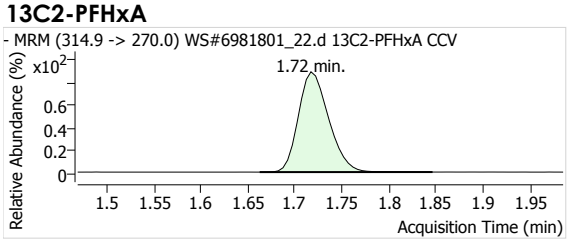
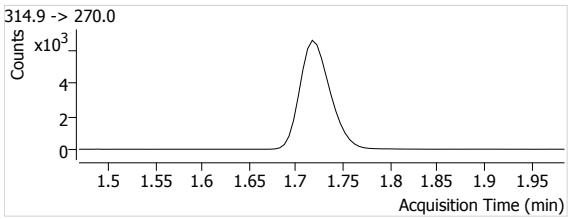




13C2-PFHxA





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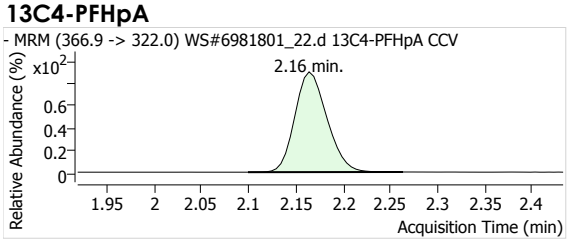

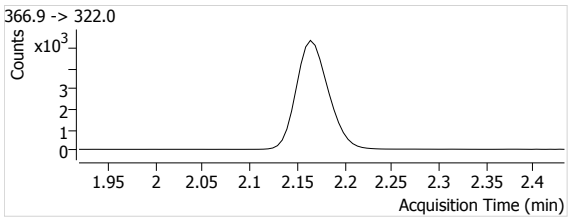

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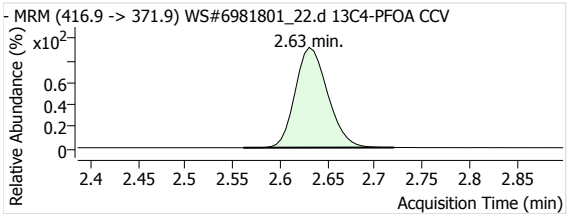

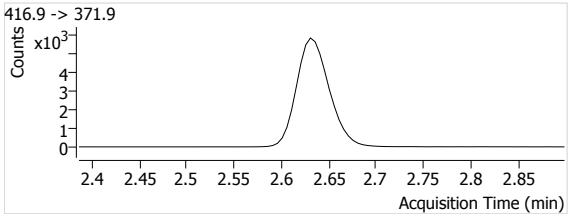

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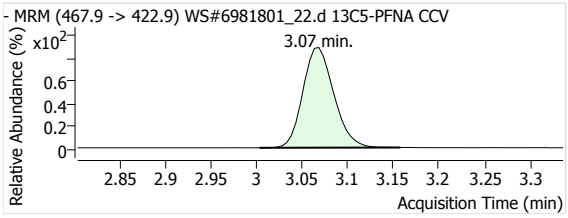

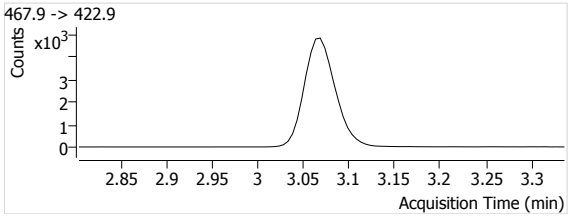

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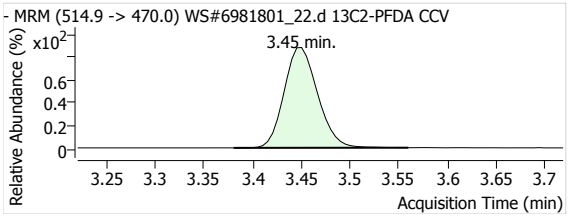

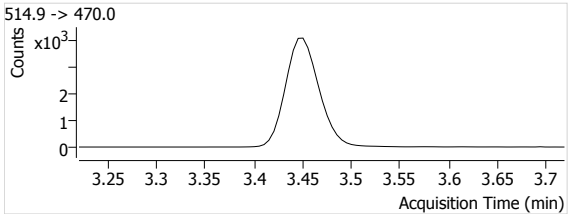

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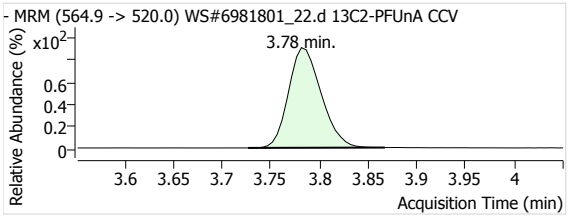

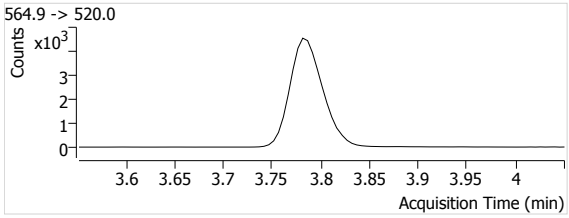

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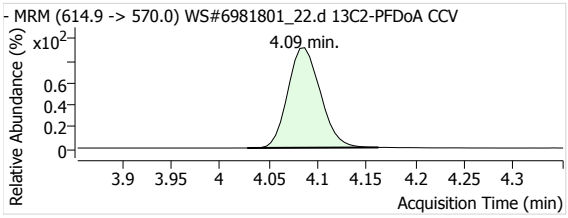

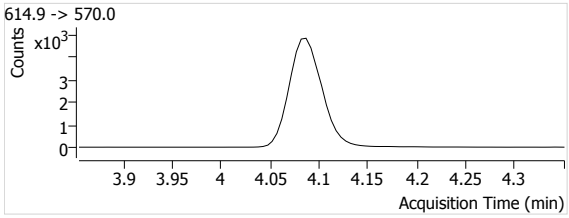

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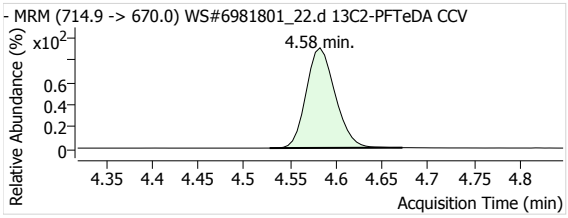

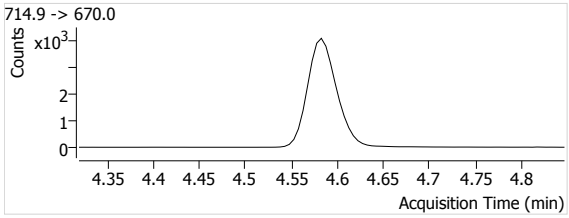

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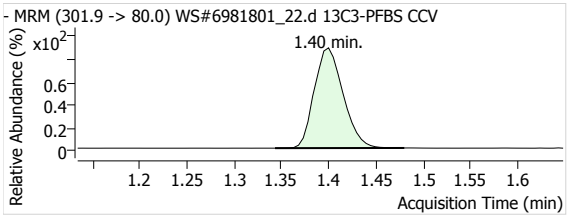
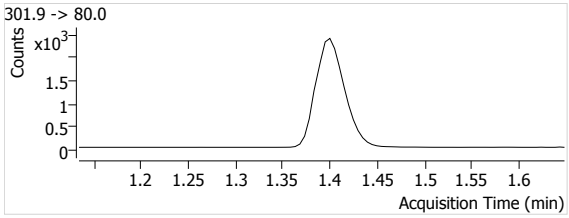
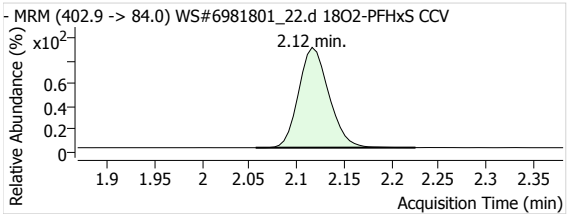
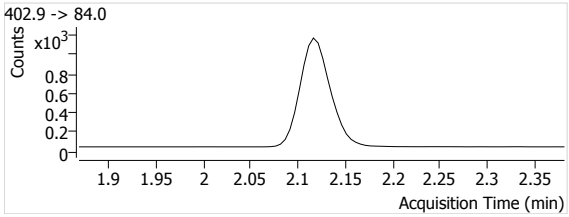




18O2-PFHxS





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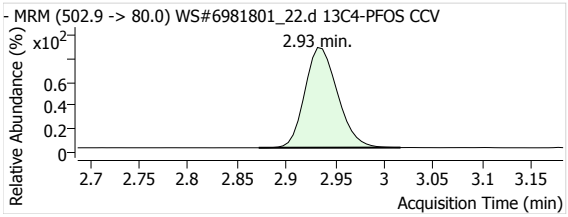
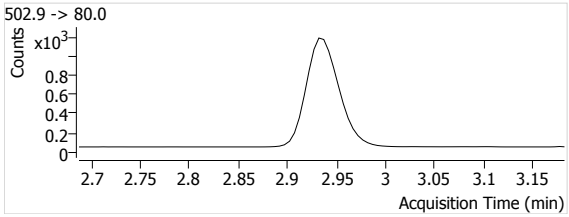
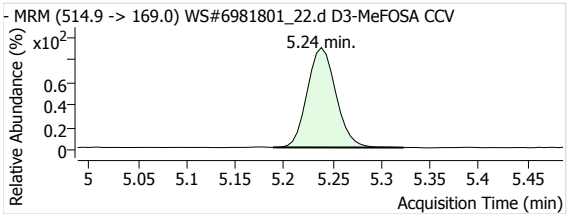
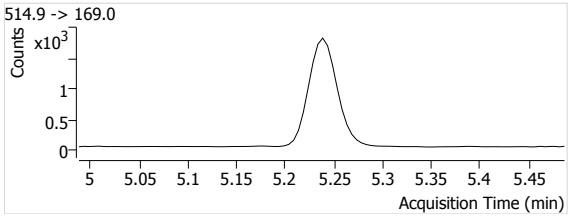




D3-MeFOSA





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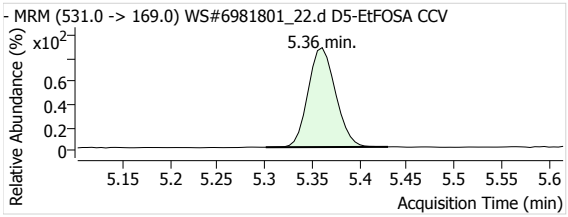
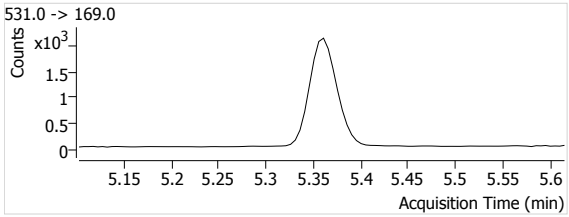




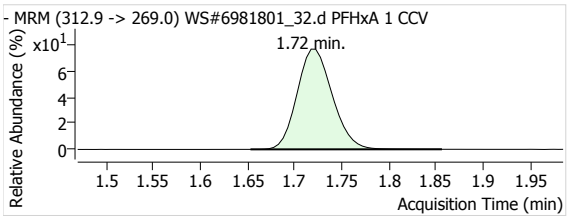
Quantitative Analysis Report

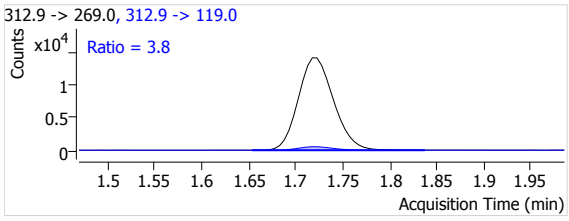
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	CCV	**Data File**	WS#6981801_32.d
Type	CC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A5
Acq. Date-Time	2020/10/05 4:20:26 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	14.5515	90.9	36813	1.72	818	2.5183	1387	1.72	100	3.8
PFHpA 1	µg/L	16.000	14.8954	93.1	43291	2.16	816	3.4853	7108	2.17	603	16.4
PFOA 1	µg/L	16.000	14.7059	91.9	31251	2.63	443	2.2999	7694	2.63	482	24.6
PFNA 1	µg/L	16.000	14.3947	90.0	28841	3.06	667	2.6195	4625	3.06	754	16.0
PFDA 1	µg/L	16.000	14.7730	92.3	24384	3.45	674	2.5416	4118	3.45	338	16.9
PFUnA 1	µg/L	16.000	14.6227	91.4	27368	3.78	560	2.5846	4409	3.78	351	16.1
PFDoA 1	µg/L	16.000	14.2012	88.8	26299	4.08	479	2.3574	3836	4.08	425	14.6
PFTrDA 1	µg/L	16.000	14.5875	91.2	23737	4.34	609	2.6439	2264	4.35	129	9.5
PFTeDA 1	µg/L	16.000	14.5981	91.2	21187	4.58	640	2.3599	1553	4.58	392	7.3
PFBS 1	µg/L	16.000	14.6584	91.6	14155	1.40	810	2.8447	5638	1.40	494	39.8
PFHxS 1	µg/L	16.000	14.9223	93.3	7792	2.08	238	3.1830	3646	2.07	464	46.8
PFOS 1	µg/L	16.000	15.0212	93.9	7400	2.88	225	2.8072	3553	2.88	381	48.0
MeFOSA 1	µg/L	16.000	14.4223	90.1	4993	5.23	104	1.3866	4169	5.23	298	83.5
EtFOSA 1	µg/L	16.000	14.2268	88.9	4637	5.36	169	1.1147	4768	5.36	410	102.8
13C2-PFHxA	µg/L	100.000	99.4489	99.4	14618	1.72	1563		--	--	--	--
13C4-PFHpA	µg/L	100.000	99.4715	99.5	12421	2.16	928		--	--	--	--
13C4-PFOA	µg/L	100.000	99.6772	99.7	13588	2.63	1308		--	--	--	--
13C5-PFNA	µg/L	100.000	99.3772	99.4	11010	3.06	1126		--	--	--	--
13C2-PFDA	µg/L	100.000	97.6091	97.6	9594	3.45	631		--	--	--	--
13C2-PFUnA	µg/L	100.000	99.6049	99.6	10589	3.78	675		--	--	--	--
13C2-PFDoA	µg/L	100.000	101.2249	101.2	11156	4.08	609		--	--	--	--
13C2-PFTeDA	µg/L	100.000	99.7112	99.7	8978	4.58	885		--	--	--	--
13C3-PFBS	µg/L	100.000	98.4567	98.5	4976	1.40	525		--	--	--	--
18O2-PFHxS	µg/L	100.000	96.3021	96.3	2448	2.12	929		--	--	--	--
13C4-PFOS	µg/L	100.000	98.6527	98.7	2636	2.93	267		--	--	--	--
D3-MeFOSA	µg/L	100.000	102.3302	102.3	3601	5.24	141		--	--	--	--
D5-EtFOSA	µg/L	100.000	99.5692	99.6	4160	5.36	97		--	--	--	--

PFHxA 1





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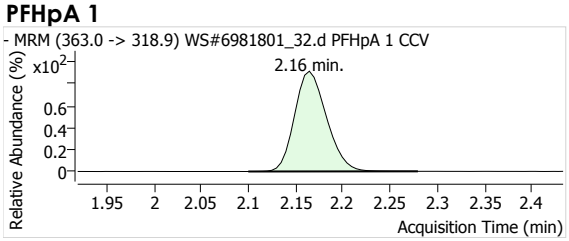

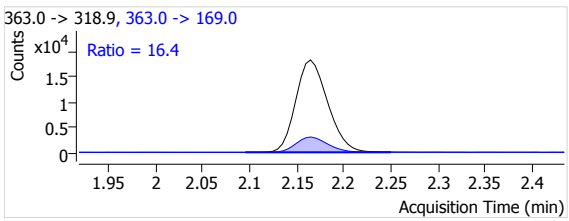

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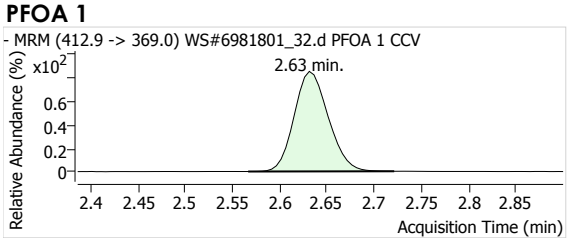

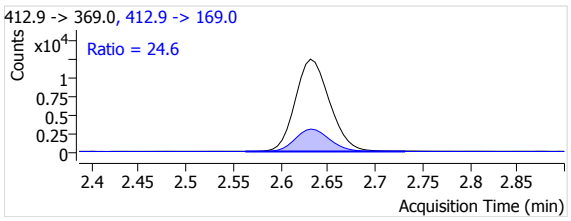

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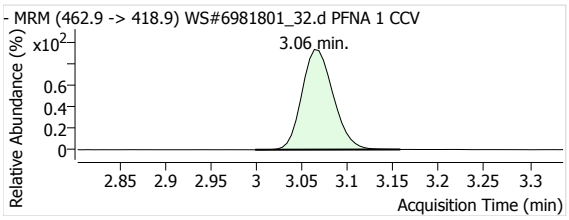

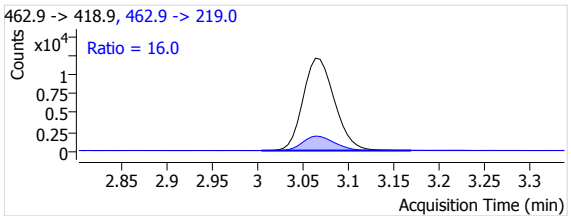

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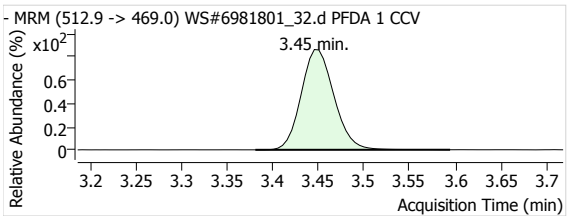

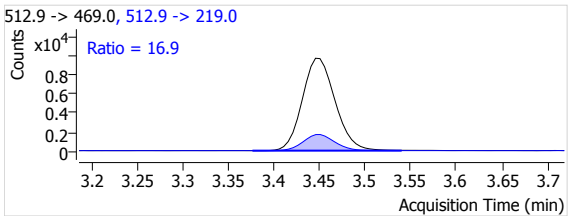

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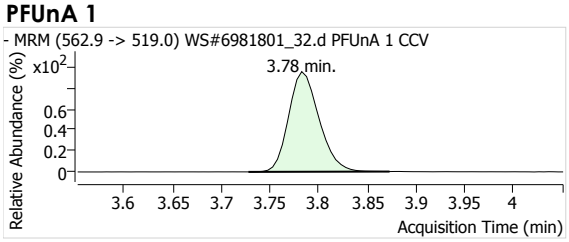

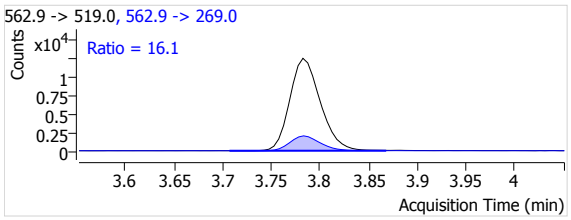

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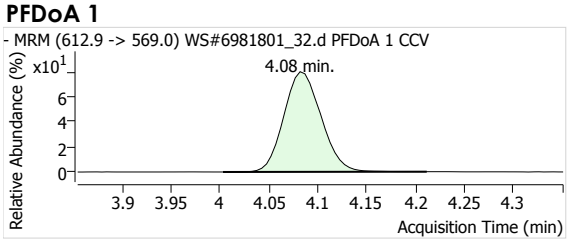

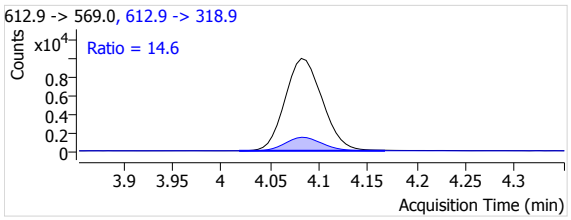

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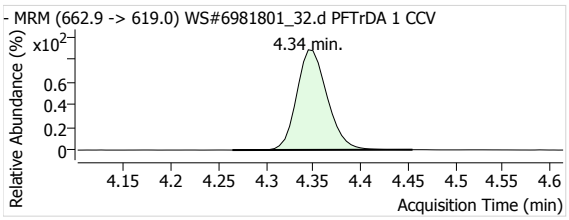

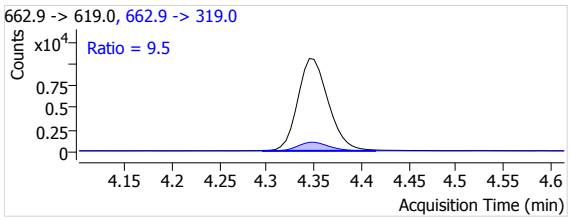

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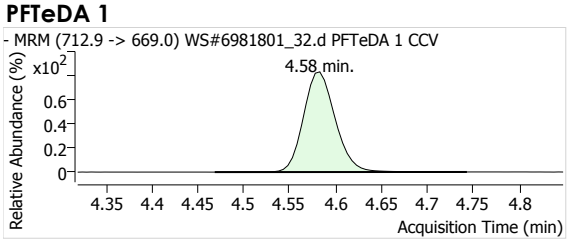

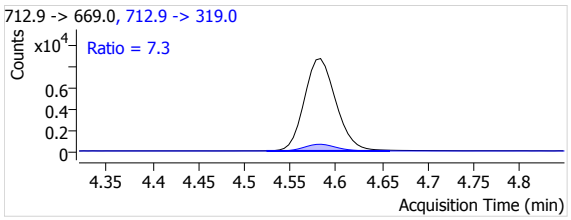

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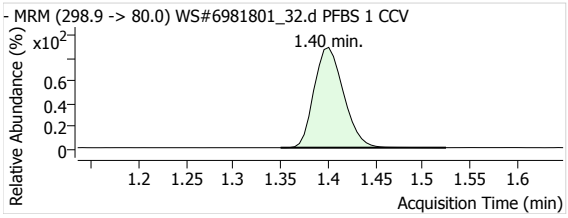

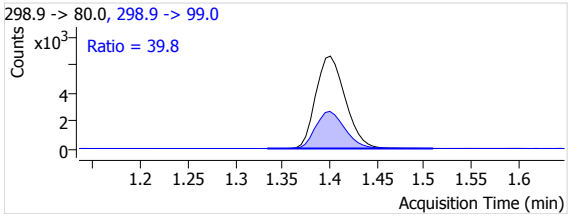

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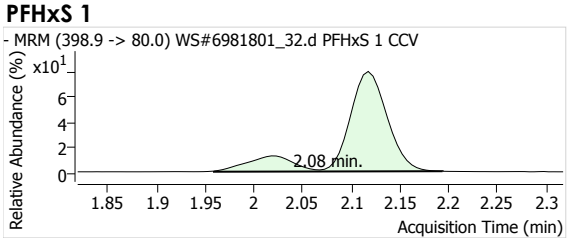
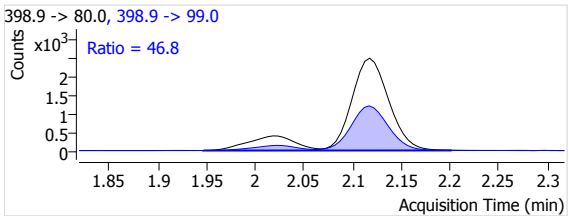
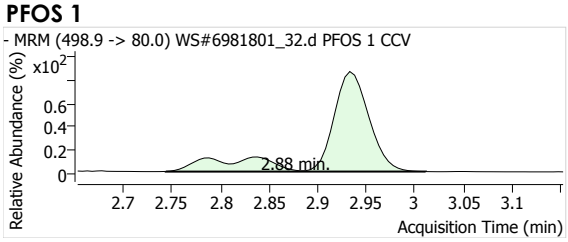
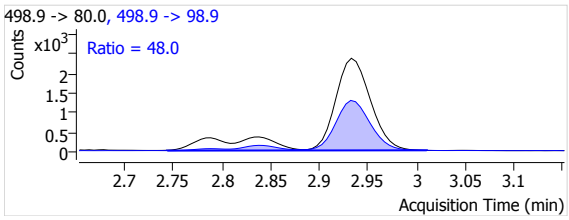


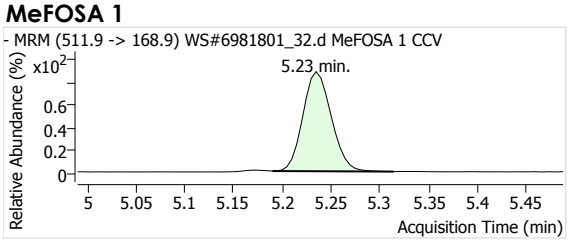


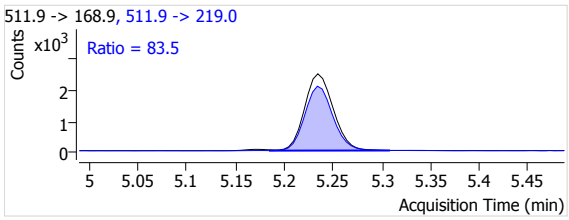
PFOS 1





MeFOSA 1





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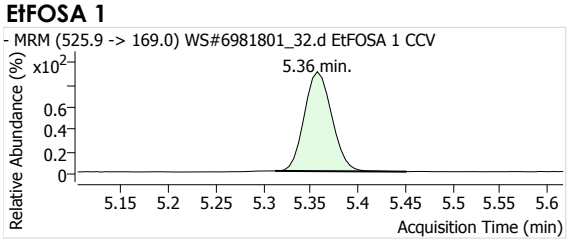
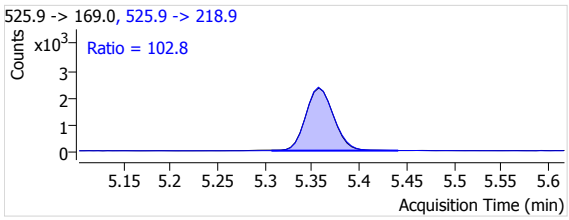
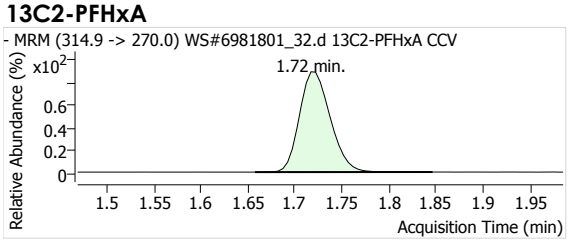
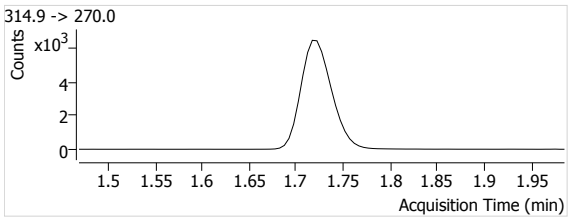




13C2-PFHxA





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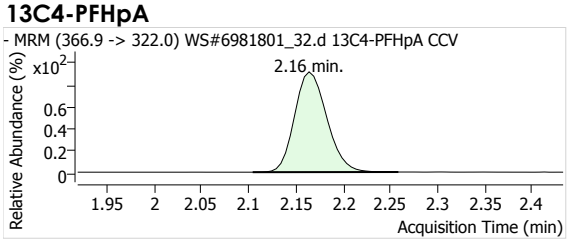

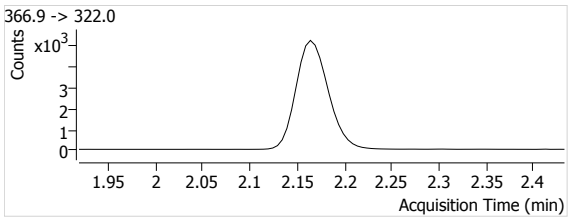

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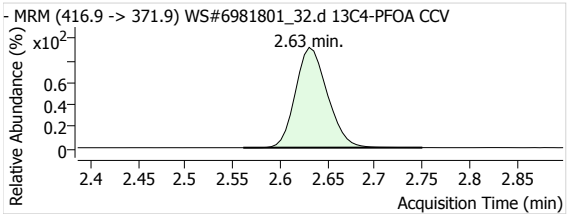

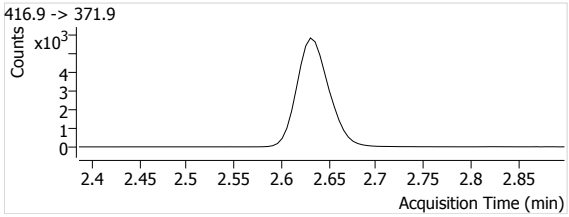

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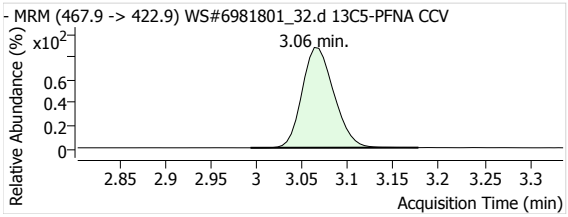

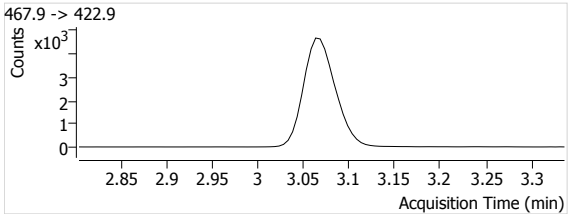

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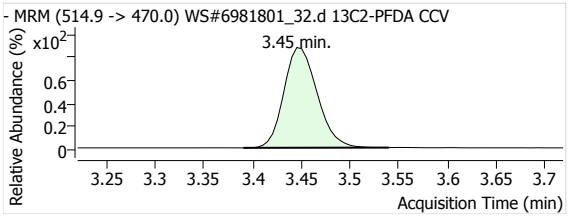

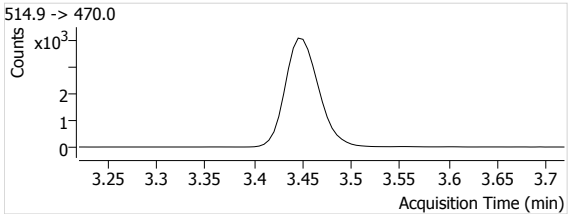

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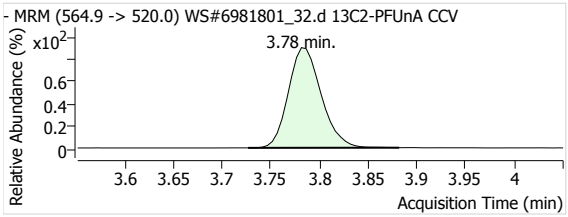

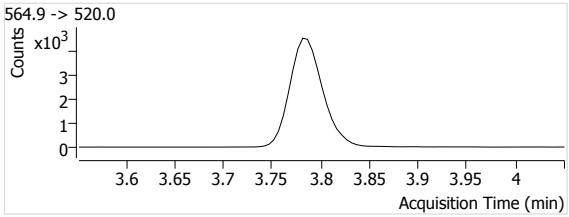

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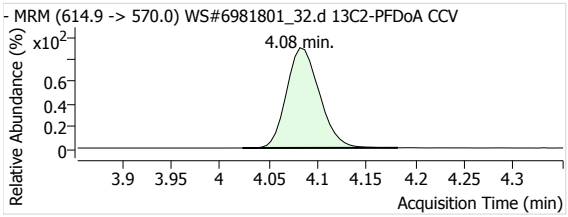

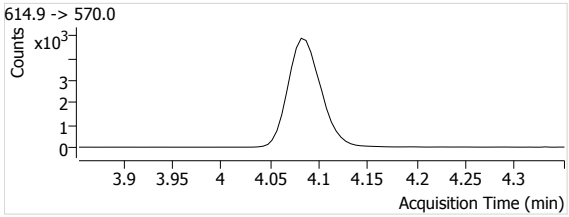

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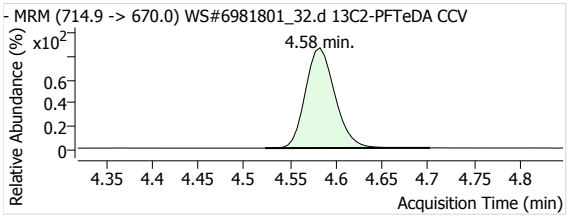

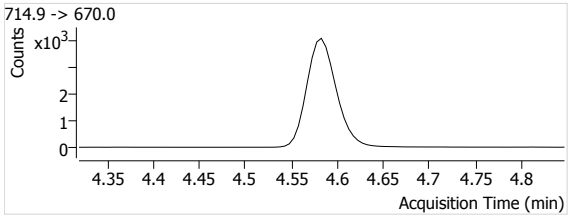

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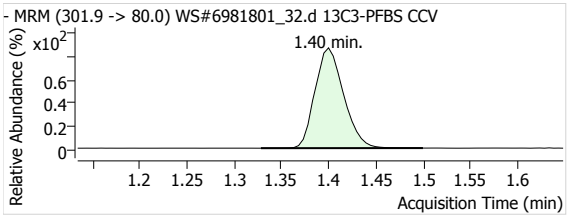

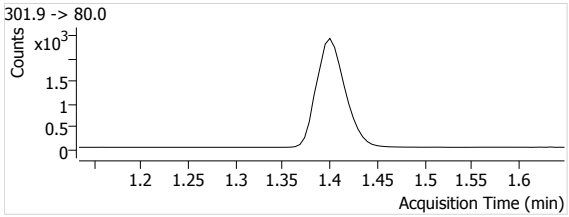

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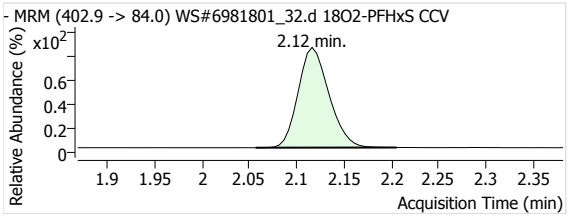

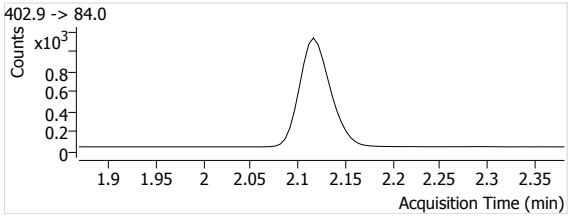

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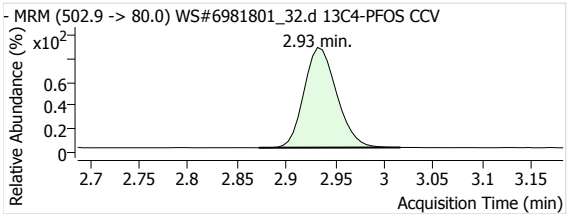

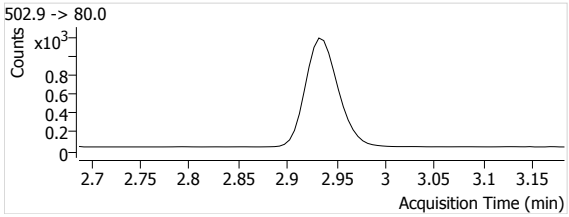

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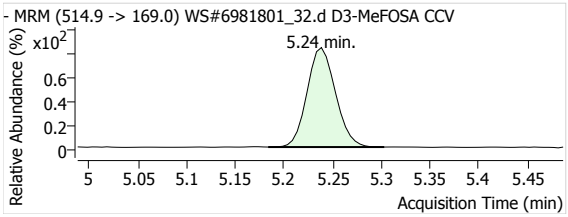

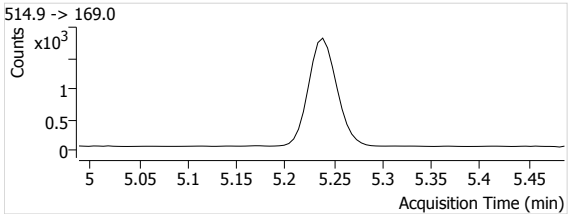

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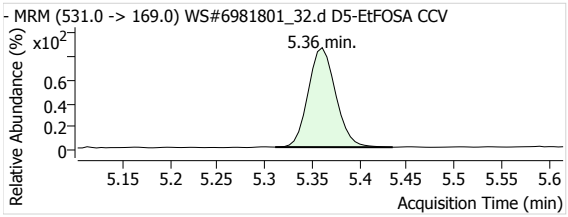
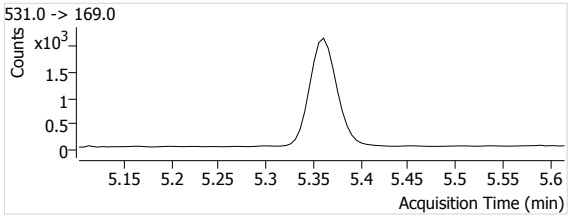




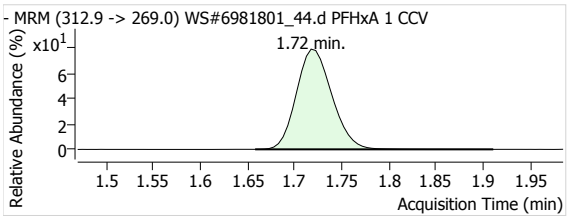
Quantitative Analysis Report

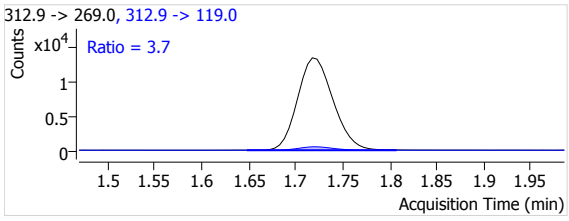
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981801\QuantResults\PFC_Water_DOD_20201005_WS#6981801_MI.batch.bin

Sample Name	CCV	**Data File**	WS#6981801_44.d
Type	CC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P1-A5
Acq. Date-Time	2020/10/05 5:44:18 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	14.4782	90.5	35597	1.72	730	2.5058	1304	1.72	126	3.7
PFHpA 1	µg/L	16.000	14.4285	90.2	42266	2.16	764	3.3772	7119	2.17	491	16.8
PFOA 1	µg/L	16.000	14.6634	91.6	30721	2.63	398	2.2933	7562	2.63	431	24.6
PFNA 1	µg/L	16.000	14.5071	90.7	28394	3.07	665	2.6398	4406	3.06	233	15.5
PFDA 1	µg/L	16.000	14.8558	92.8	23932	3.45	569	2.5557	4157	3.45	435	17.4
PFUnA 1	µg/L	16.000	14.8013	92.5	26886	3.78	630	2.6159	4275	3.78	544	15.9
PFDoA 1	µg/L	16.000	14.3532	89.7	26106	4.08	532	2.3824	3703	4.08	299	14.2
PFTrDA 1	µg/L	16.000	14.4067	90.0	23656	4.35	389	2.6116	2315	4.35	216	9.8
PFTeDA 1	µg/L	16.000	14.2526	89.1	20878	4.58	386	2.3049	1482	4.58	388	7.1
PFBS 1	µg/L	16.000	14.9047	93.2	14062	1.40	932	2.8922	5633	1.40	675	40.1
PFHxS 1	µg/L	16.000	14.6498	91.6	7688	2.08	250	3.1252	3591	2.07	513	46.7
PFOS 1	µg/L	16.000	14.3728	89.8	7241	2.88	178	2.6869	3603	2.88	244	49.8
MeFOSA 1	µg/L	16.000	14.2743	89.2	5004	5.23	152	1.3725	4064	5.23	299	81.2
EtFOSA 1	µg/L	16.000	14.6426	91.5	4768	5.36	171	1.1470	4845	5.36	706	101.6
13C2-PFHxA	µg/L	100.000	96.6460	96.6	14206	1.72	792		--	--	--	--
13C4-PFHpA	µg/L	100.000	100.2242	100.2	12515	2.16	849		--	--	--	--
13C4-PFOA	µg/L	100.000	98.2688	98.3	13396	2.63	882		--	--	--	--
13C5-PFNA	µg/L	100.000	97.0846	97.1	10756	3.07	829		--	--	--	--
13C2-PFDA	µg/L	100.000	95.2691	95.3	9364	3.45	1381		--	--	--	--
13C2-PFUnA	µg/L	100.000	96.6795	96.7	10278	3.79	292		--	--	--	--
13C2-PFDoA	µg/L	100.000	99.4284	99.4	10958	4.09	404		--	--	--	--
13C2-PFTeDA	µg/L	100.000	100.5997	100.6	9058	4.58	610		--	--	--	--
13C3-PFBS	µg/L	100.000	96.2010	96.2	4862	1.40	690		--	--	--	--
18O2-PFHxS	µg/L	100.000	96.7742	96.8	2460	2.12	269		--	--	--	--
13C4-PFOS	µg/L	100.000	100.8608	100.9	2695	2.94	385		--	--	--	--
D3-MeFOSA	µg/L	100.000	103.6090	103.6	3646	5.24	106		--	--	--	--
D5-EtFOSA	µg/L	100.000	99.4974	99.5	4157	5.36	78		--	--	--	--

PFHxA 1





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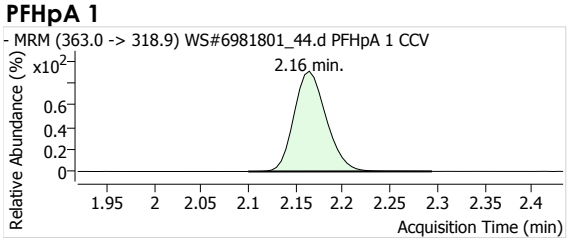

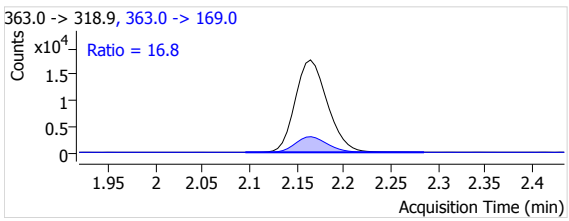

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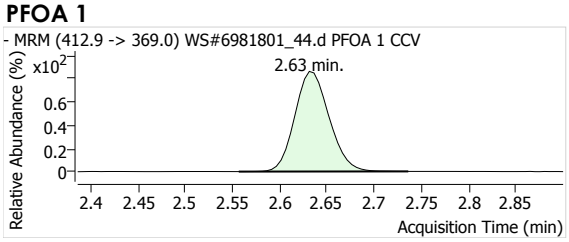

