Navy_CLEAN_PFAS_FOIA_request_covers.indd

NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Level 2 Laboratory Report, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG 18-0583

Naval Air Station Point Mugu
Point Mugu, California

July 2019

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15

AQ, GW

Batch 18-0583

Package DP-18-0288

Submitted to:
CH2M
1100 NE Circle Blvd Suite 300
Corvallis, OR 97330 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

BATTELLE
It can be done

CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15

AQ, GW

Batch 18-0583

Package DP-18-0288

Submitted to:
CH2M
1100 NE Circle Blvd Suite 300
Corvallis, OR 97330 USA

NELAP Accreditation Number: E87856 (Florida Department of Health)
DoD-ELAP Accreditation Number: 91667

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

Analyst Approval: schumitzd@battelle.org 2018.10.19 14:06:00 -04'00'

QC Chemist Approval: Digitally signed by devinec@battelle.org DN: cn=devinec@battelle.org Date: 2018.10.26 15:20:06 -04'00'

Project Manager Approval: Digitally signed by Jonathan Thorn Date: 2018.10.26 21:50:42 -04'00'

BATTELLE
It can be done

CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15

SD

Batch 18-0583

Package DP-18-0288

1	***Miscellaneous Documentation*** Case Narrative, Laboratory Accreditations.	1
2	***Chain of Custody Records*** Sample Receipt Records	11
3	***Tables*** Analytical Data Tables, Qualifier Definitions.	33

BATTELLE

It can be done

BATTELLE

Signature Page

Battelle 2018 (1 of 2)
Signature Page

Name (Printed)	Signature	Initials	Date
Jonathan Thorn		JRT	4/4/2018
Robert Lizotte, Jr.		BL	4.4.2018
FRANCO PALA			4-4-2018
Carla Devine		CRD	4/4/18
Denise Schumitz		DMS	4/4/18
Candace Penn McCoy		CPM	4/4/2018
Rich Rostucci		RR	4/4/2018
Michael Mehta			4/4/2018
Christie Usher		cu	4/4/18
Kevin McInerney			4/4/18
Stephanie Schultz		SAS	4/4/18
Jordan Tower		JCT	4/4/18
KRISTEN NICHOLS		KN	4/4/18
Clinton H Brown		CB	4/4/18
Matt Schumitz		MS	4-4-18
Sam Guimaraes		SG	4-4-18
Lauren Griffith			4.4.18

BATTELLE

Signature Page

Battelle 2018 (2 of 2)
Signature Page

Name (Printed)	Signature	Initials	Date
KAVITHA DASU		KD	04/04/18
Kayla Lamarre		KAL	04/04/18
Weidong Li		W.L	04/04/18
Tracy W Stenner		TWS	04/04/18
Ellyn M Fitch		EMF	12-April-2018
Gail DeRuzzo		GD	4/18/18
Zachary Willenberg		ZJW	4/20/18

Sample Summary

Client: CH2M
SDG: 18-0583
Project/Site: Naval Base Ventura County
CTO: 4164

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR890PB-FS	Procedural Blank	WATER	10/1/2018	10/1/2018
CR891LCS-FS	Laboratory Control Sample	WATER	10/1/2018	10/1/2018
J8358-FS	VC-PM323-DW01-0918	GW	9/24/2018	9/27/2018
J8359-FS	VC-PM323-DW03-0918	GW	9/24/2018	9/27/2018
J8368-FS	VC-SO-FB05-092418	AQ	9/24/2018	9/27/2018
J8369-FS	VC-SO-EB05-092418	AQ	9/24/2018	9/27/2018
J8370-FS	VC-PM324-DW01-0918	GW	9/24/2018	9/27/2018
J8371-FS	VC-PM324-DW01P-0918	GW	9/24/2018	9/27/2018
J8372-FS	VC-PM324-DW03-0918	GW	9/24/2018	9/27/2018
J8382-FS	VC-PM64B-DW01-0918	GW	9/24/2018	9/27/2018
J8383-FS	VC-PM64B-DW02-0918	GW	9/24/2018	9/27/2018
J8384-FS	VC-PM64B-DW03-0918	GW	9/24/2018	9/27/2018
J8385-FS	VC-PM64B-DW03P-0918	GW	9/24/2018	9/27/2018
J8395-FS	VC-HS09-DW01-0918	GW	9/25/2018	9/27/2018
J8396-FS	VC-HS09-DW02-0918	GW	9/25/2018	9/27/2018
J8397-FS	VC-HS09-DW03-0918	GW	9/25/2018	9/27/2018
J8398-FS	VC-AQ-FB-092518	AQ	9/25/2018	9/27/2018
J8399-FS	VC-AQ-EB-092518	AQ	9/25/2018	9/27/2018
J8400-FS	VC-HS09-DW03P-0918	GW	9/25/2018	9/27/2018

Miscellaneous Documentation

BATTELLE
It can be done

QA/QC Summary
Batch 18-0583

Project:	CTO-4164 Naval Base Ventura County, California
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	GW and AQ
Data Set:	DP-18-0288
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
9/24-25/2018	9/27/2018	0.2 and 0.9
Corrective Actions	Some samples differed from COC to sample containers. Client provided updated client ID information via email that was included with the sample custody records.	
Sample Storage	The water samples were stored refrigerated until extraction.	
Related samples	NA	

	METHOD SUMMARIES
Sample Preparation	Water samples were spiked with surrogates in the original sample container from the field. The water was extracted using a weak ion exchange solid phase extraction (SPE) cartridge and eluted from the SPE with 0.4% NH_3 in methanol. Extracts were concentrated to dryness under nitrogen with a water bath set between 35 °C and 45 °C, reconstituted with 80:20 methanol/water (V/V) and fortified with internal standard. Extracts were transferred for LC-MS/MS analysis.
Prep comments	All samples were pre-screened prior to initial extraction. Based on the concentrations detected in the pre-screening results and a discussion with the CH2M Project Chemist, the following samples used a reduced volume for extraction to avoid contamination of the laboratory and the instrument: J8358-FS (VC-PM323-DW01-0918) J8359-FS (VC-PM323-DW03-0918) J8370-FS (VC-PM324-DW01-0918) J8371-FS (VC-PM324-DW01P-0918) J8372-FS (VC-PM324-DW03-0918) J8383-FS (VC-PM64B-DW02-0918) J8384-FS (VC-PM64B-DW03-0918) J8385-FS (VC-PM64B-DW03P-0918)
Analysis	PFAS were measured by liquid chromatography tandem mass spectrometry (LC-MS/MS) in the multiple reaction monitoring (MRM). An initial calibration consisting of representative target analytes, labelled analogs, and internal standards was analyzed prior to analysis to demonstrate the linear range of analysis. Calibration verification was performed at the beginning and end of 10 injections and at the end of each sequence. Target PFAS were quantified using the isotope dilution method. Samples are reported in ng/L concentrations.
Analysis Comments	Samples analyzed on Sciex 5500 LC-MS/MS.

QA/QC Summary
Batch 18-0583

	The ion ratio for PFHpA in sample J8397-FS (VC-HS09-DW03-0918) and PFOA in sample J8359-FS (VC-PM323-DW03-0918) was above the 50% RPD criteria. When detected, PFHxS and PFOS contain both linear and branched isomers. In cases were native PFAS compounds were reported from dilutions (above calibration in non-diluted extracts), the extracted internal standard (surrogate) used to quantify the native compound was also reported from the dilution.

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/1/2018	10/14-15, 17, and 19/2018

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
≤ ½ the LOQ Samples >10x PB	One exceedance noted.
	PFOA in samples J8369-FS (VC-SO-EB05-092418) is B qualified as the result detected is less than 10x the amount detected in the blank. The PB passes criteria at 0.97 ng/L.

Laboratory Control Spike (LCS)	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery	No exceedances noted.
	No comments.

Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A MS/MSD was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery and <30% RPD	An MS/MSD was not prepared with this batch.
	No comments.

Extracted Internal Standard Analytes	Labelled analog compounds were added prior to extraction. The recoveries are calculated to measure extraction efficiency.
50-150% of true value	No exceedances noted.
	No comments.

QA/QC Summary
Batch 18-0583

Internal Standard Analytes	Labelled analog compounds were added prior to analysis.
+/- 50% of the area of the L5 calibration point.	No exceedances noted.
	There are several instances where 13C2-PFOA and 13C4-PFOS would fail IS area criteria. These failures are due to the amount of native PFOA and PFOS found in the samples interfering with the internal standards in the non-diluted extracts. In these cases, the extracted internal standards that would use these two internal standards are reported from a dilution to mitigate the interferences from the high concentrations in the non-diluted samples. No data is reported from extracts where the IS areas would have failed criteria. Two extracts exhibited areas outside of acceptable limits, extract J8384-FS-D(5) and J8358-FS(0). A fresh aliquot of each extract was analyzed with passing results. The original results can be found in the unused data section of the full data package.

Initial Calibration (ICAL)	The LC-MS/MS was calibrated with multi-level calibration curve for all compounds using linear or quadradic curve fitting.
+/- 30% of true value, $R^2 \geq 0.99$	No exceedances noted.
	No comments.

Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
+/- 30% of true value	No exceedances noted.
	No comments.

Continuing Calibration Verification (CCV)	Continuing calibration standards were run at the beginning and end of 10 injections and at the end of the sequence to ensure that initial calibration is still valid.
+/- 30% of true value	No exceedances noted.
	No comments.