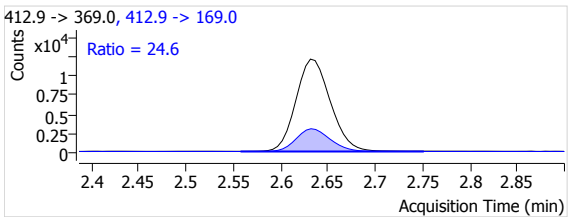

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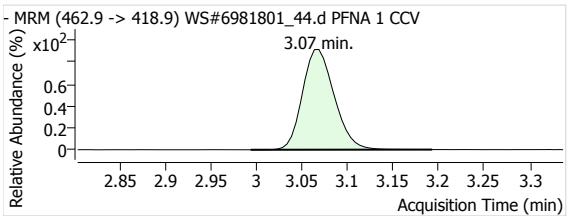

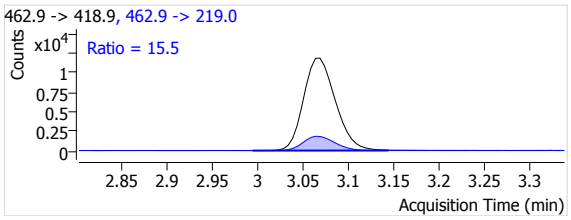

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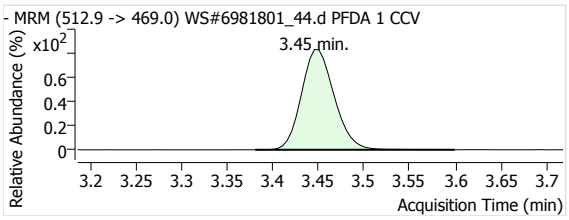

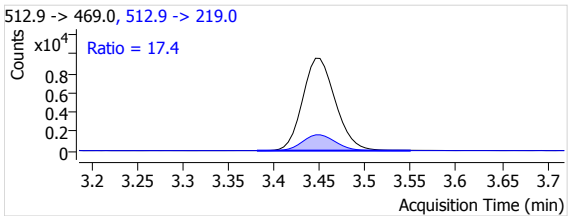

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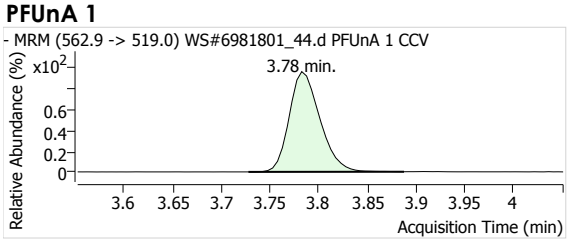

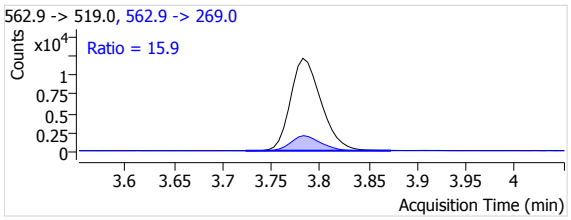

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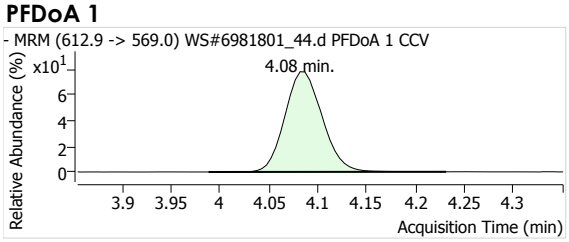

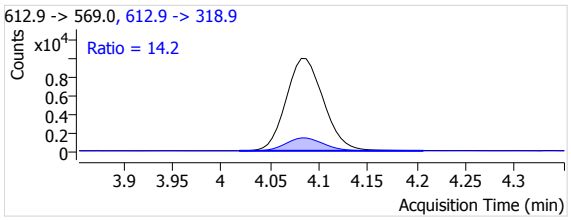

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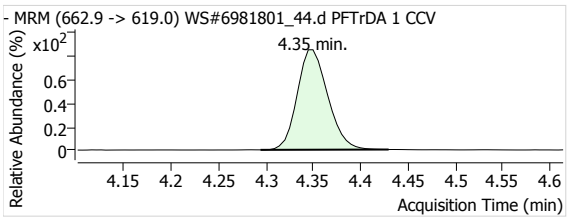

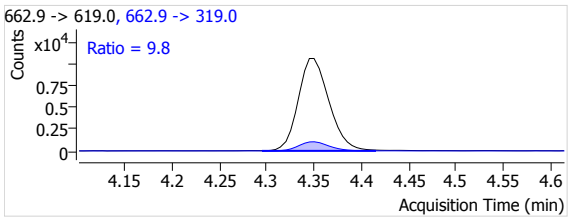

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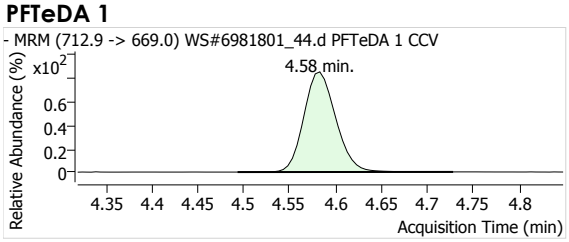

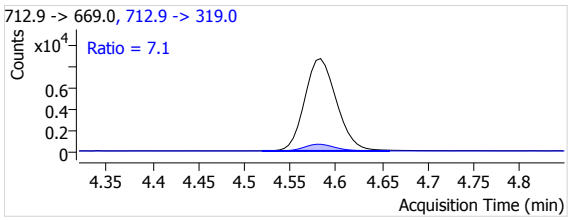

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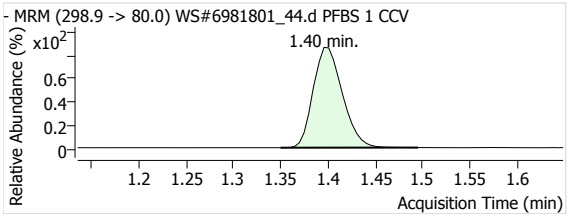

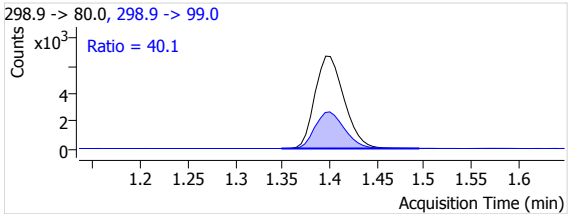

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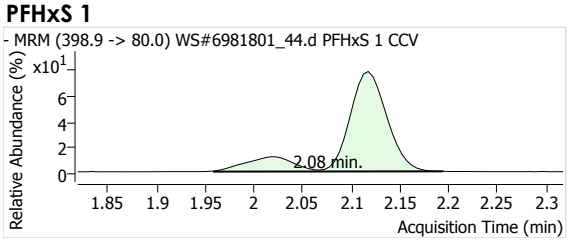

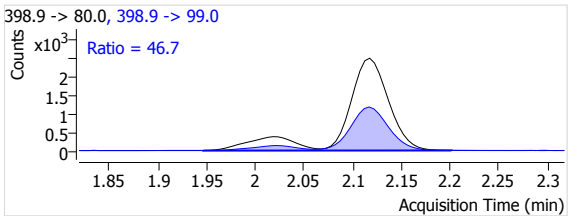

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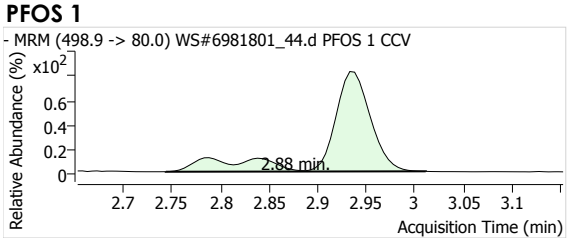

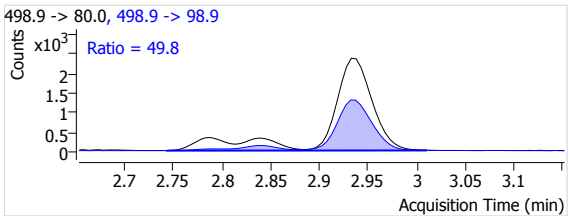

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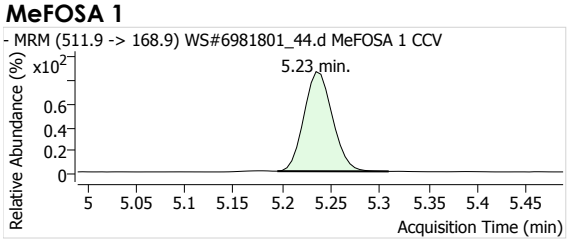

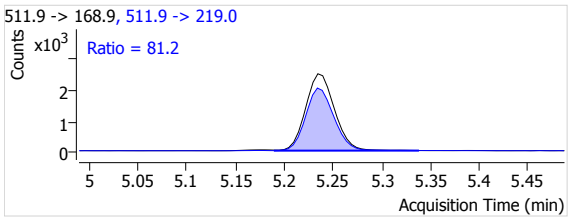

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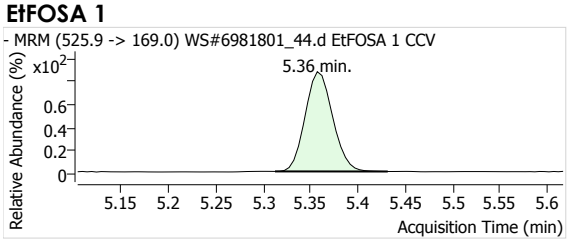
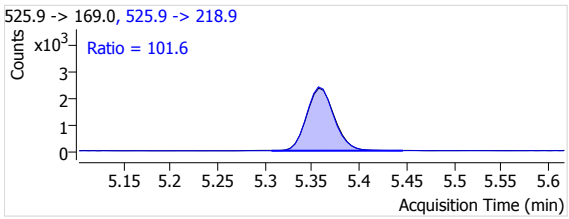
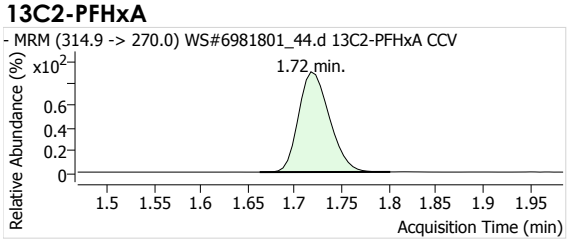
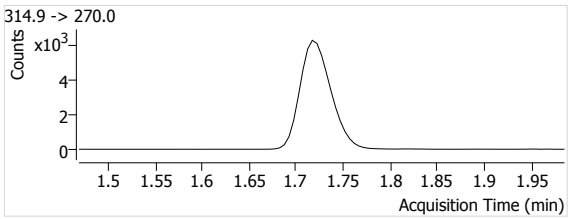




13C2-PFHxA





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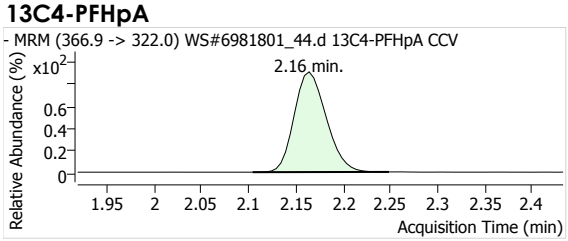

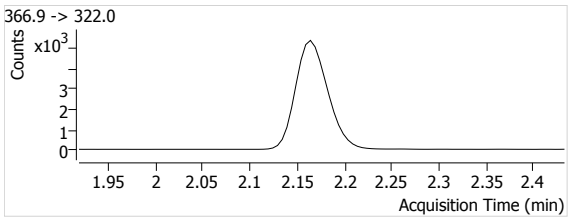

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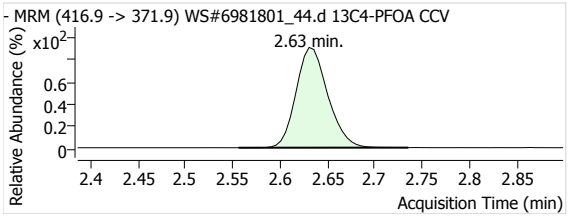

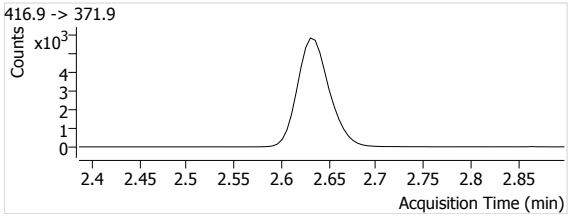

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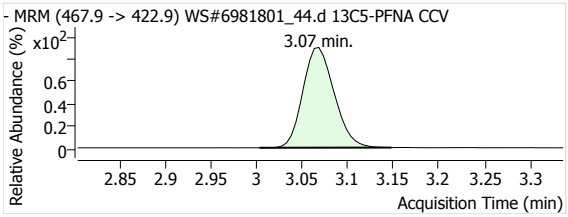

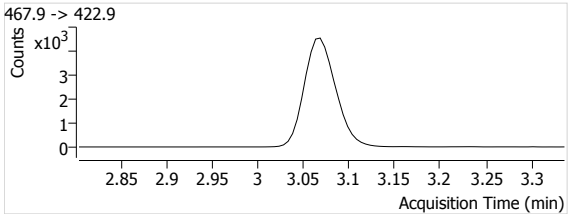

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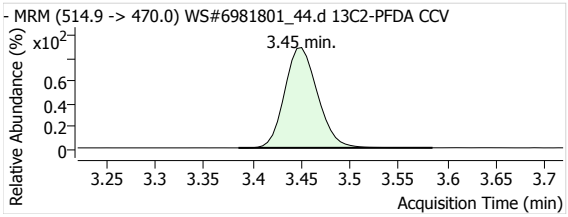

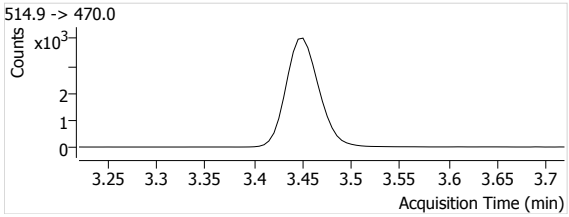

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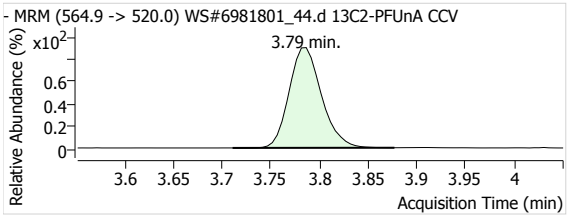

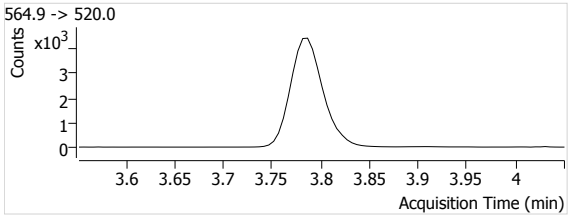

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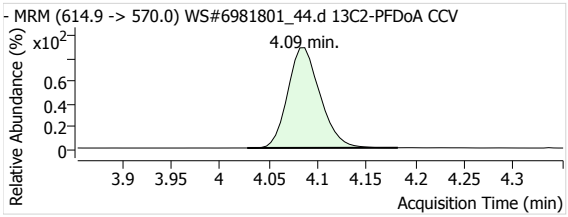

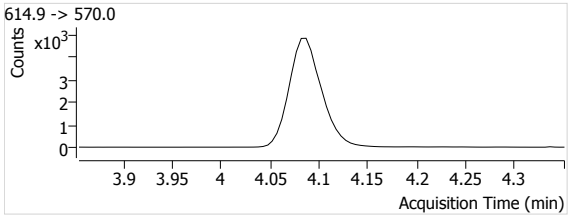

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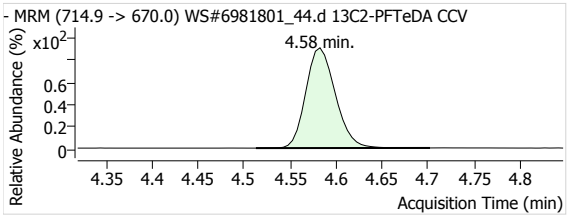

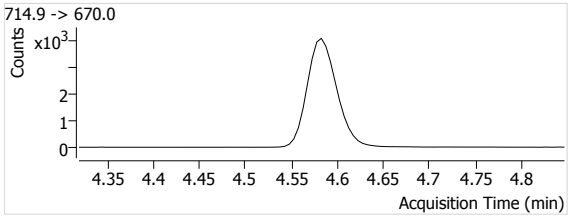

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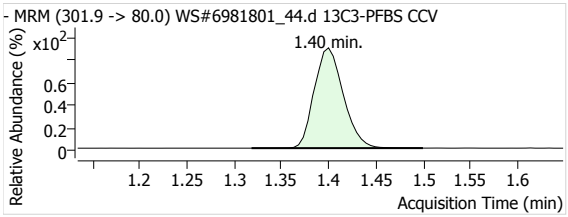

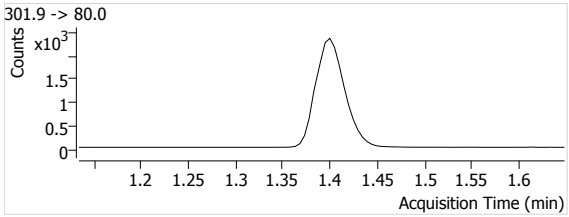

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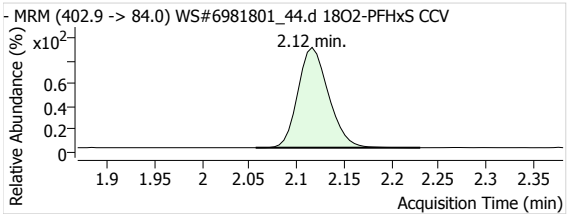

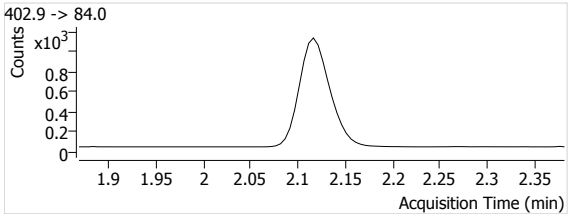

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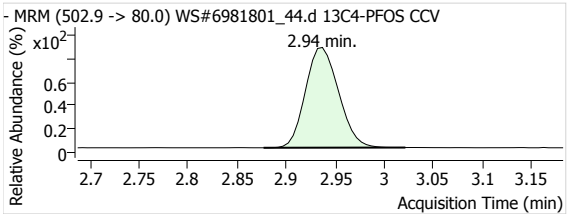
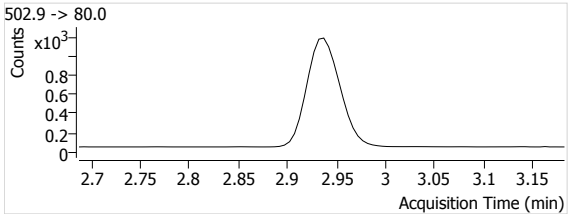
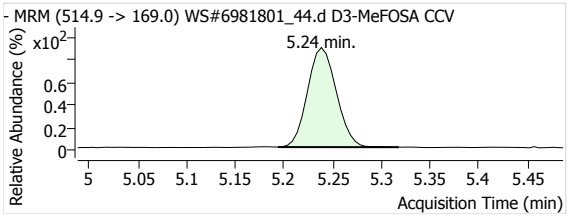
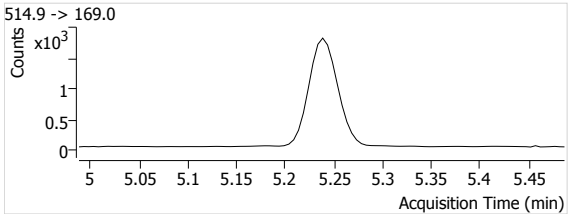




D3-MeFOSA





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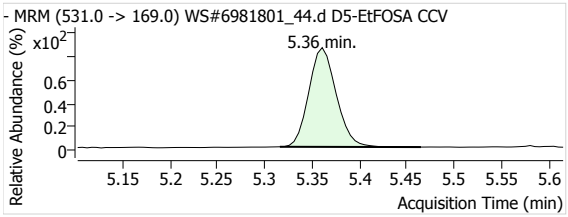
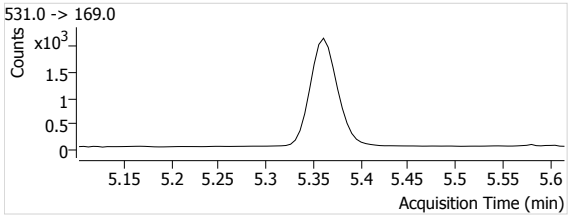




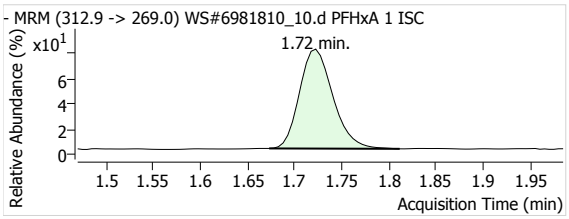
Quantitative Analysis Report

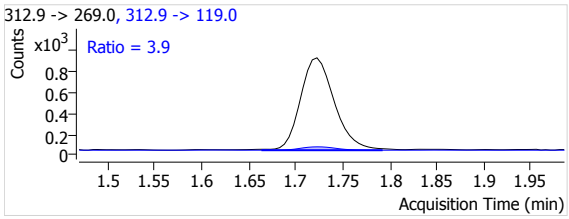
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	ISC	**Data File**	WS#6981810_10.d
Type	QC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A2
Acq. Date-Time	2020/10/05 8:24:43 AM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	0.830	0.7847	94.5	2125	1.72	117	0.1551	82	1.72	25	3.9
PFHpA 1	µg/L	0.830	0.8005	96.5	2421	2.17	86	0.2134	416	2.17	56	17.2
PFOA 1	µg/L	0.830	0.8088	97.4	1724	2.64	26	0.1383	433	2.64	88	25.1
PFNA 1	µg/L	0.830	0.7629	91.9	1705	3.07	38	0.1697	267	3.07	41	15.7
PFDA 1	µg/L	0.830	0.7933	95.6	1358	3.45	35	0.1599	242	3.45	93	17.8
PFUnA 1	µg/L	0.830	0.8137	98.0	1589	3.79	54	0.1649	246	3.79	59	15.5
PFDoA 1	µg/L	0.830	0.7744	93.3	1529	4.09	28	0.1517	198	4.09	44	12.9
PFTrDA 1	µg/L	0.830	0.8239	99.3	1471	4.35	28	0.1779	150	4.35	26	10.2
PFTeDA 1	µg/L	0.830	0.8107	97.7	1353	4.58	36	0.1636	96	4.58	37	7.1
PFBS 1	µg/L	0.830	0.8025	96.7	756	1.40	77	0.1650	296	1.40	39	39.2
PFHxS 1	µg/L	0.830	0.8313	100.2	435	2.07	79	0.1976	208	2.07	269	47.8
PFOS 1	µg/L	0.830	0.8441	101.7	389	2.89	73	0.1639	196	2.89	99	50.6
MeFOSA 1	µg/L	0.830	0.8045	96.9	269	5.23	26	0.0862	225	5.23	246	83.6
EtFOSA 1	µg/L	0.830	0.8719	105.0	247	5.36	28	0.0685	220	5.36	178	89.1
13C2-PFHxA	µg/L	100.000	110.2220	110.2	13705	1.72	1076		--	--	--	--
13C4-PFHpA	µg/L	100.000	109.2748	109.3	11346	2.17	818		--	--	--	--
13C4-PFOA	µg/L	100.000	110.5328	110.5	12467	2.64	816		--	--	--	--
13C5-PFNA	µg/L	100.000	113.5639	113.6	10047	3.07	787		--	--	--	--
13C2-PFDA	µg/L	100.000	108.9568	109.0	8491	3.45	571		--	--	--	--
13C2-PFUnA	µg/L	100.000	113.4400	113.4	9639	3.79	928		--	--	--	--
13C2-PFDoA	µg/L	100.000	111.0511	111.1	10079	4.09	484		--	--	--	--
13C2-PFTeDA	µg/L	100.000	115.2913	115.3	8271	4.58	889		--	--	--	--
13C3-PFBS	µg/L	100.000	107.4595	107.5	4581	1.40	417		--	--	--	--
18O2-PFHxS	µg/L	100.000	106.9971	107.0	2202	2.12	713		--	--	--	--
13C4-PFOS	µg/L	100.000	112.4704	112.5	2372	2.93	551		--	--	--	--
D3-MeFOSA	µg/L	100.000	112.1136	112.1	3119	5.24	161		--	--	--	--
D5-EtFOSA	µg/L	100.000	108.3859	108.4	3606	5.36	72		--	--	--	--

PFHxA 1





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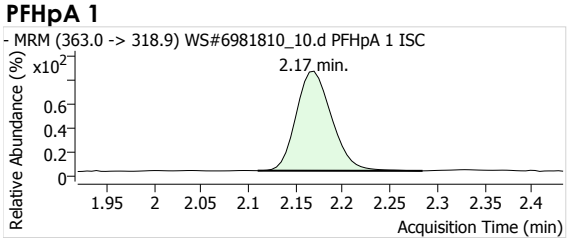

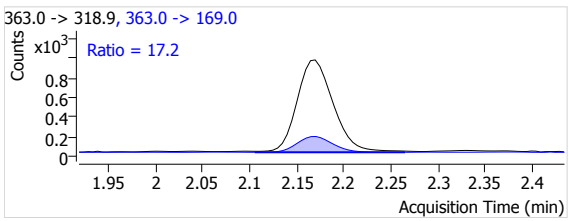

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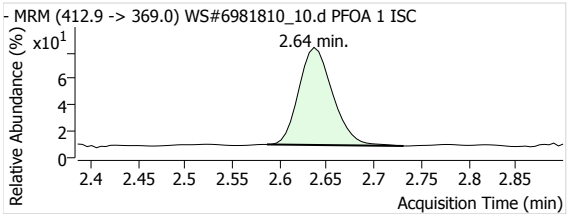

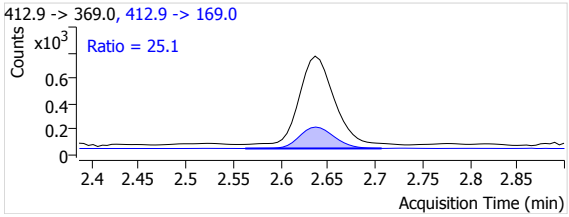

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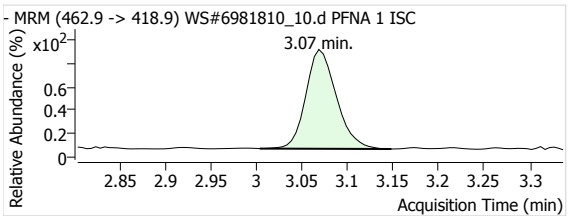

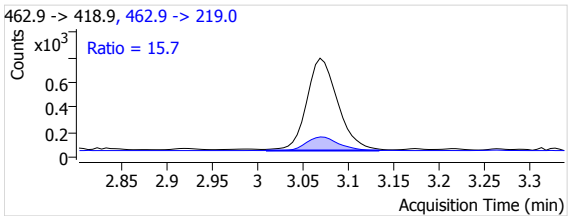

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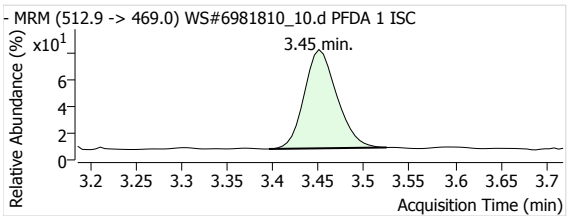

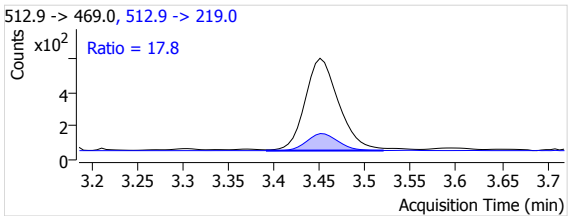

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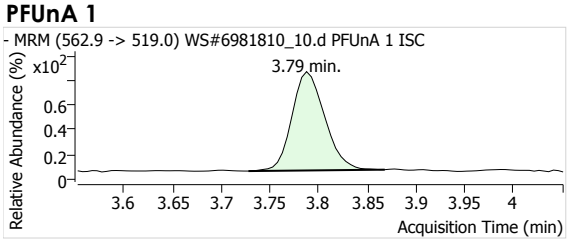
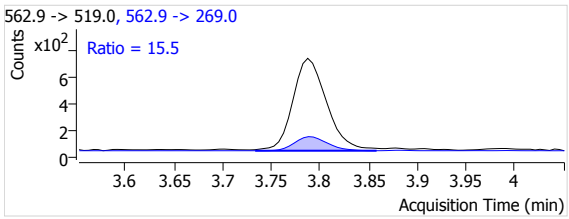
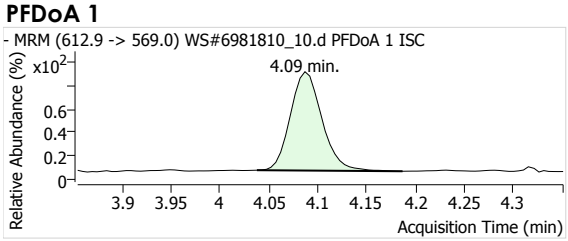
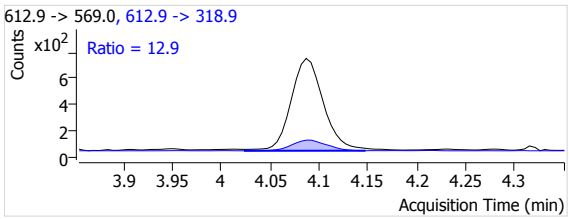




PFDoA 1





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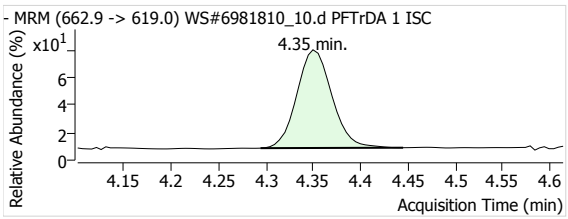

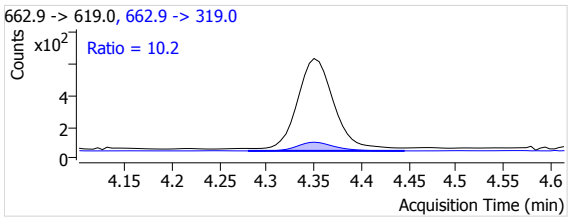

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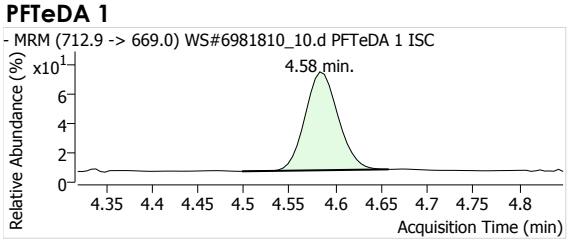

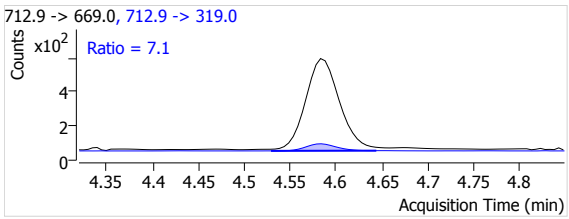

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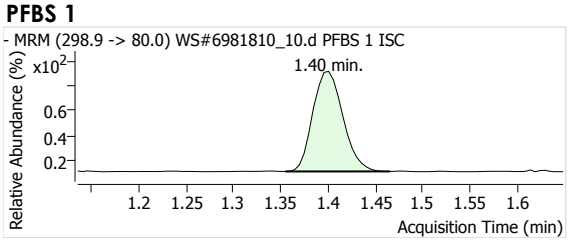

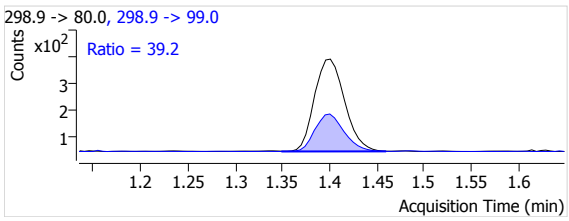

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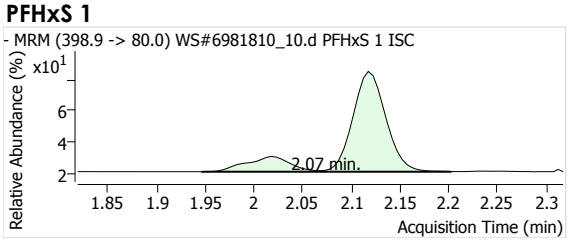

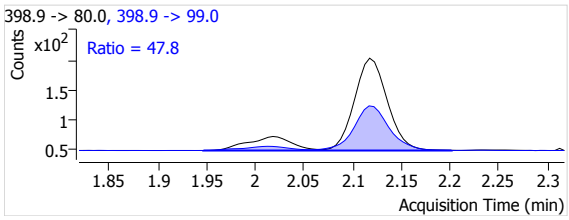

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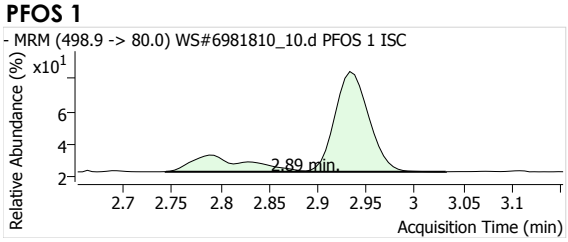

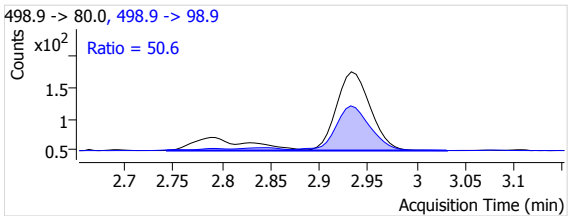

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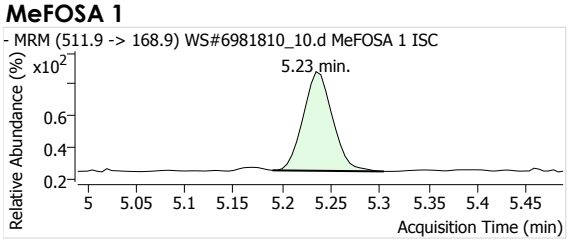

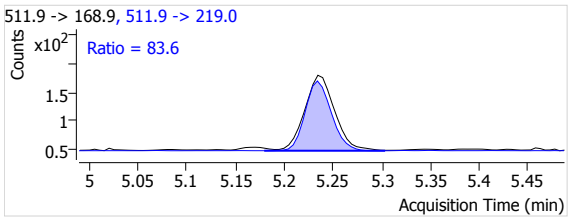

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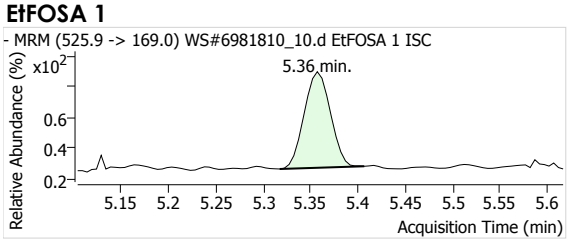

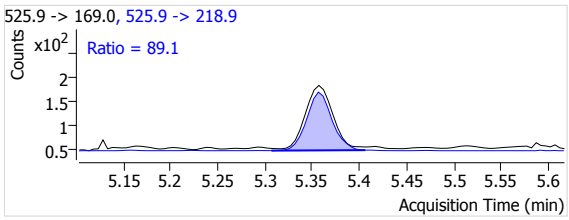

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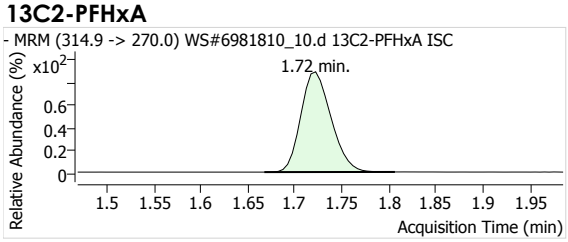

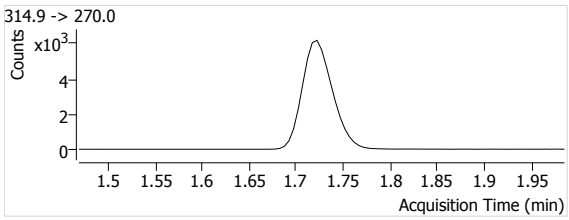

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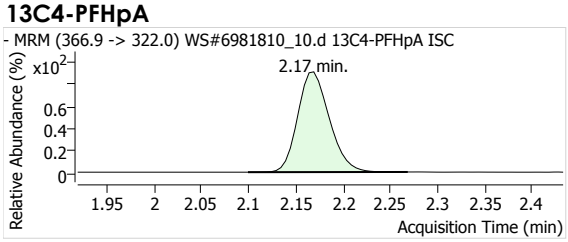

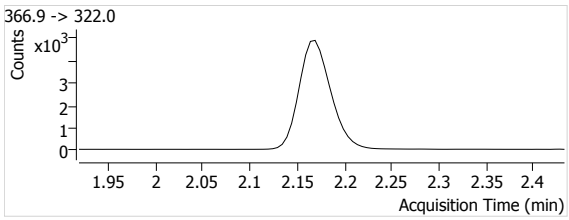

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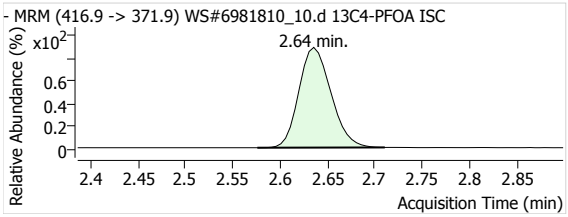

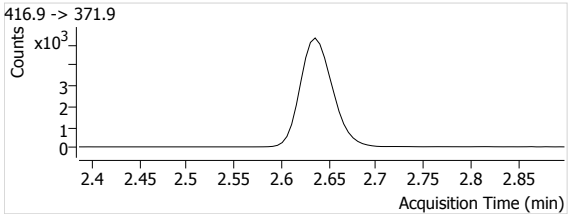

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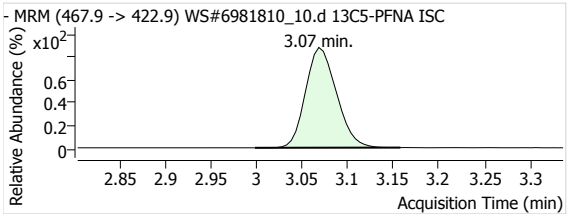

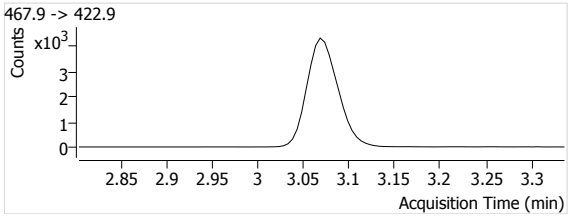

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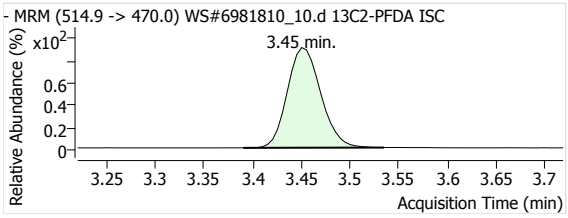

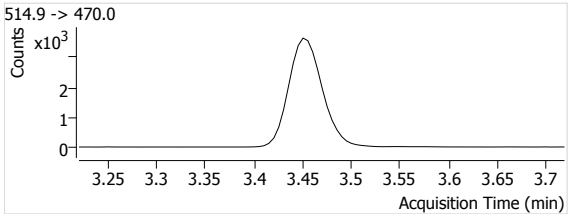

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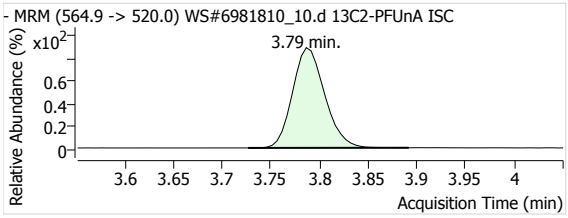

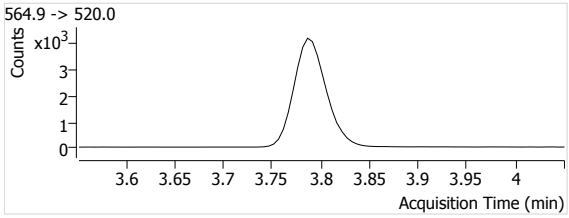

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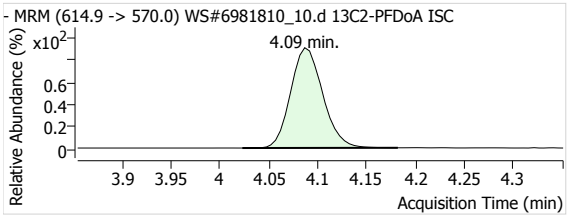

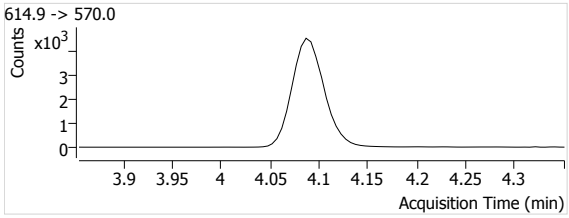

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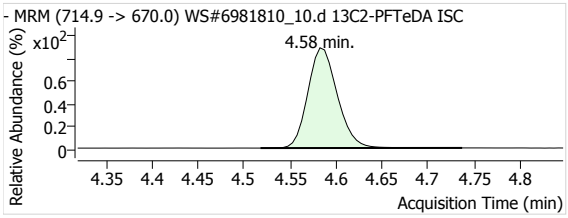

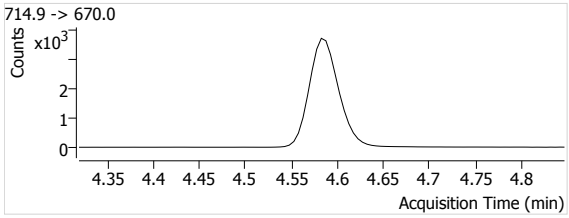

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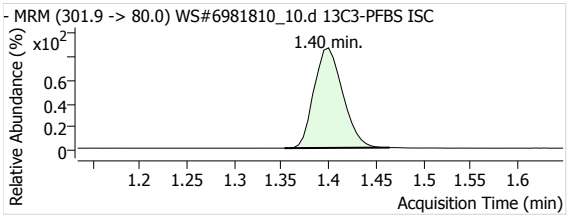

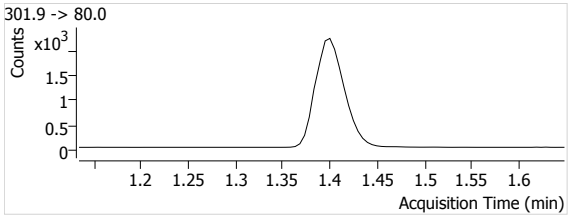

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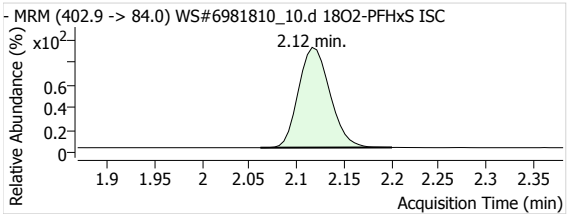

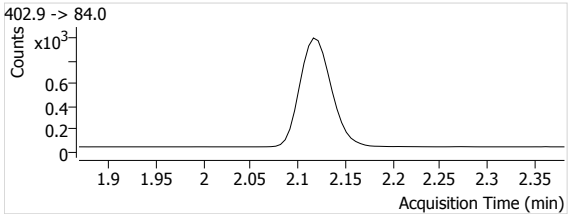

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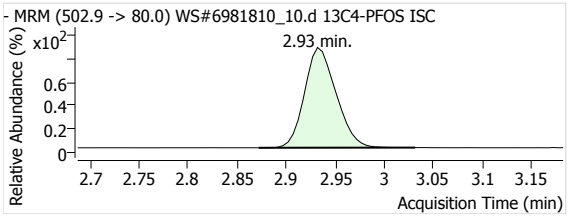
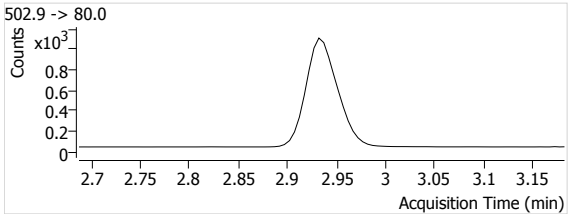
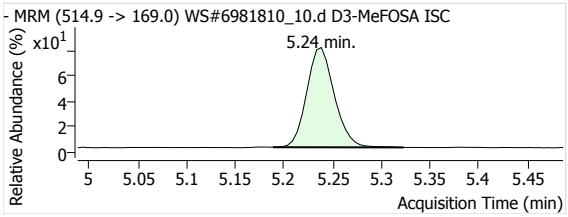
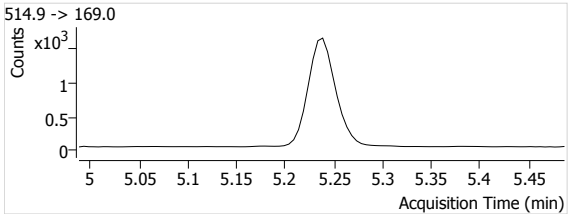




D3-MeFOSA





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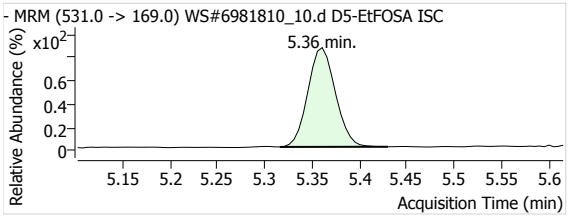
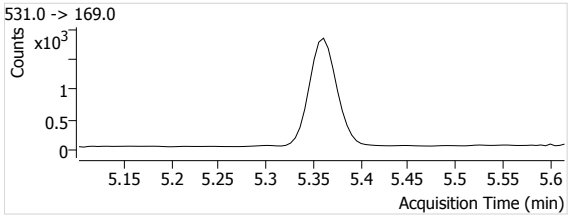




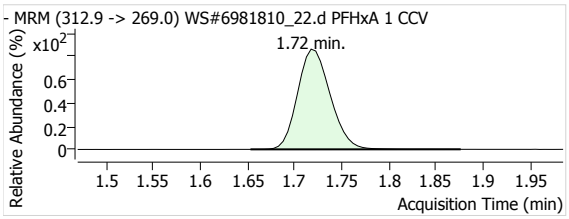
Quantitative Analysis Report

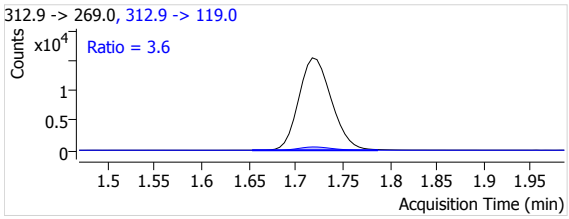
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	CCV	**Data File**	WS#6981810_22.d
Type	CC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A5
Acq. Date-Time	2020/10/05 9:48:34 AM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	15.6568	97.9	37334	1.72	914	2.7903	1331	1.72	217	3.6
PFHpA 1	µg/L	16.000	15.7869	98.7	44537	2.16	629	3.8206	7468	2.17	863	16.8
PFOA 1	µg/L	16.000	15.7508	98.4	32516	2.63	475	2.5346	7794	2.63	500	24.0
PFNA 1	µg/L	16.000	15.7181	98.2	30117	3.06	551	2.9451	4728	3.06	678	15.7
PFDA 1	µg/L	16.000	15.5907	97.4	24736	3.45	561	2.7521	4277	3.45	717	17.3
PFUnA 1	µg/L	16.000	15.4837	96.8	28055	3.79	468	2.8780	4604	3.78	796	16.4
PFDoA 1	µg/L	16.000	15.8890	99.3	27211	4.09	478	2.7094	3911	4.09	414	14.4
PFTrDA 1	µg/L	16.000	16.0130	100.1	25323	4.35	426	3.0444	2447	4.35	650	9.7
PFTeDA 1	µg/L	16.000	15.5919	97.4	21706	4.58	277	2.6095	1581	4.58	499	7.3
PFBS 1	µg/L	16.000	15.9845	99.9	14932	1.40	1537	3.1669	5897	1.40	509	39.5
PFHxS 1	µg/L	16.000	15.7490	98.4	8188	2.07	467	3.4696	3828	2.07	740	46.8
PFOS 1	µg/L	16.000	15.8999	99.4	7608	2.89	226	3.0617	3870	2.89	243	50.9
MeFOSA 1	µg/L	16.000	15.8689	99.2	4917	5.23	93	1.5750	4143	5.23	468	84.3
EtFOSA 1	µg/L	16.000	16.6347	104.0	4904	5.36	581	1.3190	4777	5.36	81647	97.4
13C2-PFHxA	µg/L	100.000	107.6082	107.6	13380	1.72	1010		--	--	--	--
13C4-PFHpA	µg/L	100.000	112.2701	112.3	11657	2.16	1083		--	--	--	--
13C4-PFOA	µg/L	100.000	113.7424	113.7	12829	2.63	974		--	--	--	--
13C5-PFNA	µg/L	100.000	115.5872	115.6	10226	3.07	1020		--	--	--	--
13C2-PFDA	µg/L	100.000	115.3343	115.3	8988	3.45	1288		--	--	--	--
13C2-PFUnA	µg/L	100.000	114.7228	114.7	9748	3.79	600		--	--	--	--
13C2-PFDoA	µg/L	100.000	110.6545	110.7	10043	4.09	657		--	--	--	--
13C2-PFTeDA	µg/L	100.000	115.9465	115.9	8318	4.58	695		--	--	--	--
13C3-PFBS	µg/L	100.000	110.6029	110.6	4715	1.40	965		--	--	--	--
18O2-PFHxS	µg/L	100.000	114.6744	114.7	2360	2.11	454		--	--	--	--
13C4-PFOS	µg/L	100.000	117.8284	117.8	2485	2.93	297		--	--	--	--
D3-MeFOSA	µg/L	100.000	112.2214	112.2	3122	5.24	103		--	--	--	--
D5-EtFOSA	µg/L	100.000	111.7523	111.8	3718	5.36	75		--	--	--	--

PFHxA 1





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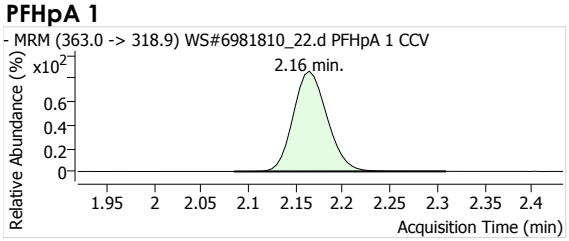

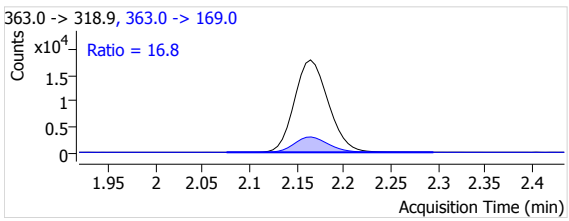

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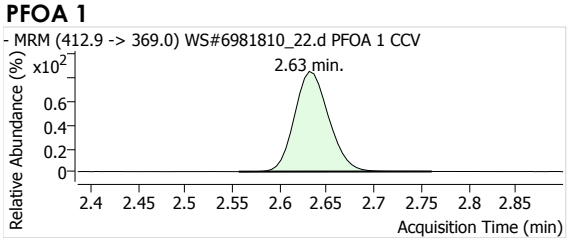

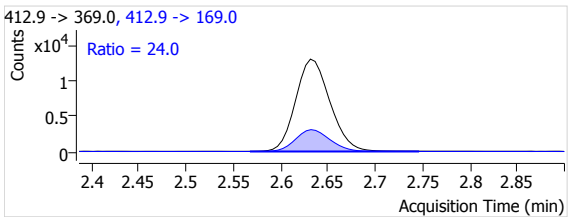

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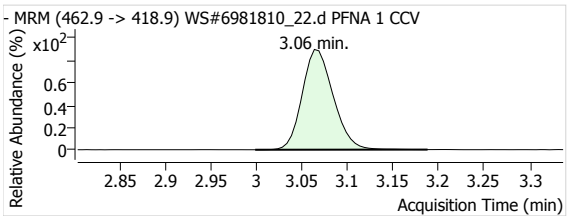

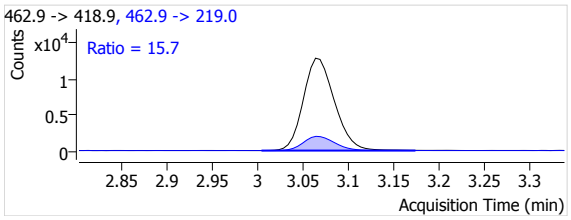

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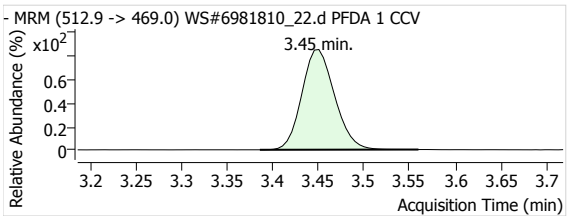
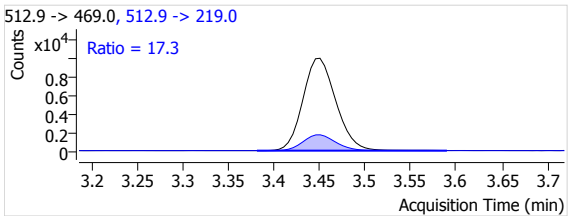
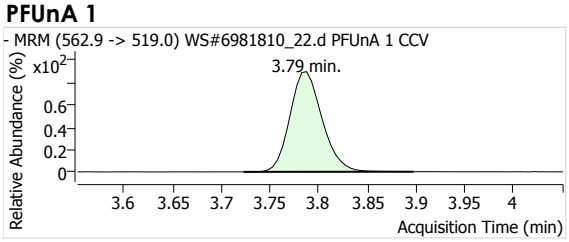
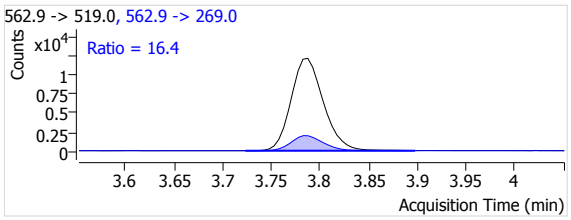




PFUnA 1





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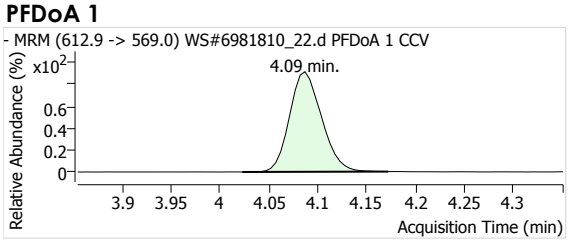

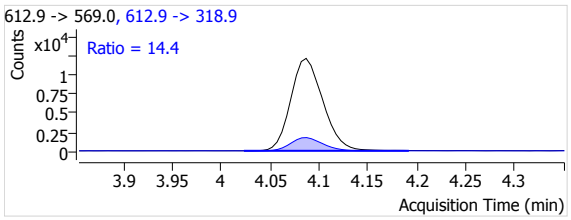

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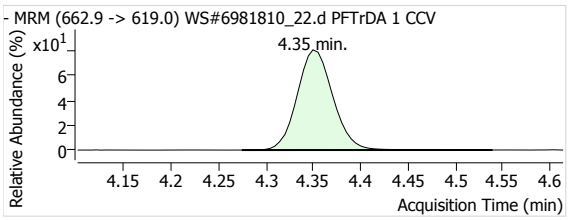

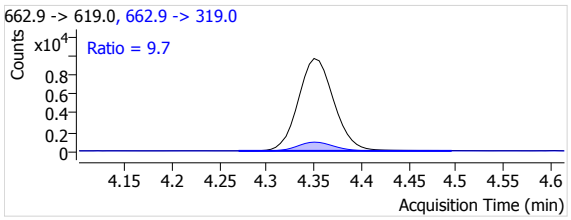

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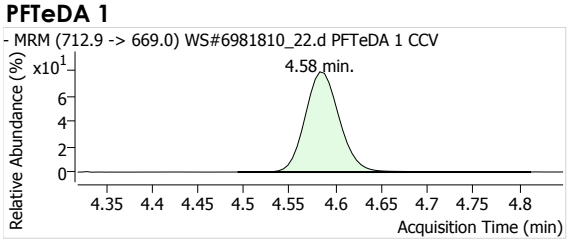

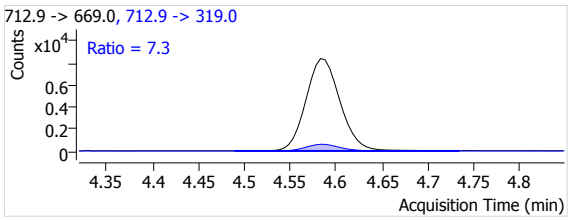

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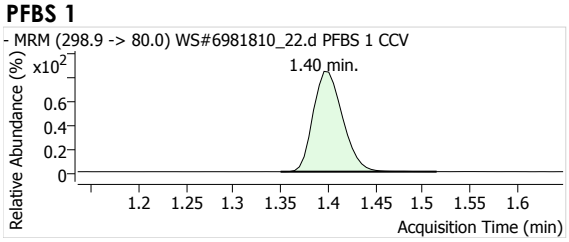

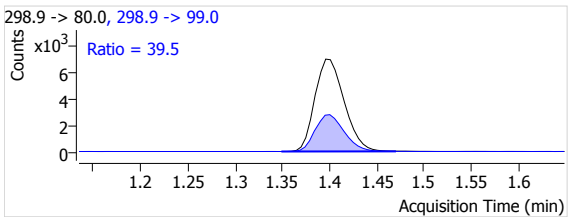

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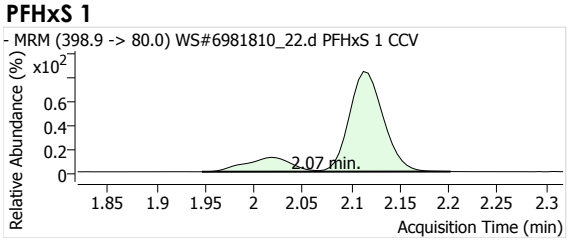

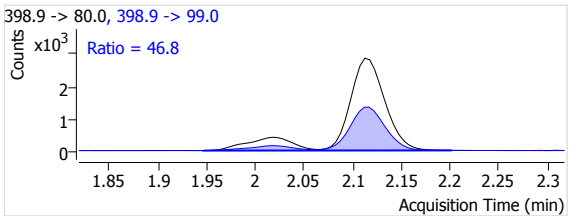

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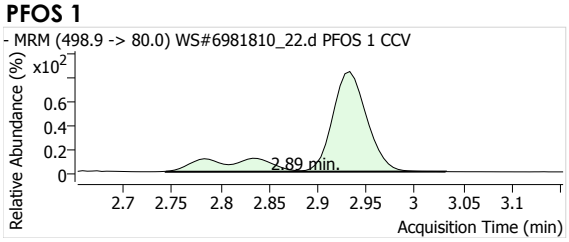

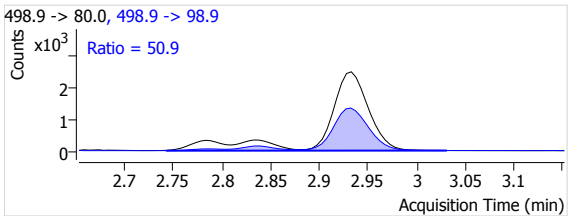

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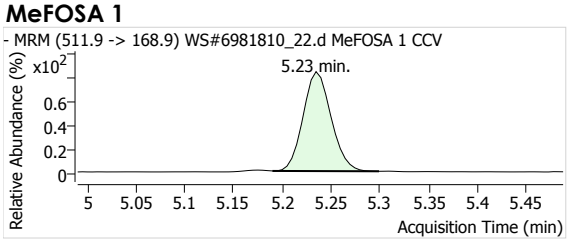

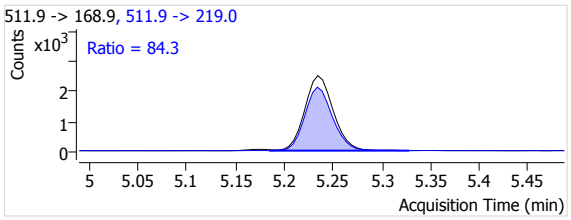

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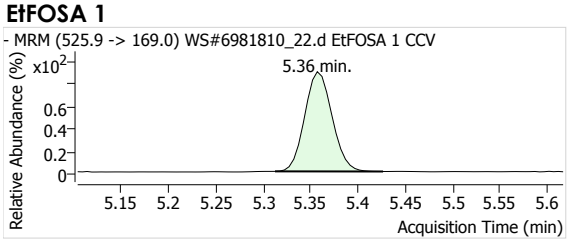
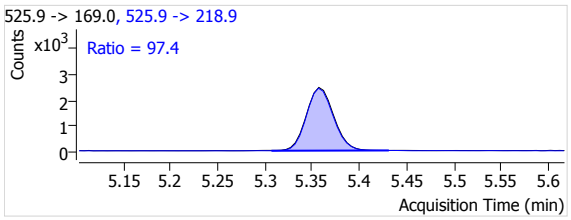
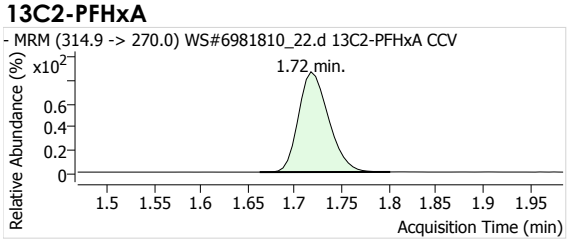
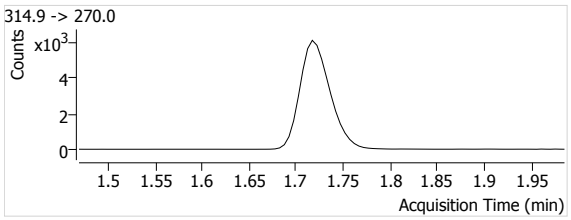




13C2-PFHxA





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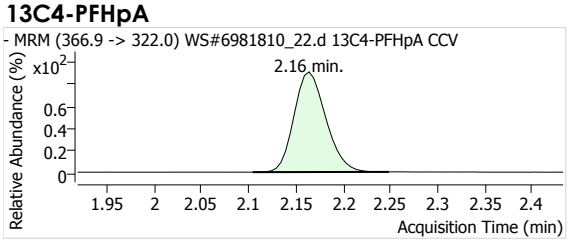

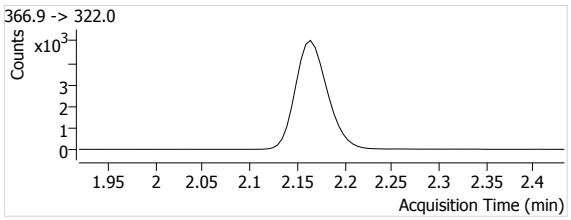

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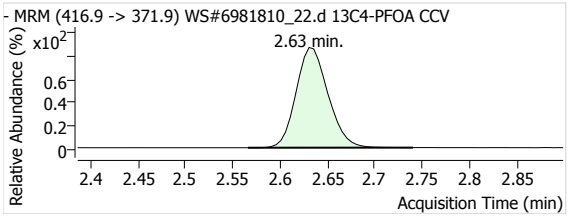

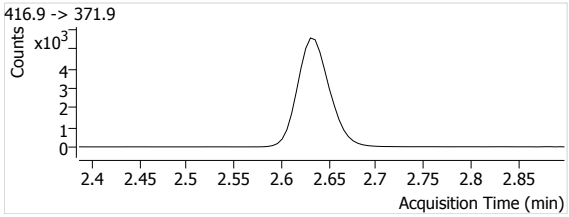

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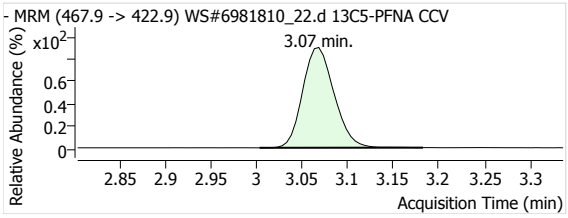

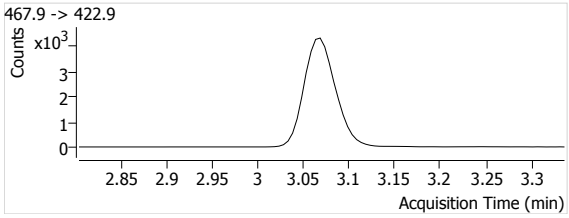

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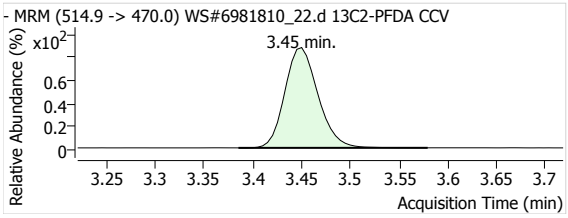

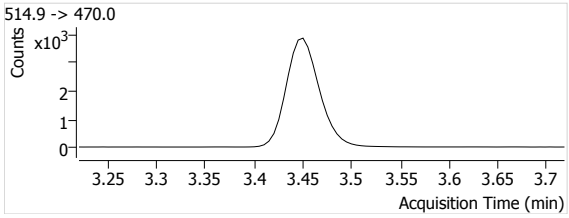

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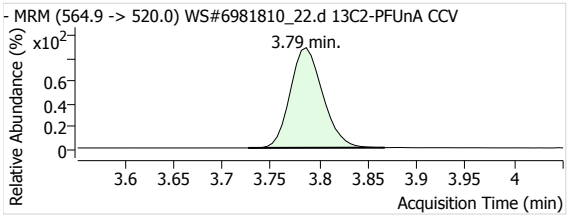

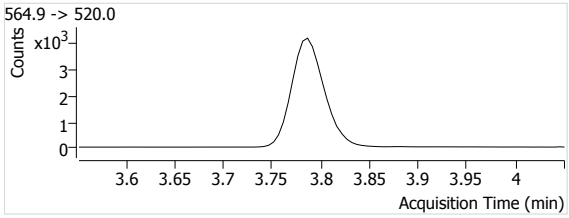

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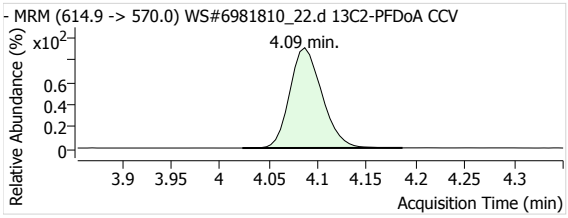

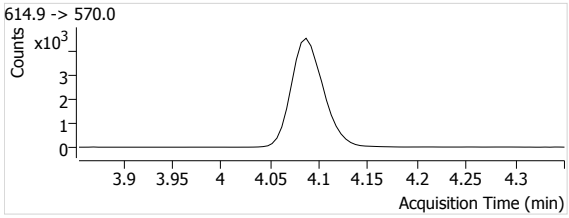

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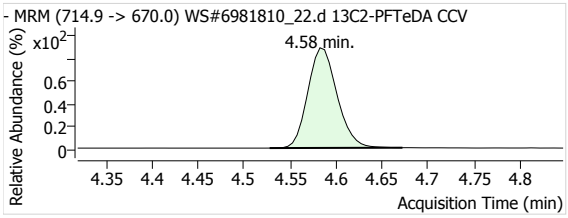

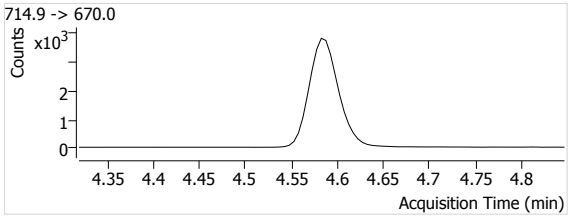

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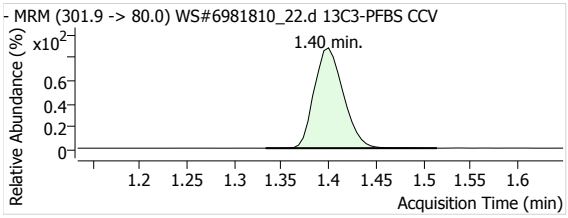

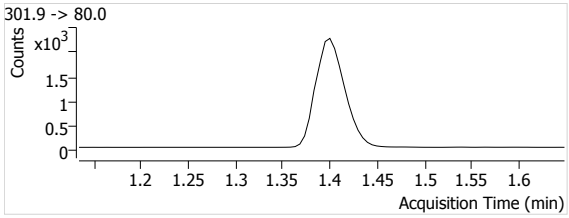

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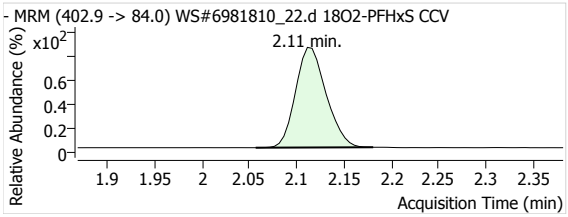

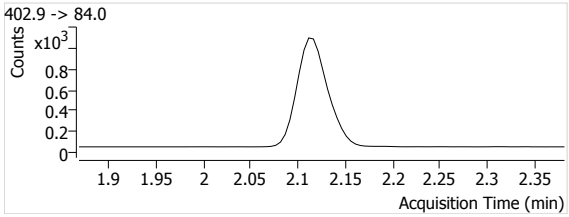

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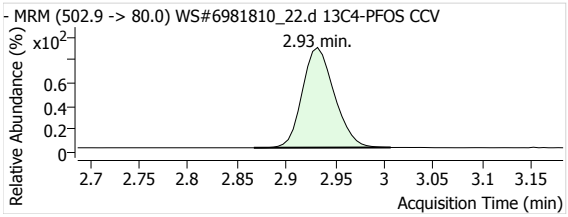
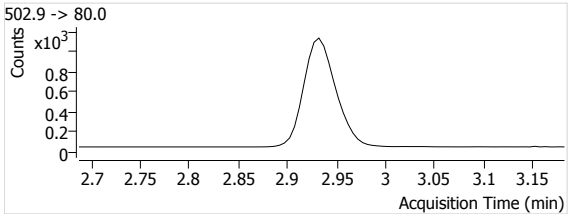
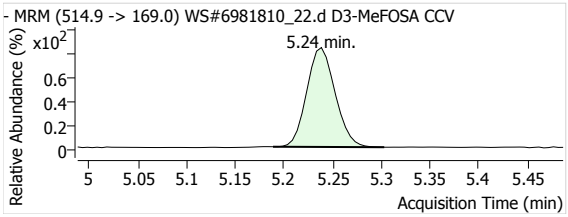
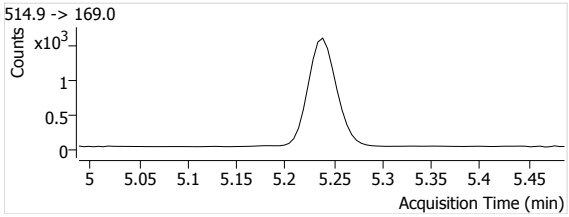




D3-MeFOSA





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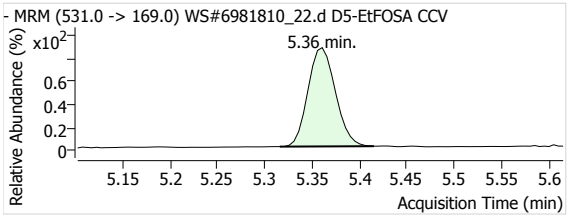
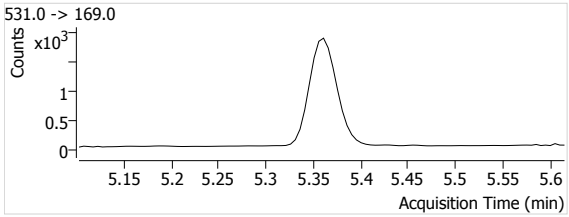




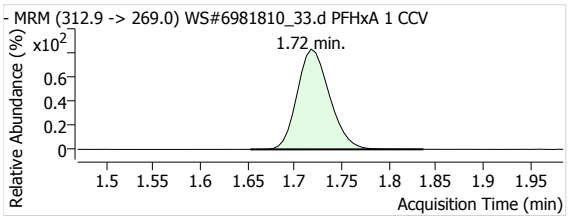
Quantitative Analysis Report

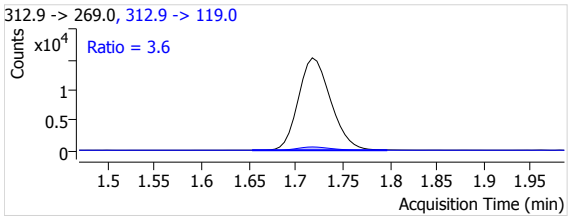
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	CCV	**Data File**	WS#6981810_33.d
Type	CC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A5
Acq. Date-Time	2020/10/05 11:05:29 AM	**Dil.**	1.0
Comment	-		
User Defined			

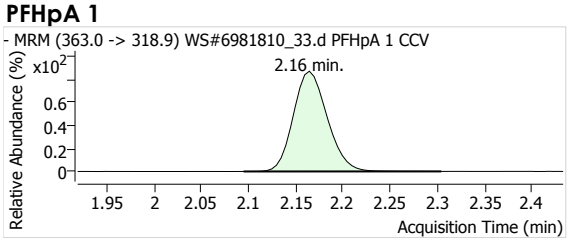
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	15.3394	95.9	36412	1.72	535	2.7340	1313	1.72	176	3.6
PFHpA 1	µg/L	16.000	15.7499	98.4	43423	2.16	752	3.8117	7425	2.17	850	17.1
PFOA 1	µg/L	16.000	15.5946	97.5	31384	2.63	455	2.5095	7606	2.63	699	24.2
PFNA 1	µg/L	16.000	15.6476	97.8	29259	3.06	730	2.9321	4607	3.06	455	15.7
PFDA 1	µg/L	16.000	16.0773	100.5	24631	3.45	764	2.8373	4097	3.45	537	16.6
PFUnA 1	µg/L	16.000	15.2716	95.4	27278	3.78	630	2.8388	4470	3.78	430	16.4
PFDoA 1	µg/L	16.000	15.8469	99.0	26545	4.08	333	2.7023	3700	4.08	479	13.9
PFTrDA 1	µg/L	16.000	15.1889	94.9	24038	4.35	409	2.8888	2356	4.35	429	9.8
PFTeDA 1	µg/L	16.000	15.4156	96.3	21471	4.58	460	2.5803	1547	4.58	533	7.2
PFBS 1	µg/L	16.000	16.1388	100.9	14836	1.40	1019	3.1974	5800	1.40	1015	39.1
PFHxS 1	µg/L	16.000	15.6523	97.8	8007	2.07	419	3.4484	3790	2.07	379	47.3
PFOS 1	µg/L	16.000	15.9505	99.7	7562	2.89	208	3.0714	3781	2.89	443	50.0
MeFOSA 1	µg/L	16.000	15.7397	98.4	5188	5.23	124	1.5622	4193	5.23	390	80.8
EtFOSA 1	µg/L	16.000	16.4453	102.8	4839	5.36	938	1.3040	4830	5.36	36030	99.8
13C2-PFHxA	µg/L	100.000	107.1095	107.1	13318	1.72	1472		--	--	--	--
13C4-PFHpA	µg/L	100.000	109.7178	109.7	11392	2.16	1690		--	--	--	--
13C4-PFOA	µg/L	100.000	110.8786	110.9	12506	2.63	922		--	--	--	--
13C5-PFNA	µg/L	100.000	112.7953	112.8	9979	3.06	895		--	--	--	--
13C2-PFDA	µg/L	100.000	111.3948	111.4	8681	3.45	414		--	--	--	--
13C2-PFUnA	µg/L	100.000	113.0870	113.1	9609	3.79	604		--	--	--	--
13C2-PFDoA	µg/L	100.000	108.2305	108.2	9823	4.08	673		--	--	--	--
13C2-PFTeDA	µg/L	100.000	115.9883	116.0	8321	4.58	1012		--	--	--	--
13C3-PFBS	µg/L	100.000	108.8435	108.8	4640	1.40	749		--	--	--	--
18O2-PFHxS	µg/L	100.000	112.8280	112.8	2322	2.12	595		--	--	--	--
13C4-PFOS	µg/L	100.000	116.7378	116.7	2462	2.93	542		--	--	--	--
D3-MeFOSA	µg/L	100.000	119.3746	119.4	3321	5.24	95		--	--	--	--
D5-EtFOSA	µg/L	100.000	111.5419	111.5	3711	5.36	70		--	--	--	--

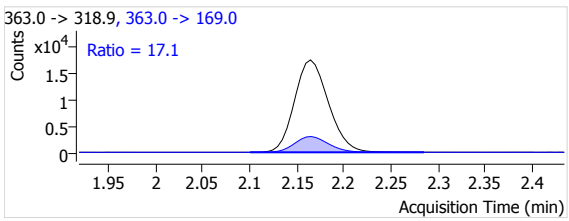
PFHxA 1



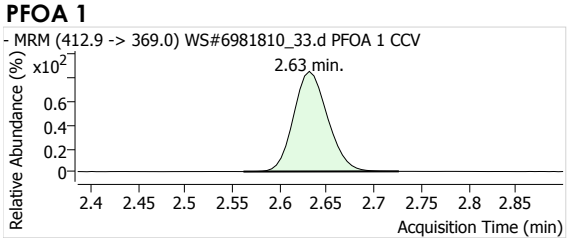


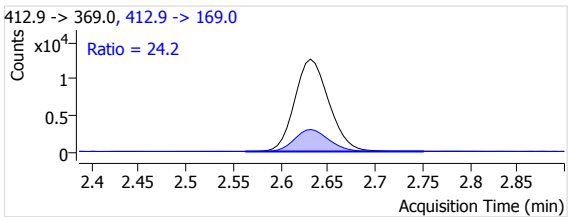
PFHpA 1





PFOA 1





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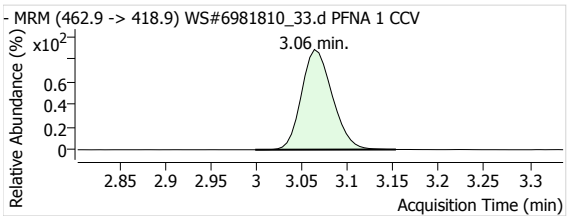

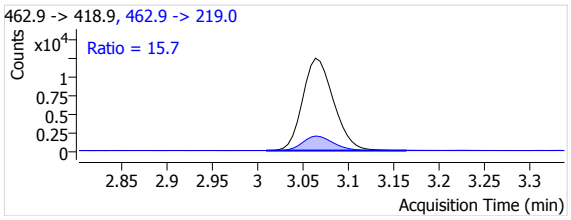

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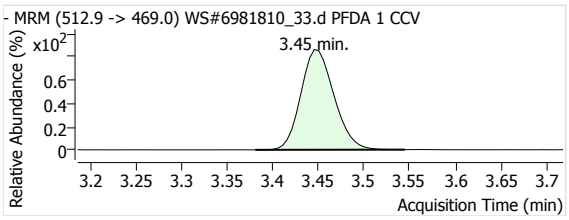
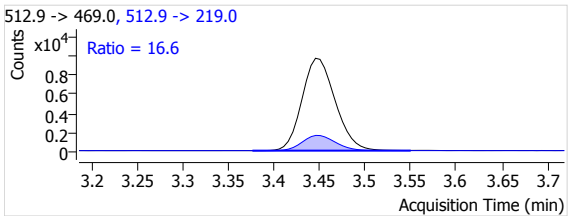
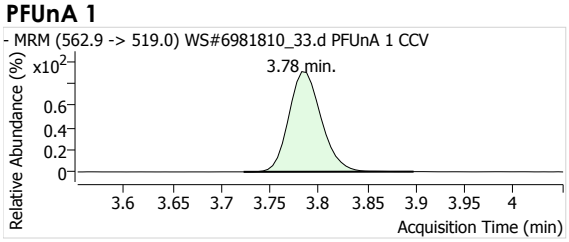
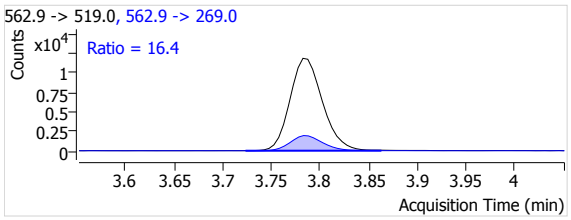




PFUnA 1





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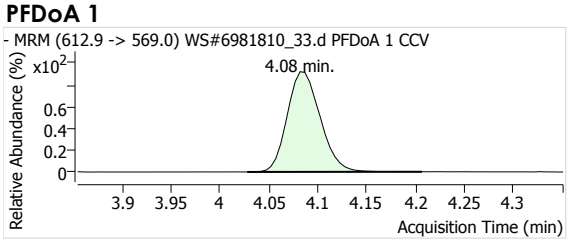

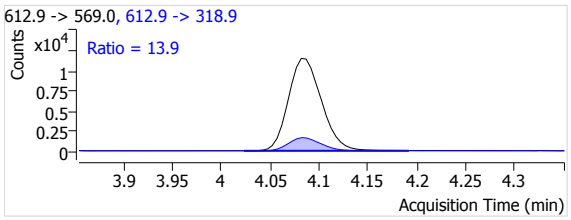

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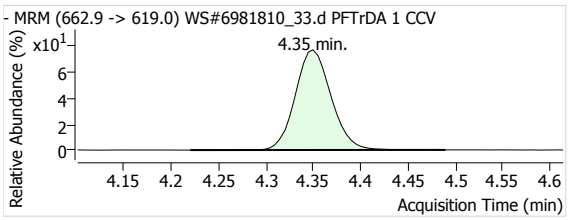
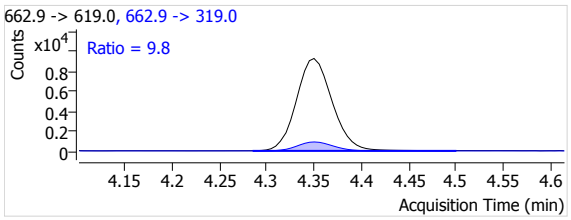
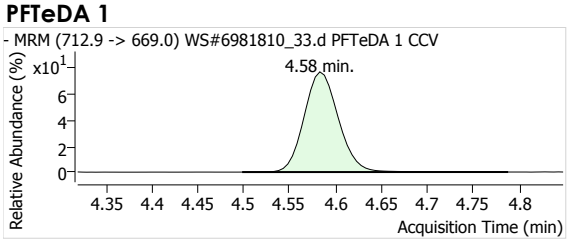
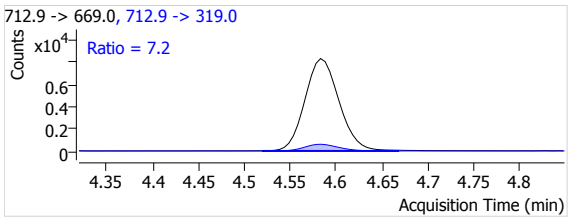