Instrument Blank (IB)	Immediately following the highest standard analyzed and daily prior to sample analysis.
≤ ½ the LOQ	No exceedances noted.
	No comments.

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project Number: 100110125-01
Preparation Batch: 18-0583
Data Set: DP-18-0288
Test Code: Master_369

QC Parameter:	Exceed:	Justification:
Procedural Blank	0	None
PB Measurement Quality Objective	1	PFOA is B qualified in the J8369 because the response is <10x that of the PB. A fresh aliquot of the PB was run against a fresh calibration with the same results. The original run is being reported and the rerun raw data can be found in the unused data section of this data package. DMS 10/23/2018
Laboratory Control Sample	0	None
Matrix Spike / Matrix Spike Duplicate Recovery	NA	NA
Matrix Spike / Matrix Spike Duplicate Precision	NA	NA
Extracted Internal Standard Analytes (Surrogates)	0	None
Instrument Calibration	0	None
Instrument Blank	0	None
Independent Calibration Check	0	None
Continuing Calibration Verification	0	None

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-4164 Naval Base Ventura County,	**Data Set Number:**	DP-18-0288
Project Number:	100110125-01	**Prep Batch Number:**	18-0583
Entered By:	Denise Schumitz	**Entered On:**	10/23/2018
Test Code (Matrix Type):	Master_369(L)		

Samples that were manually integrated are noted on the quant reports with the comment (TRUE). DMS 10/23/2018

J8384-FS-D(5) and J8358-FS(0) did not meet the passing criteria for all injected internal standard areas. A fresh aliquot of each sample was taken and run, with passing results. The original raw data for these samples can be found in the unused data section of this data package.
DMS 10/23/2018

In cases were native PFAS compounds were reported from dilutions (above calibration in non-diluted extracts), the extracted internal standard (surrogate) used to quantify the native compound was also reported from the dilution.
DMS 10/23/2018

There are forty two instances of extracted internal standards (surrogates) that would fall 50%-150% recovery criteria if reported from the non-diluted extract. This is due to the higher levels of native PFOA and PFOS found in the samples interfering with the 13C2-PFOA and 13C4-PFOS internal standards used to quantify the surrogates. In these cases, the surrogates are reported from dilutions, however, the native compounds are reported from the non-diluted extracts as the interferences are with the internal standards and not the surrogates used to quantify the native compounds.
DMS 10/23/2018

Task Leader Approval:

SupervisorApproval:

PM Approval:



Digitally signed by Jonathan Thorn
Date: 2018.10.24 09:00:00 -04'00'

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batch: 18-0583
Data Set: DP-18-0288

		CR890PB-FS (Procedural Blank)	CR891LCS-FS (Laboratory Control Sample)	J8358-FS (VC-PM323-DW01-0918)	J8359-FS (VC-PM323-DW03-0918)	J8368-FS (VC-SO-FB05-092418)	J8369-FS (VC-SO-EB05-092418)
PFHxA	307-24-4	-	L	L	L	-	L
PFHpA	375-85-9	-	L	L	L	-	L
PFOA	335-67-1	-	L	L	L	-	L
PFNA	375-95-1	-	L	L	-	-	-
PFDA	335-76-2	-	L	-	-	-	-
PFUnA	2058-94-8	-	L	-	-	-	-
PFDoA	307-55-1	-	L	-	-	-	-
PFTrDA	72629-94-8	-	L	-	-	-	-
PFTeDA	376-06-7	-	L	-	-	-	-
NMeFOSAA	2355-31-9	-	L	-	-	-	-
NEtFOSAA	2991-50-6	-	L	-	-	-	-
PFBS	375-73-5	-	L	L	L	-	L
PFHxS	355-46-4	-	L/Br	L/Br	L/Br	-	L/Br
PFOS	1763-23-1	-	L/Br	L/Br	L/Br	-	L/Br

"L" :Linear
"Br": branched
"L/Br": Linear/Branched
"-": Not detected

BATTE
It can

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batcl
Data Set: DP-18-

	J8370-FS (VC-PM324-DW01-0918)	J8371-FS (VC-PM324-DW01P-0918)	J8372-FS (VC-PM324-DW03-0918)	J8382-FS (VC-PM64B-DW01-0918)	J8383-FS (VC-PM64B-DW02-0918)	J8384-FS (VC-PM64B-DW03-0918)	J8385-FS (VC-PM64B-DW03P-0918)	J8395-FS (VC-HS09-DW01-0918)
PFHxA	L	L	L	L	L	L	L	L
PFHpA	L	L	L	L	L	L	L	L
PFOA	L	L	L	L	L	L	L	L
PFNA	-	-	-	-	L	L	L	L
PFDA	-	-	-	-	L	-	-	-
PFUnA	-	-	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-	-	-
PFTrDA	-	-	-	-	-	-	-	-
PFTeDA	-	-	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-	-	-
PFBS	L	L	L	L	L	L	L	L
PFHxS	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br
PFOS	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br

"L" :Linear
"Br": branched
"L/Br": Linear/Bra
"-": Not detected

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batch
Data Set: DP-18-

	J8396-FS (VC-HS09-DW02-0918)	J8397-FS (VC-HS09-DW03-0918)	J8398-FS (VC-AQ-FB-092518)	J8399-FS (VC-AQ-EB-092518)	J8400-FS (VC-HS09-DW03P-0918)
PFHxA	L	L	-	-	L
PFHpA	L	L	-	-	L
PFOA	L	L	-	-	L
PFNA	L	L	-	-	-
PFDA	L	-	-	-	-
PFUnA	-	-	-	-	-
PFDoA	-	-	-	-	-
PFTrDA	-	-	-	-	-
PFTeDA	-	-	-	-	-
NMeFOSAA	-	-	-	-	-
NEtFOSAA	-	-	-	-	-
PFBS	L	L	-	-	L
PFHxS	L/Br	L/Br	-	-	L/Br
PFOS	L/Br	L/Br	-	-	L/Br

"L" :Linear
"Br": branched
"L/Br": Linear/Bra
"-": Not detected

ACCREDITATIONS

Accrediting Authority	Laboratory ID
U.S. Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP)	91667
State of Florida Department of Health	E87856
State of New York Department of Health	12105
Commonwealth of Pennsylvania Department of Environmental Protection	68-05687
State of Washington Department of Ecology	C1050
State of California	3045
Commonwealth of Massachusetts	E87856

Current certificates and lists of accredited parameters are available upon request.

Custody Records

Sample Receipt Form

Approved: ☑ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Thursday, September 27, 2018 10:30 AM

No. of Shipping Containers: 2

SHIPMENT

Method of Delivery: Commercial Carrier **Tracking Number:** Fed Ex

COC Forms: ☑ **Shipped with samples** ☐ **No Forms**

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smps
1 of 2	Cooler	782963465419	Custody Seals	Intact	Intact	Therm_1	0.2	17
2 of 2	Cooler	782963465420	Custody Seals	Intact	Intact	Therm_1	0.9	43

Samples

Sample Labels:
☑ Sample labels agree with COC forms
☐ Discrepancies (see Sample Custody Corrective Action Form)

Container Seals:
☐ Tape ☐ Custody Seals ☐ Other Seals (See sample Log)
☑ Seals intact for each shipping container
☐ Seals broken (See sample log for impacted samples)

Condition of Samples:
☑ Sample containers intact
☐ Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 0.9 Temperature Blank used ☑ Yes ☐ No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: ☐ Yes ☐ No ☑ Unknown

Initial pH 5-9?: ☐ Yes ☐ No ☑ NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: ☐ Yes ☐ No ☑ NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: ☐ Yes ☐ No ☑ NA
Individual sample deviations noted on sample log

Samples Containers:
Samples returned in PC-grade jars: ☐ Yes ☐ No ☑ Unknown /Lot No.: Unknown

Storage Location: Custody: Refrigerator - R0119 (NA) **BDO IDs Assigned:** J8352 - J8411

Samples logged in by: Schumitz, Matt **Date/Time:** 09/27/2018 10:30 AM

Approved By: Fitch, Ellyn **Approved On:** 10/8/2018 8:44:00 AM

Authorized By: **Authorized On:**

BATTELLE
It can be done

ShpNo: SHP-180927-02

Battelle Project No: 0110125-01

Report Corrective Actions

Corrective Action No: 1 **of** 1

Authorized ☐ **Approved:** ☐

COC Client: CH2M

COC Project: NBVC Basewide SI

COC Date: 9/27/2018 8:37:0

BATTELLE
It can be done

ShpNo: SHP-180927-02

Battelle Project No: 0110125-01

Report Corrective Actions

Corrective Action No: 1 **of** 1

Authorized ☐ Approved: ☐

	Description of Problem:	Explanation:
Client Id	Jars and C-O-C do not have matching Ids	VC-SO-FB05-092418 has 1 bottle that matches the COC and the 1 bottle labelled as VC-AQ-FB05-092418
	Jars and C-O-C do not have matching Ids	VC-SO-EB05-092418 has 1 bottle that matches that ID and the 1 bottle labelled as VC-AQ-EB05-092418
	Jars and C-O-C do not have matching Ids	VC-AQ-FB-092518 and VC-AQ-EB-092518 contain "06" after the FB and EB on the sample labels.
	Jars and C-O-C do not have matching Ids	The last COC has 6 samples that don't match from COC to sample labels. COC Label VC-AOC16-SB01-0918 VC-AOC16-SB01-0102 VC-AOC16-SB01-0918 VC-AOC16-SB01-0506 VC-AOC16-SB02-0918 VC-AOC16-SB02-0102 VC-AOC16-SB02-0918 VC-AOC16-SB02-0506 VC-AOC16-SB03-0918 VC-AOC16-SB03-0102 VC-AOC16-SB03-0918 VC-AOC16-SB03-0506
	Jars and C-O-C do not have matching Ids	Sample VC-PM324-SB03-0102-MSD does not have 0102 listed on the sample label.
	Jars and C-O-C do not have matching Ids	The EB and FB samples do not match COC to Bottle: COC VC-SO-FB05-092418 (J8368) VC-SO-EB05-092418 (J8369) VC-AQ-FB-092518 (J8398) VC-AQ-EB-092518 (J8399) Labels 1 bottle: VC-SO-FB05-092418, 1 bottle: VC-AQ-FB05-092418 (J8368) 1 bottle: VC-SO-EB05-092418, 1 bottle: VC-AQ-EB05-092418 (J8369) VC-SO-FB06-092518 (J8398) VC-SO-EB06-092518 (J8399)