PFTeDA 1





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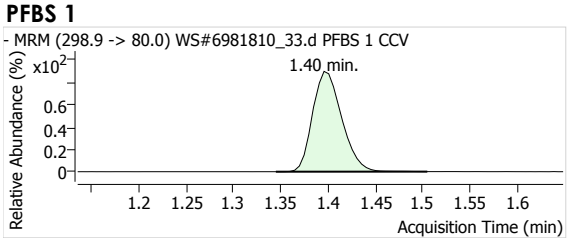

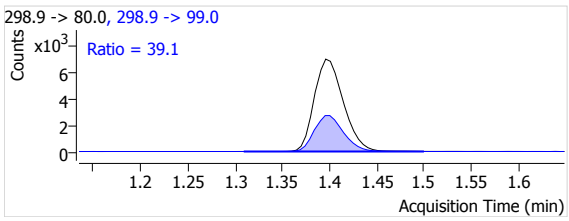

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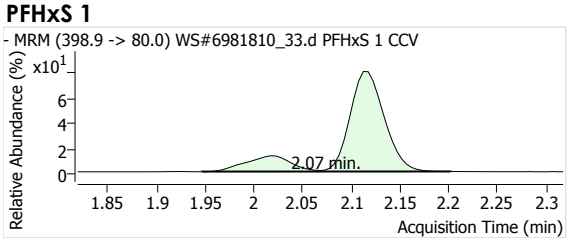
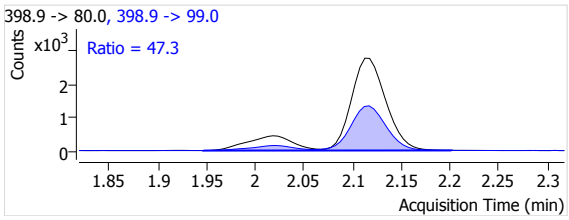
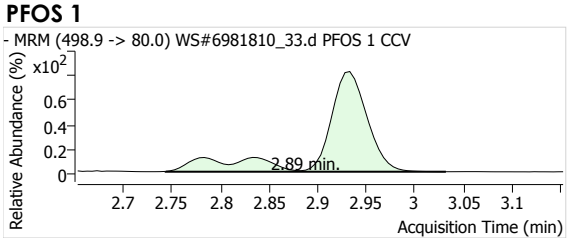
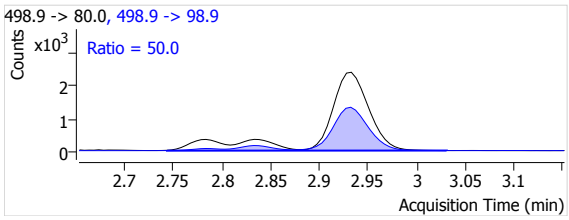


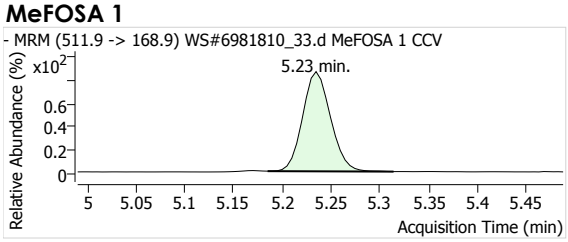


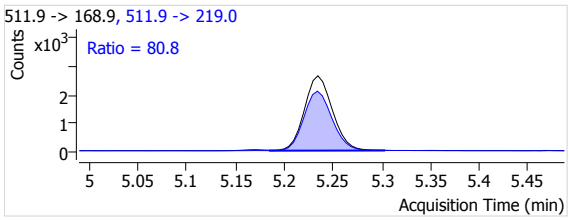
PFOS 1





MeFOSA 1





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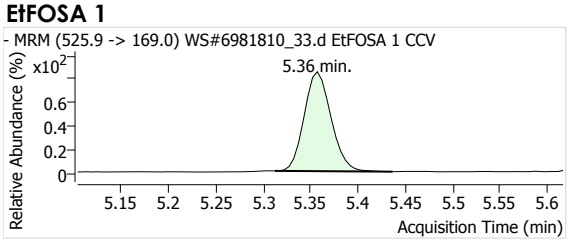
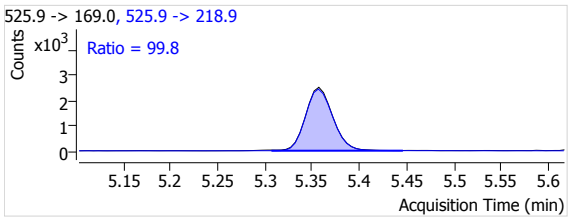
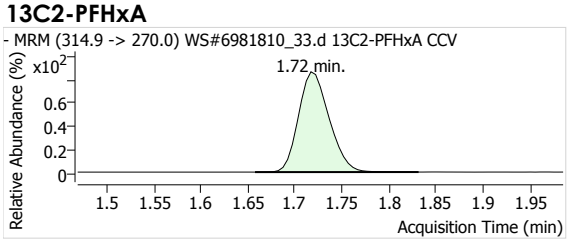
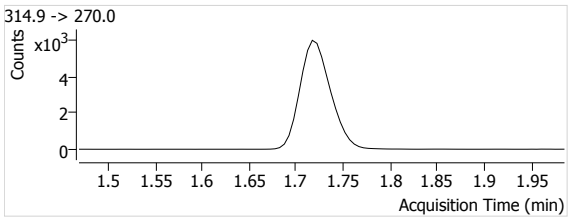




13C2-PFHxA





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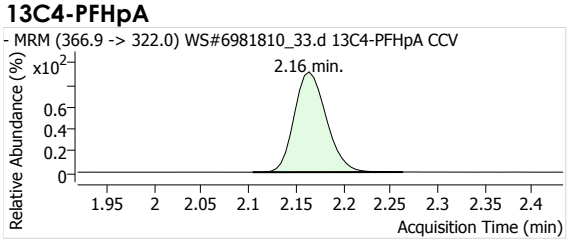

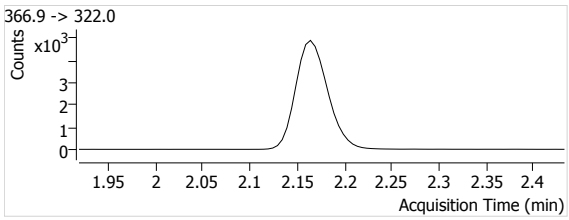

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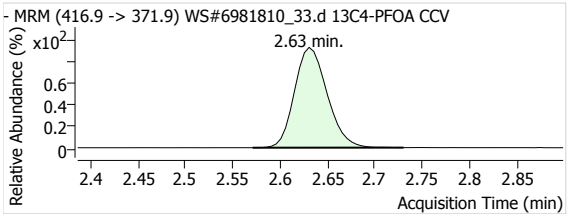
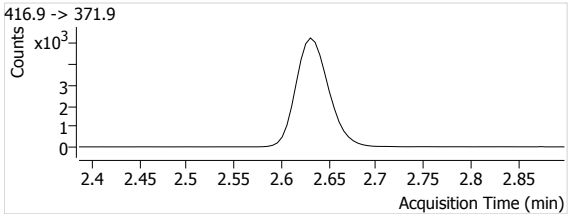
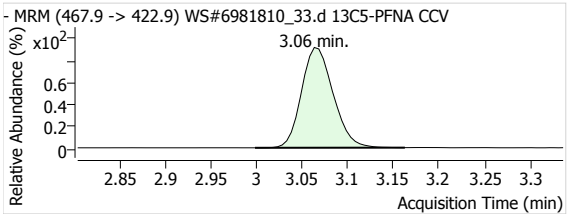
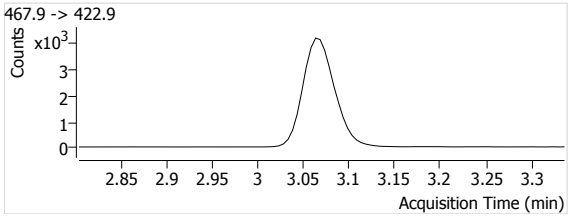




13C5-PFNA





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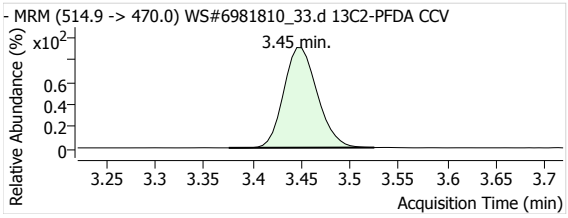

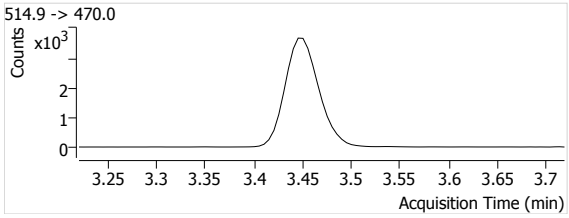

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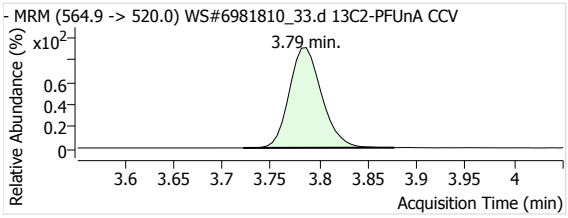

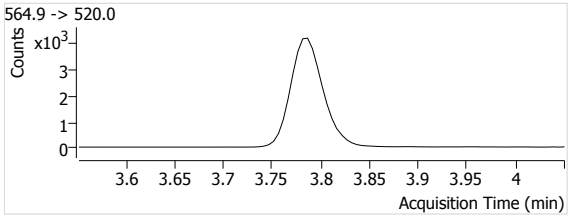

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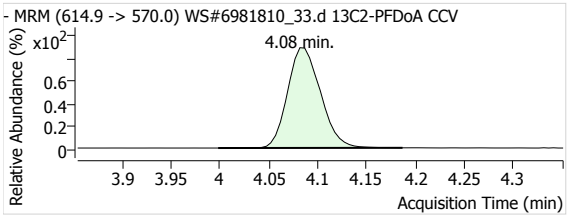

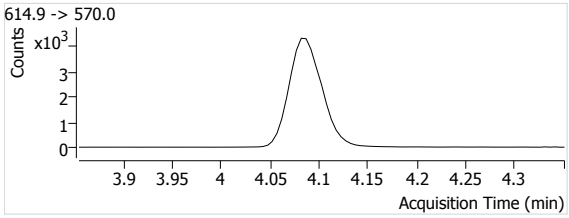

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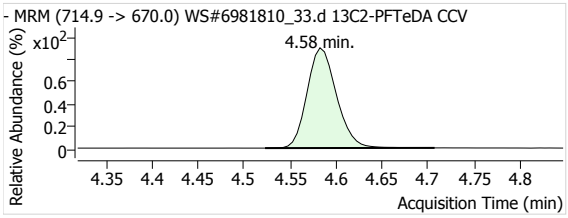

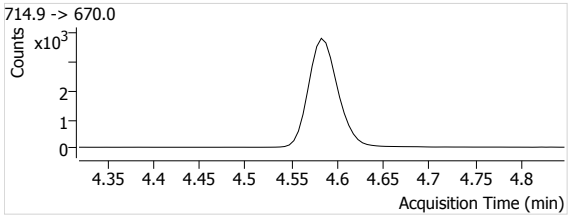

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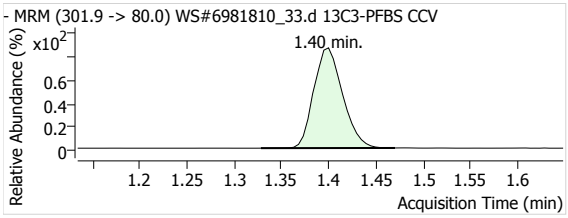
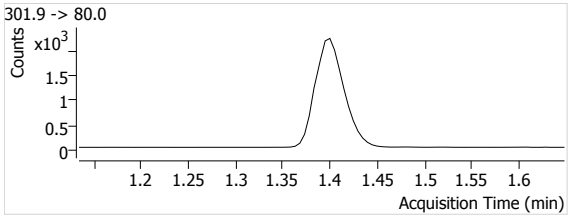
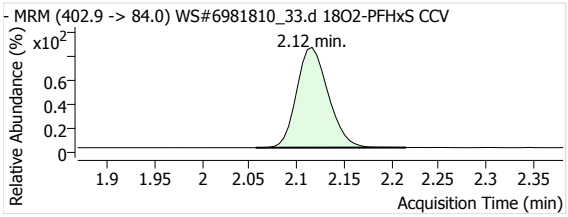
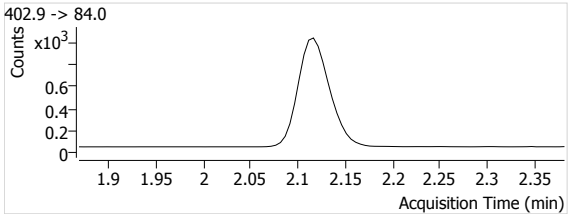




18O2-PFHxS





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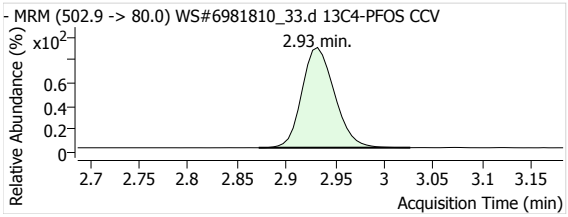
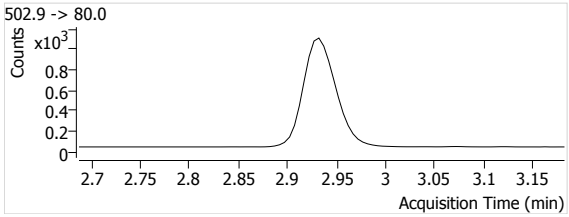
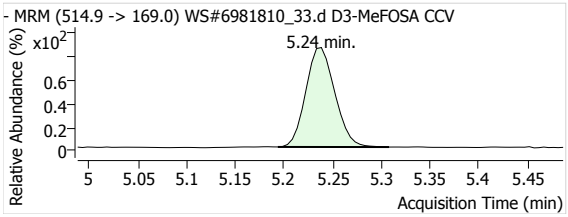
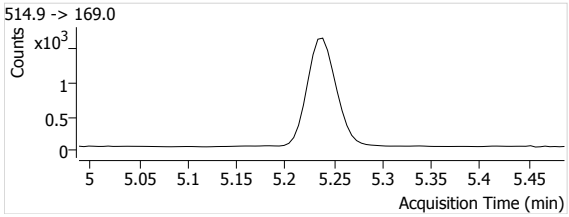


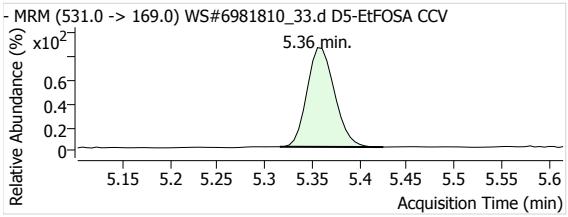


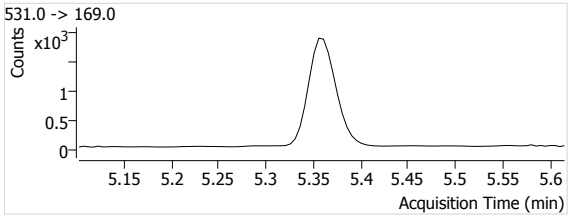
D3-MeFOSA





D5-EtFOSA





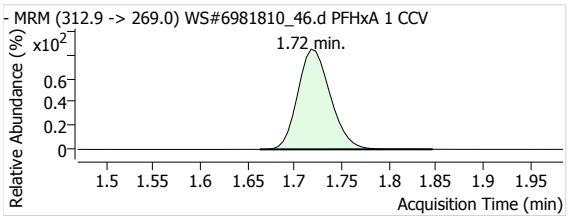
Quantitative Analysis Report

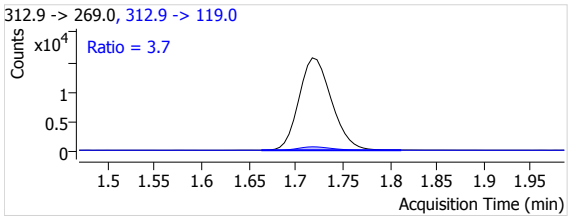
Batch Data Path File Name T:\LCMS05\PFC\20201005\WS#6981810\QuantResults\PFC_Water_DOD_20201005_WS#6981810_MI.batch.bin

Sample Name	CCV	**Data File**	WS#6981810_46.d
Type	CC	**Instrument**	LCMS05
Acq. Method File	PFAS.m	**Position**	P2-A5
Acq. Date-Time	2020/10/05 12:36:22 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	15.8078	98.8	37754	1.72	886	2.8170	1403	1.72	212	3.7
PFHpA 1	µg/L	16.000	15.6613	97.9	44431	2.16	984	3.7904	7456	2.17	562	16.8
PFOA 1	µg/L	16.000	15.4065	96.3	32016	2.63	616	2.4794	7715	2.63	522	24.1
PFNA 1	µg/L	16.000	15.9857	99.9	29957	3.06	808	2.9948	4800	3.06	321	16.0
PFDA 1	µg/L	16.000	15.6775	98.0	25094	3.45	769	2.7673	4219	3.45	475	16.8
PFUnA 1	µg/L	16.000	15.5130	97.0	28327	3.78	528	2.8834	4486	3.78	391	15.8
PFDoA 1	µg/L	16.000	15.4090	96.3	27097	4.08	472	2.6282	3899	4.08	311	14.4
PFTrDA 1	µg/L	16.000	15.2405	95.3	24464	4.35	645	2.8986	2471	4.35	187	10.1
PFTeDA 1	µg/L	16.000	15.6067	97.5	22045	4.58	598	2.6120	1584	4.58	473	7.2
PFBS 1	µg/L	16.000	15.7363	98.4	14763	1.40	695	3.1178	5687	1.40	746	38.5
PFHxS 1	µg/L	16.000	15.5796	97.4	8066	2.07	675	3.4324	3680	2.07	350	45.6
PFOS 1	µg/L	16.000	15.9175	99.5	7690	2.89	140	3.0651	3840	2.89	236	49.9
MeFOSA 1	µg/L	16.000	15.7335	98.3	5136	5.23	113	1.5616	4291	5.23	375	83.5
EtFOSA 1	µg/L	16.000	16.6407	104.0	5010	5.36	1614	1.3195	4954	5.36	47838	98.9
13C2-PFHxA	µg/L	100.000	107.7851	107.8	13402	1.72	2660		--	--	--	--
13C4-PFHpA	µg/L	100.000	112.8961	112.9	11722	2.16	1091		--	--	--	--
13C4-PFOA	µg/L	100.000	114.4871	114.5	12913	2.63	754		--	--	--	--
13C5-PFNA	µg/L	100.000	113.0666	113.1	10003	3.06	600		--	--	--	--
13C2-PFDA	µg/L	100.000	116.3608	116.4	9068	3.45	697		--	--	--	--
13C2-PFUnA	µg/L	100.000	115.6173	115.6	9824	3.79	623		--	--	--	--
13C2-PFDoA	µg/L	100.000	113.5963	113.6	10310	4.09	705		--	--	--	--
13C2-PFTeDA	µg/L	100.000	117.6471	117.6	8440	4.58	299		--	--	--	--
13C3-PFBS	µg/L	100.000	111.0720	111.1	4735	1.40	582		--	--	--	--
18O2-PFHxS	µg/L	100.000	114.1885	114.2	2350	2.12	386		--	--	--	--
13C4-PFOS	µg/L	100.000	118.9663	119.0	2509	2.93	385		--	--	--	--
D3-MeFOSA	µg/L	100.000	118.2243	118.2	3289	5.24	115		--	--	--	--
D5-EtFOSA	µg/L	100.000	114.1268	114.1	3797	5.36	78		--	--	--	--

PFHxA 1





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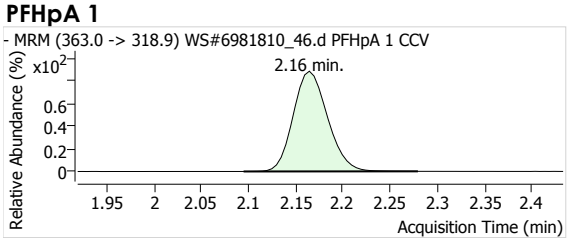

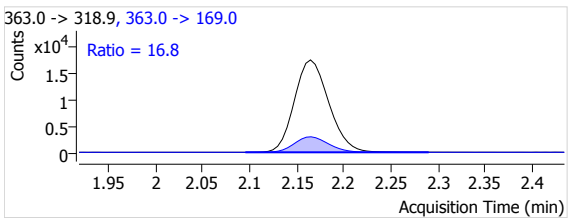

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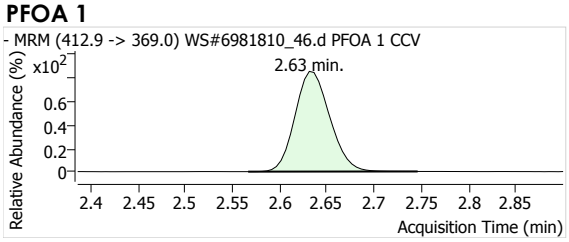

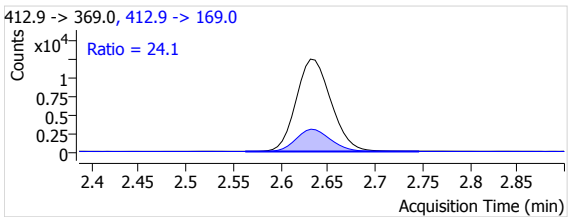

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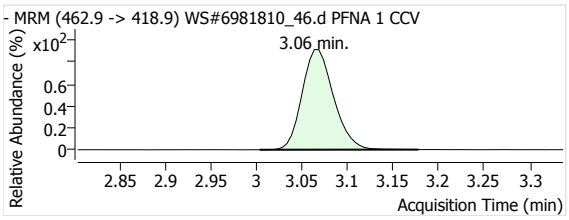

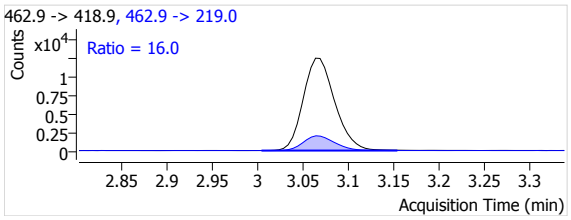

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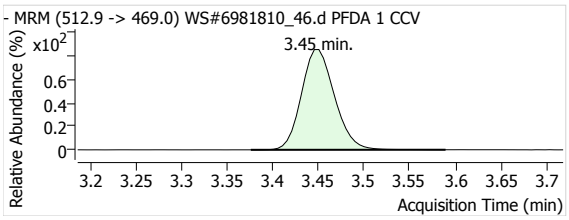

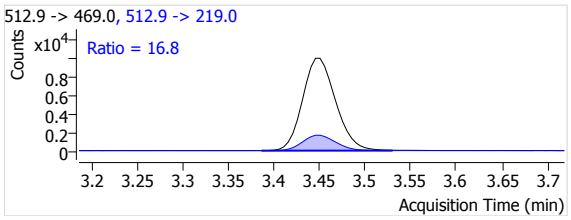

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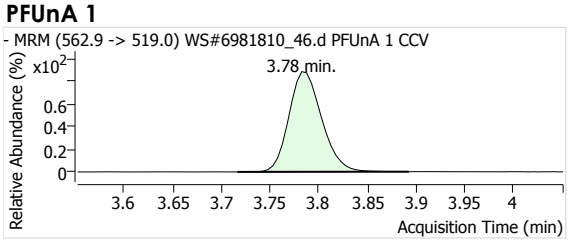

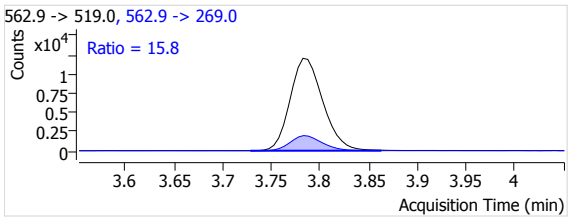

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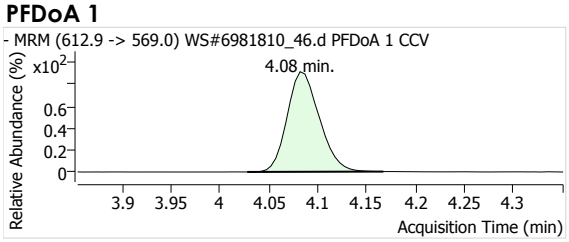

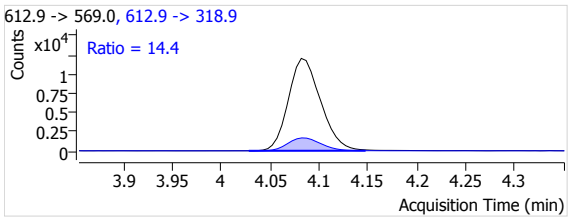

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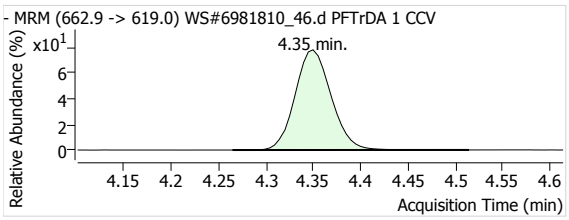

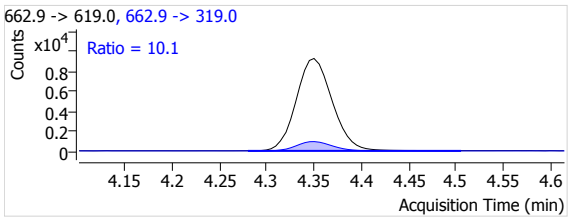

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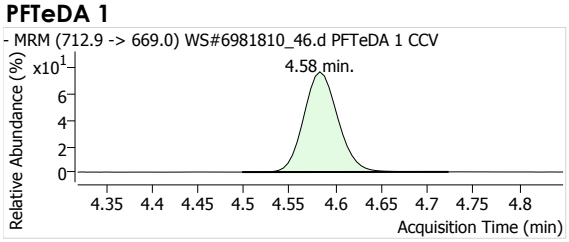

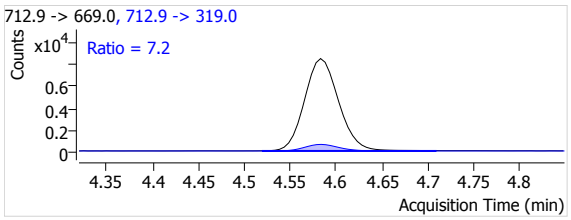

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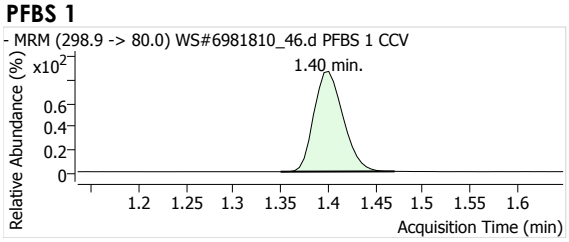

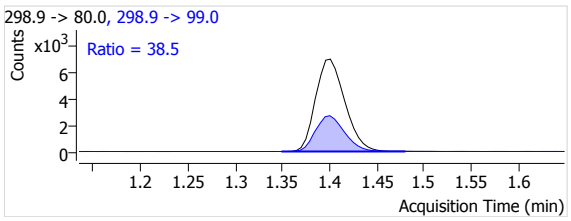

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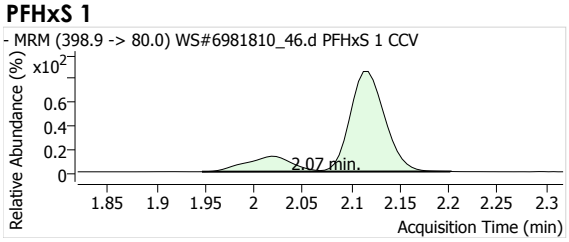

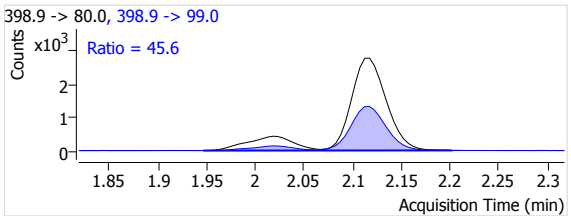

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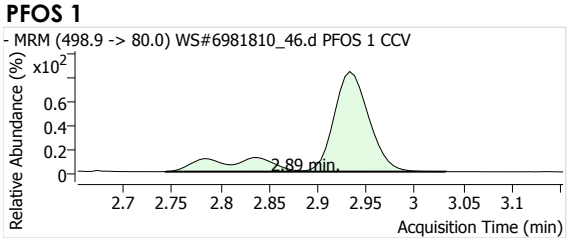

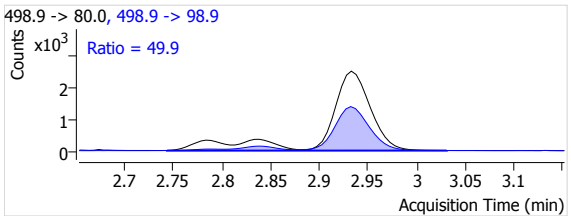

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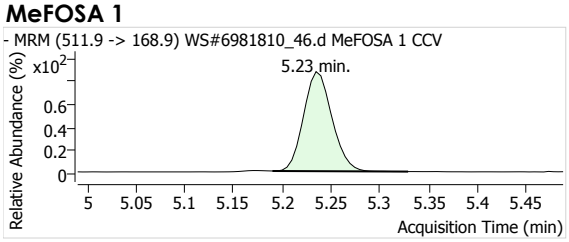

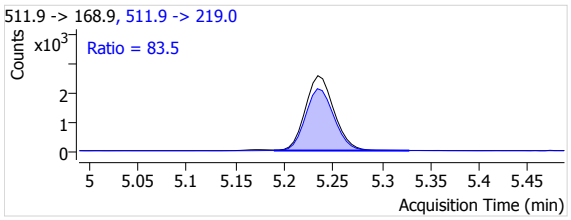

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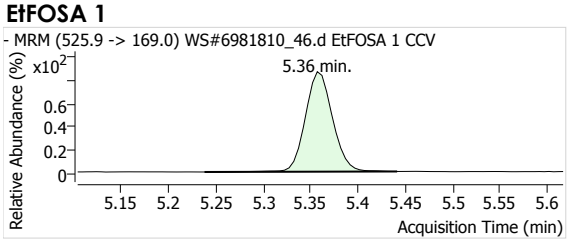

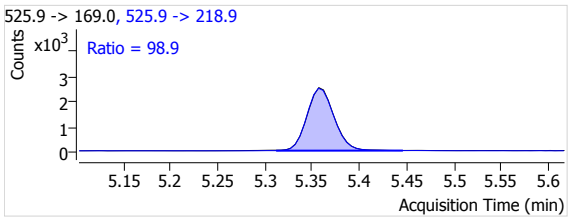

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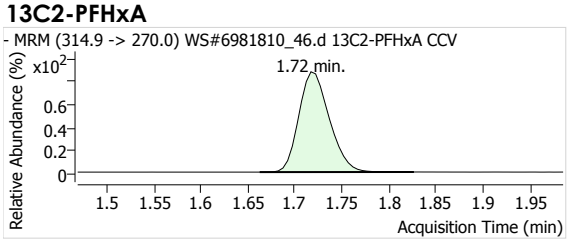

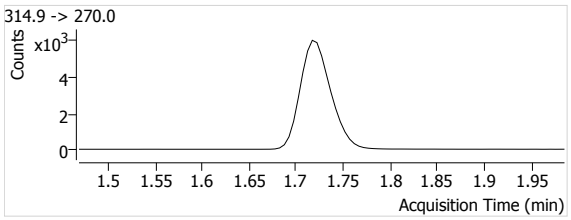

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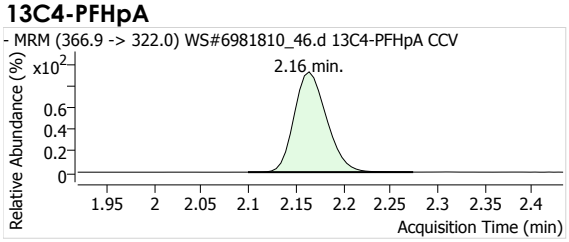

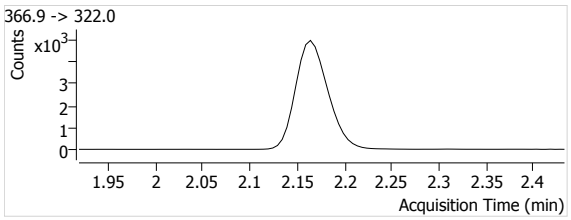

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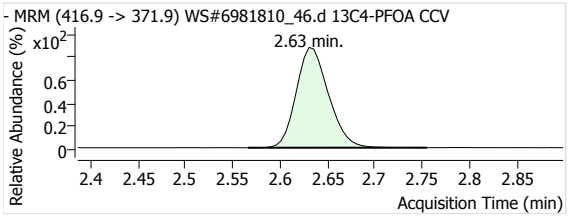

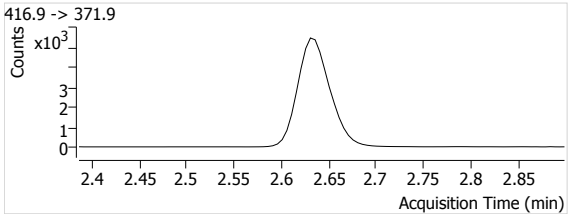

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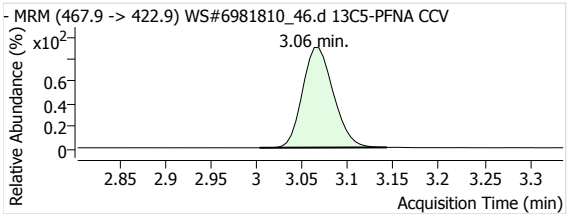

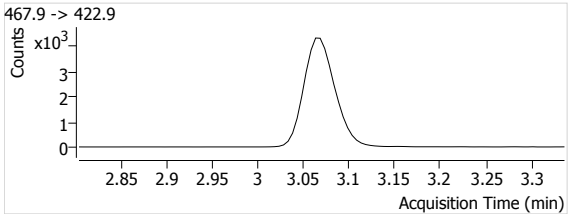

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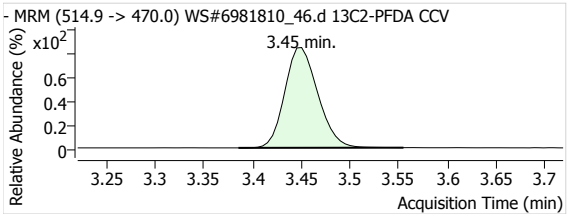

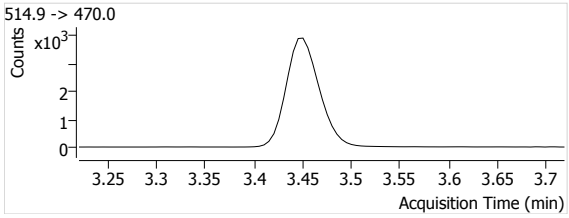

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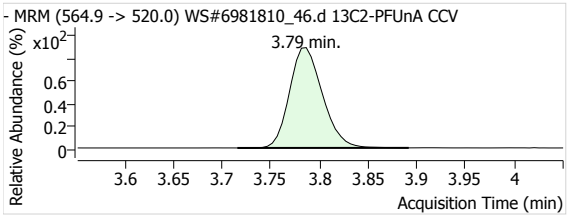

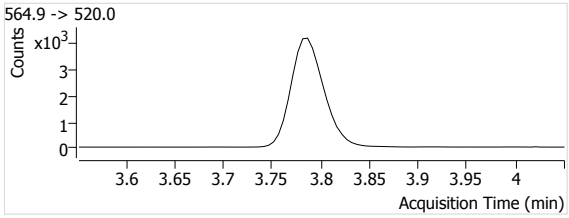

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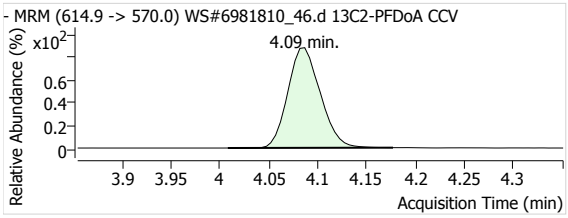

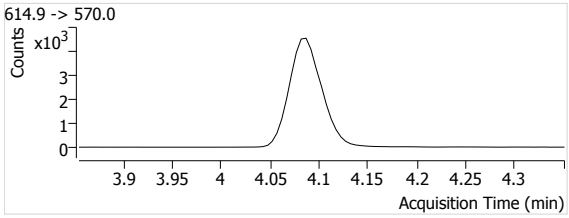

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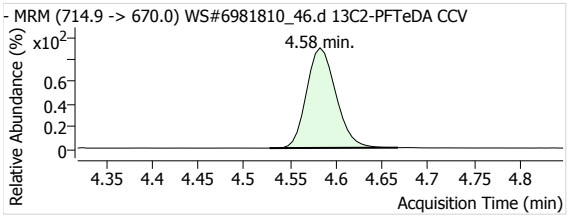

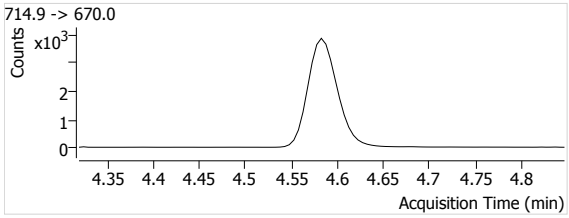

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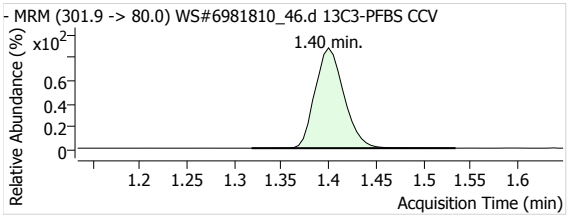

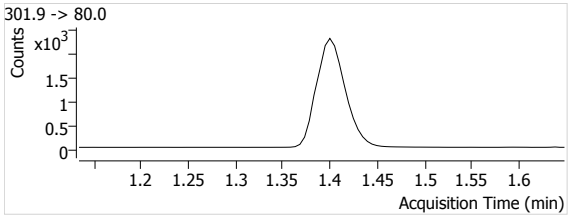

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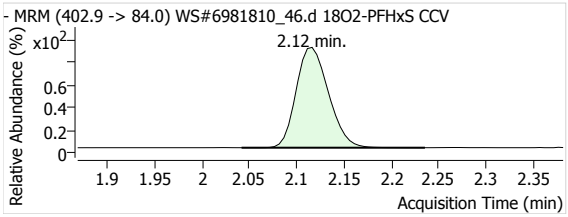
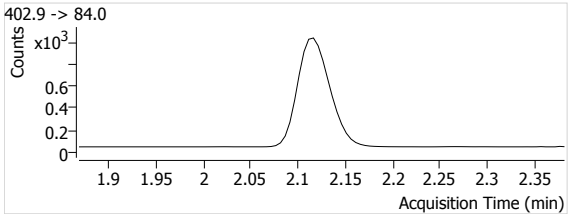
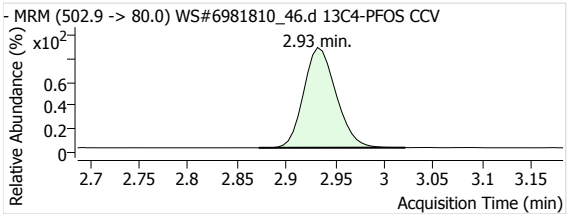
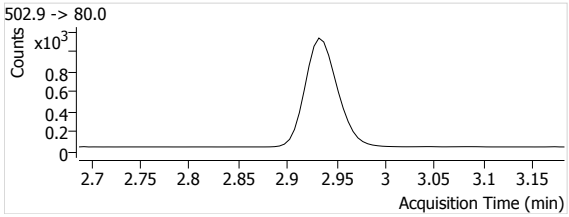


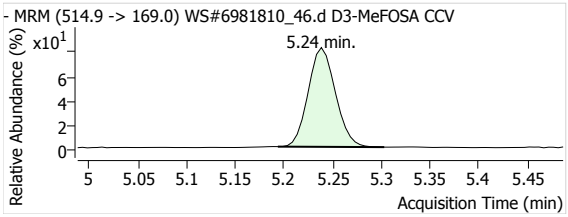


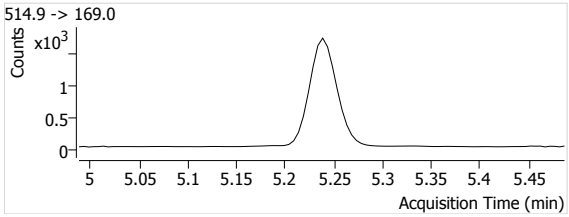
13C4-PFOS



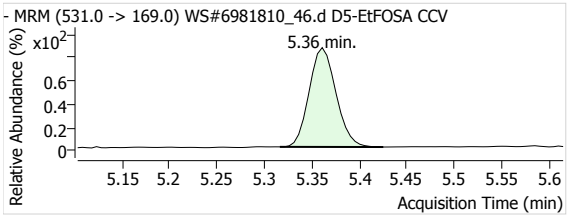


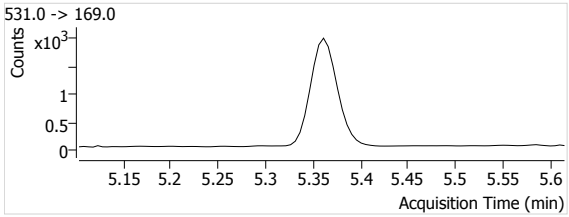
D3-MeFOSA





D5-EtFOSA





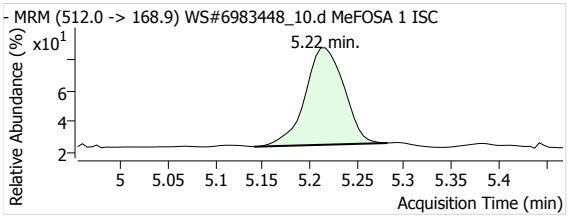
Quantitative Analysis Report

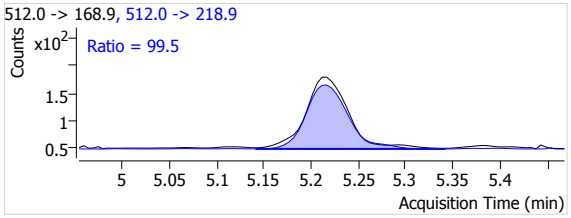
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	ISC	**Data File**	WS#6983448_10.d
Type	QC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E1
Acq. Date-Time	2020/10/06 1:29:01 PM	**Dil.**	1.0
Comment	-		
User Defined			

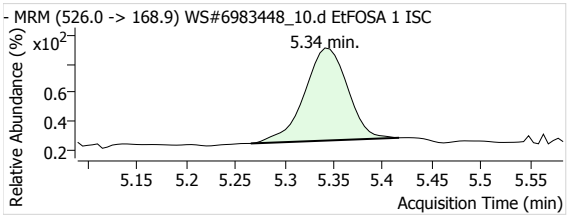
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	0.830	0.7913	95.3	365	5.22	19	0.0664	363	5.22	68	99.5
EtFOSA 1	µg/L	0.830	0.7874	94.9	455	5.34	12	0.0903	399	5.34	137	87.7
D3-MeFOSA	µg/L	100.000	90.7530	90.8	5496	5.22	99		--	--	--	--
D5-EtFOSA	µg/L	100.000	96.3842	96.4	5038	5.35	102		--	--	--	--

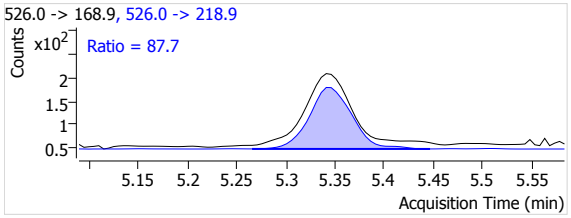
MeFOSA 1



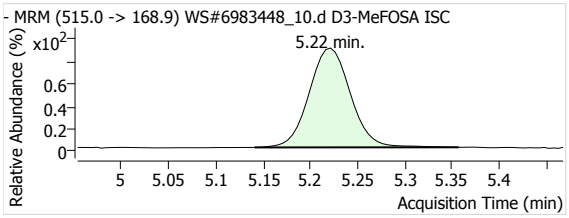


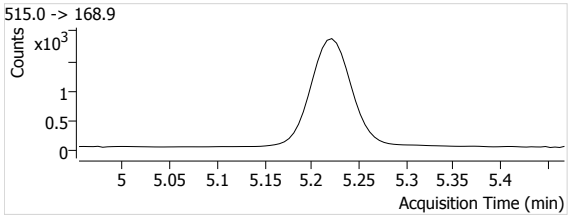
EtFOSA 1



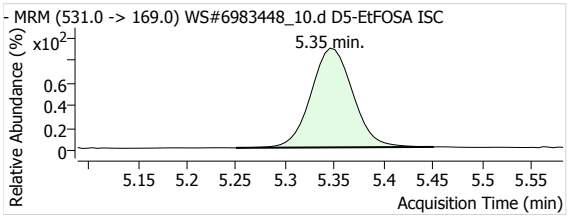


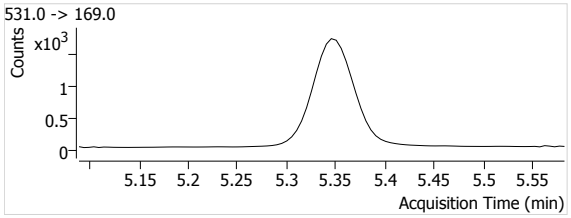
D3-MeFOSA





D5-EtFOSA





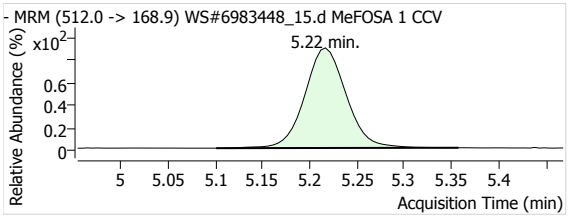
Quantitative Analysis Report

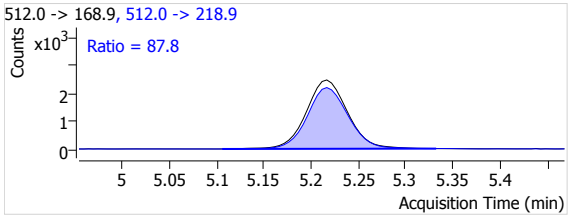
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6983448\QuantResults\PFC_Water_DoD_20201006_WS#6983448.batch.bin

Sample Name	CCV	**Data File**	WS#6983448_15.d
Type	CC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-E4
Acq. Date-Time	2020/10/06 2:03:42 PM	**Dil.**	1.0
Comment	-		
User Defined			

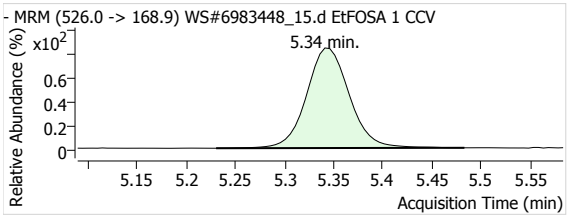
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
MeFOSA 1	µg/L	16.000	15.5940	97.5	7435	5.22	202	1.2496	6527	5.22	444	87.8
EtFOSA 1	µg/L	16.000	15.0385	94.0	7878	5.34	201	1.4126	7062	5.35	503	89.6
D3-MeFOSA	µg/L	100.000	98.2497	98.2	5950	5.22	124		--	--	--	--
D5-EtFOSA	µg/L	100.000	106.6960	106.7	5577	5.35	119		--	--	--	--

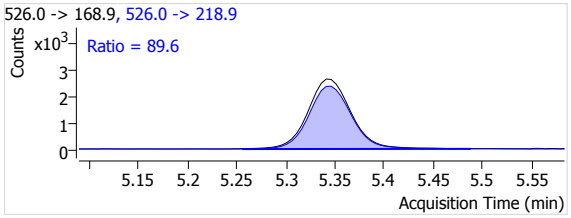
MeFOSA 1



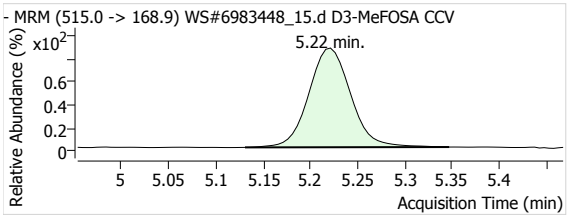


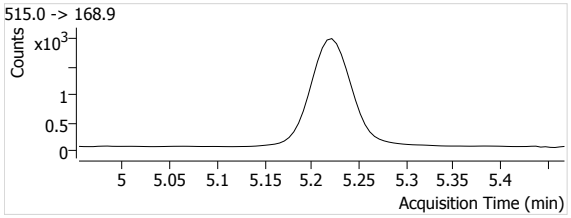
EtFOSA 1



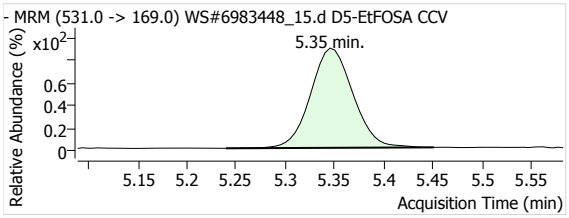


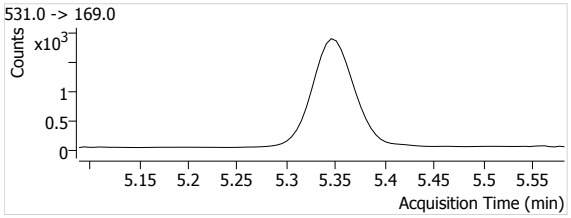
D3-MeFOSA





D5-EtFOSA





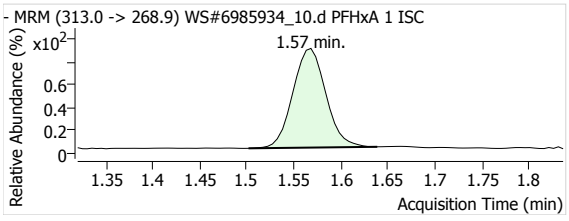
Quantitative Analysis Report

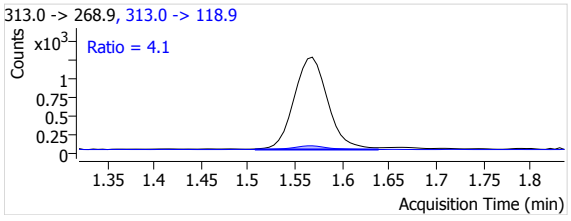
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	ISC	**Data File**	WS#6985934_10.d
Type	QC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A2
Acq. Date-Time	2020/10/07 2:16:37 PM	**Dil.**	1.0
Comment	-		
User Defined			

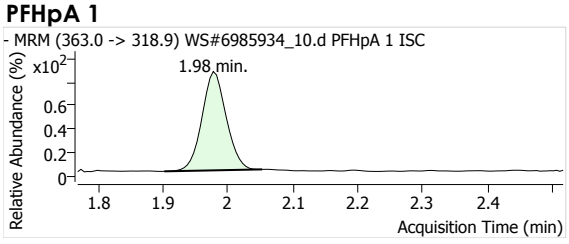
Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	0.830	0.8293	99.9	2994	1.57	60	0.2059	123	1.57	13	4.1
PFHpA 1	µg/L	0.830	0.8744	105.4	3508	1.98	45	0.1735	614	1.98	83	17.5
PFOA 1	µg/L	0.830	0.8865	106.8	3511	2.44	45	0.1939	767	2.44	53	21.8
PFNA 1	µg/L	0.830	0.8387	101.0	2731	2.88	27	0.1630	555	2.88	62	20.3
PFDA 1	µg/L	0.830	0.9153	110.3	3183	3.28	46	0.2410	515	3.28	80	16.2
PFUnA 1	µg/L	0.830	0.8906	107.3	2971	3.63	30	0.1914	380	3.63	38	12.8
PFDoA 1	µg/L	0.830	0.8953	107.9	3435	3.95	42	0.1777	437	3.95	49	12.7
PFTrDA 1	µg/L	0.830	0.8532	102.8	3818	4.23	48	0.1475	336	4.22	29	8.8
PFTeDA 1	µg/L	0.830	0.8652	104.2	4502	4.47	95	0.1740	234	4.47	90	5.2
PFBS 1	µg/L	0.830	0.8680	104.6	606	1.27	69	0.1935	259	1.27	33	42.7
PFHxS 1	µg/L	0.830	0.9685	116.7	541	1.94	38	0.2288	264	1.94	19	48.8
PFOS 1	µg/L	0.830	0.9491	114.4	466	2.75	48	0.1912	234	2.75	30	50.2
MeFOSA 1	µg/L	0.830	0.8088	97.4	376	5.20	26	0.0682	369	5.20	39	98.1
EtFOSA 1	µg/L	0.830	0.8940	107.7	478	5.33	14	0.0920	396	5.33	115	82.8
13C2-PFHxA	µg/L	100.000	100.4629	100.5	14540	1.57	200		--	--	--	--
13C4-PFHpA	µg/L	100.000	98.3512	98.4	20221	1.98	889		--	--	--	--
13C4-PFOA	µg/L	100.000	99.7082	99.7	18110	2.44	2119		--	--	--	--
13C5-PFNA	µg/L	100.000	97.3677	97.4	16756	2.88	530		--	--	--	--
13C2-PFDA	µg/L	100.000	96.0372	96.0	13208	3.28	441		--	--	--	--
13C2-PFUnA	µg/L	100.000	95.6080	95.6	15521	3.64	291		--	--	--	--
13C2-PFDoA	µg/L	100.000	98.6980	98.7	19331	3.95	846		--	--	--	--
13C2-PFTeDA	µg/L	100.000	96.4946	96.5	25876	4.47	2051		--	--	--	--
13C3-PFBS	µg/L	100.000	93.5744	93.6	3131	1.27	174		--	--	--	--
18O2-PFHxS	µg/L	100.000	90.0152	90.0	2362	1.96	129		--	--	--	--
13C4-PFOS	µg/L	100.000	93.8077	93.8	2439	2.79	200		--	--	--	--
D3-MeFOSA	µg/L	100.000	88.8996	88.9	5510	5.20	80		--	--	--	--
D5-EtFOSA	µg/L	100.000	95.1979	95.2	5194	5.33	86		--	--	--	--

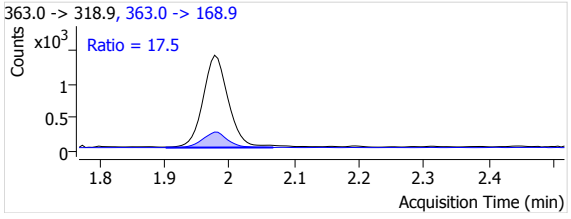
PFHxA 1



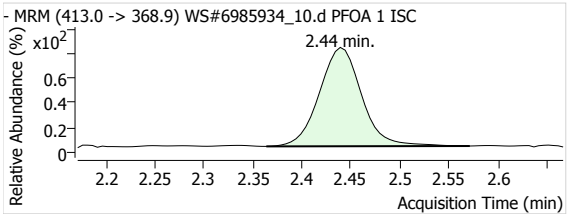


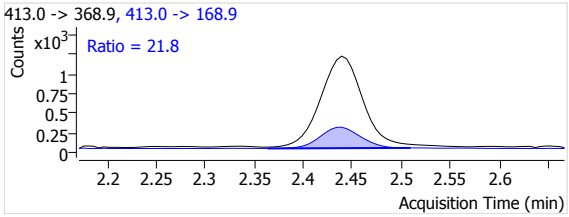
PFHpA 1



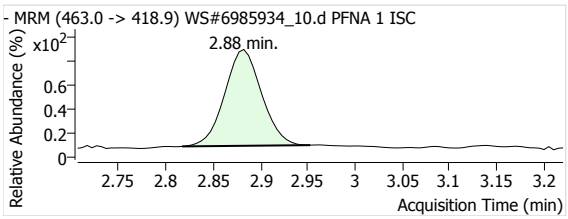


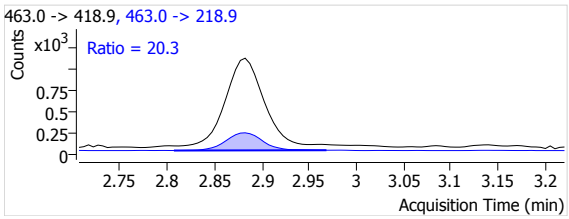
PFOA 1



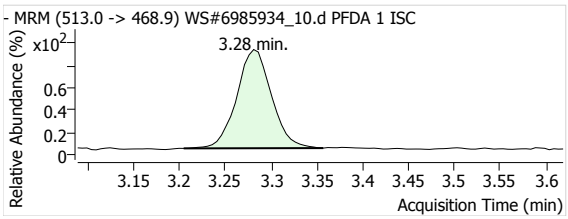


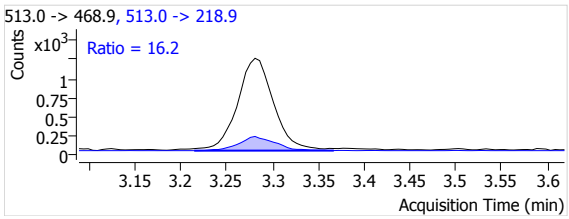
PFNA 1



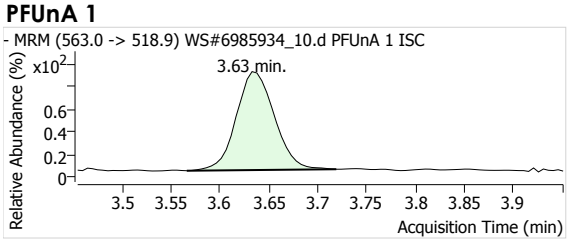


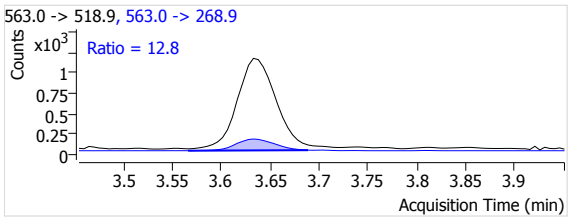
PFDA 1



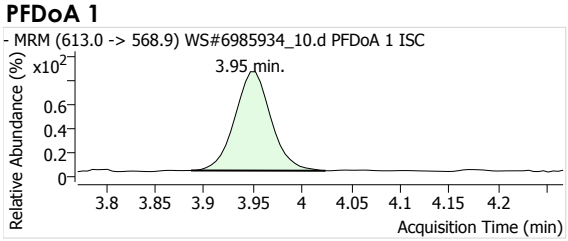


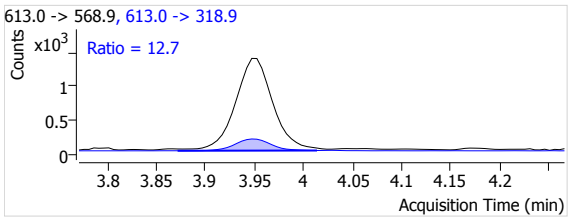
PFUnA 1



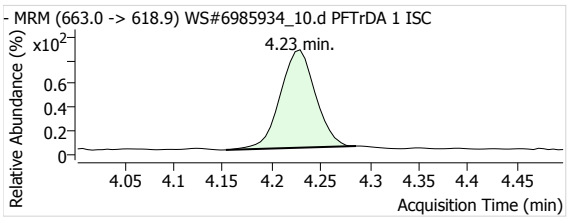


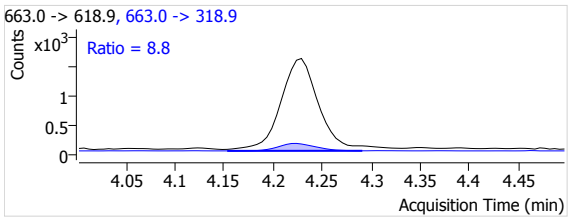
PFDoA 1





PFTrDA 1





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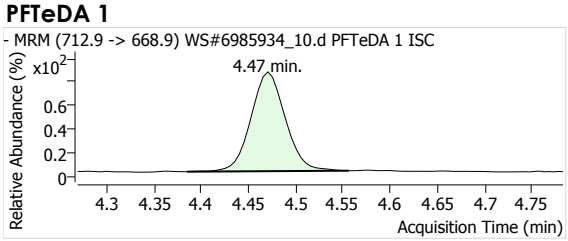

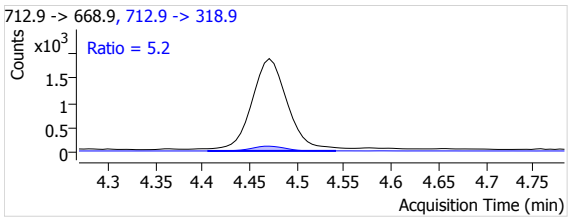

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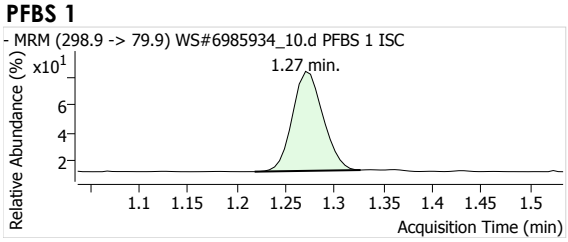
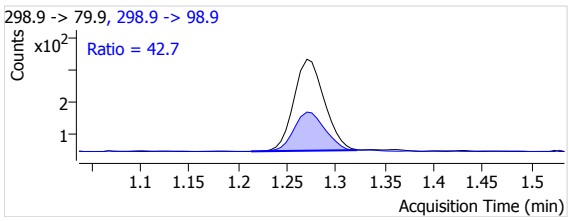
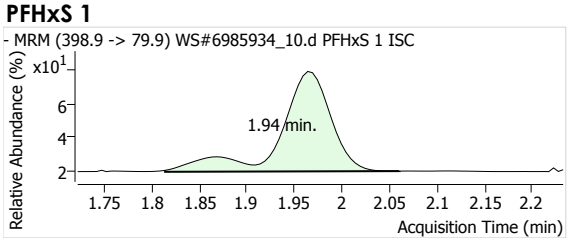
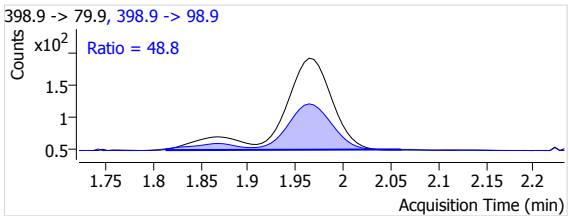




PFHxS 1





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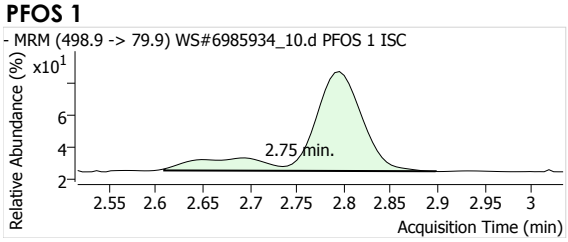

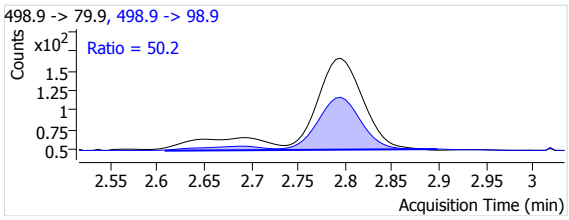

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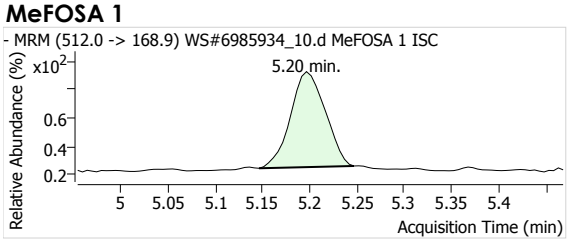

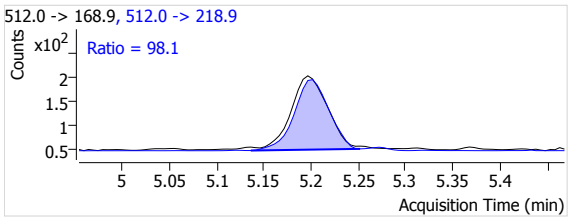

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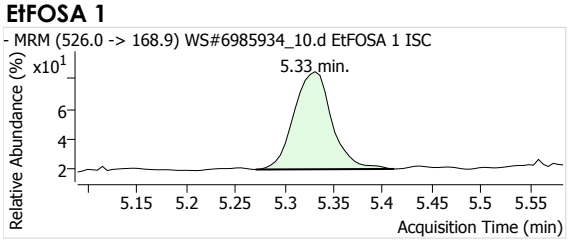

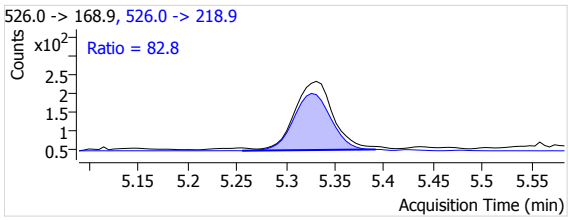

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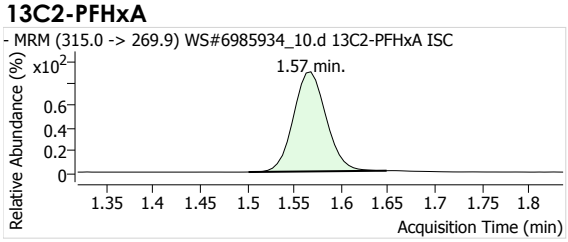

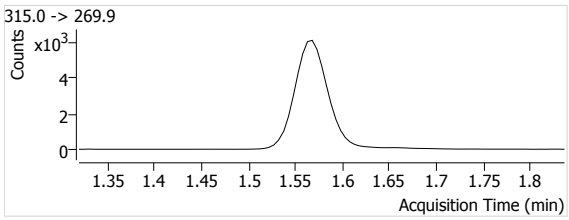

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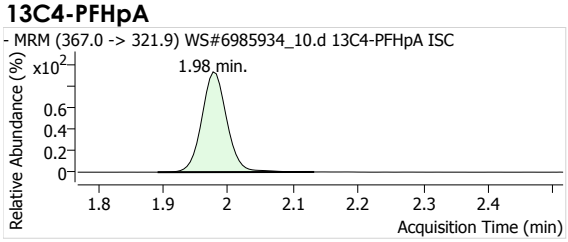

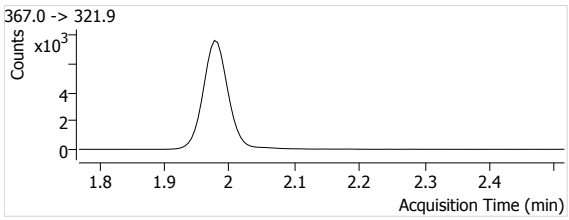

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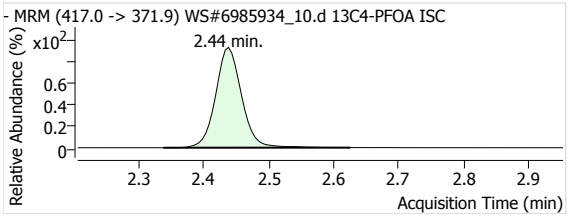

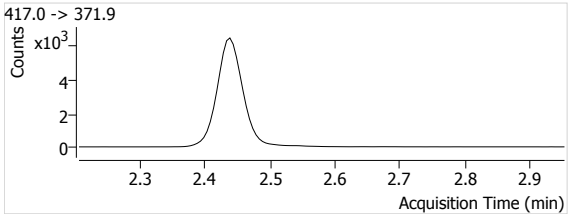

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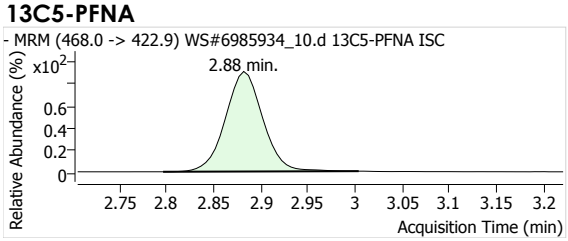

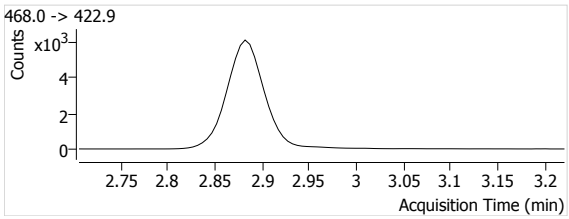

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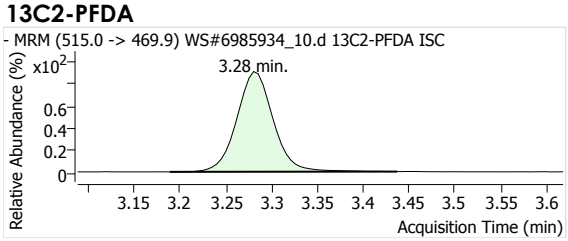

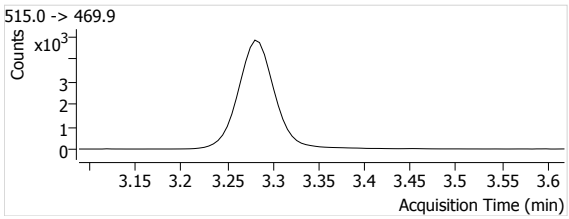

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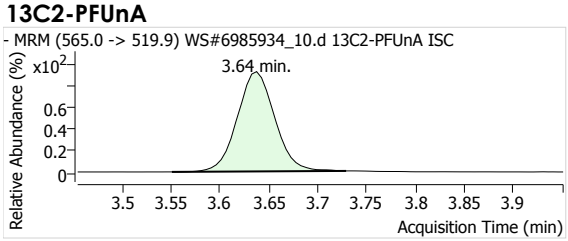

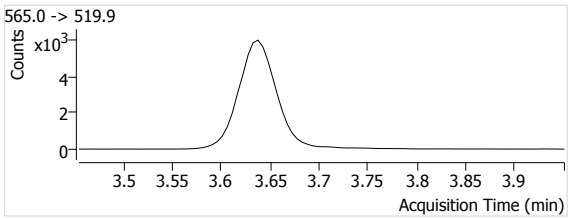

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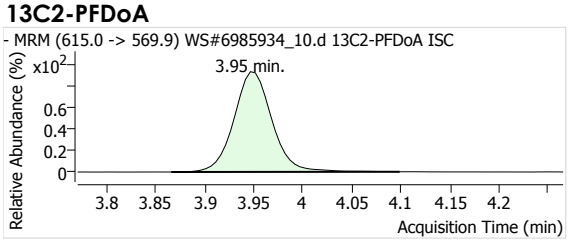

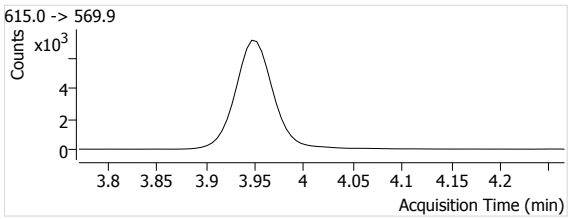

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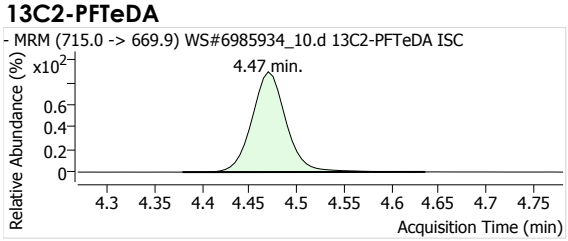

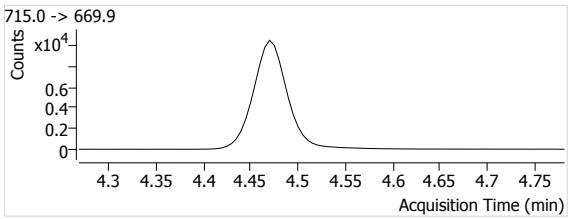

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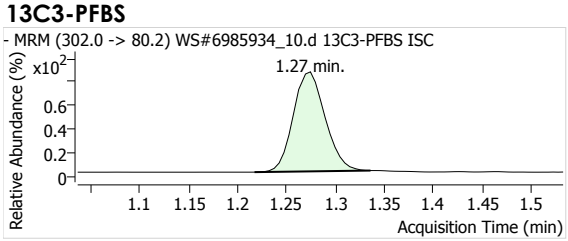

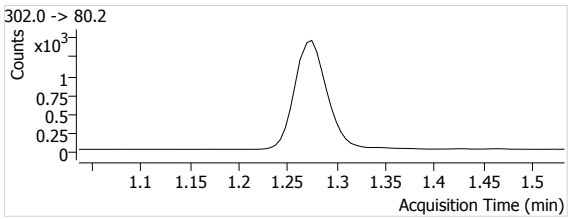

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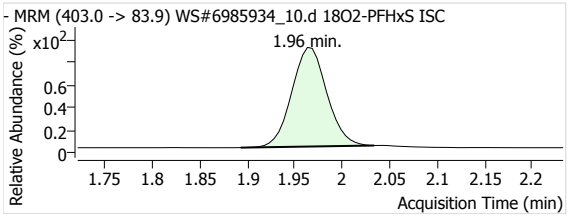

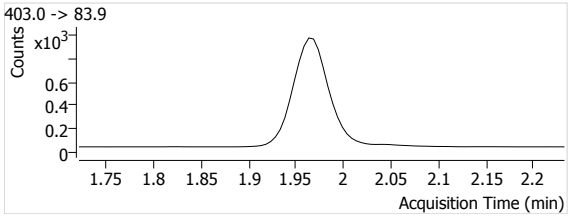

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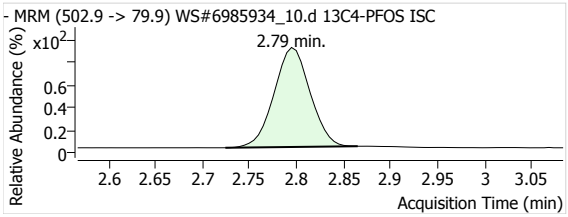

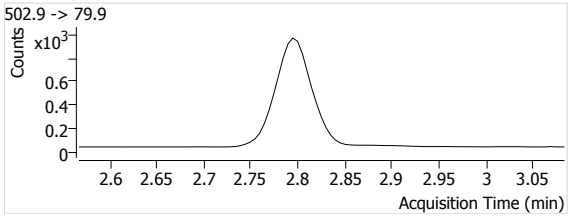

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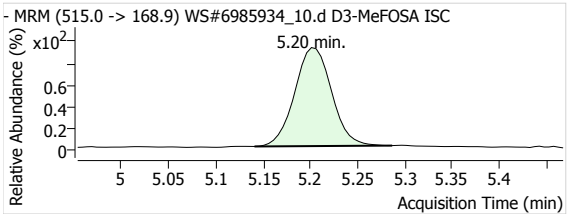

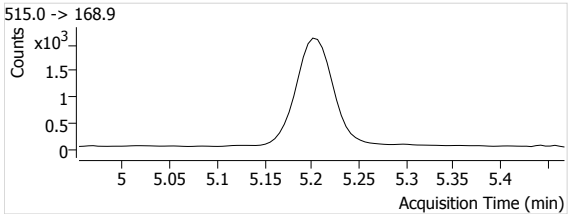

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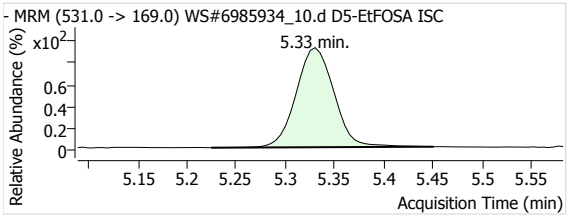
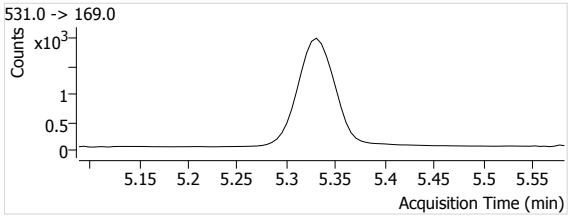




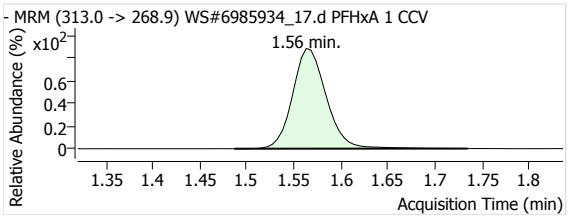
Quantitative Analysis Report

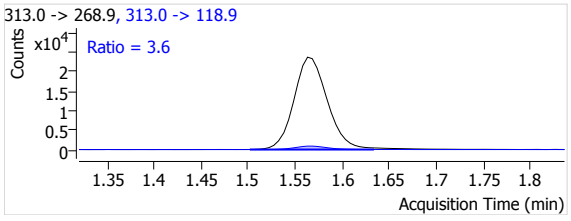
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	CCV	**Data File**	WS#6985934_17.d
Type	CC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A5
Acq. Date-Time	2020/10/07 3:05:09 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	15.2530	95.3	59053	1.56	838	3.7487	2114	1.57	533	3.6
PFHpA 1	µg/L	16.000	15.3250	95.8	70003	1.98	943	3.2098	12036	1.98	1265	17.2
PFOA 1	µg/L	16.000	15.5023	96.9	66602	2.44	1123	3.4699	14372	2.44	813	21.6
PFNA 1	µg/L	16.000	15.3520	95.9	56387	2.88	529	3.1031	10372	2.88	572	18.4
PFDA 1	µg/L	16.000	15.7000	98.1	62415	3.29	605	4.3895	8304	3.28	110	13.3
PFUnA 1	µg/L	16.000	15.5795	97.4	58856	3.64	534	3.4066	7990	3.64	505	13.6
PFDoA 1	µg/L	16.000	15.6572	97.9	68420	3.95	713	3.2029	8346	3.95	462	12.2
PFTrDA 1	µg/L	16.000	15.4862	96.8	77148	4.23	540	2.6394	6160	4.23	386	8.0
PFTeDA 1	µg/L	16.000	15.6191	97.6	90953	4.48	949	3.1117	4508	4.47	249	5.0
PFBS 1	µg/L	16.000	15.5902	97.4	11962	1.28	911	3.6172	4930	1.28	181	41.2
PFHxS 1	µg/L	16.000	15.0215	93.9	9006	1.94	105	3.5401	4859	1.94	132	54.0
PFOS 1	µg/L	16.000	15.6497	97.8	8021	2.75	53	3.0947	4323	2.75	136	53.9
MeFOSA 1	µg/L	16.000	15.8528	99.1	8012	5.20	407	1.3087	7159	5.20	320	89.4
EtFOSA 1	µg/L	16.000	15.3278	95.8	8531	5.33	291	1.5196	7615	5.33	902	89.3
13C2-PFHxA	µg/L	100.000	108.8441	108.8	15753	1.57	789		--	--	--	--
13C4-PFHpA	µg/L	100.000	106.0749	106.1	21809	1.98	1077		--	--	--	--
13C4-PFOA	µg/L	100.000	105.6764	105.7	19194	2.44	814		--	--	--	--
13C5-PFNA	µg/L	100.000	105.5901	105.6	18171	2.88	779		--	--	--	--
13C2-PFDA	µg/L	100.000	103.3884	103.4	14219	3.29	607		--	--	--	--
13C2-PFUnA	µg/L	100.000	106.4248	106.4	17277	3.64	187		--	--	--	--
13C2-PFDoA	µg/L	100.000	109.0677	109.1	21362	3.95	1213		--	--	--	--
13C2-PFTeDA	µg/L	100.000	108.9984	109.0	29229	4.48	1380		--	--	--	--
13C3-PFBS	µg/L	100.000	98.8344	98.8	3307	1.27	233		--	--	--	--
18O2-PFHxS	µg/L	100.000	96.9512	97.0	2544	1.96	224		--	--	--	--
13C4-PFOS	µg/L	100.000	99.6923	99.7	2592	2.79	102		--	--	--	--
D3-MeFOSA	µg/L	100.000	98.7738	98.8	6122	5.20	95		--	--	--	--
D5-EtFOSA	µg/L	100.000	102.8959	102.9	5614	5.33	147		--	--	--	--

PFHxA 1





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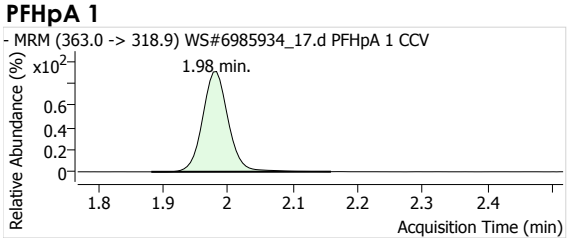

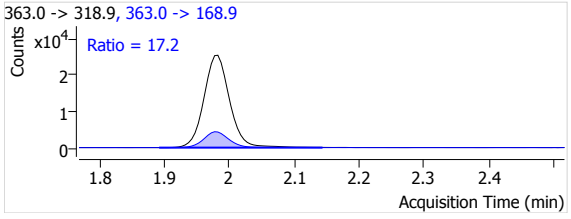

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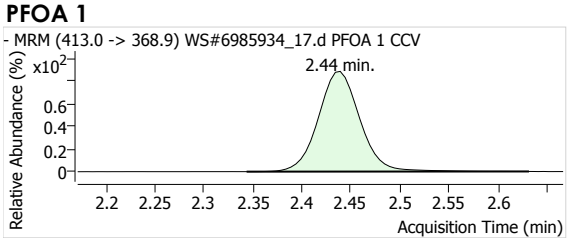

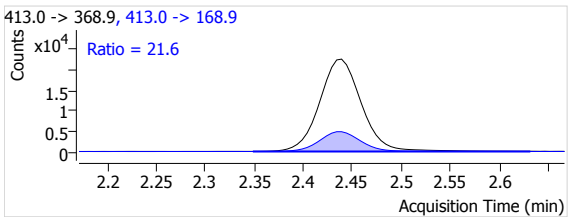

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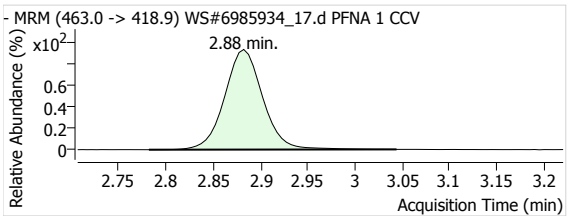

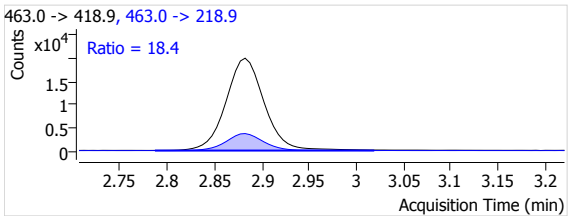

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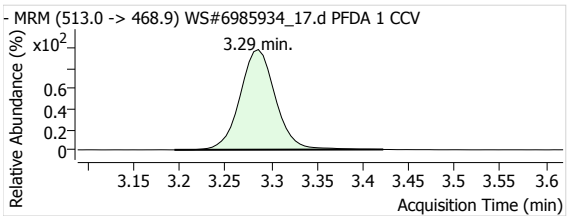