Documentation of project manager notification

Sample Custodian	Schumitz, Matt	**Date:**	9/27/2018 2:24:00 PM
Laboratory Manager:	Thorn, Jonathan	**Date:**	10/5/2018 11:01:00 A
Project Manager:	Thorn, Jonathan	**Date:**	10/5/2018 11:01:00 A

BATTELLE
It can be done

ShpNo: SHP-180927-02

Battelle Project No: 0110125-01

Report Corrective Actions

Corrective Action No: 1 **of** 1

Authorized ☐ Approved: ☐

Documentation of client notification (should be completed by project manager within 24 hrs):

On 27-Sep-18 **I contacted** Hill, Tiffany **at** CH2M

Results of communication with client (Describe any corrective action directed by the client):

Received clarification on all sample IDs from client. Email is included in the COC records.

Date this form was received back to the custodian: _____

Reference Number: _____

Fitch, Ellyn M

From: Schumitz, Matthew
Sent: Friday, October 05, 2018 7:31 AM
To: Thorn, Jonathan R
Cc: Fitch, Ellyn M
Subject: FW: SHP-180927-02 corrections

FYI

From: Hill, Tiffany/CVO <Tiffany.Hill@jacobs.com>
Sent: Thursday, October 04, 2018 4:54 PM
To: Schumitz, Matthew <SCHUMITZM@battelle.org>
Subject: RE: SHP-180927-02 corrections

Message received from outside the Battelle network. Carefully examine it before you open any links or attachments.

Hi Matthew,

The way you have it logged in now is correct. Sorry about my typo on the date collected.

Thanks,

Tiffany Hill | Jacobs | Chemist, ATEN-Global Environmental Solutions | 541.768.3109 direct | 541.908.3794 mobile | Tiffany.Hill@jacobs.com | www.jacobs.com

---

From: Schumitz, Matthew [mailto:SCHUMITZM@battelle.org]
Sent: Thursday, October 04, 2018 1:40 PM
To: Hill, Tiffany/CVO <Tiffany.Hill@jacobs.com>
Subject: [EXTERNAL] SHP-180927-02 corrections

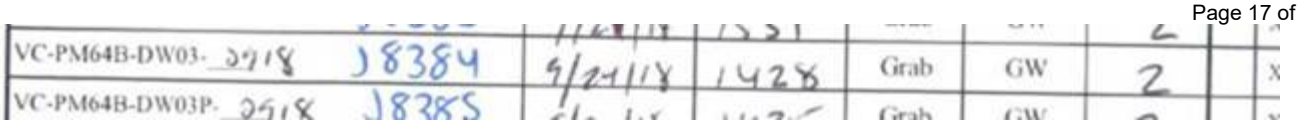
Hi Tiffany,

There has been some confusion with one of the corrections that you sent for us to make from the shipment we received on 9/27. See below I have snippets of your memo, the COC and our log in page.
The sample ID appears to correct across the board, but we do notice that the collection date is listed as 9/25/18 on your memo, should we change that to reflect that date?

If it would be easier we can have a quick chat or however you think is best to handle this.

Thanks

	Login	Correct Sample ID	Collected	Collected	SDG
J8384	VC-PM64B-DW02-0918	VC-PM64B-DW03-0918	9/25/18	14:28	SHP-180927-02



J8384	VC-PM64B-DW03-0918	09/24/18 14:28

Matthew Schumitz
Technician - Sample Custodian
Analytical Chemistry Services
Office: 781.681.5588
schumitzm@battelle.org

Battelle
141 Longwater Dr.
Suite 202
Norwell, MA 02061
http://www.battelle.org

Connect with Battelle
Facebook | LinkedIn
Twitter | YouTube

This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and/or otherwise exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, any disclosure, dissemination, distribution, copying or other use of this communication or its substance is prohibited. If you have received this communication in error, please return to the sender and delete from your computer system.

NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.

MEMORANDUM CH2MHILL

Corrections to COCs

TO: Jonathan Thorn, Battelle

COPIES: File
Laboratory Package SDG: SHP 180927-02

FROM: Tiffany Hill
Project Chemist

DATE: October 1, 2018

This memo is to document corrections made to entries on the Chains of Custody (COC) and Logins for NB Ventura County, CTO-4164.

The corrections include changes to the sample IDs on the COC and Login:

Battelle ID	Sample ID on Login	Correct Sample ID	Date Collected	Time Collected	SDG
J8384	VC-PM64B-DW02-0918	VC-PM64B-DW03-0918	9/25/18	14:28	SHP-180927-02
J8404	VC-AOC16-SB01-0918	VC-AOC16-SB01-0102	9/25/18	9:43	SHP-180927-02
J8405	VC-AOC16-SB01-0918	VC-AOC16-SB01-0506	9/25/18	9:57	SHP-180927-02
J8407	VC-AOC16-SB02-0918	VC-AOC16-SB02-0102	9/25/18	10:06	SHP-180927-02
J8408	VC-AOC16-SB02-0918	VC-AOC16-SB02-0506	9/25/18	10:10	SHP-180927-02
J8410	VC-AOC16-SB03-0918	VC-AOC16-SB03-0102	9/25/18	9:44	SHP-180927-02
J8411	VC-AOC16-SB03-0918	VC-AOC16-SB03-0506	9/25/18	9:53	SHP-180927-02

BATTELLE
It can be done

ShpNo SHP-180927-02

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☑ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Thursday, September 27, 2018 10:30 AM

No. of Shipping Containers: 2

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8352	VC-PM323-SS01-000H	09/24/18 9:52	09/27/18 8:42	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8353	VC-PM323-SB01-0102	09/24/18 9:53	09/27/18 8:42	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8354	VC-PM323-SB01-0506	09/24/18 10:01	09/27/18 8:43	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8355	VC-PM323-SS03-000H	09/24/18 9:20	09/27/18 8:43	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8356	VC-PM323-SB03-0102	09/24/18 9:23	09/27/18 8:43	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8357	VC-PM323-SB03-0506	09/24/18 10:30	09/27/18 8:44	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8358	VC-PM323-DW01-0918	09/24/18 10:21	09/27/18 8:44	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8359	VC-PM323-DW03-0918	09/24/18 11:10	09/27/18 8:45	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8360	VC-PM324-SS01-000H	09/24/18 13:08	09/27/18 9:13	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8361	VC-PM324-SB01-0102	09/24/18 13:11	09/27/18 9:13	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8362	VC-PM324-SB01-0506	09/24/18 13:30	09/27/18 9:14	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8363	VC-PM324-SS03-000H	09/24/18 10:49	09/27/18 9:15	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8364	VC-PM324-SB03-0102	09/24/18 10:50	09/27/18 9:15	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8365	VC-PM324-SB03-0506	09/24/18 11:02	09/27/18 9:16	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8366	VC-PM324-SB03-0102-MS	09/24/18 10:50	09/27/18 9:16	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8367	VC-PM324-SB03-0102-MSD	09/24/18 10:50	09/27/18 9:17	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8368	VC-SO-FB05-092418	09/24/18 13:30	09/27/18 9:17	2	AQ	0.2	NA	NA	NA	R0119 (NA)			
J8369	VC-SO-EB05-092418	09/24/18 13:30	09/27/18 9:18	2	AQ	0.2	NA	NA	NA	R0119 (NA)			
J8370	VC-PM324-DW01-0918	09/24/18 13:45	09/27/18 9:19	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8371	VC-PM324-DW01P-0918	09/24/18 14:02	09/27/18 9:19	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8372	VC-PM324-DW03-0918	09/24/18 11:15	09/27/18 9:20	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8373	VC-PM64B-SS01-000H	09/24/18 14:34	09/27/18 9:21	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8374	VC-PM64B-SB01-0102	09/24/18 14:38	09/27/18 9:22	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8375	VC-PM64B-SB01-0506	09/24/18 14:50	09/27/18 9:22	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8376	VC-PM64B-SS02-000H	09/24/18 15:02	09/27/18 9:23	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8377	VC-PM64B-SB02-0102	09/24/18 15:03	09/27/18 9:23	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8378	VC-PM64B-SB02-0506	09/24/18 15:16	09/27/18 9:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8379	VC-PM64B-SS03-000H	09/24/18 13:52	09/27/18 9:24	1	SS	0.9	NA	NA	NA	R0119 (NA)			

BATTELLE
It can be done

ShpNo SHP-180927-02

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☑ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Thursday, September 27, 2018 10:30 AM