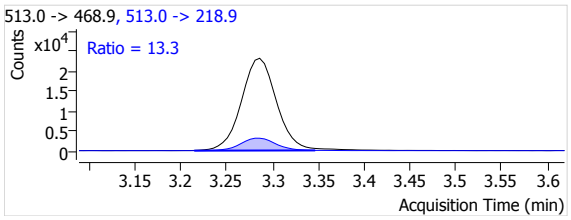

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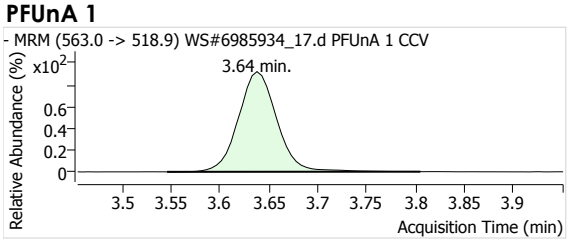
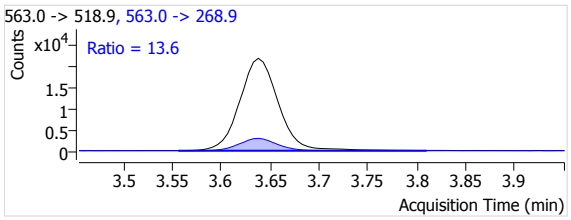
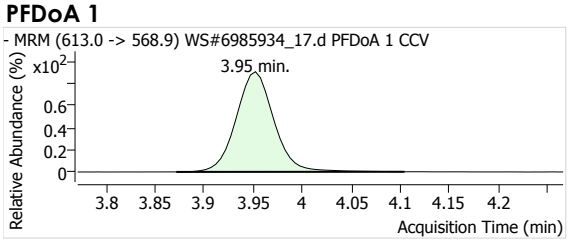
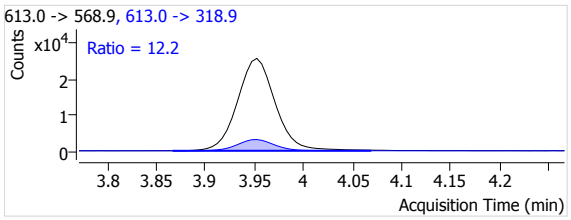




PFDoA 1





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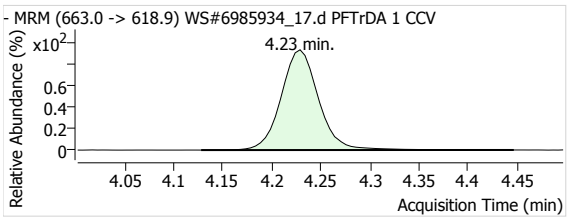

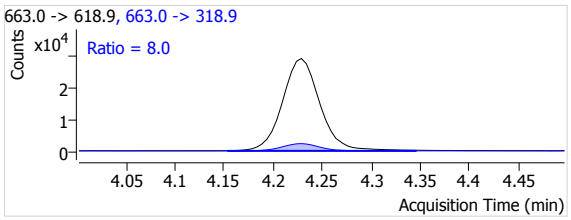

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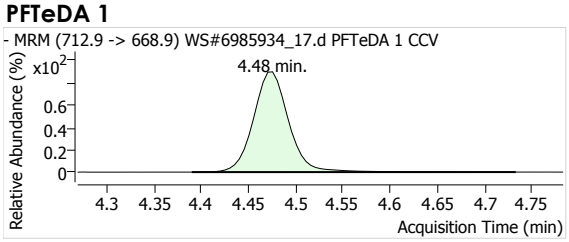

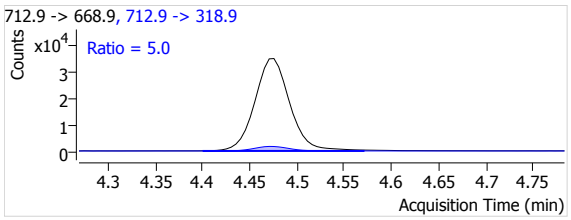

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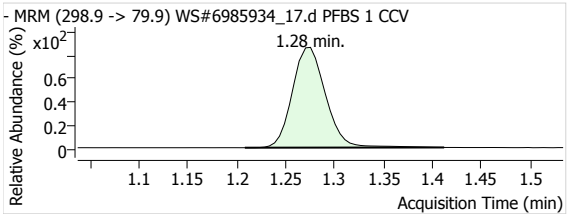

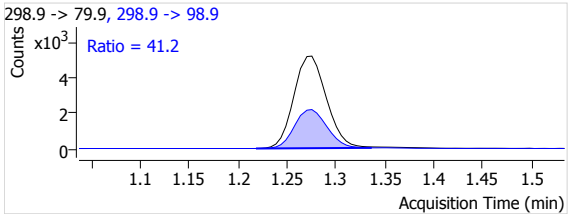

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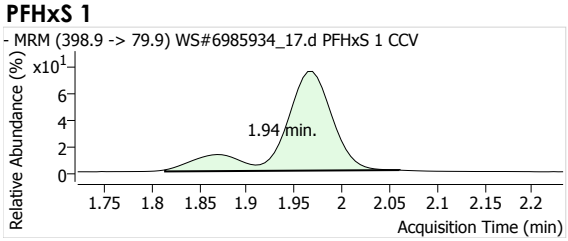

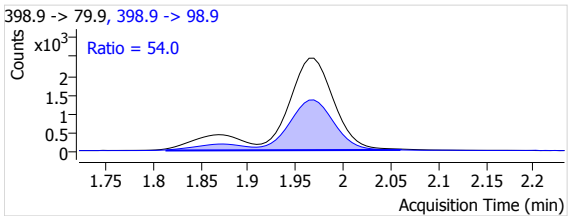

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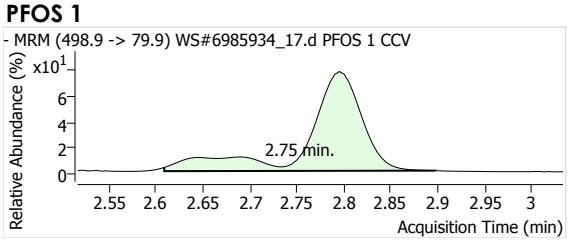

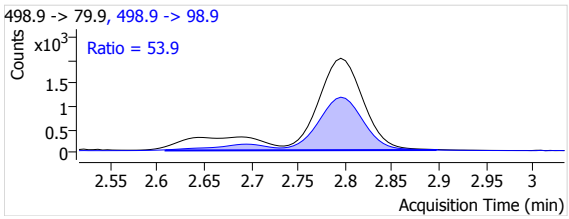

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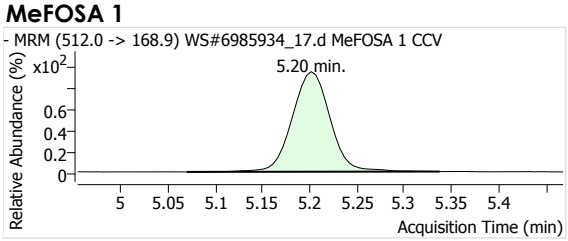

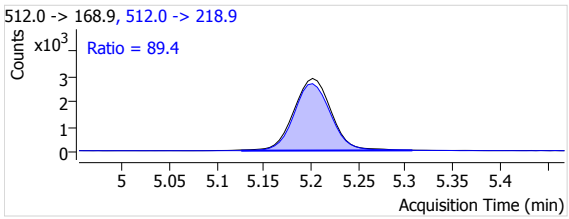

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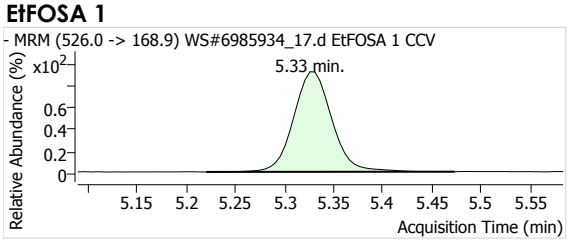

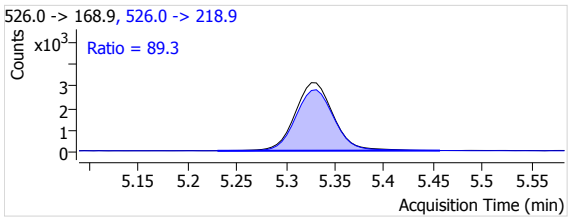

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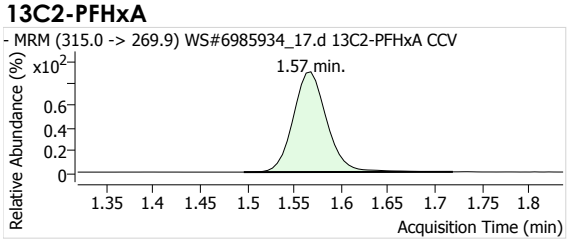

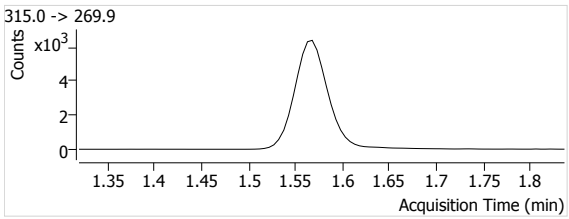

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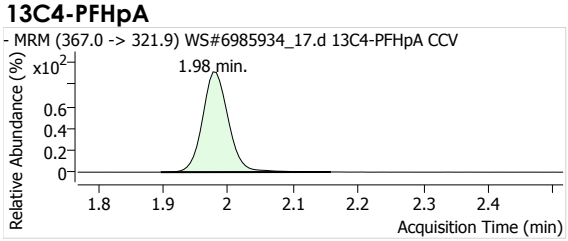

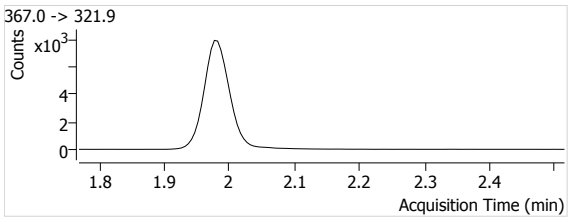

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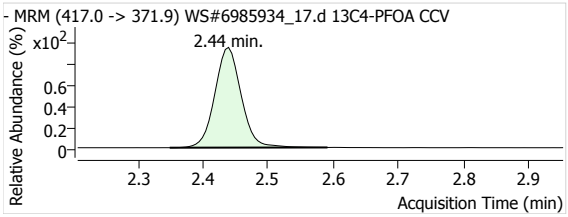

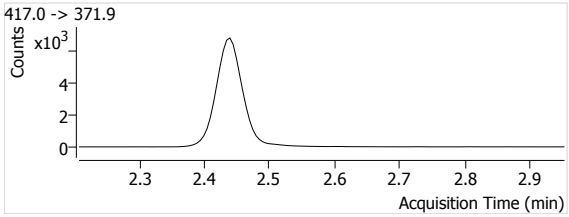

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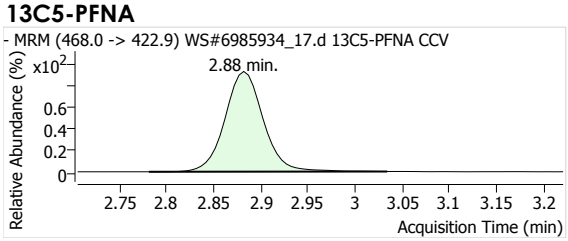

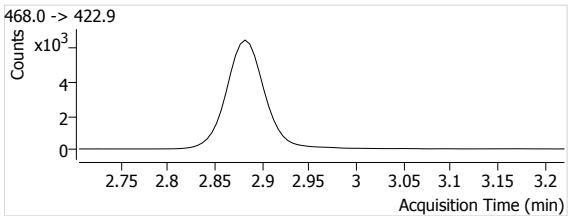

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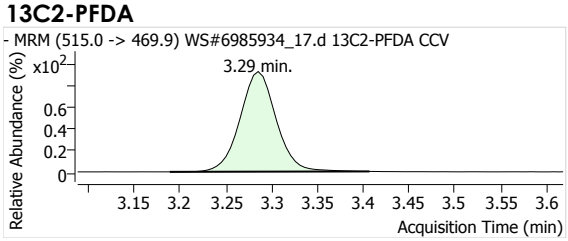

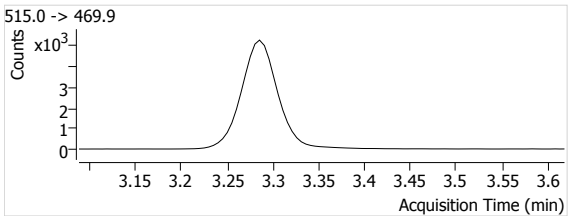

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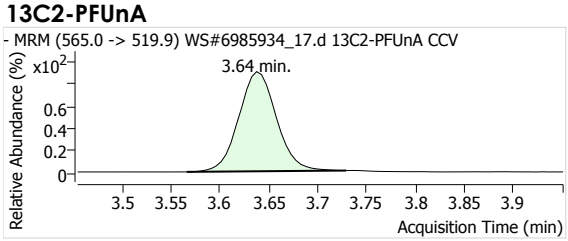

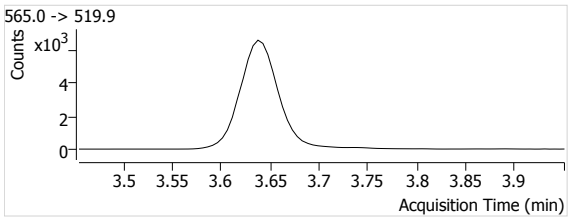

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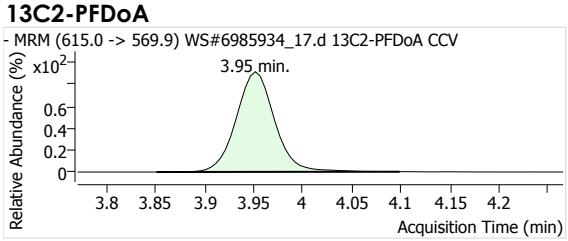

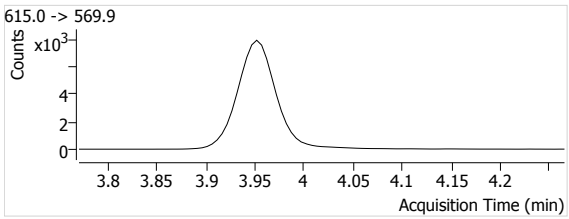

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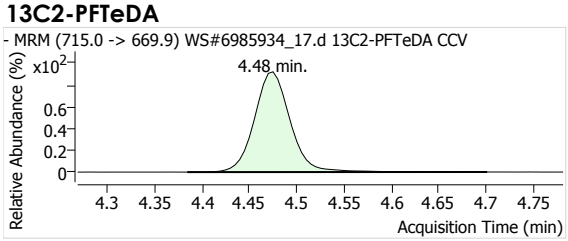

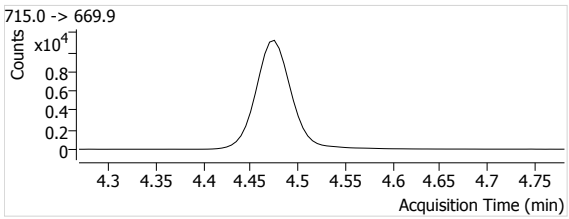

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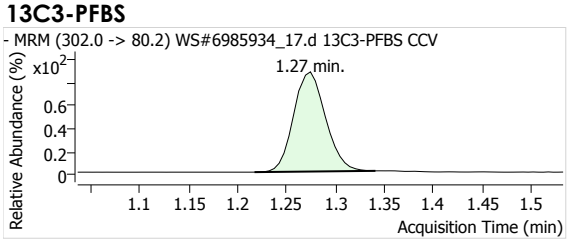

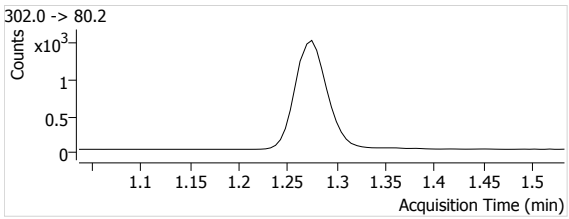

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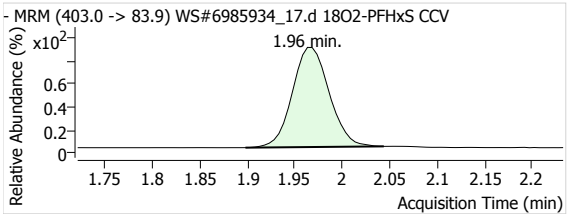

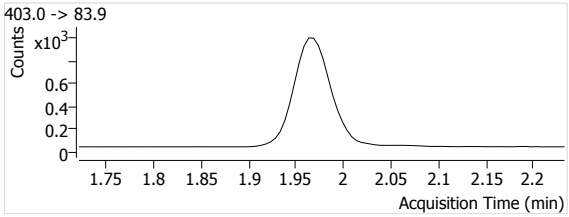

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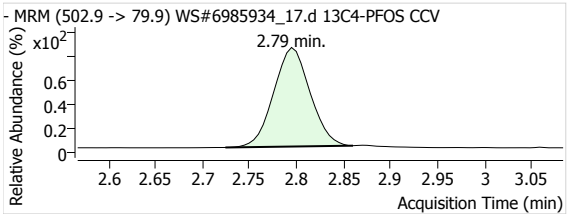
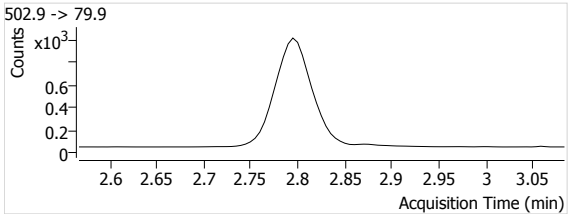
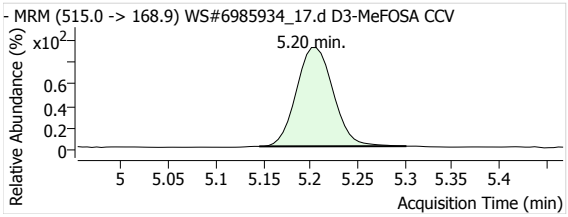
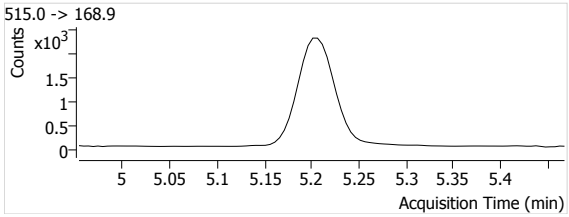




D3-MeFOSA





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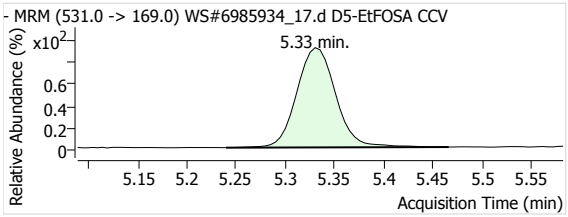
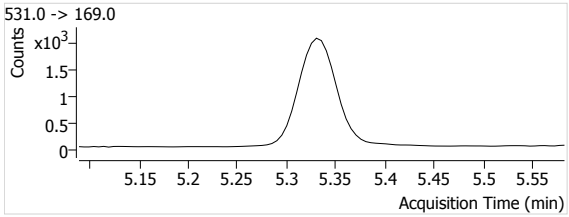




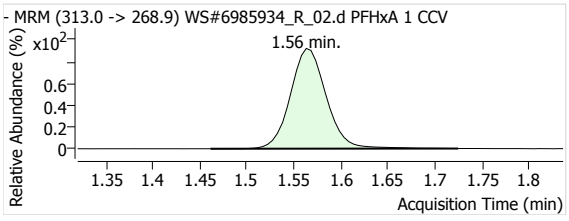
Quantitative Analysis Report

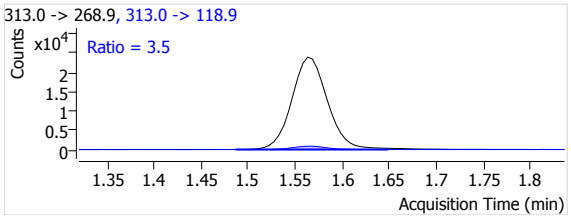
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	CCV	**Data File**	WS#6985934_R_02.d
Type	CC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A2
Acq. Date-Time	2020/10/07 8:14:35 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	15.0374	94.0	63526	1.56	900	3.6957	2242	1.56	175	3.5
PFHpA 1	µg/L	16.000	15.5915	97.4	77694	1.98	770	3.2658	13239	1.98	866	17.0
PFOA 1	µg/L	16.000	15.6998	98.1	74118	2.44	729	3.5142	15945	2.44	570	21.5
PFNA 1	µg/L	16.000	14.9940	93.7	64358	2.88	440	3.0306	11715	2.88	722	18.2
PFDA 1	µg/L	16.000	15.4545	96.6	71265	3.28	757	4.3207	9941	3.28	249	13.9
PFUnA 1	µg/L	16.000	15.5100	96.9	67170	3.63	595	3.3914	9078	3.63	935	13.5
PFDoA 1	µg/L	16.000	15.1877	94.9	75321	3.95	616	3.1067	9332	3.95	329	12.4
PFTrDA 1	µg/L	16.000	15.7915	98.7	84495	4.23	731	2.6914	6717	4.23	391	7.9
PFTeDA 1	µg/L	16.000	15.6225	97.6	97711	4.47	1190	3.1124	5078	4.47	943	5.2
PFBS 1	µg/L	16.000	15.7485	98.4	12409	1.27	1111	3.6540	5190	1.27	188	41.8
PFHxS 1	µg/L	16.000	15.7122	98.2	9409	1.94	91	3.7028	5046	1.94	111	53.6
PFOS 1	µg/L	16.000	14.5035	90.6	8304	2.75	48	2.8683	4551	2.75	104	54.8
MeFOSA 1	µg/L	16.000	15.4405	96.5	8366	5.20	322	1.2747	7410	5.20	433	88.6
EtFOSA 1	µg/L	16.000	15.4108	96.3	8985	5.33	126	1.5278	7882	5.33	398	87.7
13C2-PFHxA	µg/L	100.000	118.7660	118.8	17189	1.56	899		--	--	--	--
13C4-PFHpA	µg/L	100.000	115.7101	115.7	23790	1.98	981		--	--	--	--
13C4-PFOA	µg/L	100.000	116.1207	116.1	21091	2.44	223		--	--	--	--
13C5-PFNA	µg/L	100.000	123.4005	123.4	21236	2.88	896		--	--	--	--
13C2-PFDA	µg/L	100.000	119.9302	119.9	16494	3.28	354		--	--	--	--
13C2-PFUnA	µg/L	100.000	122.0032	122.0	19806	3.64	563		--	--	--	--
13C2-PFDoA	µg/L	100.000	123.7874	123.8	24245	3.95	1124		--	--	--	--
13C2-PFTeDA	µg/L	100.000	117.0719	117.1	31394	4.47	1575		--	--	--	--
13C3-PFBS	µg/L	100.000	101.4943	101.5	3396	1.27	227		--	--	--	--
18O2-PFHxS	µg/L	100.000	96.8369	96.8	2541	1.97	92		--	--	--	--
13C4-PFOS	µg/L	100.000	111.3462	111.3	2895	2.79	656		--	--	--	--
D3-MeFOSA	µg/L	100.000	105.8890	105.9	6563	5.20	70		--	--	--	--
D5-EtFOSA	µg/L	100.000	107.7896	107.8	5881	5.33	115		--	--	--	--

PFHxA 1





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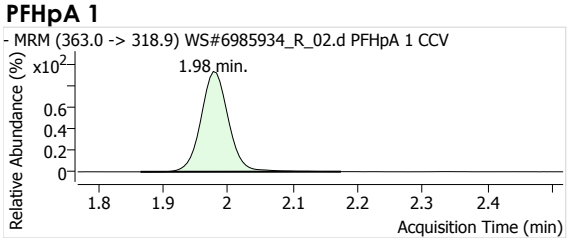
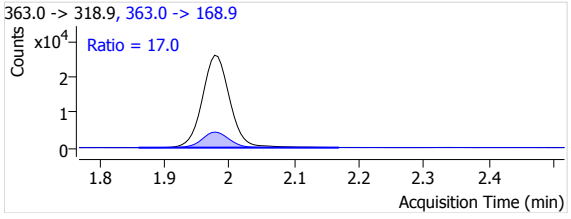
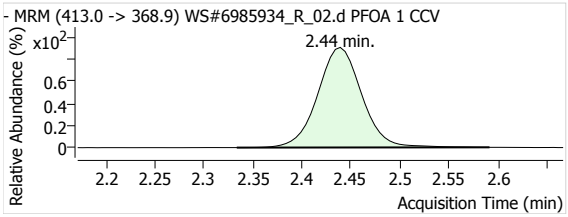
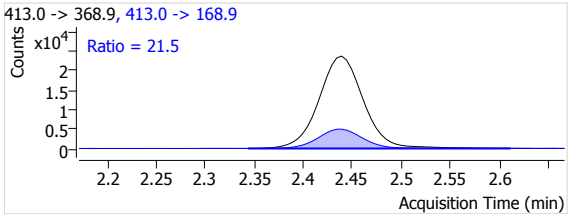




PFOA 1





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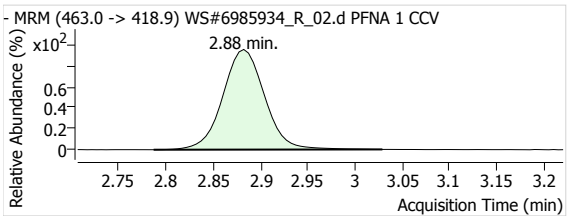

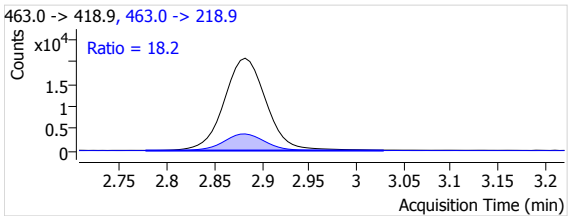

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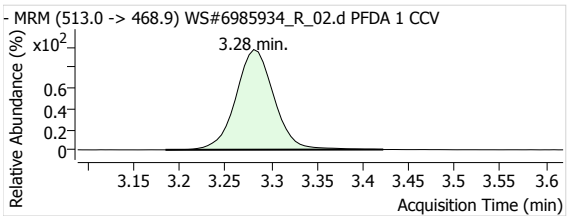

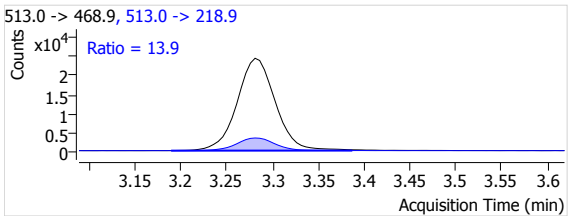

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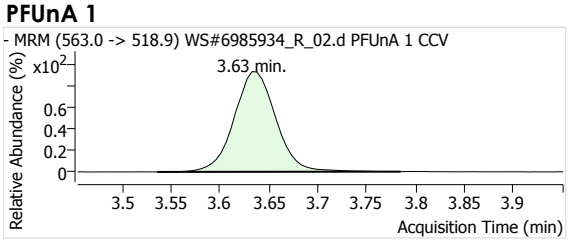

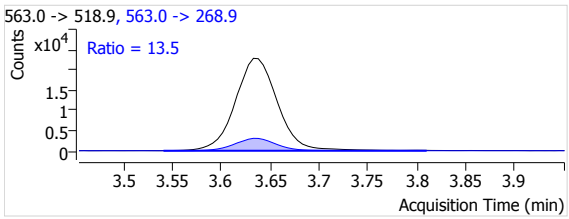

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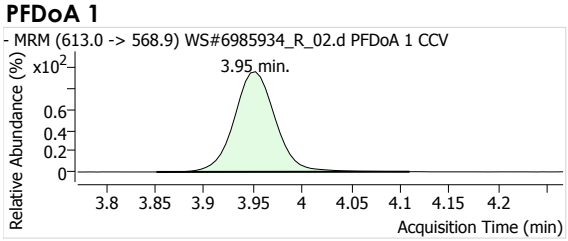

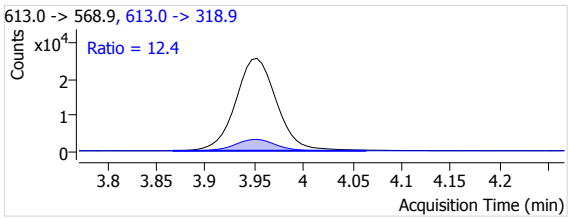

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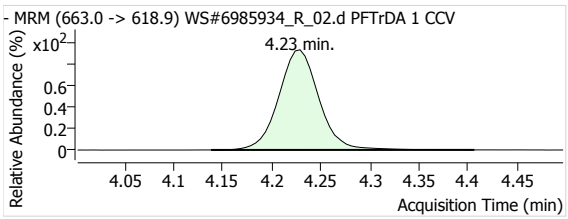

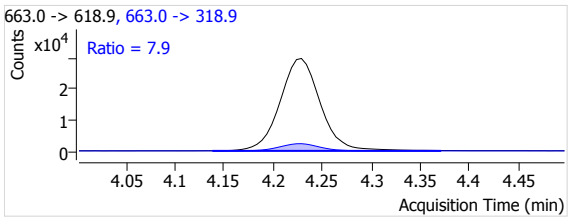

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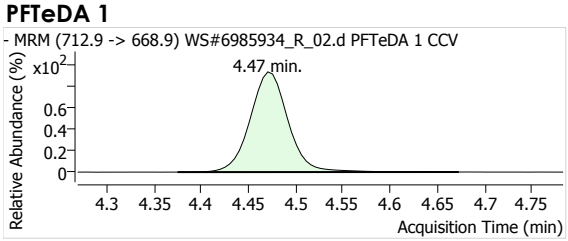

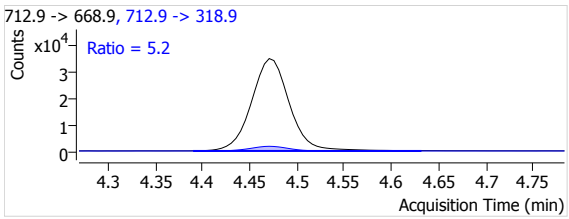

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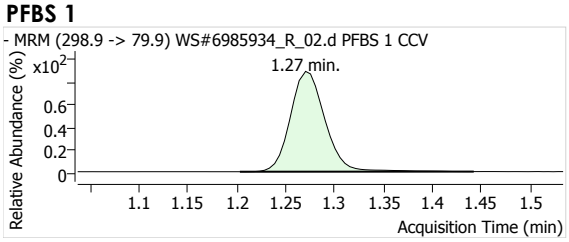

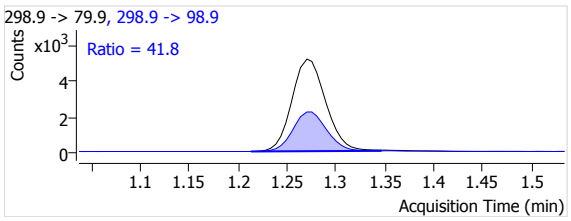

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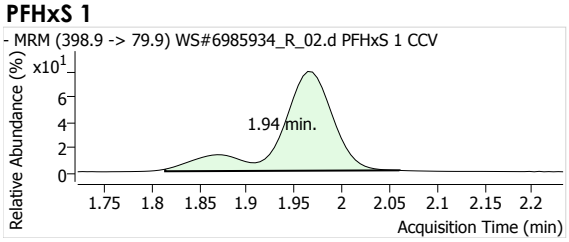

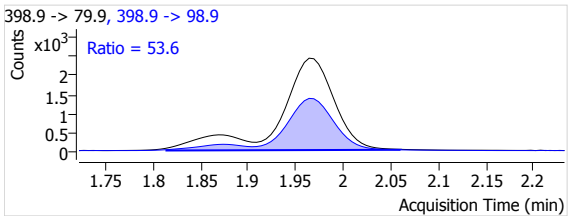

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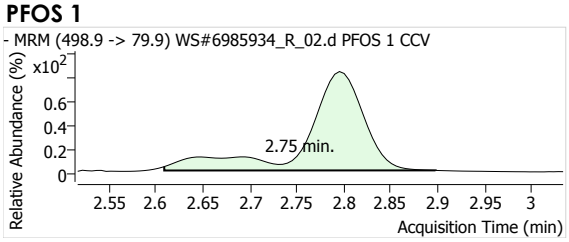

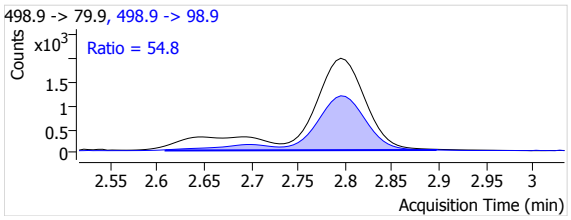

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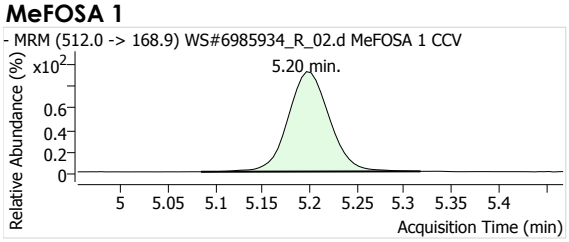

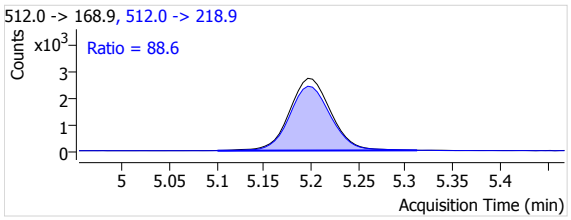

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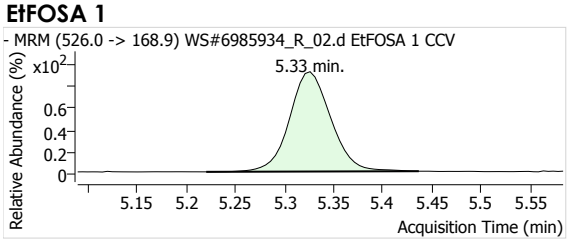
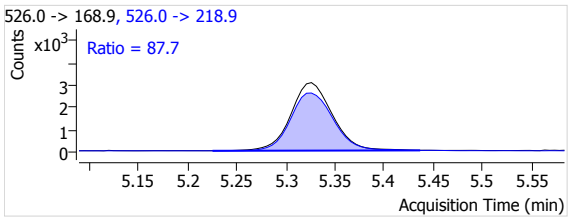
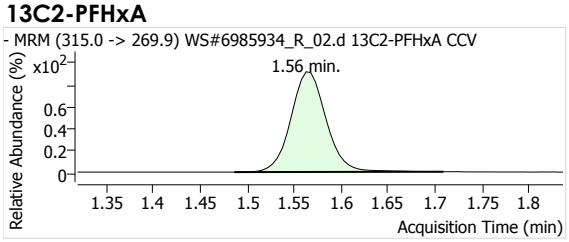
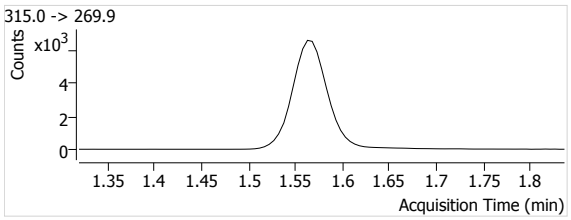




13C2-PFHxA





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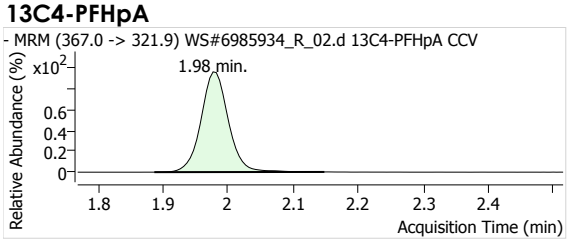

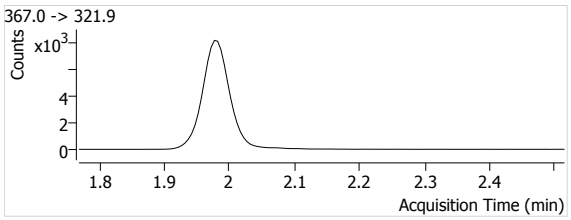

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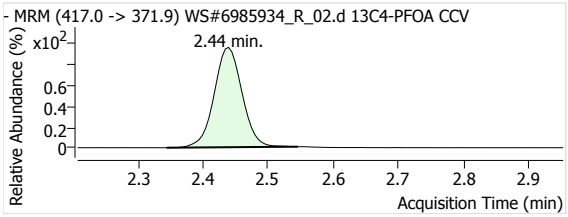

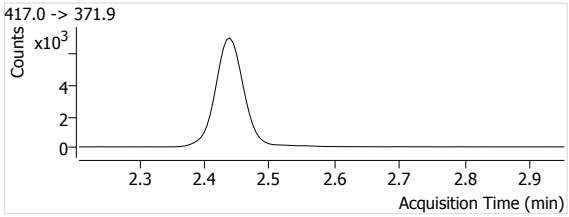

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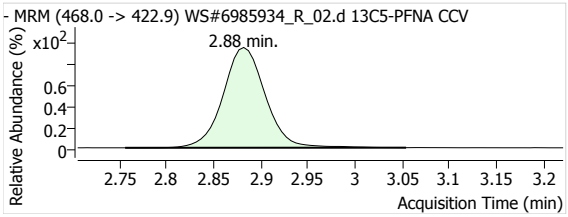

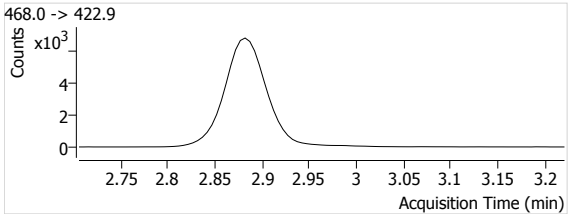

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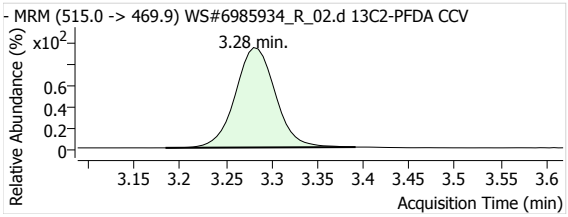

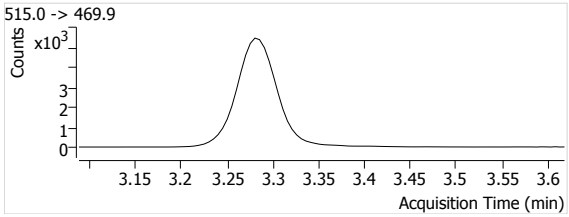

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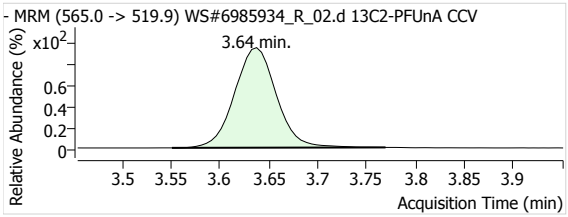

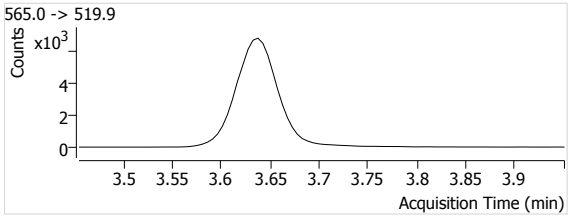

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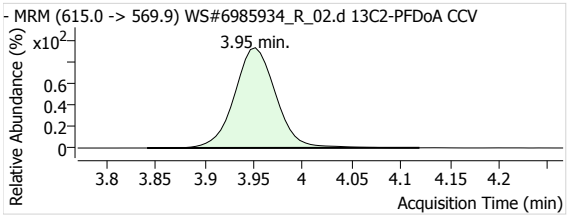

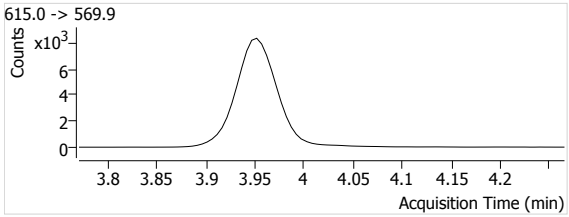

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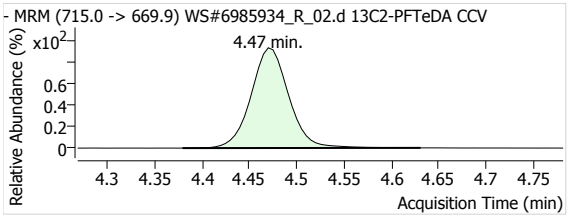

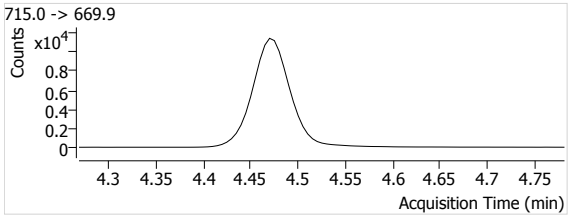

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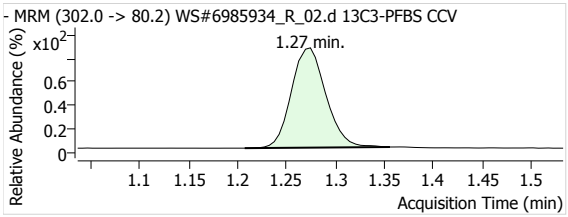
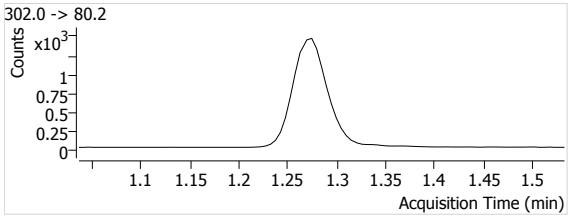
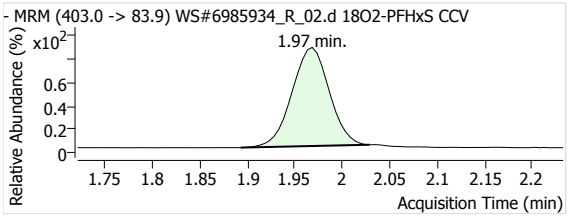
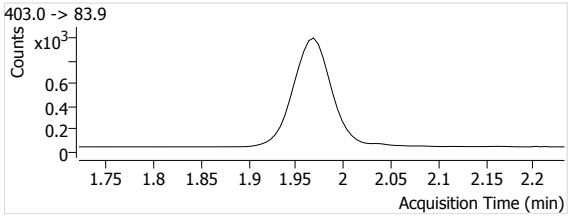