No. of Shipping Containers: 2

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8380	VC-PM64B-SB03-0102	09/24/18 13:53	09/27/18 9:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8381	VC-PM64B-SB03-0506	09/24/18 14:13	09/27/18 9:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8382	VC-PM64B-DW01-0918	09/24/18 15:00	09/27/18 9:25	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8383	VC-PM64B-DW02-0918	09/24/18 15:31	09/27/18 9:26	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8384	VC-PM64B-DW03-0918	09/24/18 14:28	09/27/18 9:26	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8385	VC-PM64B-DW03P-0918	09/24/18 14:35	09/27/18 9:26	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8386	VC-HS09-SB01-0102	09/25/18 13:21	09/27/18 9:27	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8387	VC-HS09-SB01-0506	09/25/18 14:04	09/27/18 9:28	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8388	VC-HS09-SB02-0102	09/25/18 14:39	09/27/18 9:28	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8389	VC-HS09-SB02-0506	09/25/18 14:47	09/27/18 9:29	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8390	VC-HS09-SS03-000H	09/25/18 12:54	09/27/18 9:29	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8391	VC-HS09-SB03-0102	09/25/18 12:55	09/27/18 9:29	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8392	VC-HS09-SB03-0506	09/25/18 13:05	09/27/18 9:30	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8393	VC-HS09-SB03-0506-MS	09/25/18 13:05	09/27/18 9:30	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8394	VC-HS09-SB03-0506-MSD	09/25/18 13:05	09/27/18 9:30	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8395	VC-HS09-DW01-0918	09/25/18 14:25	09/27/18 9:31	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8396	VC-HS09-DW02-0918	09/25/18 15:03	09/27/18 9:31	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8397	VC-HS09-DW03-0918	09/25/18 13:19	09/27/18 9:31	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8398	VC-AQ-FB-092518	09/25/18 14:35	09/27/18 9:32	2	AQ	0.2	NA	NA	NA	R0119 (NA)			
J8399	VC-AQ-EB-092518	09/25/18 14:30	09/27/18 9:32	2	AQ	0.2	NA	NA	NA	R0119 (NA)			
J8400	VC-HS09-DW03P-0918	09/25/18 13:56	09/27/18 9:33	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8401	VC-HS09-SS01-000H	09/25/18 13:20	09/27/18 9:33	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8402	VC-HS09-SS02-000H	09/25/18 14:35	09/27/18 9:34	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8403	VC-AOC16-SS01-000H	09/25/18 9:43	09/27/18 9:35	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8404	VC-AOC16-SB01-0102	09/25/18 9:43	09/27/18 9:35	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8405	VC-AOC16-SB01-0506	09/25/18 9:57	09/27/18 9:35	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8406	VC-AOC16-SS02-000H	09/25/18 10:05	09/27/18 9:36	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8407	VC-AOC16-SB02-0102	09/25/18 10:06	09/27/18 9:37	1	SB	0.9	NA	NA	NA	R0119 (NA)			

BATTELLE
It can be done

ShpNo SHP-180927-02

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☑ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Thursday, September 27, 2018 10:30 AM

No. of Shipping Containers: 2

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8408	VC-AOC16-SB02-0506	09/25/18 10:10	09/27/18 9:37	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8409	VC-AOC16-SS03-000H	09/25/18 9:43	09/27/18 9:37	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8410	VC-AOC16-SB03-0102	09/25/18 9:44	09/27/18 9:38	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8411	VC-AOC16-SB03-0506	09/25/18 9:53	09/27/18 9:38	1	SB	0.9	NA	NA	NA	R0119 (NA)			

Total Samples: 60

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 3
Project Name: NBVC Basewide SI	Normal X Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 1 of 10
Project No.: 675803	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM323-SS01-000H J8352	9/24/18	0952	Grab	SS	1	X
VC-PM323-SB01-0102 J8353	9/24/18	0953	Grab	SB	1	X
VC-PM323-SB01-0506 J8354	9/24/18	1001	Grab	SB	1	X
~~VC-PM323-SS02-000H~~			Grab	SS		X
~~VC-PM323-SB02-___~~			Grab	SB		X
~~VC-PM323-SB02-___~~			Grab	SB		X
VC-PM323-SS03-000H J8355	9/24/18	0920	Grab	SS	1	X
VC-PM323-SB03-0102 J8356	9/24/18	0923	Grab	SB	1	X
VC-PM323-SB03-0506 J8357	9/24/18	1030	Grab	SB	1	X
~~VC-PM323-S-___-___-MS~~			Grab			X
~~VC-PM323-S-___-___-SD~~			Grab			X
~~FDT-SO-FB-___-___~~			Grab	AQ		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Victoria Kilbert	Jacobs	9/26/18 1400	[signature]	Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-577-8628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 3
Project Name: NBVC Basewide SI	Normal ☒ Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 2 of 10
Project No.: 695803	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: PFAS by Method 537 Mod
VC-PM323-DW01-0918 18358	9/24/18	1021	Grab	GW	1	X
~~VC-PM323-DW02~~			Grab	GW		X
~~VC-PM323-DW02P~~			Grab	GW		X
VC-PM323-DW03-0918 18359	9/24/18	1110	Grab	GW	2	X
~~FDT-AQ-FB~~			Grab	AQ		X
~~FDT-AQ-EB~~			Grab	AQ		X

VID

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/26/18 1400	MY	Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information
Tiffany Hill
1100 NE Circle Blvd, Suite 300
Corvallis, OR
97330

Project Manager: Eric Davis
Sampler Information (print name): V. Kilbert
Phone: 724-977-3628
Email: victor.r.kilbert@jacobs.com
Turnaround Time (TAT) Requested:
Normal ☒
Priority ☐
RUSH ☐
Time Zone: PST

Project Name: NBVC Basewide SI
Project No.: 695803

Sampling Site: PM324

Site Information:

COC # 3

Page# 3 of 10

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: Preservative NA	Analysis: PFAS by Method 537 Mod
VC-PM324-SS01-000H J8360	9/24/18	1308	Grab	SS	1		X
VC-PM324-SB01-0102 J8361	9/24/18	1311	Grab	SB	1		X
VC-PM324-SB01-0506 J8362	9/24/18	1330	Grab	SB	1		X
~~VC-PM324-SS02-000H~~			Grab	SS			X
~~VC-PM324-SB02-~~			Grab	SB			X
~~VC-PM324-SB02-~~			Grab	SB			X
VC-PM324-SS03-000H J8363	9/24/18	1049	Grab	SS	1		X
VC-PM324-SB03-0102 J8364	9/24/18	1050	Grab	SB	1		X
VC-PM324-SB03-0506 J8365	9/24/18	1102	Grab	SB	1		X
VC-PM324-SB03-0102-MS	9/24/18	1050	Grab	SB	1		X
VC-PM324-SB03-0102-MSD	9/24/18	1050	Grab	SB	1		X
~~FDT-SO-FB05~~-092418	9/24/18	1330	Grab	AQ	2		X

J8366 (VB)
J8367
J8368 VC

~~GW SCREEN~~

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/24/18 1400		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:		
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST		COC # 3 Page# 4 of 10

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Preservative: NA	Analysis: PFAS by Method 537 Mod	
~~FDT~~-SO-EB-05-092418 J8369	9/24/18	1330	Grab	AQ	2		X	on GW screen

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/24/18 1400		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:		
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST		COC # 3 Page# 5 of 10

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Preservative: NA	Analysis: PFAS by Method 537 Mod
VC-PM324-DW01-0918 J8370	9/24/18	1345	Grab	GW	2		X
VC-PM324-DW01P-0918 J8371	9/24/18	1402	Grab	GW	2		X
~~VC-PM324-DW02~~			~~Grab~~	~~GW~~			X
VC-PM324-DW03-0918 J8372	9/24/18	1115	Grab	GW	2		X
~~FDT-AQ-FB~~			Grab	AQ			X
~~FDT-AQ-EB~~			~~Grab~~	~~AQ~~			X

Receipt Temperature:(°C) | *Samples Intact: Yes - No* | *Samples on Ice: Yes - No* | *Receipt Comments:*

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/24/18 1400	M	Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM64B	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724 977 3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:		
Project Name: NBVC Basewide SI	Normal ☒ Priority ☐ RUSH ☐		COC # 3
Project No.: 695803	Time Zone: PST		Page# 6 of 10

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: PFAS by Method 537 Mod	Preservative: NA
VC-PM64B-SS01-000H J8373	9/24/18	1434	Grab	SS	1	X	
VC-PM64B-SB01-0102 J8374	9/24/18	1438	Grab	SB	1	X	
VC-PM64B-SB01-0506 J8375	9/24/18	1450	Grab	SB	1	X	
VC-PM64B-SS02-000H J8376	9/24/18	1502	Grab	SS	1	X	
VC-PM64B-SB02-0102 J8377	9/24/18	1503	Grab	SB	1	X	
VC-PM64B-SB02-0506 J8378	9/24/18	1516	Grab	SB	1	X	
VC-PM64B-SS03-000H J8379	9/24/18	1352	Grab	SS	1	X	
VC-PM64B-SB03-0102 J8380	9/24/18	1353	Grab	SB	1	X	
VC-PM64B-SB03-0506 J8381	9/24/18	1413	Grab	SB	1	X	
~~VC-PM64B-S MS~~			~~Grab~~			X	
~~VC-PM64B-S SD~~			~~Grab~~			X	
~~FDT-SO-FB~~			~~Grab~~	~~AQ~~		X	

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V Kilbert	Jacobs	9/26/18 1400		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM64B	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: Email: 724.977-3628 Turnaround Time (TAT) Requested:	Preservative: NA	COC #: 3
Project Name: NBVC Basewide SI	Normal ☒ Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page#: 7 of 10
Project No.: 695803	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: PFAS by Method 537 Mod
VC-PM64B-DW01-0918 J8382	9/24/18	1500	Grab	GW	2	X
VC-PM64B-DW02-0918 J8383	9/24/18	1531	Grab	GW	2	X
VC-PM64B-DW03-0918 J8384	9/24/18	1428	Grab	GW	2	X
VC-PM64B-DW03P-0918 J8385	9/24/18	1435	Grab	GW	2	X
~~FDT-AQ-EB~~			Grab	AQ		X
~~FDT-AQ-EB~~			Grab	AQ		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/26/18 1700		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: HS09	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email:	Preservative: NA	COC # 3
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal ☒ Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 8 of 10
Project No.: 695503	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-HS09-SB01-0102 J8386	9/25/18	1321	Grab	SB	1	X
VC-HS09-SB01-0506 J8387	9/25/18	1404	Grab	SB	1	X
VC-HS09-SB02-0102 J8388	9/25/18	1439	Grab	SB	1	X
VC-HS09-SB02-0506 J8389	9/25/18	1447	Grab	SB	1	X
VC-HS09-SS03-0004 J8390	9/25/18	1254	Grab	SS	1	X
VC-HS09-SB03-0102 J8391	9/25/18	1255	Grab	SB	1	X
VC-HS09-SB03-0506 J8392	9/25/18	1305	Grab	SB	1	X
J8393 VC-HS09-SB03-0506-MS	9/25/18	1305	Grab	SB	1	X
J8394 VC-HS09-SB03-0506-MSD	9/25/18	1305	Grab	SB	1	X
~~FDT-SO-FB~~			~~Grab~~	~~AQ~~		~~X~~
~~FDT-SO-EB~~			~~Grab~~	~~AQ~~		~~X~~

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/26/18 1400		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: HS09	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbut Phone: 724-977-3628 Email:	Preservative: NA	COC # 3
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal ☒ Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 9 of 10
Project No.: 695803	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
~~VC-S09GW01-___~~			~~Grab~~	~~GW~~		X
~~VC-S09GW04-___~~			~~Grab~~	~~GW~~		X
~~VC-S09GW04P-___~~			~~Grab~~	~~GW~~		X
VC-HS09-DW01-0918 J8395	9/25/18	1425	Grab	GW	2	X
VC-HS09-DW02-0918 J8396	9/25/18	1503	Grab	GW	2	X
VC-HS09-DW03-0918 J8397	9/25/18	1319	Grab	GW	2	X
VC-~~FDT~~-AQ-FB___-092518 J8398	9/25/18	1435	Grab	AQ	2	X
VC-~~FDT~~-AQ-EB___-092518 J8399	9/25/18	~~1350~~ 1439	Grab	AQ	2	X
J8400 VC-HS09-DW03P-0918	9/25/18	1356	Grab	GW	2	X
J8401 VC-HS09-SS01-000H	9/25/18	1320	Grab	SS	1	X
J8402 VC-HS09-SS02-000H	9/25/18	1435	Grab	SS	1	X
			~~Grab~~			

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V Kilbut	J. cobs	9/26/18 1400	NM	Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

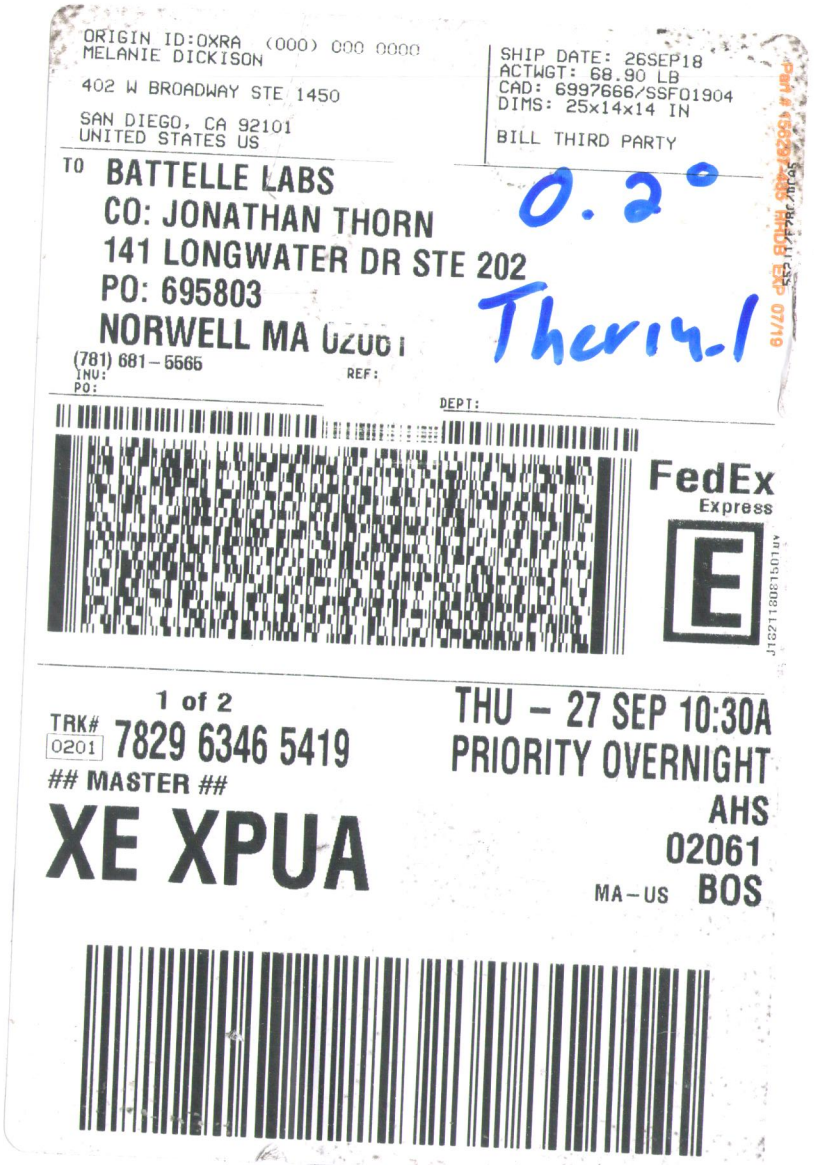
Client Contact Information	Project Manager: Eric Davis	Sampling Site: AOC 16	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email:	Preservative: NA	COC # 3
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested:	Analysis: PFAS by Method 537 Mod	Page# 10 of 10
Project No.: 695803	Normal X Priority ☐ RUSH ☐		
	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-AOC16-SS01-000H J8403	7/25/18	0943	Grab	SS	1	X
VC-AOC16-SB01-0918 J8404	7/25/18	0944	Grab	SB	1	X
VC-AOC16-SB01-0918 J8405	7/25/18	0957	Grab	SB	1	X
VC-AOC16-SS02-000H J8406	7/25/18	1005	Grab	SS	1	X
VC-AOC16-SB02-0918 J8407	7/25/18	1006	Grab	SB	1	X
VC-AOC16-SB02-0918 J8408	7/25/18	1010	Grab	SB	1	X
VC-AOC16-SS03-000H J8409	7/25/18	0943	Grab	SS	1	X
VC-AOC16-SB03-0918 J8410	7/25/18	0944	Grab	SB	1	X
VC-AOC16-SB03-0918 J8411	7/25/18	0953	Grab	SB	1	X
~~VC-AOC16-S - -MS~~			~~Grab~~			~~X~~
~~VC-AOC16-S - -SD~~			~~Grab~~			~~X~~
~~FDT-SO-EB~~			~~Grab~~	~~AQ~~		~~X~~

Receipt Temperature:(°C)	*Samples Intact: Yes - No*	*Samples on Ice: Yes - No*	*Receipt Comments:*

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	7/26/18 1400		Battelle	9-21-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:


ORIGIN ID:OXRA (000) 000 0000
MELANIE DICKISON
402 W BROADWAY STE 1450
SAN DIEGO, CA 92101
UNITED STATES US
SHIP DATE: 26SEP18
ACTWGT: 68.90 LB
CAD: 6997666/SSFO1904
DIMS: 25x14x14 IN
BILL THIRD PARTY
TO BATTELLE LABS
CO: JONATHAN THORN
141 LONGWATER DR STE 202
PO: 695803
NORWELL MA 02061
(781) 681-5565
INV:
PO:
REF:
DEPT:
0.2°
Therm_1
FedEx
Express
1 of 2
TRK# 0201 7829 6346 5419
MASTER
XE XPUA
THU - 27 SEP 10:30A
PRIORITY OVERNIGHT
AHS
02061
MA-US BOS


ORIGIN ID:OXRA (000) 000-0000
MELANIE DICKISON
402 W BROADWAY STE 1450
SAN DIEGO, CA 92101
UNITED STATES US
SHIP DATE: 26SEP18
ACTWGT: 58.30 LB
CAD: 6997666/SSFO1904
DIMS: 22x14x16 IN
BILL THIRD PARTY
TO BATTELLE LABS
CO: JONATHAN THORN
141 LONGWATER DR STE 202
PO: 695803
NORWELL MA 02061
(781) 681-5565
INV:
PO:
REF:
DEPT:
0.9°
Therm_1
FedEx
Express
2 of 2
MPS# 0263 7829 6346 5420
Mstr# 7829 6346 5419
0201
XE XPUA
THU - 27 SEP 10:30A
PRIORITY OVERNIGHT
AHS
02061
MA-US BOS