18O2-PFHxS





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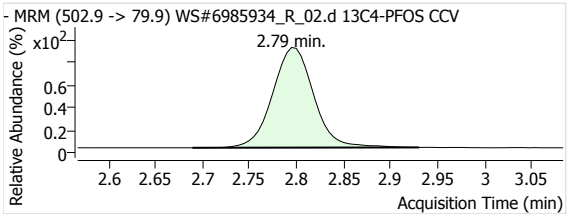
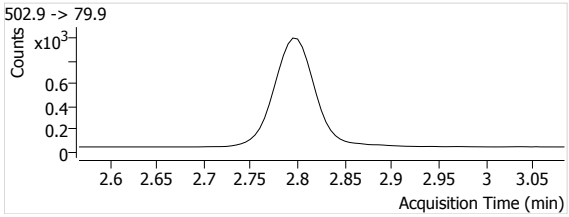
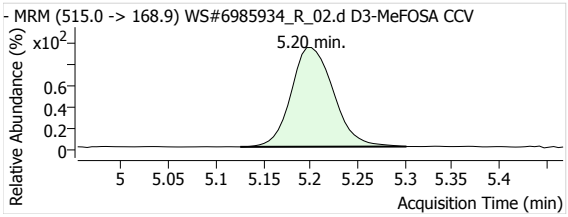
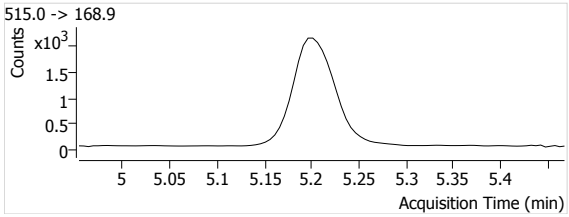




D3-MeFOSA





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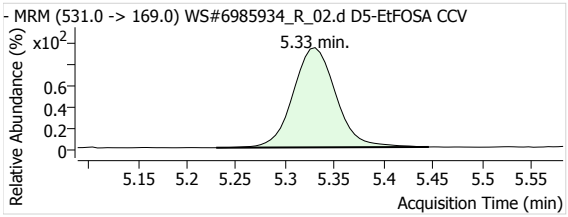
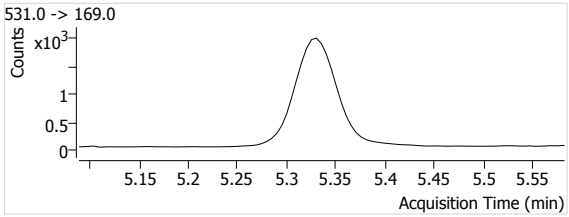




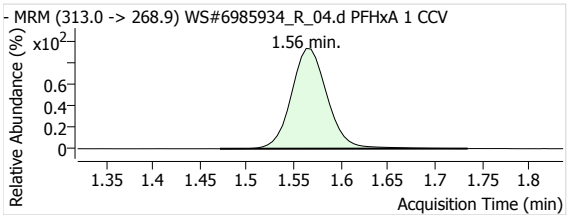
Quantitative Analysis Report

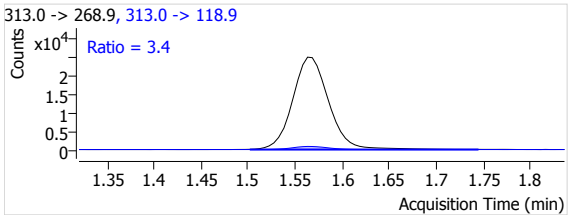
Batch Data Path File Name T:\LCMS04\PFC\20201006\WS#6985934\QuantResults\PFC_Water_DOD_20201007_WS#6985934.batch.bin

Sample Name	CCV	**Data File**	WS#6985934_R_04.d
Type	CC	**Instrument**	LCMS04
Acq. Method File	PFAS.m	**Position**	P1-A2
Acq. Date-Time	2020/10/07 8:28:26 PM	**Dil.**	1.0
Comment	-		
User Defined			

Name	Units	Target Conc.	Final Conc.	Accuracy	Analyte Resp.	Analyte RT	Analyte S/N	Area Ratio	Conf. Resp.	Conf. RT	Conf. S/N	Ion Ratio
PFHxA 1	µg/L	16.000	15.4143	96.3	66822	1.56	945	3.7883	2277	1.56	192	3.4
PFHpA 1	µg/L	16.000	15.5546	97.2	79777	1.98	905	3.2581	13754	1.98	673	17.2
PFOA 1	µg/L	16.000	15.4112	96.3	77193	2.44	752	3.4495	16819	2.44	819	21.8
PFNA 1	µg/L	16.000	15.2265	95.2	65377	2.88	412	3.0777	12375	2.88	720	18.9
PFDA 1	µg/L	16.000	15.2960	95.6	72464	3.28	718	4.2762	10153	3.28	190	14.0
PFUnA 1	µg/L	16.000	15.2128	95.1	68852	3.64	689	3.3263	9070	3.64	346	13.2
PFDoA 1	µg/L	16.000	15.3573	96.0	76830	3.95	1026	3.1414	9236	3.95	194	12.0
PFTrDA 1	µg/L	16.000	15.8555	99.1	85564	4.23	878	2.7023	6916	4.23	304	8.1
PFTeDA 1	µg/L	16.000	15.9068	99.4	100341	4.47	1230	3.1690	5085	4.47	289	5.1
PFBS 1	µg/L	16.000	15.5940	97.5	12504	1.28	247	3.6181	5478	1.28	691	43.8
PFHxS 1	µg/L	16.000	15.3626	96.0	9945	1.94	89	3.6204	5107	1.94	106	51.4
PFOS 1	µg/L	16.000	15.9101	99.4	8712	2.75	49	3.1461	4600	2.75	123	52.8
MeFOSA 1	µg/L	16.000	15.7728	98.6	8594	5.20	341	1.3021	7470	5.20	1026	86.9
EtFOSA 1	µg/L	16.000	15.2907	95.6	8756	5.33	223	1.5159	8123	5.33	1177	92.8
13C2-PFHxA	µg/L	100.000	121.8752	121.9	17639	1.57	758		--	--	--	--
13C4-PFHpA	µg/L	100.000	119.0953	119.1	24486	1.98	479		--	--	--	--
13C4-PFOA	µg/L	100.000	123.2065	123.2	22378	2.44	579		--	--	--	--
13C5-PFNA	µg/L	100.000	123.4354	123.4	21242	2.88	595		--	--	--	--
13C2-PFDA	µg/L	100.000	123.2168	123.2	16946	3.28	1459		--	--	--	--
13C2-PFUnA	µg/L	100.000	127.5040	127.5	20699	3.64	1127		--	--	--	--
13C2-PFDoA	µg/L	100.000	124.8698	124.9	24457	3.95	1350		--	--	--	--
13C2-PFTeDA	µg/L	100.000	118.0750	118.1	31663	4.47	1006		--	--	--	--
13C3-PFBS	µg/L	100.000	103.2875	103.3	3456	1.27	108		--	--	--	--
18O2-PFHxS	µg/L	100.000	104.6875	104.7	2747	1.97	195		--	--	--	--
13C4-PFOS	µg/L	100.000	106.5000	106.5	2769	2.79	101		--	--	--	--
D3-MeFOSA	µg/L	100.000	106.4860	106.5	6600	5.20	114		--	--	--	--
D5-EtFOSA	µg/L	100.000	105.8651	105.9	5776	5.33	125		--	--	--	--

PFHxA 1





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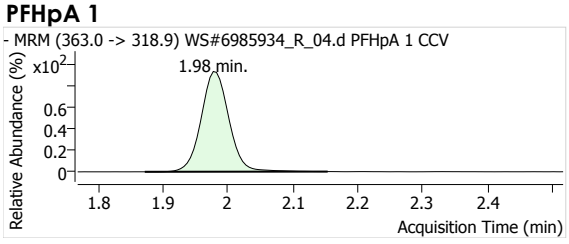

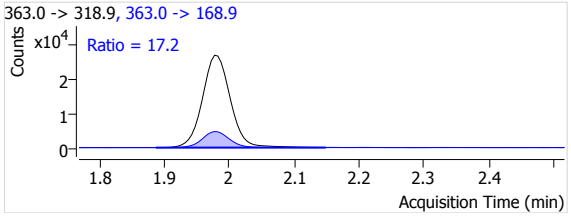

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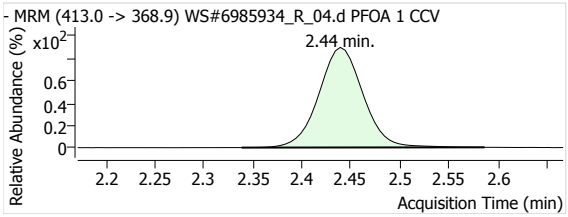

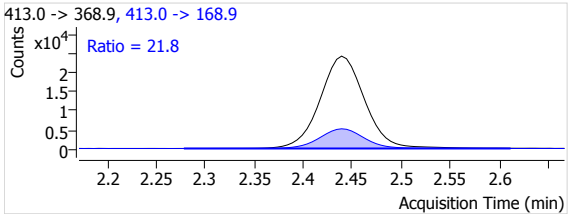

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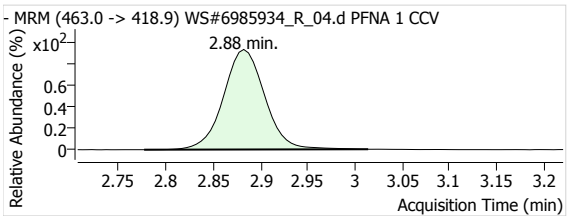

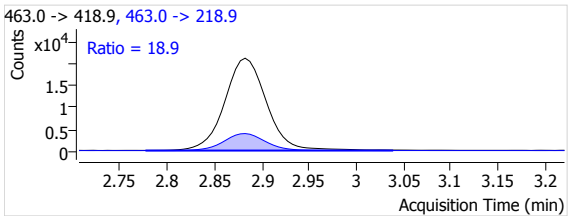

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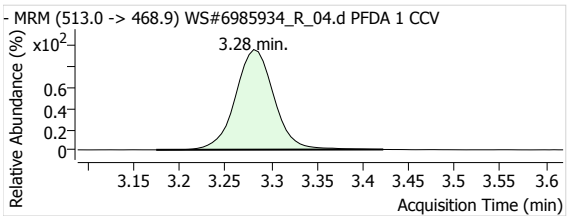

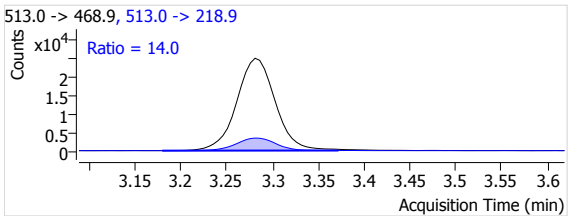

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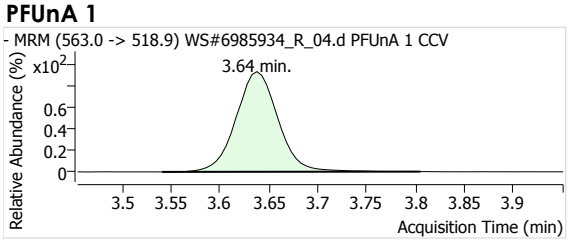

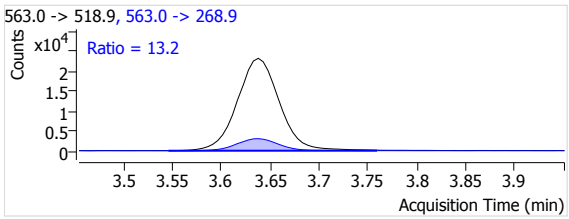

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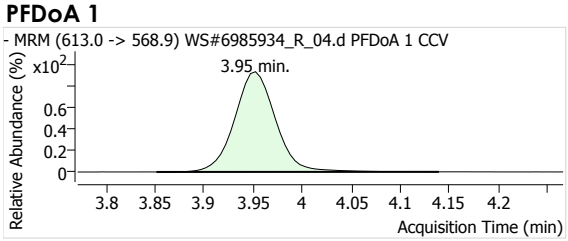

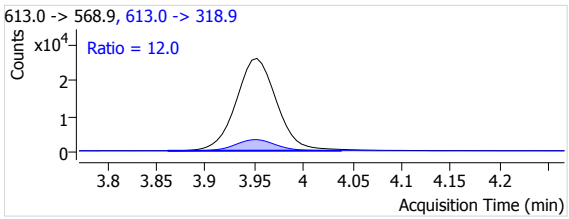

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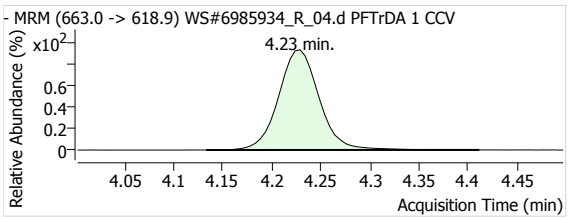

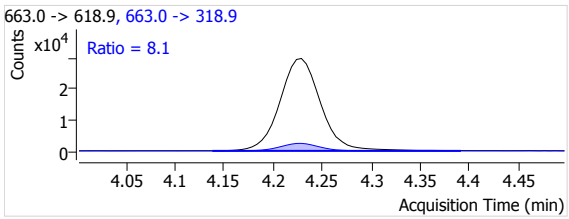

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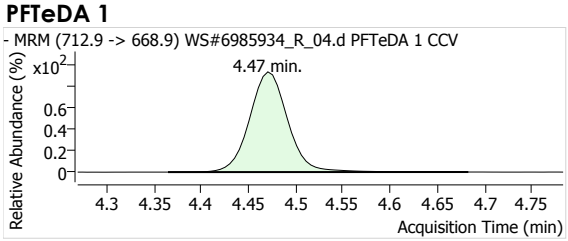

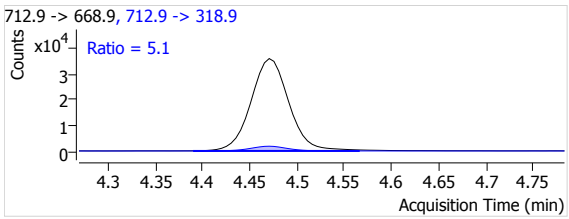

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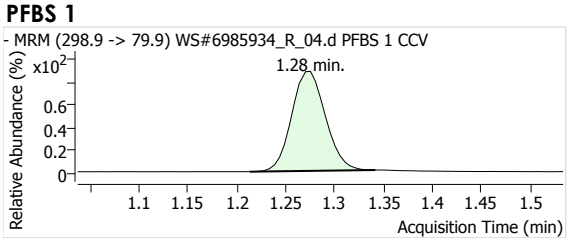

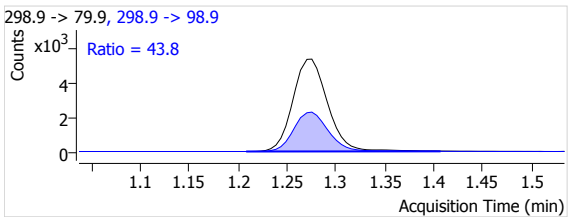

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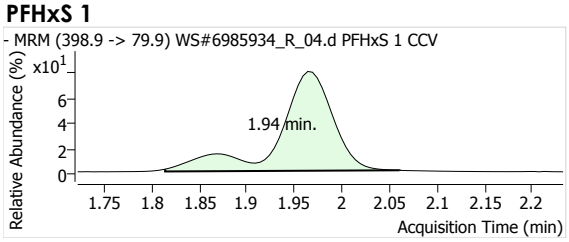

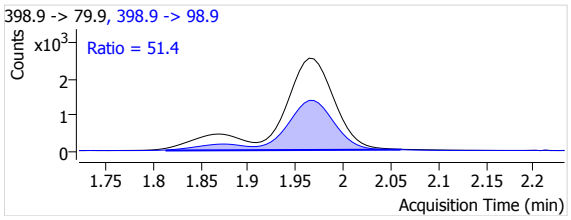

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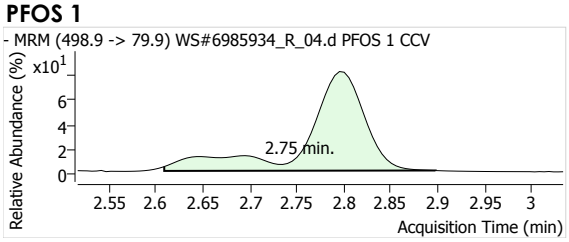

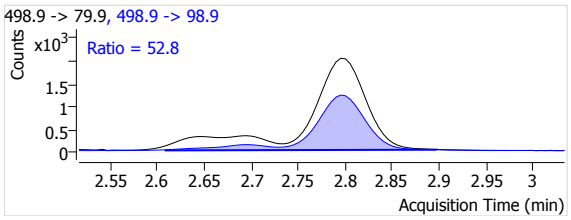

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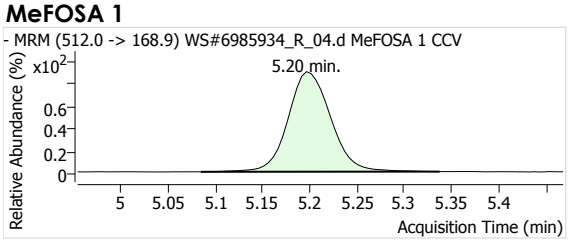

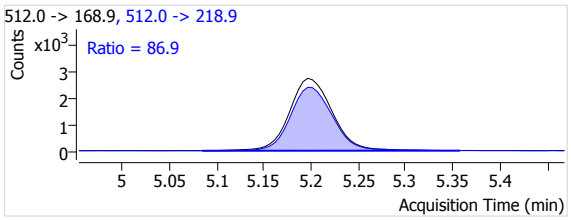

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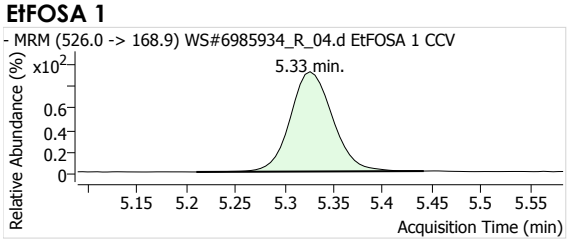

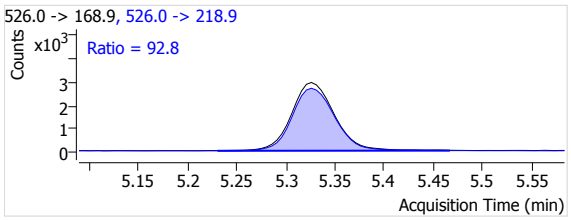

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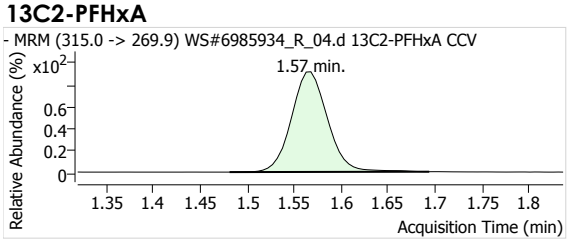

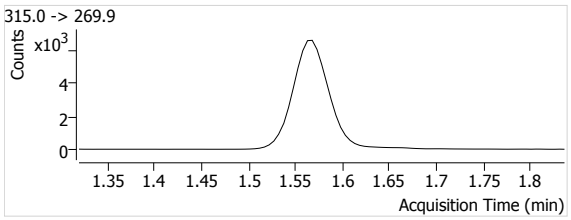

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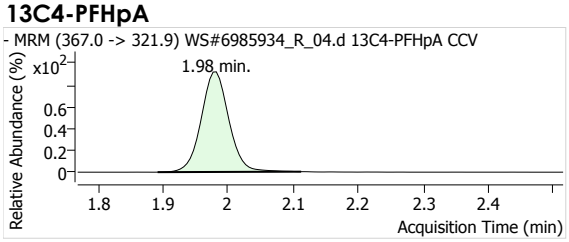

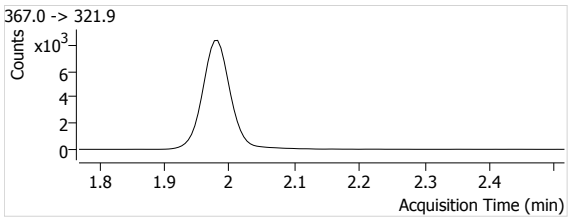

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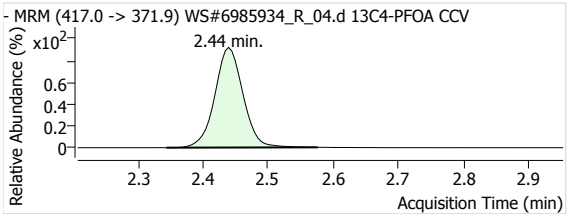

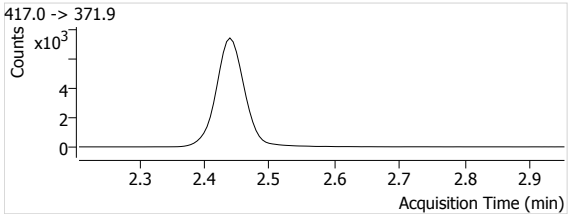

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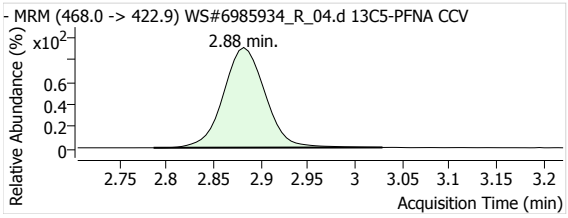

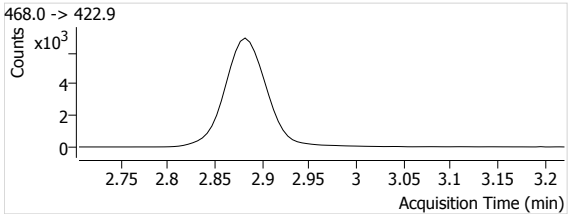

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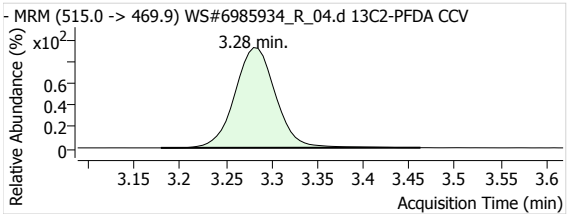

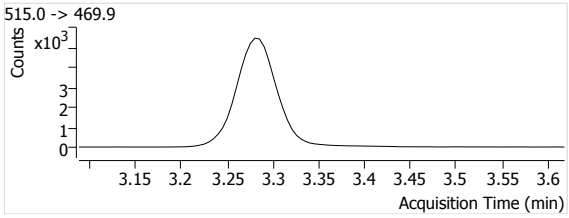

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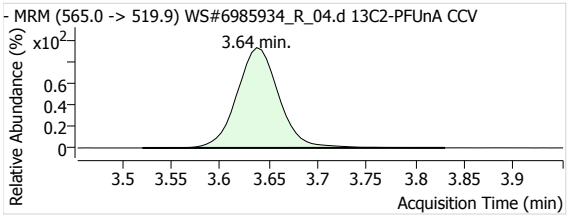

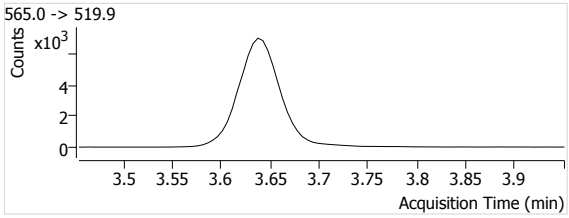

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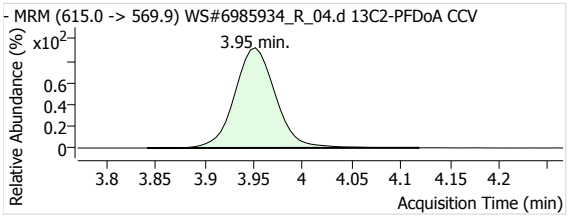

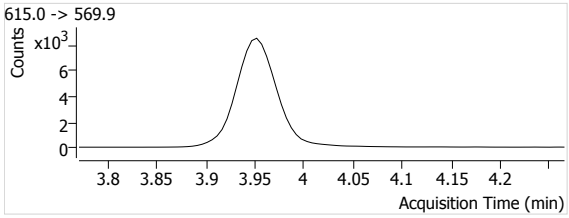

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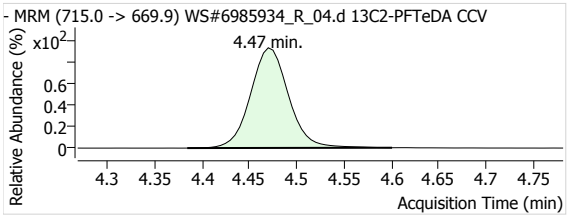

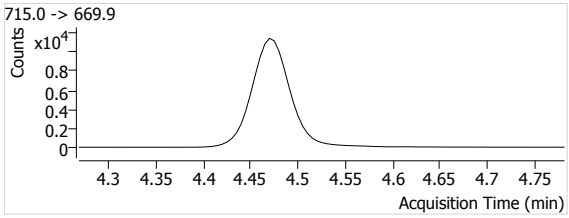

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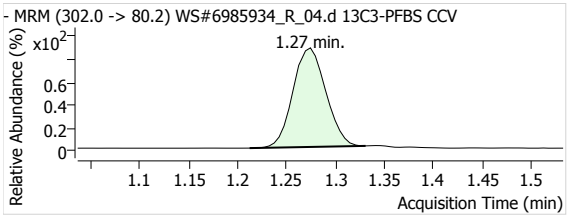

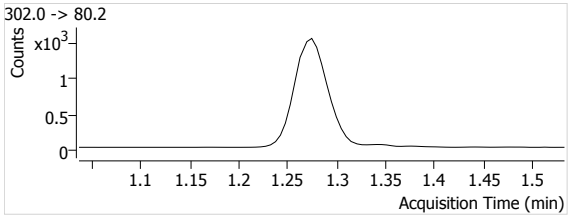

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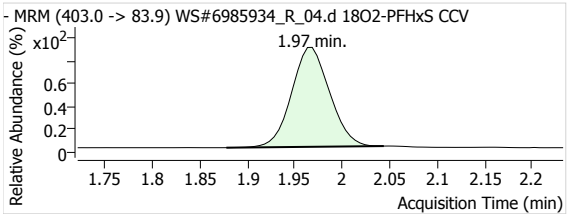

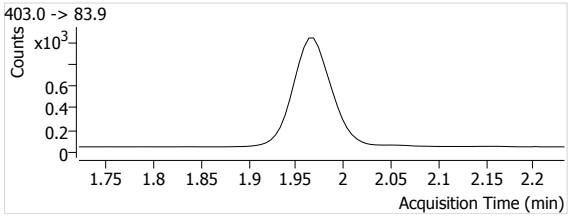

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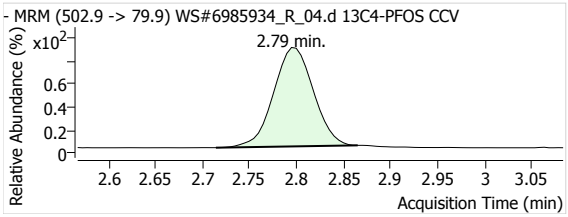

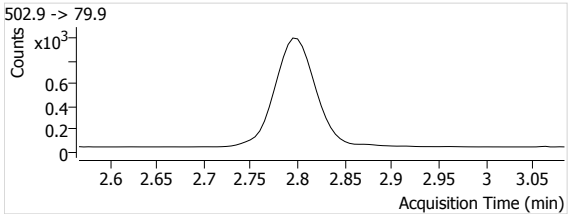

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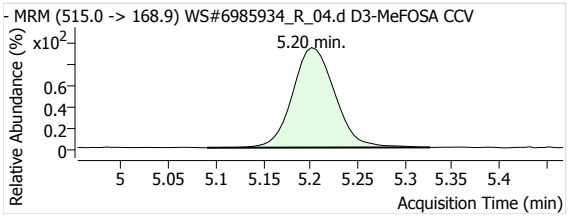

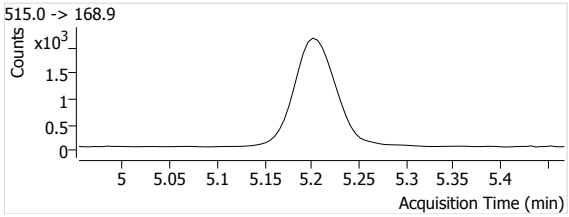

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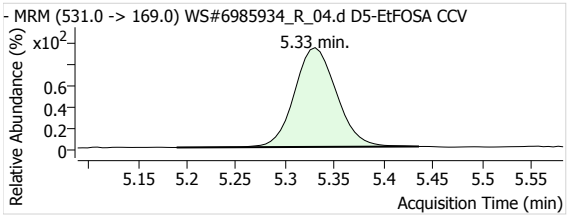

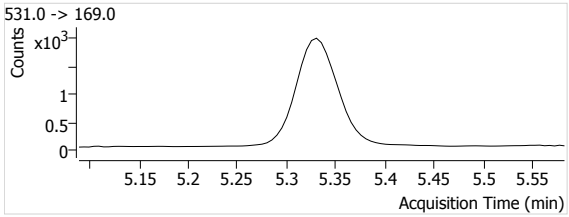

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Bureau Veritas Canada (2019)
Inc.
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CONTRACT_ID|DO_CTO_NUMBER|PHASE|INSTALLATION_ID|SAMPLE_NAME|ANALYTICAL_METHOD|LAB_NAME|CONTRACTOR_NAME|LEACHATE_METHOD|SAMPLE_BASIS|EXTRACTION_METHOD|RESULT_TYPE|SAMPLE_MEDIUM|CLEANUP_METHOD|QC_LEVEL|LEACHATE_DATE|LEACHATE_TIME|EXTRACTION_DATE|EXTRACTION_TIME|ANALYSIS_DATE|ANALYSIS_TIME|LAB_SAMPLE_ID|LAB_REPORT_DATE|LAB_REPORT_NUMBER|FILTER_SIZE|DILUTION|RUN_NUMBER|PERCENT_MOISTURE|PERCENT_LIPID|ANALYTE_ID|ANALYTE_VALUE|ORIGINAL_ANALYTE_VALUE|RESULT_UNITS|LAB_QUALIFIER|VALIDATOR_QUALIFIER|FINAL_QUALIFIER|DETECTED|GC_COLUMN_TYPE|ANALYSIS_RESULT_TYPE|RADIOLOGICAL_ERROR|RESULT_NARRATIVE|RETENTION_TIME|QC_CONTROL_LIMIT_CODE|QC_ACCURACY_UPPER|QC_ACCURACY_LOWER|CONTROL_LIMIT_DATE|RELATIVE_PCT_DIFF|QC_NARRATIVE|MDL|CDL|IDL|PQL|CRQL|DETECTION_LIMIT|VALIDATOR_DET_LIMIT|VALIDATOR_MDL|SDG|LEACH_LOT|METHOD_BATCH|PREP_BATCH|RUN_BATCH|ANALYSIS_BATCH|VALIDATOR_NAME|VALIDATION_QC|VAL_DATE|REPORTABLE_RESULT
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||4151-50-2|0.032||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.014|||||0.080|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||31506-32-8|0.032||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.016|||||0.080|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||375-73-5|0.10||UG_L||||Y|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.011|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||335-76-2|0.012||UG_L|J|||Y|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.0078|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||307-55-1|0.032||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.016|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||375-85-9|0.40||UG_L||||Y|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.013|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||307-24-4|1.6||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit
was|||||||0.011|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||355-46-4|1.3||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit
was|||||||0.0088|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||375-95-1|0.046||UG_L||||Y|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.010|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y

N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||335-67-1|1.1||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was|||||||0.010|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||1763-23-1|10||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was|||||||0.11|||||0.40|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||376-06-7|0.028||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.014|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||72629-94-8|0.028||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.013|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW25-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:06:00|NTX288||C0P6559||2.00|1|||2058-94-8|0.028||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.012|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||4151-50-2|0.018||UG_L|U|||N|PR|TRG|||||||||0.0081|||||0.046|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||31506-32-8|0.018||UG_L|U|||N|PR|TRG|||||||||0.0090|||||0.046|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||375-73-5|0.028||UG_L||||Y|PR|TRG|||||||||0.0064|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||335-76-2|0.0056||UG_L|J|||Y|PR|TRG|||||||||0.0045|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||307-55-1|0.018||UG_L|U|||N|PR|TRG|||||||||0.0092|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||375-85-9|0.16||UG_L||||Y|PR|TRG|||||||||0.0077|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||307-24-4|0.28||UG_L||||Y|PR|TRG|||||||||0.0061|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||355-46-4|0.67||UG_L||||Y|PR|TRG|||||||||0.0051|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y

N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||375-95-1|0.014||UG_L|J|||Y|PR|TRG|||||||||0.0059|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||335-67-1|0.65||UG_L||||Y|PR|TRG|||||||||0.0058|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||1763-23-1|2.1||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was|||||||0.057|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||376-06-7|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||72629-94-8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0074|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW26-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|09:27:00|NTX289||C0P6559||1.15|1|||2058-94-8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0071|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||4151-50-2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||31506-32-8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||375-73-5|0.0063||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||335-76-2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||307-55-1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||375-85-9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||307-24-4|0.013||UG_L|J|||Y|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||355-46-4|0.034||UG_L||||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y

N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||375-95-1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||335-67-1|0.035||UG_L||||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||1763-23-1|0.067||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW30-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|09:55:00|NTX290||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||4151-50-2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||31506-32-8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||375-73-5|0.16||UG_L||||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||335-76-2|0.0079||UG_L|J|||Y|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||307-55-1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||375-85-9|0.55||UG_L||||Y|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||307-24-4|1.3||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was|||||||0.053|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||355-46-4|5.0||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit

was|||||||0.044|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||375-95-
1|0.052||UG_L||||Y|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20
201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||335-67-
1|0.45||UG_L||||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||1763-23-
1|1.7||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was
extracted and analyzed. Detection limit
was|||||||0.057|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||376-06-
7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||72629-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX291||C0P6559||1.00|1|||2058-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||4151-50-
2|0.017||UG_L|U|||N|PR|TRG|||||||||0.0074|||||0.042|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||31506-32-
8|0.017||UG_L|U|||N|PR|TRG|||||||||0.0082|||||0.042|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||375-73-
5|0.16||UG_L||||Y|PR|TRG|||||||||0.0059|||||0.021|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||335-76-
2|0.0083||UG_L|J|||Y|PR|TRG|||||||||0.0041|||||0.021|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||307-55-
1|0.017||UG_L|U|||N|PR|TRG|||||||||0.0084|||||0.021|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||375-85-
9|0.56||UG_L||||Y|PR|TRG|||||||||0.0070|||||0.021|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||307-24-
4|1.3||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was
extracted and analyzed. Detection limit
was|||||||0.053|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||355-46-

4|5.0||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit
was|||||||0.044|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||375-95-
1|0.054||UG_L||||Y|PR|TRG||||||||||0.0054|||||0.021|||C0P6559||6981810|6981810|6981810|6981810|||20
201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||335-67-
1|0.44||UG_L||||Y|PR|TRG||||||||||0.0053|||||0.021|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||1763-23-
1|1.8||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit
was|||||||0.057|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||376-06-
7|0.015||UG_L|U|||N|PR|TRG||||||||||0.0071|||||0.021|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||72629-94-
8|0.015||UG_L|U|||N|PR|TRG||||||||||0.0067|||||0.021|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW31-0920 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX292||C0P6559||1.05|1|||2058-94-
8|0.015||UG_L|U|||N|PR|TRG||||||||||0.0065|||||0.021|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||RAO|||4|||20201005|16:09:28|20201006|13:56:00|NTX293||C0P6559||5.00|1|||4151-50-
2|0.080|0.080|UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.035|||||0.20|||C0P6559||6983448|6983448|6983448|6983448|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||RAO|||4|||20201005|16:09:28|20201006|13:56:00|NTX293||C0P6559||5.00|1|||31506-32-
8|0.080|0.080|UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.039|||||0.20|||C0P6559||6983448|6983448|6983448|6983448|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||375-73-
5|0.13||UG_L||||Y|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.028|||||0.10|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||335-76-
2|0.070||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.020|||||0.10|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||307-55-
1|0.080||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.
Detect|||||||0.040|||||0.10|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||375-85-
9|0.98||UG_L||||Y|PR|TRG||Due to high concentrations of the associated target analytes, a reduced sample volume was extracted and analyzed.

Detect|||||||0.034|||||0.10|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||307-24-
4|1.8||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was
extracted and analyzed. Detection limit
was|||||||0.027|||||0.10|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||355-46-
4|5.9||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was
extracted and analyzed. Detection limit
was|||||||0.22|||||1.0|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||375-95-
1|0.070||UG_L|J|||Y|PR|TRG||Due to high concentrations of the associated target analytes, a reduced
sample volume was extracted and analyzed.
Detect|||||||0.026|||||0.10|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||335-67-
1|1.2||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was
extracted and analyzed. Detection limit
was|||||||0.025|||||0.10|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||1763-23-
1|23||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was
extracted and analyzed. Detection limit
was|||||||0.29|||||1.0|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||376-06-
7|0.070||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced
sample volume was extracted and analyzed.
Detect|||||||0.034|||||0.10|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||72629-94-
8|0.070||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced
sample volume was extracted and analyzed.
Detect|||||||0.032|||||0.10|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW32-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|08:31:00|NTX293||C0P6559||5.00|1|||2058-94-
8|0.070||UG_L|U|||N|PR|TRG||Due to high concentrations of the associated target analytes, a reduced
sample volume was extracted and analyzed.
Detect|||||||0.031|||||0.10|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||4151-50-
2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||31506-32-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||375-73-
5|0.069||UG_L||||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20
201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||335-76-
2|0.010||UG_L|J|||Y|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||2
0201006|Y

N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||307-55-1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||375-85-9|0.47||UG_L||||Y|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||307-24-4|0.95||UG_L||||Y|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||355-46-4|1.9||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was|||||||0.044|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||375-95-1|0.041||UG_L||||Y|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||335-67-1|1.2||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was|||||||0.050|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||1763-23-1|7.0||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was|||||||0.057|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW33-0920||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|08:31:00|NTX294||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||4151-50-2|0.018||UG_L|U|||N|PR|TRG|||||||||0.0081|||||0.046|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||31506-32-8|0.018||UG_L|U|||N|PR|TRG|||||||||0.0090|||||0.046|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||375-73-5|0.039||UG_L||||Y|PR|TRG|||||||||0.0064|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||335-76-

2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0045|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||307-55-
1|0.018||UG_L|U|||N|PR|TRG|||||||||0.0092|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||375-85-
9|0.088||UG_L||||Y|PR|TRG|||||||||0.0077|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||20
201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||307-24-
4|0.24||UG_L||||Y|PR|TRG|||||||||0.0061|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||355-46-
4|0.92||UG_L||||Y|PR|TRG|||||||||0.0051|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||375-95-
1|0.010||UG_L|J|||Y|PR|TRG|||||||||0.0059|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||2
0201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||335-67-
1|0.20||UG_L||||Y|PR|TRG|||||||||0.0058|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||1763-23-
1|2.4||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was
extracted and analyzed. Detection limit
was|||||||0.057|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||376-06-
7|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||72629-94-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0074|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW34-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:33:00|NTX295||C0P6559||1.15|1|||2058-94-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0071|||||0.023|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||4151-50-
2|0.018||UG_L|U|||N|PR|TRG|||||||||0.0077|||||0.044|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||31506-32-
8|0.018||UG_L|U|||N|PR|TRG|||||||||0.0086|||||0.044|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||375-73-
5|0.033||UG_L||||Y|PR|TRG|||||||||0.0062|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||20
201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||335-76-

2|0.015||UG_L|U|||N|PR|TRG|||||||||0.0043|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||307-55-
1|0.018||UG_L|U|||N|PR|TRG|||||||||0.0088|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||375-85-
9|0.14||UG_L||||Y|PR|TRG|||||||||0.0074|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||307-24-
4|0.25||UG_L||||Y|PR|TRG|||||||||0.0058|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||355-46-
4|1.0||UG_L||||Y|PR|TRG|||||||||0.0048|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||2020
1006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||375-95-
1|0.026||UG_L||||Y|PR|TRG|||||||||0.0056|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||20
201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||335-67-
1|0.19||UG_L||||Y|PR|TRG|||||||||0.0055|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||1763-23-
1|3.4||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was
extracted and analyzed. Detection limit
was|||||||0.057|||||0.20|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||376-06-
7|0.015||UG_L|U|||N|PR|TRG|||||||||0.0075|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||72629-94-
8|0.015||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW35-0920||Maxxam
Analytics|||NA||DL1|||4|||20201004|09:26:41|20201005|11:54:00|NTX296||C0P6559||1.10|1|||2058-94-
8|0.015||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.022|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||4151-50-
2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||31506-32-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||375-73-
5|0.020||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||2
0201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||335-76-

2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||307-55-
1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||375-85-
9|0.053||UG_L||||Y|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20
201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||307-24-
4|0.096||UG_L||||Y|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20
201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||355-46-
4|0.49||UG_L||||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||375-95-
1|0.0053||UG_L|J|||Y|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||335-67-
1|0.062||UG_L||||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20
201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||1763-23-
1|0.75||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||202
01006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||376-06-
7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||72629-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|06-MW36-0920||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:15:00|NTX297||C0P6559||1.00|1|||2058-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||4151-50-
2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||31506-32-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||375-73-
5|0.014||UG_L|U|||N|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||335-76-
2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||

20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||307-55-
1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||375-85-
9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||307-24-
4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||355-46-
4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||375-95-
1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||335-67-
1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||1763-23-
1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||376-06-
7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||72629-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092120||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:22:00|NTX298||C0P6559||1.00|1|||2058-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||4151-50-
2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||31506-32-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||375-73-
5|0.012||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||2
0201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam
Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||335-76-
2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||
20201006|Y

N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||307-55-1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||375-85-9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||307-24-4|0.0055||UG_L|J|||Y|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||355-46-4|0.099||UG_L||||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||375-95-1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||335-67-1|0.044||UG_L||||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||1763-23-1|0.21||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP01||Maxxam Analytics|||NA||000|||4|||20201004|09:26:41|20201005|12:29:00|NTX299||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981810|6981810|6981810|6981810|||20201006|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||4151-50-2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||31506-32-8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||375-73-5|0.024||UG_L||||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||335-76-2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam

Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||307-55-1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||375-85-9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||307-24-4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||355-46-4|0.011||UG_L|J|||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||375-95-1|0.0066||UG_L|J|||Y|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||335-67-1|0.015||UG_L|J|||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||1763-23-1|0.14||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP02||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:28:00|NTX300||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||4151-50-2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||31506-32-8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||375-73-5|0.0062||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||335-76-2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||307-55-

1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||375-85-
9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||307-24-
4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||355-46-
4|0.012||UG_L|J|||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||2
0201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||375-95-
1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||335-67-
1|0.0066||UG_L|J|||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||1763-23-
1|0.063||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20
201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||376-06-
7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||72629-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:35:00|NTX301||C0P6559||1.00|1|||2058-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||4151-50-
2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||31506-32-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||375-73-
5|0.0058||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||335-76-
2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||307-55-
1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||

20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||375-85-
9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||307-24-
4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||355-46-
4|0.011||UG_L|J|||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||2
0201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||375-95-
1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||335-67-
1|0.0059||UG_L|J|||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||1763-23-
1|0.061||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20
201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||376-06-
7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||72629-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP03 DUP||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:42:00|NTX302||C0P6559||1.00|1|||2058-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||4151-50-
2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||31506-32-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||375-73-
5|0.014||UG_L|U|||N|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||335-76-
2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||307-55-
1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y

N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||375-85-9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||307-24-4|0.0069||UG_L|J|||Y|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||355-46-4|0.021||UG_L||||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||375-95-1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||335-67-1|0.013||UG_L|J|||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||1763-23-1|0.053||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP04||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:49:00|NTX303||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||4151-50-2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||31506-32-8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||375-73-5|0.0070||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||335-76-2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||307-55-1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam

Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||375-85-9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||307-24-4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||355-46-4|0.0079||UG_L|J|||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||375-95-1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||335-67-1|0.0057||UG_L|J|||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||1763-23-1|0.042||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP05||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|14:56:00|NTX304||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||4151-50-2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||31506-32-8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||375-73-5|0.0094||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||335-76-2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||307-55-1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||375-85-

9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||307-24-
4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||355-46-
4|0.042||UG_L||||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20
201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||375-95-
1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||335-67-
1|0.026||UG_L||||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20
201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||1763-23-
1|0.093||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20
201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||376-06-
7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||72629-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP06||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|15:03:00|NTX305||C0P6559||1.00|1|||2058-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||4151-50-
2|0.018||UG_L|U|||N|PR|TRG|||||||||0.0081|||||0.046|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||31506-32-
8|0.018||UG_L|U|||N|PR|TRG|||||||||0.0090|||||0.046|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||375-73-
5|0.019||UG_L|J|||Y|PR|TRG|||||||||0.0064|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||2
0201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||335-76-
2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0045|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||307-55-
1|0.018||UG_L|U|||N|PR|TRG|||||||||0.0092|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||375-85-
9|0.11||UG_L||||Y|PR|TRG|||||||||0.0077|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||202

01007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||307-24-
4|0.33||UG_L||||Y|PR|TRG|||||||||0.0061|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||202
01007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||355-46-
4|0.89||UG_L||||Y|PR|TRG|||||||||0.0051|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||202
01007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||375-95-
1|0.0096||UG_L|J|||Y|PR|TRG|||||||||0.0059|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||335-67-
1|0.37||UG_L||||Y|PR|TRG|||||||||0.0058|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||202
01007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||1763-23-
1|0.81||UG_L||||Y|PR|TRG|||||||||0.0066|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||202
01007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||376-06-
7|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||72629-94-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0074|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP07||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|15:24:00|NTX306||C0P6559||1.15|1|||2058-94-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0071|||||0.023|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||4151-50-
2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||31506-32-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||375-73-
5|0.028||UG_L||||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20
201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||335-76-
2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||307-55-
1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||375-85-
9|0.088||UG_L||||Y|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20
201007|Y

N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||307-24-4|0.26||UG_L||||Y|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||355-46-4|1.6||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was|||||||0.044|||||0.20|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||375-95-1|0.0089||UG_L|J|||Y|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||335-67-1|0.75||UG_L||||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||1763-23-1|1.2||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was extracted and analyzed. Detection limit was|||||||0.057|||||0.20|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08||Maxxam Analytics|||NA||000|||4|||20201004|08:56:16|20201005|13:53:00|NTX307||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||4151-50-2|0.018||UG_L|U|||N|PR|TRG|||||||||0.0077|||||0.044|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||31506-32-8|0.018||UG_L|U|||N|PR|TRG|||||||||0.0086|||||0.044|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||375-73-5|0.028||UG_L||||Y|PR|TRG|||||||||0.0062|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||335-76-2|0.015||UG_L|U|||N|PR|TRG|||||||||0.0043|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||307-55-1|0.018||UG_L|U|||N|PR|TRG|||||||||0.0088|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||375-85-9|0.092||UG_L||||Y|PR|TRG|||||||||0.0074|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20

201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||307-24-
4|0.28||UG_L||||Y|PR|TRG|||||||||0.0058|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||202
01007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||355-46-
4|1.6||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was
extracted and analyzed. Detection limit
was|||||||0.044|||||0.20|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||375-95-
1|0.010||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||2
0201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||335-67-
1|0.79||UG_L||||Y|PR|TRG|||||||||0.0055|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||202
01007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||1763-23-
1|1.1||UG_L||||Y|PR|TRG||Due to high concentration of the target analyte, a reduced sample volume was
extracted and analyzed. Detection limit
was|||||||0.057|||||0.20|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||376-06-
7|0.015||UG_L|U|||N|PR|TRG|||||||||0.0075|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||72629-94-
8|0.015||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP08 DUP||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:16|20201005|13:53:00|NTX308||C0P6559||1.10|1|||2058-94-
8|0.015||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||4151-50-
2|0.018||UG_L|U|||N|PR|TRG|||||||||0.0077|||||0.044|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||31506-32-
8|0.018||UG_L|U|||N|PR|TRG|||||||||0.0086|||||0.044|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||375-73-
5|0.016||UG_L|J|||Y|PR|TRG|||||||||0.0062|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||2
0201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||335-76-
2|0.015||UG_L|U|||N|PR|TRG|||||||||0.0043|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||307-55-
1|0.018||UG_L|U|||N|PR|TRG|||||||||0.0088|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam
Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||375-85-

9|0.029||UG_L||||Y|PR|TRG|||||||||0.0074|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||307-24-4|0.069||UG_L||||Y|PR|TRG|||||||||0.0058|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||355-46-4|0.68||UG_L||||Y|PR|TRG|||||||||0.0048|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||375-95-1|0.0058||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||335-67-1|0.11||UG_L||||Y|PR|TRG|||||||||0.0055|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||1763-23-1|0.59||UG_L||||Y|PR|TRG|||||||||0.0063|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||376-06-7|0.015||UG_L|U|||N|PR|TRG|||||||||0.0075|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||72629-94-8|0.015||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP09||Maxxam Analytics|||NA||DL1|||4|||20201004|08:56:17|20201005|16:34:00|NTX309||C0P6559||1.10|1|||2058-94-8|0.015||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.022|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||4151-50-2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||31506-32-8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||375-73-5|0.014||UG_L|U|||N|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||335-76-2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||307-55-1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||375-85-9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||

20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||307-24-
4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||355-46-
4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||375-95-
1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||335-67-
1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||1763-23-
1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||376-06-
7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||72629-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP10||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:48:00|NTX310||C0P6559||1.00|1|||2058-94-
8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||4151-50-
2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||31506-32-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||375-73-
5|0.034||UG_L||||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20
201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||335-76-
2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||307-55-
1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||375-85-
9|0.025||UG_L||||Y|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20
201007|Y

N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||307-24-4|0.10||UG_L||||Y|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||355-46-4|0.60||UG_L||||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||375-95-1|0.0055||UG_L|J|||Y|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||335-67-1|0.095||UG_L||||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||1763-23-1|0.27||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP11||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|16:55:00|NTX311||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam Analytics|||NA||RAO|||4|||20201006|16:01:30|20201007|14:44:00|NTX312||C0P6559||1.00|1|||4151-50-2|0.016|0.016|UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6985934|6985934|6985934|6985934|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam Analytics|||NA||RAO|||4|||20201006|16:01:30|20201007|14:44:00|NTX312||C0P6559||1.00|1|||31506-32-8|0.016|0.016|UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6985934|6985934|6985934|6985934|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||375-73-5|0.014||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||335-76-2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||307-55-1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||375-85-9|0.012||UG_L|J|||Y|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam

Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||307-24-4|0.074||UG_L||||Y|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||355-46-4|0.33||UG_L||||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||375-95-1|0.0078||UG_L|J|||Y|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||335-67-1|0.072||UG_L||||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||1763-23-1|0.44||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP12||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:02:00|NTX312||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||4151-50-2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||31506-32-8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||375-73-5|0.0058||UG_L|J|||Y|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||335-76-2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||307-55-1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||375-85-9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam
Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||307-24-

4|0.020||UG_L||||Y|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||355-46-4|0.12||UG_L||||Y|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||375-95-1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||335-67-1|0.028||UG_L||||Y|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||1763-23-1|0.19||UG_L||||Y|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|HP13||Maxxam Analytics|||NA||000|||4|||20201004|08:56:17|20201005|17:09:00|NTX313||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||4151-50-2|0.016|0.016|UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6985934|6985934|6985934|6985934|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||31506-32-8|0.016|0.016|UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6985934|6985934|6985934|6985934|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||375-73-5|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6985934|6985934|6985934|6985934|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||335-76-2|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6985934|6985934|6985934|6985934|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||307-55-1|0.016|0.016|UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6985934|6985934|6985934|6985934|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||375-85-9|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6985934|6985934|6985934|6985934|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||307-24-4|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6985934|6985934|6985934|69859

34|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam
Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||355-46-
4|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6985934|6985934|6985934|69859
34|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam
Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||375-95-
1|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6985934|6985934|6985934|69859
34|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam
Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||335-67-
1|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6985934|6985934|6985934|69859
34|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam
Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||1763-23-
1|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6985934|6985934|6985934|69859
34|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam
Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||376-06-
7|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6985934|6985934|6985934|69859
34|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam
Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||72629-94-
8|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6985934|6985934|6985934|69859
34|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092220||Maxxam
Analytics|||NA||RAO|||4|||20201006|16:01:24|20201007|14:51:00|NTX314||C0P6559||1.00|1|||2058-94-
8|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6985934|6985934|6985934|69859
34|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam
Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||4151-50-
2|0.016||UG_L|U|||N|PR|TRG|||||||||0.0070|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam
Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||31506-32-
8|0.016||UG_L|U|||N|PR|TRG|||||||||0.0078|||||0.040|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam
Analytics|||NA||RAO|||4|||20201006|16:01:33|20201007|14:58:00|NTX315||C0P6559||1.00|1|||375-73-
5|0.014|0.014|UG_L|U|||N|PR|TRG|||||||||0.0056|||||0.020|||C0P6559||6985934|6985934|6985934|69859
34|||20201013|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam
Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||335-76-
2|0.014||UG_L|U|||N|PR|TRG|||||||||0.0039|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam
Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||307-55-
1|0.016||UG_L|U|||N|PR|TRG|||||||||0.0080|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam
Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||375-85-
9|0.014||UG_L|U|||N|PR|TRG|||||||||0.0067|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam
Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||307-24-
4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0053|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||
20201007|Y

N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||355-46-4|0.014||UG_L|U|||N|PR|TRG|||||||||0.0044|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||375-95-1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0051|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||335-67-1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0050|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||1763-23-1|0.014||UG_L|U|||N|PR|TRG|||||||||0.0057|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||376-06-7|0.014||UG_L|U|||N|PR|TRG|||||||||0.0068|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||72629-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0064|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y
N6247316C2018|000|QTR12017|Site 00006|QCFB-092320||Maxxam Analytics|||NA||000|||4|||20201004|10:27:04|20201005|17:37:00|NTX315||C0P6559||1.00|1|||2058-94-8|0.014||UG_L|U|||N|PR|TRG|||||||||0.0062|||||0.020|||C0P6559||6981801|6981801|6981801|6981801|||20201007|Y

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

NOREAS, Inc.
16501 Scientific Way
Irvine, CA 92618
ATTN: Ms. Sevda Aleckson
Sevda.Aleckson@noreasinc.com

December 10, 2020

SUBJECT: Treasure Island, IR Site 6, Data Validation

Dear Ms. Aleckson,

Enclosed is the final validation report for the fraction listed below. This SDG was received on November 16, 2020. Attachment 1 is a summary of the samples that were reviewed for analysis.

LDC Project #49684:

SDG #	**Fraction:**
20I227	Perfluoroalkyl & Polyfluoroalkyl Substances

The data validation was performed under Stage 2B & 4 guidelines. The analyses were validated using the following documents, as applicable to each method:

- Final Sampling and Analysis Plan, Field Sampling Plan and Quality Assurance Project Plan, Basewide Groundwater and Soil Gas Monitoring at Installation Restoration Sites 6, 12, 21, and 24, Former Naval Station Treasure Island, San Francisco, California; April 2017
- U.S. Department of Defense Quality Systems Manual for Environmental Laboratories, Version 5.3; 2019
- USEPA National Functional Guidelines for Organic Methods Data Review; August 2014

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

Client Select IVs NEDD/NIRIS

LDC #49684 (Noreas, Inc.-Irvine, CA/ Treasure Island, IR Site 6)

LDC	SDG#	DATE REC'D	(3) DATE DUE	PFAs (537M)																																	
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	20I227	11/16/20	12/09/20	23	0																																
A	20I227	11/16/20	12/09/20	5	0																																

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Treasure Island, IR Site 6

LDC Report Date: December 9, 2020

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 2B & 4

Laboratory: EMAX Laboratories, Inc./Bureau Veritas Canada, Inc.

Sample Delivery Group (SDG): 20I227/C0P6559

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
06-MW25-0920	20I227-01/NTX288	Water	09/21/20
06-MW26-0920	20I227-02/NTX289	Water	09/21/20
06-MW30-0920	20I227-03/NTX290	Water	09/21/20
06-MW31-0920**	20I227-04/NTX291**	Water	09/21/20
06-MW31-0920-DUP	20I227-05/NTX292	Water	09/21/20
06-MW32-0920**	20I227-06/NTX293**	Water	09/21/20
06-MW33-0920	20I227-07/NTX294	Water	09/21/20
06-MW34-0920	20I227-08/NTX295	Water	09/21/20
06-MW35-0920	20I227-09/NTX296	Water	09/21/20
06-MW36-0920	20I227-10/NTX297	Water	09/21/20
QCFB-092120	20I227-11/NTX298	Water	09/21/20
HP01	20I227-12/NTX299	Water	09/22/20
HP02	20I227-13/NTX300	Water	09/22/20
HP03**	20I227-14/NTX301**	Water	09/22/20
HP03-DUP	20I227-15/NTX302	Water	09/22/20
HP04	20I227-16/NTX303	Water	09/23/20
HP05	20I227-17/NTX304	Water	09/23/20
HP06	20I227-18/NTX305	Water	09/23/20
HP07	20I227-19/NTX306	Water	09/23/20
HP08**	20I227-20/NTX307**	Water	09/23/20
HP08-DUP	20I227-21/NTX308	Water	09/23/20
HP09	20I227-22/NTX309	Water	09/22/20
HP10	20I227-23/NTX310	Water	09/22/20
HP11**	20I227-24/NTX311**	Water	09/22/20
HP12	20I227-25/NTX312	Water	09/23/20
HP13	20I227-26/NTX313	Water	09/23/20

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
QCFB-092220	20I227-27/NTX314	Water	09/22/20
QCFB-092320	20I227-28/NTX315	Water	09/23/20
06-MW30-0920MS	20I227-03/NTX290MS	Water	09/21/20
06-MW30-0920MSD	20I227-03/NTX290MSD	Water	09/21/20
HP13MS	20I227-26/NTX313MS	Water	09/23/20
HP13MSD	20I227-26/NTX313MSD	Water	09/23/20

**Indicates sample underwent Stage 4 validation

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), Basewide Groundwater and Soil Gas Monitoring at Installation Restoration Sites 6, 12, 21, and 24, Former Naval Station Treasure Island, San Francisco, California (April 2017), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.3 (2019), and a modified outline of the USEPA National Functional Guidelines (NFG) for Superfund Organic Methods Data Review (August 2014). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) by Environmental Protection Agency (EPA) Method 537 Modified and LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Stage 4 data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.

U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).

UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.

R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Qualification Codes

1	Holding Times Exceeded
2	Sample Preservation / Cooler Temperature Exceeded Acceptance Criteria
3	Sample Custody Potentially Compromised Sample Integrity
4	Missing/Incomplete Deliverables
5	Calibration Did Not Meet Method Criteria
6	Equipment/Field Blank Contamination
7	Laboratory Method or Calibration Blank Contamination
8	Matrix Spike % Recovery Exceeded Acceptance Criteria
9	Matrix Spike Duplicate (RPD or Duplicate Sample Analysis) Exceeded Acceptance Criteria
10A	Laboratory Control Sample % Recovery Exceeded Acceptance Criteria
10B	Laboratory Control Sample Duplicate (RPD) Exceeded Acceptance Criteria
11	ICP Interference Check Analysis Exceeded Method Criteria
12	RPD Between Two Columns (Pesticides/PCBs only)
13	Surrogate Recoveries Exceeded Acceptance Criteria
14	Field Duplicates RPD Exceeded Project Criteria
15	Peak Resolution did not meet method criteria
16	Serial Dilution Analysis Exceeded Method Criteria
17	Chemical Recoveries Exceeded Acceptance Criteria
18	Trip Blank Contamination
19	Internal Standards Did Not Meet Method Criteria
20	Calibration Range exceeded Method Criteria
21	Potential False Positives
22	Do not use, other result more technically sound (overall assessment)
23	Estimated Maximum Possible Concentration
24	Trace Detection Below the LOQ (RL) and Above the DL (MDL)
25	Other

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. LC/MS Instrument Performance Check

Instrument performance was checked and the requirements were met.

III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

For each calibration standard, all compounds were within 70-130% of their true value.

The signal to noise (S/N) ratio was within validation criteria for all compounds associated to samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

Retention time windows were established as required by the method for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds.

The signal to noise (S/N) ratio was within validation criteria for all compounds associated to samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

The percent differences (%D) of the instrument sensitivity check (ISC) were less than or equal to 30.0% for all compounds.

Retention times of all compounds in the calibration standards were within the established retention time windows for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

All compound concentrations were at the limit of quantitation (LOQ) for the ISC standard.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the methods. No contaminants were found in the laboratory blanks.

VI. Field Blanks

Samples QCFB-092120, QCFB-092220, and QCFB-092320 were identified as field blanks. No contaminants were found.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

Relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	RPD (Limits)	Flag	A or P
HP13MS/MSD (HP13)	N-Ethylperfluorooctanesulfonamidoacetic acid N-Methylperfluorooctanesulfonamidoacetic acid	32 (≤30) 34 (≤30)	NA	-

VIII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

IX. Field Duplicates

Samples 06-MW31-0920** and 06-MW31-0920-DUP, samples HP03** and HP03-DUP, and samples HP08** and HP08-DUP were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	06-MW31-0920**	06-MW31-0920-DUP			
Perfluorohexanoic acid	1.3	1.3	0 (≤30)	-	-
Perfluoroheptanoic acid	0.55	0.56	2 (≤30)	-	-
Perfluorooctanoic acid	0.45	0.44	2 (≤30)	-	-
Perfluorononanoic acid	0.052	0.054	4 (≤30)	-	-
Perfluorodecanoic acid	0.0079	0.0083	5 (≤30)	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	06-MW31-0920**	06-MW31-0920-DUP			
Perfluorobutanesulfonic acid	0.16	0.16	0 (≤30)	-	-
Perfluorohexanesulfonic acid	5.0	5.0	0 (≤30)	-	-
Perfluorooctanesulfonic acid	1.7	1.8	6 (≤30)	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	HP03**	HP03-DUP			
Perfluorooctanoic acid	0.0066	0.0059	11 (≤30)	-	-
Perfluorobutanesulfonic acid	0.0062	0.0058	7 (≤30)	-	-
Perfluorohexanesulfonic acid	0.012	0.011	9 (≤30)	-	-
Perfluorooctanesulfonic acid	0.063	0.061	3 (≤30)	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	HP08**	HP08-DUP			
Perfluorohexanoic acid	0.26	0.28	7 (≤30)	-	-
Perfluoroheptanoic acid	0.088	0.092	4 (≤30)	-	-
Perfluorooctanoic acid	0.75	0.79	5 (≤30)	-	-
Perfluorononanoic acid	0.0089	0.010	12 (≤30)	-	-
Perfluorobutanesulfonic acid	0.028	0.028	0 (≤30)	-	-
Perfluorohexanesulfonic acid	1.6	1.6	0 (≤30)	-	-
Perfluorooctanesulfonic acid	1.2	1.1	9 (≤30)	-	-

X. Labeled Compounds

All percent recoveries (%R) for labeled compounds used to quantitate target compounds were within QC limits with the following exceptions:

Sample	Labeled Compound	%R (Limits)	Affected Compound	Flag	A or P
HP03**	d5-EtFOSA	49 (50-150)	N-Ethylperfluorooctanesulfonamidoacetic acid	UJ (all non-detects)	P
HP07	d5-EtFOSA	49 (50-150)	N-Ethylperfluorooctanesulfonamidoacetic acid	UJ (all non-detects)	P
HP10	d5-EtFOSA	49 (50-150)	N-Ethylperfluorooctanesulfonamidoacetic acid	UJ (all non-detects)	P
QCFB-092220	13C3-PFBS	49 (50-150)	Perfluorobutanesulfonic acid	UJ (all non-detects)	P

Labeled compound recoveries (%R) were not within QC limits for sample 06-MW32-0920**. No data were qualified for samples analyzed at greater than or equal to 5X dilution.

XI. Compound Quantitation

All compound quantitations met validation criteria for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

XII. Target Compound Identifications

All target compound identifications met validation criteria for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

XIII. System Performance

The system performance was acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the methods, DoD QSM version 5.3 and project SAP. This review also included verification of analytes, methods, reporting limits, instrument performance and method QC acceptance limits, which were found to be compliant with the project documents. No results were rejected.

Due to labeled compound %R, data were qualified as estimated in four samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable.

Treasure Island, IR Site 6
Perfluoroalkyl & Polyfluoroalkyl Substances - Data Qualification Summary - SDG 20I227/C0P6559

Sample	Compound	Flag	A or P	Reason (Code)
HP03** HP07 HP10	N-Ethylperfluorooctanesulfonamidoacetic acid	UJ (all non-detects)	P	Labeled compounds (%R) (19)
QCFB-092220	Perfluorobutanesulfonic acid	UJ (all non-detects)	P	Labeled compounds (%R) (19)

Treasure Island, IR Site 6
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 20I227/C0P6559

No Sample Data Qualified in this SDG

Treasure Island, IR Site 6
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 20I227/C0P6559

No Sample Data Qualified in this SDG

LDC #: 49684A96 **VALIDATION COMPLETENESS WORKSHEET** Date: 12/4/20

SDG #: 20I227/C0P6559 ~~Level III/IV~~ Stage 2B/4 Page: 1 of 2

Laboratory: EMAX Laboratories, Inc./Bureau Veritas Canada, Inc. Reviewer: M

2nd Reviewer: [illegible]

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M) QSM 5.3 Table B-15

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A / A	r2 TV/ICV ≤ 30
IV.	Continuing calibration/ISC	A/A	D ≤ 30
V.	Laboratory Blanks	A	
V.I	Field blanks	ND	FB = 11, 27, 28
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS/D
IX.	Field duplicates	SW	D = 4+5, 14+15, 20+21
X.	Labeled Compounds	SW	
XI.	Compound quantitation RL/LOQ/LODs	A	
XII.	Target compound identification	A	Not reviewed for ~~Level III~~ Stage 4 validation.
XIII.	System performance	A	Not reviewed for ~~Level III~~ Stage 4 validation.
XIV.	Overall assessment of data	A	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank; SB=Source blank; OTHER:

Stage 4

** Indicates sample was underwent Level IV review

	Client ID	Sublab ID	Lab ID	Matrix	Date
1	06-MW25-0920	NTX288	20I227-01	Water	09/21/20
2	06-MW26-0920	89	20I227-02	Water	09/21/20
3	06-MW30-0920	90	20I227-03	Water	09/21/20
4	06-MW31-0920**	91	20I227-04**	Water	09/21/20
5	06-MW31-0920-DUP	92	20I227-05	Water	09/21/20
6 1,2	06-MW32-0920**	93	20I227-06**	Water	09/21/20
7	06-MW33-0920	94	20I227-07	Water	09/21/20
8	06-MW34-0920	95	20I227-08	Water	09/21/20
9	06-MW35-0920	96	20I227-09	Water	09/21/20
10	06-MW36-0920	97	20I227-10	Water	09/21/20
11	QCFB-092120	98	20I227-11	Water	09/21/20
12	HP01	NTX~~300~~ 299	20I227-12	Water	09/22/20
13 4	HP02	NTX300	20I227-13	Water	09/22/20
14 4	HP03**	21	20I227-14**	Water	09/22/20
15 4	HP03-DUP	32	20I227-15	Water	09/22/20

LDC #: 49684A96 **VALIDATION COMPLETENESS WORKSHEET** Date: 12/1/20
SDG #: 20I227/C0P6559 Level III/IV Page: 2 of 2
Laboratory: EMAX Laboratories, Inc./Bureau Veritas Canada, Inc. Reviewer: IC
2nd Reviewer: [signature]

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537M)

	Client ID		Lab ID	Matrix	Date
16 4	HP04	NTX303	20I227-16	Water	09/22/20 3
17 4	HP05	04	20I227-17	Water	09/22/20
18 4	HP06	05	20I227-18	Water	09/22/20
19 4	HP07	06	20I227-19	Water	09/22/20
20 4	HP08**	07	20I227-20**	Water	09/22/20
21 4	HP08-DUP	08	20I227-21	Water	09/22/20
22 4	HP09	09	20I227-22	Water	09/22/20
23 4	HP10	10	20I227-23	Water	09/22/20
24 4	HP11**	11	20I227-24**	Water	09/22/20
25 1,3	HP12	12	20I227-25	Water	09/23/20 3
26 4	HP13	13	20I227-26	Water	09/23/20 3
27 3	QCFB-092220	14	20I227-27	Water	09/22/20
28 1,3	QCFB-092320	15	20I227-28	Water	09/23/20
29	06-MW30-0920MS	NTX290MS	20I227-03MS	Water	09/21/20
30	06-MW30-0920MSD	MSD	20I227-03MSD	Water	09/21/20
31 1	HP13MS	NTX313MS	20I227-26MS	Water	09/23/20 3
32 1	HP13MSD	MSD	20I227-26MSD	Water	09/23/20 3
33					
34					
35					

Notes:

1	6981810						
2	6983448		+ PFBS, EtFOSA/MeFOSA				
3	6985934						
4	6981801						

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	√			
Were cooler temperature criteria met?	√			
II. LC/MS Instrument performance check				
Were the instrument performance reviewed and found to be within the validation criteria?	√			
III. Initial calibration and Initial calibration verification				
Did the laboratory perform a 5-point calibration prior to sample analysis?	√			
Were all percent relative standard deviations (%RSD) ≤ 20%?			√	
Was a curve fit used for evaluation? If yes, did the initial calibration meet the coefficient of determination (r^2) criteria of ≥ 0.990?	√			
Were all analytes within 70-130% or percent differences (%D) ≤30% of their true value for each calibration standard?	√			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	√			
Were the retention time windows properly established?	√			
Was an initial calibration verification (ICV) standard analyzed after each initial calibration for each instrument?	√			
Were all ICV percent differences (%D) of the initial calibration verification ≤ 30%?	√			
IV. Continuing calibration and Instrument sensitivity check				
Was a continuing calibration analyzed prior to sample analysis, after every 10 samples and at the end of the analytical sequence?	√			
Were all percent differences (%D) of the continuing calibration ≤ 30%?	√			
Were all the retention times within the acceptance windows?	√			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	√			
Were all percent differences (%D) of the Instrument Sensitivity Check ≤ 30%?	√			
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?	√			
Was a laboratory blank analyzed for each matrix and concentration?	√			
Was there contamination in the laboratory blanks?		√		
VI. Field blanks				
Were field blanks identified in this SDG?		√		
Were target compounds detected in the field blanks?			√	

Validation Area	Yes	No	NA	Findings/Comments
VII. Matrix spike/Matrix spike duplicates				
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?	√			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		√		
VIII. Laboratory control samples				
Was an LCS analyzed per extraction batch for this SDG?	√			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	√			
IX. Field duplicates				
Were field duplicate pairs identified in this SDG?	√			
Were target compounds detected in the field duplicates?	√			
X. Labeled compounds				
Were labeled compound percent recoveries (%R) within the QC limits?		√		
Were retention times within 0.4 minutes of the associated calibration standard?	√			
XI. Compound quantitation				
Did the laboratory reporting limits (i.e. DL, LOD, LOQ) meet the QAPP?	√			
Did reported results include both branched and linear isomers?	√			
Were the correct ion transition, labeled compound and relative response factor (RRF) used to quantitate the compound?	√			
Were compound retention times within 0.1 minutes of the associated labeled compound for compounds with a labeled analog?	√			
Were compound quantitation and reporting limits adjusted to reflect all sample dilutions and dry weight factors applicable to Stage 4 validation?	√			
XII. Target compound identification				
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	√			
Were two transitions and the ion transition ratio per analyte monitored and documented with the exception of PFBA and PFPeA?	√			
Were ion ratios between 50-150%?	√			
XIII. System performance				
System performance was found to be acceptable.	√			
XIV. Overall assessment of Data				
Overall assessment of data was found to be acceptable.	√			

TARGET COMPOUND WORKSHEET

METHOD: PFAS

	Associated Labeled Compound	
A. Perfluorobutanoic acid (PFBA)	MPFBA	AA. Hexafluoropropylene oxide dimer acid (GenX)
B. Perfluoropentanoic acid (PFPeA)	M5PFPEA	BB. 4,8-dioxa-3H-perfluorononanoic acid (ADONA)
C. Perfluorohexanoic acid (PFHxA)	M5PFHxA	CC. Perfluoropentanesulfonic acid (PFPeS)
D. Perfluoroheptanoic acid (PFHpA)	M4PFHpA	
E. Perfluorooctanoic acid (PFOA)	M8PFOA	
F. Perfluorononanoic acid (PFNA)	M9PFNA	
G. Perfluorodecanoic acid (PFDA)	M8PFDA	
H. Perfluoroundecanoic acid (PFUnA)	M7PFUDA	
I. Perfluorododecanoic acid (PFDoA)	MPFDOA	
J. Perfluorotridecanoic acid (PFTrDA)	MPFDOA	
K. Perfluorotetradecanoic acid (PFTeDA)	M2PFTEDA	
L. Perfluorobutanesulfonic acid (PFBS)	M3PFBS	
M. Perfluorohexanesulfonic acid (PFHxS)	M3PFHxS	
N. Perfluoroheptanesulfonic acid (PFHpS)	M8PFOS	
O. Perfluorooctanesulfonic acid (PFOS)	M8PFOS	
P. Perfluorodecanesulfonic acid (PFDS)	M8PFOS	
Q. Perfluorooctanesulfonamide (FOSA)	M8FOSA	
R. N-Methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	d3-NMeFOSAA	
S. N-Ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	d5-NEtFOSAA	
T. 1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2FTS)	M2-6:2FTS	
U. 1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2FTS)	M2-8:2FTS	
V. 9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)	M8PFOS	
W. 11-Chloroeicosafluoro-3-Oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	M8PFOS	
X. Hexafluoropropylene oxide dimer acid (HFPO-DA)	M3HFPODA	
Y. 1H,1H,2H,2H-Perfluorohexanesulfonic acid (4:2FTS)	M2-4:2FTS	
Z. Perfluorononanesulfonic acid (PFNS)	M8PFOS	

LDC #: 49684A96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results

Reviewer: m

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DOD QSM 5.3

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) or duplicate sample analyzed for each matrix in this SDG?

(Y) N N/A Was a MS/MSD analyzed every 20 samples of each matrix?

Y (N) N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		31/32	EtFOSA			32 (≤30)	26 (ND)	Jdets/A (9)
			MeFOSA			34		

MSD

LDC #: 49684A96

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: SC

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Compound	Concentration (ug/L)		RPD (≤30)	
	4	5		
C	1.3	1.3	0	
D	0.55	0.56	2	
E	0.45	0.44	2	
F	0.052	0.054	4	
G	0.0079	0.0083	5	
L	0.16	0.16	0	
M	5.0	5.0	0	
O	1.7	1.8	6	

Compound	Concentration (ug/L)		RPD (≤30)	
	14	15		
E	0.0066	0.0059	11	
L	0.0062	0.0058	7	
M	0.012	0.011	9	
O	0.063	0.061	3	

Compound	Concentration (ug/L)		RPD (≤30)	
	20	21		
C	0.26	0.28	7	
D	0.088	0.092	4	
E	0.75	0.79	5	
F	0.0089	0.010	12	
L	0.028	0.028	0	
M	1.6	1.6	0	
O	1.2	1.1	9	

LDC #: 49684A96

VALIDATION FINDINGS WORKSHEET
Labeled Compounds

Reviewer: [illegible]

METHOD: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3
Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y (N) N/A Were all labeled compound recoveries within the QC criteria?

#	Date	Lab ID/Reference	Labeled Compound	% Recovery (50-150)	Qualifications
		6 (ND)	D3-MeFOSA	34 (36 - raw	No qual, 5x
			D5-EtFOSA	31 (32 - ↓	
		14 (ND)	D5-EtFOSA	49	J/UJ/P (EtFOSA)
		19		49	
		23		49	
		27 ↓	13C3-L	49	↓ (L)
		693448MB	D3-MeFOSA	47	
			D5-EtFOSA	48	↓

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Calibration Date	Instrument	Analyte	Standard	(Y) Response ratio	(X) Concentration ratio
10/5/2020	LCMS05	PFOA	1	0.14439	0.830
			2	0.49042	3.000
			3	1.32283	8.000
			4	2.28661	16.000
			5	4.73936	30.000
			6	6.56936	41.700

Linear

	Calculated	**Reported**
Constant	-0.012595	0.016630
X Coefficient(s)	0.15702	0.155262
Correlation Coefficient	0.999134	
Coefficient of Determination (r^2)	0.998269	1.00000

Calibration Date	Instrument	Analyte	Standard	(Y) Response ratio	(X) Concentration ratio
10/5/2020	LCMS05	PFOS	1	0.17079	0.830
			2	0.58481	3.000
			3	1.59893	8.000
			4	2.76123	16.000
			5	5.78364	30.000
			6	7.68790	41.700

Linear

	Calculated	**Reported**
Constant	0.017906	0.020965
X Coefficient(s)	0.18567	0.185488
Correlation Coefficient	0.998852	
Coefficient of Determination (r^2)	0.997705	1.00000

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Calibration Date	Instrument	Analyte	Standard	(Y) Response ratio	(X) Concentration ratio
10/5/2020	LCMS05 P2	PFOA	1	0.14551	0.830
			2	0.49774	3.000
			3	1.23861	8.000
			4	2.50315	16.000
			5	4.93685	30.000
			6	6.69148	41.700

Linear

	Calculated	Reported
Constant	-0.013850	0.008581
X Coefficient(s)	0.16172	0.160372
Correlation Coefficient	0.999720	
Coefficient of Determination (r^2)	0.999440	1.00000

Calibration Date	Instrument	Analyte	Standard	(Y) Response ratio	(X) Concentration ratio
10/5/2020	LCMS05 P2	PFOS	1	0.16093	0.830
			2	0.59200	3.000
			3	1.49675	8.000
			4	3.07302	16.000
			5	5.89395	30.000
			6	7.94839	41.700

Linear

	Calculated	Reported
Constant	0.003749	0.001392
X Coefficient(s)	0.19233	0.192474
Correlation Coefficient	0.999770	
Coefficient of Determination (r^2)	0.999539	1.00000

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF

RRF = (Ax)(Cis)/(Ais)(Cx)

Where:

ave. RRF = initial calibration average RRF

RRF = continuing calibration RRF

Ax = Area of compound

Cx = Concentration of compound,

Ais = Area of associated internal standard

Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (IS)	True Conc	Reported Conc	Recalculated Conc	Reported %R	Recalculated %R
1	6981801_22	10/5/2020	PFOA (13C4-PFOA)	16.000	14.6023	14.6023	91.3	91.3
			PFOS (13C4-PFOS)	16.000	14.6423	14.6424	91.5	91.5
2	6981801_32	10/5/2020	PFOA (13C4-PFOA)	16.000	14.7059	14.7059	91.9	91.9
			PFOS (13C4-PFOS)	16.000	15.0212	15.0216	93.9	93.9
3	6981810_22	10/5/2020	PFOA (13C4-PFOA)	16.0000	15.7508	15.7508	98.4	98.4
			PFOS (13C4-PFOS)	16.0000	15.8999	15.8992	99.4	99.4

LDC #: 49684A96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: SC

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

SSC = (Area spike) (Conc IS) / (Area IS) (average RRF spike)

%Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked concentration, SA = Spike added, SC = Sample concentration

RPD = | MS - MSD | * 2/(MS + MSD)

MS = Matrix spike recovery, MSD = Matrix spike duplicate recovery

MS/MSD ID: 31/32

Compound	SA (ug/L)		SC (ug/L)	SSC (ug/L)		MS Percent Recovery		MSD Percent Recovery		MS/MSD RPD	
	MS	MSD		MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported *	Recalc.
PFOA	0.4800	0.4800	0.028	0.5490	0.5416	108	109	107	107	0.93	1.36
PFOS	0.4800	0.4800	0.19	0.7166	0.7029	109	110	106	107	2.6	1.9

* based on %R

LDC #: 49684A96

VALIDATION FINDINGS WORKSHEET
LCS Results Verification

Reviewer: SC

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control duplicate were recalculated for the compounds identified below using the following calculation:

SSC = (Area spike) (Conc IS) / (Area IS) (average RRF spike)
%Recovery = 100 * SSC/SA

Where:
SSC = Spiked concentration
SA = Spike added
LCS = Laboratory control spike recovery
LCSD = Laboratory control spike duplicate recovery

RPD = | LCS - LCSD | * 2/(LCS + LCSD)

LCS/LCSD ID: 6981810LCS

Compound	SA (ug/L)		SSC (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
PFOA	0.4800		0.5049		105	105				
PFOS	0.4800		0.5022		105	105				

Method: LC/MS/MS and Isotope Dilution Compliant with Table B-15 of DoD QSM 5.3

Compound results for all Level IV samples reported with a positive detect were recalculated and verified using the following equation:

$$\text{Concentration} = \frac{(Ax)\,(Vt)\,(Df)}{(RRF)\,(Vo)\,(\%S)}$$

Where:

Ax = Area or height of the peak for the compound to be measured
Ais = Area or height of the peak for the internal standard
Cis = Concentration of the internal standard
DF = Dilution factor
Vt = Volume of extract in milliters (mL)
RRF = Average relative response factor
Vo = Volume of sample in milliliters (mL)
Wt = Weight of sample in grams (g)

Sample #	Compound	Ax	Ais	Cis	DF	RRF	Vt (mL)	Vo (mL)	%S	Calculated Concentration (ug/L)	Reported Concentration (ug/L)	% Diff
14	PFOA	724	12152	100	1		3	125		0.0066	0.0066	
			y = mx + b									
			m	0.155262								
			b	0.01663								

INSTALLATION_ID	SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	SAMPLE_NAME	SAMPLE_MATRIX_DESC	SAMPLE_TYPE_DESC	COLLECT_DATE	ANALYTICAL_METHOD_GRP_DESC	SDG
NAVSTA TI	SITE 00006	06-MW25	Monitoring Well	6021164.38	2130489.47	06-MW25-0920	Groundwater	Normal (Regular)	21-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	06-MW26	Monitoring Well	6021167.06	2130576.16	06-MW26-0920	Groundwater	Normal (Regular)	21-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	06-MW30	Monitoring Well	6021164.04	2130315.21	06-MW30-0920	Groundwater	Normal (Regular)	21-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	06-MW31	Monitoring Well	6021361.5	2130320.31	06-MW31-0920	Groundwater	Normal (Regular)	21-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	06-MW31	Monitoring Well	6021361.5	2130320.31	06-MW31-0920 DUP	Groundwater	Field duplicate	21-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	06-MW32	Monitoring Well	6021359.03	2130646.04	06-MW32-0920	Groundwater	Normal (Regular)	21-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	06-MW33	Monitoring Well	6021251.13	2130701.09	06-MW33-0920	Groundwater	Normal (Regular)	21-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	06-MW34	Monitoring Well	6021541.46	2130591.53	06-MW34-0920	Groundwater	Normal (Regular)	21-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	06-MW35	Monitoring Well	6021429.59	2130616.91	06-MW35-0920	Groundwater	Normal (Regular)	21-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	06-MW36	Monitoring Well	6021421.91	2130432.23	06-MW36-0920	Groundwater	Normal (Regular)	21-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP01	Temporary Well	6021010.96	2130777.97	HP01	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP02	Temporary Well	6020970.75	2130649.42	HP02	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP03	Temporary Well	6021021.77	2130515.69	HP03	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP03	Temporary Well	6021021.77	2130515.69	HP03 DUP	Groundwater	Field duplicate	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP04	Temporary Well	6021082.96	2130313.17	HP04	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP05	Temporary Well	6021126.35	2130205.05	HP05	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP06	Temporary Well	6021302.22	2130139.16	HP06	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP07	Temporary Well	6021506.13	2130327.14	HP07	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP08	Temporary Well	6021570.61	2130435.76	HP08	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP08	Temporary Well	6021570.61	2130435.76	HP08 DUP	Groundwater	Field duplicate	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP09	Temporary Well	6021743.97	2130549.71	HP09	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP10	Temporary Well	6022064.84	2130357.79	HP10	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP11	Temporary Well	2130301.89	6021801.93	HP11	Groundwater	Normal (Regular)	22-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP12	Temporary Well	6021723.73	2130145.86	HP12	Groundwater	Normal (Regular)	23-Sep-20	Perfluoroalkyl Compounds	20I227
NAVSTA TI	SITE 00006	HP13	Temporary Well	6021684.04	2129973.02	HP13	Groundwater	Normal (Regular)	23-Sep-20	Perfluoroalkyl Compounds	20I227