Data Tables

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM323-DW01-0918				
Battelle ID		J8358-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/14/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.002				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	98691.97	D	593.75	1562.50	15625.00
PFHpA	375-85-9	19268.22	D	200.00	625.00	6250.00
PFOA	335-67-1	78844.62	D	562.50	1562.50	15625.00
PFNA	375-95-1	3302.84		32.50	125.00	625.00
PFDA	335-76-2	142.55	J	20.00	62.50	625.00
PFUnA	2058-94-8	83.00	J	36.25	125.00	625.00
PFDoA	307-55-1	62.50	U	22.50	62.50	625.00
PFTrDA	72629-94-8	62.50	U	18.75	62.50	625.00
PFTeDA	376-06-7	125.00	U	31.25	125.00	625.00
NMeFOSAA	2355-31-9	250.00	U	70.00	250.00	625.00
NEtFOSAA	2991-50-6	125.00	U	61.25	125.00	625.00
PFBS	375-73-5	28789.50	D	162.50	625.00	6250.00
PFHxS	355-46-4	223525.26	D	343.75	1250.00	15625.00
PFOS	1763-23-1	2146745.62	D	5937.50	15625.00	156250.00

Surrogate Recoveries (%)

13C5-PFHxA	99	
13C4-PFHpA	94	
13C8-PFOA	71	
13C9-PFNA	99	D
13C6-PFDA	106	
13C7-PFUnA	112	D
13C2-PFDoA	96	D
13C2-PFTeDA	97	D
d3-MeFOSAA	108	D
d5-EtFOSAA	113	D
13C3-PFBS	101	D
13C3-PFHxS	101	D
13C8-PFOS	101	D

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM323-DW03-0918				
Battelle ID		J8359-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/14/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.105				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	2066.04	D	22.62	59.52	595.24
PFHpA	375-85-9	715.02	D	3.81	11.90	119.05
PFOA	335-67-1	606.57	D	4.29	11.90	119.05
PFNA	375-95-1	2.38	U	0.62	2.38	11.90
PFDA	335-76-2	1.19	U	0.38	1.19	11.90
PFUnA	2058-94-8	2.38	U	0.69	2.38	11.90
PFDoA	307-55-1	1.19	U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19	U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38	U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76	U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38	U	1.17	2.38	11.90
PFBS	375-73-5	1643.89	D	15.48	59.52	595.24
PFHxS	355-46-4	11395.49	D	65.48	238.10	2976.19
PFOS	1763-23-1	23.19		0.45	1.19	11.90

Surrogate Recoveries (%)

13C5-PFHxA	116
13C4-PFHpA	83
13C8-PFOA	87
13C9-PFNA	96
13C6-PFDA	112
13C7-PFUnA	116
13C2-PFDoA	106
13C2-PFTeDA	104
d3-MeFOSAA	91
d5-EtFOSAA	115
13C3-PFBS	127
13C3-PFHxS	87
13C8-PFOS	109

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-SO-FB05-092418			
Battelle ID		J8368-FS			
Sample Type		SA			
Collection Date		09/24/2018			
Extraction Date		10/01/2018			
Analysis Date		10/14/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		AQ			
Sample Size		0.275			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.45 U	0.17	0.45	4.55
PFHpA	375-85-9	0.45 U	0.15	0.45	4.55
PFOA	335-67-1	0.74 J	0.16	0.45	4.55
PFNA	375-95-1	0.91 U	0.24	0.91	4.55
PFDA	335-76-2	0.45 U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91 U	0.26	0.91	4.55
PFDoA	307-55-1	0.45 U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45 U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91 U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82 U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91 U	0.45	0.91	4.55
PFBS	375-73-5	0.45 U	0.12	0.45	4.55
PFHxS	355-46-4	0.36 U	0.10	0.36	4.55
PFOS	1763-23-1	0.26 J	0.17	0.45	4.55

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	95
13C8-PFOA	104
13C9-PFNA	97
13C6-PFDA	115
13C7-PFUnA	111
13C2-PFDoA	100
13C2-PFTeDA	100
d3-MeFOSAA	91
d5-EtFOSAA	111
13C3-PFBS	103
13C3-PFHxS	93
13C8-PFOS	98

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-SO-EB05-092418				
Battelle ID		J8369-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/14/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		AQ				
Sample Size		0.295				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	44.45		0.16	0.42	4.24
PFHpA	375-85-9	4.71		0.14	0.42	4.24
PFOA	335-67-1	8.19	B	0.15	0.42	4.24
PFNA	375-95-1	0.85	U	0.22	0.85	4.24
PFDA	335-76-2	0.42	U	0.14	0.42	4.24
PFUnA	2058-94-8	0.85	U	0.25	0.85	4.24
PFDoA	307-55-1	0.42	U	0.15	0.42	4.24
PFTrDA	72629-94-8	0.42	U	0.13	0.42	4.24
PFTeDA	376-06-7	0.85	U	0.21	0.85	4.24
NMeFOSAA	2355-31-9	1.69	U	0.47	1.69	4.24
NEtFOSAA	2991-50-6	0.85	U	0.42	0.85	4.24
PFBS	375-73-5	16.43		0.11	0.42	4.24
PFHxS	355-46-4	133.30	D	2.33	8.47	105.93
PFOS	1763-23-1	213.24	D	4.03	10.59	105.93

Surrogate Recoveries (%)

13C5-PFHxA	103
13C4-PFHpA	104
13C8-PFOA	102
13C9-PFNA	93
13C6-PFDA	103
13C7-PFUnA	96
13C2-PFDoA	95
13C2-PFTeDA	94
d3-MeFOSAA	121
d5-EtFOSAA	133
13C3-PFBS	146
13C3-PFHxS	116
13C8-PFOS	129

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM324-DW01-0918				
Battelle ID		J8370-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.026				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	5674.50	D	45.67	120.19	1201.92
PFHpA	375-85-9	1939.55	D	38.46	120.19	1201.92
PFOA	335-67-1	3234.14	D	43.27	120.19	1201.92
PFNA	375-95-1	25.08	J	2.50	9.62	48.08
PFDA	335-76-2	4.81	U	1.54	4.81	48.08
PFUnA	2058-94-8	9.62	U	2.79	9.62	48.08
PFDoA	307-55-1	4.81	U	1.73	4.81	48.08
PFTrDA	72629-94-8	4.81	U	1.44	4.81	48.08
PFTeDA	376-06-7	9.62	U	2.40	9.62	48.08
NMeFOSAA	2355-31-9	19.23	U	5.38	19.23	48.08
NEtFOSAA	2991-50-6	9.62	U	4.71	9.62	48.08
PFBS	375-73-5	3962.93	D	31.25	120.19	1201.92
PFHxS	355-46-4	31307.48	D	52.88	192.31	2403.85
PFOS	1763-23-1	8879.00	D	45.67	120.19	1201.92

Surrogate Recoveries (%)

13C5-PFHxA	130	
13C4-PFHpA	99	
13C8-PFOA	82	
13C9-PFNA	84	
13C6-PFDA	116	
13C7-PFUnA	121	
13C2-PFDoA	105	
13C2-PFTeDA	105	
d3-MeFOSAA	118	
d5-EtFOSAA	120	
13C3-PFBS	118	D
13C3-PFHxS	105	
13C8-PFOS	88	

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM324-DW01P-0918				
Battelle ID		J8371-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.026				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	5198.88	D	91.35	240.38	2403.85
PFHpA	375-85-9	2501.85	D	15.38	48.08	480.77
PFOA	335-67-1	2752.83	D	86.54	240.38	2403.85
PFNA	375-95-1	26.17	J	2.50	9.62	48.08
PFDA	335-76-2	4.81	U	1.54	4.81	48.08
PFUnA	2058-94-8	9.62	U	2.79	9.62	48.08
PFDoA	307-55-1	4.81	U	1.73	4.81	48.08
PFTrDA	72629-94-8	4.81	U	1.44	4.81	48.08
PFTeDA	376-06-7	9.62	U	2.40	9.62	48.08
NMeFOSAA	2355-31-9	19.23	U	5.38	19.23	48.08
NEtFOSAA	2991-50-6	9.62	U	4.71	9.62	48.08
PFBS	375-73-5	3728.11	D	62.50	240.38	2403.85
PFHxS	355-46-4	29104.43	D	105.77	384.62	4807.69
PFOS	1763-23-1	11017.63	D	91.35	240.38	2403.85

Surrogate Recoveries (%)

13C5-PFHxA	122	
13C4-PFHpA	95	
13C8-PFOA	85	
13C9-PFNA	75	
13C6-PFDA	113	
13C7-PFUnA	124	
13C2-PFDoA	104	
13C2-PFTeDA	108	
d3-MeFOSAA	133	
d5-EtFOSAA	101	D
13C3-PFBS	106	D
13C3-PFHxS	109	D
13C8-PFOS	109	D

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM324-DW03-0918			
Battelle ID		J8372-FS			
Sample Type		SA			
Collection Date		09/24/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.105			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	502.27 D	4.52	11.90	119.05
PFHpA	375-85-9	126.19	0.38	1.19	11.90
PFOA	335-67-1	229.72 D	4.29	11.90	119.05
PFNA	375-95-1	8.17 J	0.62	2.38	11.90
PFDA	335-76-2	1.17 J	0.38	1.19	11.90
PFUnA	2058-94-8	2.38 U	0.69	2.38	11.90
PFDoA	307-55-1	1.19 U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19 U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38 U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76 U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38 U	1.17	2.38	11.90
PFBS	375-73-5	168.44 D	3.10	11.90	119.05
PFHxS	355-46-4	1626.41 D	2.62	9.52	119.05
PFOS	1763-23-1	9041.91 D	28.27	74.40	744.05

Surrogate Recoveries (%)

13C5-PFHxA	140
13C4-PFHpA	126
13C8-PFOA	87
13C9-PFNA	58
13C6-PFDA	104
13C7-PFUnA	137
13C2-PFDoA	136
13C2-PFTeDA	127
d3-MeFOSAA	105 D
d5-EtFOSAA	126 D
13C3-PFBS	120 D
13C3-PFHxS	104 D
13C8-PFOS	110 D

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW01-0918			
Battelle ID		J8382-FS			
Sample Type		SA			
Collection Date		09/24/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.265			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	99.23 D	2.99	7.86	78.62
PFHpA	375-85-9	27.30	0.15	0.47	4.72
PFOA	335-67-1	58.43	0.17	0.47	4.72
PFNA	375-95-1	2.94 J	0.25	0.94	4.72
PFDA	335-76-2	0.40 J	0.15	0.47	4.72
PFUnA	2058-94-8	0.94 U	0.27	0.94	4.72
PFDoA	307-55-1	0.47 U	0.17	0.47	4.72
PFTrDA	72629-94-8	0.47 U	0.14	0.47	4.72
PFTeDA	376-06-7	0.94 U	0.24	0.94	4.72
NMeFOSAA	2355-31-9	1.89 U	0.53	1.89	4.72
NEtFOSAA	2991-50-6	0.94 U	0.46	0.94	4.72
PFBS	375-73-5	32.30	0.12	0.47	4.72
PFHxS	355-46-4	720.19 D	1.73	6.29	78.62
PFOS	1763-23-1	715.75 D	2.99	7.86	78.62

Surrogate Recoveries (%)

13C5-PFHxA	118
13C4-PFHpA	121
13C8-PFOA	97
13C9-PFNA	92
13C6-PFDA	107
13C7-PFUnA	132
13C2-PFDoA	122
13C2-PFTeDA	115
d3-MeFOSAA	96 D
d5-EtFOSAA	112 D
13C3-PFBS	100
13C3-PFHxS	96 D
13C8-PFOS	104

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW02-0918				
Battelle ID		J8383-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.105				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	812.74	D	4.52	11.90	119.05
PFHpA	375-85-9	199.04	D	3.81	11.90	119.05
PFOA	335-67-1	252.73	D	4.29	11.90	119.05
PFNA	375-95-1	150.59		0.62	2.38	11.90
PFDA	335-76-2	16.06		0.38	1.19	11.90
PFUnA	2058-94-8	2.38	U	0.69	2.38	11.90
PFDoA	307-55-1	1.19	U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19	U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38	U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76	U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38	U	1.17	2.38	11.90
PFBS	375-73-5	284.18	D	3.10	11.90	119.05
PFHxS	355-46-4	2491.69	D	13.10	47.62	595.24
PFOS	1763-23-1	7307.48	D	22.62	59.52	595.24

Surrogate Recoveries (%)

13C5-PFHxA	148	
13C4-PFHpA	140	
13C8-PFOA	94	
13C9-PFNA	59	
13C6-PFDA	102	
13C7-PFUnA	119	
13C2-PFDoA	112	
13C2-PFTeDA	106	
d3-MeFOSAA	102	D
d5-EtFOSAA	113	D
13C3-PFBS	115	D
13C3-PFHxS	99	D
13C8-PFOS	94	D

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW03-0918				
Battelle ID		J8384-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.105				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	1636.80	D	11.31	29.76	297.62
PFHpA	375-85-9	331.94	D	3.81	11.90	119.05
PFOA	335-67-1	580.04	D	4.29	11.90	119.05
PFNA	375-95-1	21.12		0.62	2.38	11.90
PFDA	335-76-2	0.55	J	0.38	1.19	11.90
PFUnA	2058-94-8	2.38	U	0.69	2.38	11.90
PFDoA	307-55-1	1.19	U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19	U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38	U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76	U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38	U	1.17	2.38	11.90
PFBS	375-73-5	159.09	D	3.10	11.90	119.05
PFHxS	355-46-4	5979.52	D	21.83	79.36	992.06
PFOS	1763-23-1	16829.57	D	125.66	330.69	3306.88

Surrogate Recoveries (%)

13C5-PFHxA	138	
13C4-PFHpA	107	
13C8-PFOA	84	
13C9-PFNA	51	
13C6-PFDA	110	
13C7-PFUnA	133	
13C2-PFDoA	122	
13C2-PFTeDA	112	
d3-MeFOSAA	98	D
d5-EtFOSAA	89	D
13C3-PFBS	93	D
13C3-PFHxS	96	D
13C8-PFOS	90	D

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW03P-0918				
Battelle ID		J8385-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.100				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	1674.97	D	4.75	12.50	125.00
PFHpA	375-85-9	306.25	D	4.00	12.50	125.00
PFOA	335-67-1	517.48	D	4.50	12.50	125.00
PFNA	375-95-1	22.45		0.65	2.50	12.50
PFDA	335-76-2	0.42	J	0.40	1.25	12.50
PFUnA	2058-94-8	2.50	U	0.73	2.50	12.50
PFDoA	307-55-1	1.25	U	0.45	1.25	12.50
PFTrDA	72629-94-8	1.25	U	0.38	1.25	12.50
PFTeDA	376-06-7	2.50	U	0.63	2.50	12.50
NMeFOSAA	2355-31-9	5.00	U	1.40	5.00	12.50
NEtFOSAA	2991-50-6	2.50	U	1.23	2.50	12.50
PFBS	375-73-5	163.78	D	3.25	12.50	125.00
PFHxS	355-46-4	6212.24	D	22.92	83.33	1041.66
PFOS	1763-23-1	14140.01	D	39.58	104.17	1041.66

Surrogate Recoveries (%)

13C5-PFHxA	145	
13C4-PFHpA	123	
13C8-PFOA	87	
13C9-PFNA	55	
13C6-PFDA	110	
13C7-PFUnA	123	
13C2-PFDoA	103	
13C2-PFTeDA	100	
d3-MeFOSAA	89	D
d5-EtFOSAA	109	D
13C3-PFBS	100	D
13C3-PFHxS	96	D
13C8-PFOS	107	D

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW01-0918				
Battelle ID		J8395-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.275				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	262.03	D	1.73	4.55	45.45
PFHpA	375-85-9	136.76		0.15	0.45	4.55
PFOA	335-67-1	685.22	D	8.18	22.73	227.27
PFNA	375-95-1	10.47		0.24	0.91	4.55
PFDA	335-76-2	0.45	U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91	U	0.26	0.91	4.55
PFDoA	307-55-1	0.45	U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45	U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91	U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82	U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	2.42	J	0.45	0.91	4.55
PFBS	375-73-5	90.23		0.12	0.45	4.55
PFHxS	355-46-4	415.01	D	1.00	3.64	45.45
PFOS	1763-23-1	104.13	D	1.73	4.55	45.45

Surrogate Recoveries (%)

13C5-PFHxA	56	
13C4-PFHpA	60	
13C8-PFOA	62	
13C9-PFNA	85	
13C6-PFDA	125	
13C7-PFUnA	141	
13C2-PFDoA	149	
13C2-PFTeDA	145	
d3-MeFOSAA	132	
d5-EtFOSAA	114	D
13C3-PFBS	70	
13C3-PFHxS	105	
13C8-PFOS	103	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW02-0918				
Battelle ID		J8396-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.245				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	53.90		0.19	0.51	5.10
PFHpA	375-85-9	55.85		0.16	0.51	5.10
PFOA	335-67-1	257.28	D	1.84	5.10	51.02
PFNA	375-95-1	72.18		0.27	1.02	5.10
PFDA	335-76-2	5.95		0.16	0.51	5.10
PFUnA	2058-94-8	1.96	J	0.30	1.02	5.10
PFDoA	307-55-1	0.51	U	0.18	0.51	5.10
PFTrDA	72629-94-8	0.51	U	0.15	0.51	5.10
PFTeDA	376-06-7	1.02	U	0.26	1.02	5.10
NMeFOSAA	2355-31-9	2.04	U	0.57	2.04	5.10
NEtFOSAA	2991-50-6	1.02	U	0.50	1.02	5.10
PFBS	375-73-5	28.95		0.13	0.51	5.10
PFHxS	355-46-4	137.87	D	1.12	4.08	51.02
PFOS	1763-23-1	75.23	D	1.94	5.10	51.02

Surrogate Recoveries (%)

13C5-PFHxA	118
13C4-PFHpA	109
13C8-PFOA	84
13C9-PFNA	85
13C6-PFDA	109
13C7-PFUnA	108
13C2-PFDoA	103
13C2-PFTeDA	90
d3-MeFOSAA	112
d5-EtFOSAA	140
13C3-PFBS	134
13C3-PFHxS	124
13C8-PFOS	131

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW03-0918				
Battelle ID		J8397-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.290				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	75.12	D	1.64	4.31	43.10
PFHpA	375-85-9	33.17		0.14	0.43	4.31
PFOA	335-67-1	425.54	D	1.55	4.31	43.10
PFNA	375-95-1	25.33		0.22	0.86	4.31
PFDA	335-76-2	1.07	J	0.14	0.43	4.31
PFUnA	2058-94-8	0.86	U	0.25	0.86	4.31
PFDoA	307-55-1	0.43	U	0.16	0.43	4.31
PFTrDA	72629-94-8	0.43	U	0.13	0.43	4.31
PFTeDA	376-06-7	0.86	U	0.22	0.86	4.31
NMeFOSAA	2355-31-9	1.72	U	0.48	1.72	4.31
NEtFOSAA	2991-50-6	0.86	U	0.42	0.86	4.31
PFBS	375-73-5	38.45		0.11	0.43	4.31
PFHxS	355-46-4	161.02	D	0.95	3.45	43.10
PFOS	1763-23-1	259.97	D	1.64	4.31	43.10

Surrogate Recoveries (%)

13C5-PFHxA	94
13C4-PFHpA	103
13C8-PFOA	79
13C9-PFNA	80
13C6-PFDA	118
13C7-PFUnA	127
13C2-PFDoA	126
13C2-PFTeDA	122
d3-MeFOSAA	111
d5-EtFOSAA	143
13C3-PFBS	110
13C3-PFHxS	129
13C8-PFOS	108

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-AQ-FB-092518			
Battelle ID		J8398-FS			
Sample Type		SA			
Collection Date		09/25/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		AQ			
Sample Size		0.285			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.44 U	0.17	0.44	4.39
PFHpA	375-85-9	0.44 U	0.14	0.44	4.39
PFOA	335-67-1	0.80 J	0.16	0.44	4.39
PFNA	375-95-1	0.88 U	0.23	0.88	4.39
PFDA	335-76-2	0.44 U	0.14	0.44	4.39
PFUnA	2058-94-8	0.88 U	0.25	0.88	4.39
PFDoA	307-55-1	0.44 U	0.16	0.44	4.39
PFTrDA	72629-94-8	0.44 U	0.13	0.44	4.39
PFTeDA	376-06-7	0.88 U	0.22	0.88	4.39
NMeFOSAA	2355-31-9	1.75 U	0.49	1.75	4.39
NEtFOSAA	2991-50-6	0.88 U	0.43	0.88	4.39
PFBS	375-73-5	0.44 U	0.11	0.44	4.39
PFHxS	355-46-4	0.35 U	0.10	0.35	4.39
PFOS	1763-23-1	0.44 U	0.17	0.44	4.39

Surrogate Recoveries (%)

13C5-PFHxA	101
13C4-PFHpA	98
13C8-PFOA	100
13C9-PFNA	94
13C6-PFDA	110
13C7-PFUnA	120
13C2-PFDoA	106
13C2-PFTeDA	104
d3-MeFOSAA	105
d5-EtFOSAA	111
13C3-PFBS	105
13C3-PFHxS	97
13C8-PFOS	99

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-AQ-EB-092518				
Battelle ID		J8399-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		AQ				
Sample Size		0.285				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	0.44	U	0.17	0.44	4.39
PFHpA	375-85-9	0.44	U	0.14	0.44	4.39
PFOA	335-67-1	0.74	J	0.16	0.44	4.39
PFNA	375-95-1	0.88	U	0.23	0.88	4.39
PFDA	335-76-2	0.44	U	0.14	0.44	4.39
PFUnA	2058-94-8	0.88	U	0.25	0.88	4.39
PFDoA	307-55-1	0.44	U	0.16	0.44	4.39
PFTrDA	72629-94-8	0.44	U	0.13	0.44	4.39
PFTeDA	376-06-7	0.88	U	0.22	0.88	4.39
NMeFOSAA	2355-31-9	1.75	U	0.49	1.75	4.39
NEtFOSAA	2991-50-6	0.88	U	0.43	0.88	4.39
PFBS	375-73-5	0.69	J	0.11	0.44	4.39
PFHxS	355-46-4	0.35	U	0.10	0.35	4.39
PFOS	1763-23-1	0.17	J	0.17	0.44	4.39

Surrogate Recoveries (%)

13C5-PFHxA	109
13C4-PFHpA	100
13C8-PFOA	110
13C9-PFNA	98
13C6-PFDA	113
13C7-PFUnA	117
13C2-PFDoA	112
13C2-PFTeDA	122
d3-MeFOSAA	104
d5-EtFOSAA	119
13C3-PFBS	107
13C3-PFHxS	102
13C8-PFOS	94

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW03P-0918				
Battelle ID		J8400-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.275				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	487.07	D	1.73	4.55	45.45
PFHpA	375-85-9	76.66	D	1.45	4.55	45.45
PFOA	335-67-1	508.22	D	1.64	4.55	45.45
PFNA	375-95-1	37.79		0.24	0.91	4.55
PFDA	335-76-2	2.50	J	0.15	0.45	4.55
PFUnA	2058-94-8	0.91	U	0.26	0.91	4.55
PFDoA	307-55-1	0.45	U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45	U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91	U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82	U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91	U	0.45	0.91	4.55
PFBS	375-73-5	186.15	D	1.18	4.55	45.45
PFHxS	355-46-4	1776.55	D	16.67	60.61	757.58
PFOS	1763-23-1	5397.89	D	107.95	284.09	2840.91

Surrogate Recoveries (%)

13C5-PFHxA	79	
13C4-PFHpA	78	
13C8-PFOA	60	
13C9-PFNA	54	
13C6-PFDA	108	
13C7-PFUnA	140	
13C2-PFDoA	128	
13C2-PFTeDA	126	
d3-MeFOSAA	123	D
d5-EtFOSAA	118	D
13C3-PFBS	140	D
13C3-PFHxS	112	D
13C8-PFOS	99	D

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		KB80 IB			
Battelle ID		KB80 IB_10/14/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		10/14/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		Water			
Sample Size		0.250			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00
PFHpA	375-85-9	0.50 U	0.16	0.50	5.00
PFOA	335-67-1	0.50 U	0.18	0.50	5.00
PFNA	375-95-1	1.00 U	0.26	1.00	5.00
PFDA	335-76-2	0.50 U	0.16	0.50	5.00
PFUnA	2058-94-8	1.00 U	0.29	1.00	5.00
PFDoA	307-55-1	0.50 U	0.18	0.50	5.00
PFTrDA	72629-94-8	0.50 U	0.15	0.50	5.00
PFTeDA	376-06-7	1.00 U	0.25	1.00	5.00
NMeFOSAA	2355-31-9	2.00 U	0.56	2.00	5.00
NEtFOSAA	2991-50-6	1.00 U	0.49	1.00	5.00
PFBS	375-73-5	0.50 U	0.13	0.50	5.00
PFHxS	355-46-4	0.40 U	0.11	0.40	5.00
PFOS	1763-23-1	0.50 U	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	93
13C4-PFHpA	94
13C8-PFOA	106
13C9-PFNA	97
13C6-PFDA	106
13C7-PFUnA	94
13C2-PFDoA	99
13C2-PFTeDA	100
d3-MeFOSAA	87
d5-EtFOSAA	89
13C3-PFBS	90
13C3-PFHxS	93
13C8-PFOS	94

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		KB80 IB			
Battelle ID		KB80 IB_10/15/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		Water			
Sample Size		0.250			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00
PFHpA	375-85-9	- -	-	-	-
PFOA	335-67-1	0.50 U	0.18	0.50	5.00
PFNA	375-95-1	- -	-	-	-
PFDA	335-76-2	- -	-	-	-
PFUnA	2058-94-8	- -	-	-	-
PFDoA	307-55-1	- -	-	-	-
PFTrDA	72629-94-8	- -	-	-	-
PFTeDA	376-06-7	- -	-	-	-
NMeFOSAA	2355-31-9	- -	-	-	-
NEtFOSAA	2991-50-6	- -	-	-	-
PFBS	375-73-5	- -	-	-	-
PFHxS	355-46-4	0.40 U	0.11	0.40	5.00
PFOS	1763-23-1	0.50 U	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	- -
13C4-PFHpA	- -
13C8-PFOA	- -
13C9-PFNA	- -
13C6-PFDA	- -
13C7-PFUnA	- -
13C2-PFDoA	- -
13C2-PFTeDA	- -
d3-MeFOSAA	- -
d5-EtFOSAA	- -
13C3-PFBS	- -
13C3-PFHxS	- -
13C8-PFOS	- -

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		KB80 IB				KB80 IB
Battelle ID		KB80 IB_10/17/2018				KB80 IB_10/19/2018
Sample Type		IB				IB
Collection Date		NA				NA
Extraction Date		NA				NA
Analysis Date		10/17/2018				10/19/2018
Analytical Instrument		Sciex 5500 LC/MS/MS				Sciex 5500 LC/MS/MS
% Moisture		NA				NA
Matrix		Water				Water
Sample Size		0.250				0.250
Size Unit-Basis		L				NA
Units		ng/L	MDL	LOD	LOQ	ng/L
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00	0.50
PFHpA	375-85-9	0.50 U	0.16	0.50	5.00	0.50
PFOA	335-67-1	0.50 U	0.18	0.50	5.00	0.50
PFNA	375-95-1	1.00 U	0.26	1.00	5.00	1.00
PFDA	335-76-2	0.50 U	0.16	0.50	5.00	0.50
PFUnA	2058-94-8	1.00 U	0.29	1.00	5.00	1.00
PFDoA	307-55-1	0.50 U	0.18	0.50	5.00	0.50
PFTrDA	72629-94-8	0.50 U	0.15	0.50	5.00	0.50
PFTeDA	376-06-7	1.00 U	0.25	1.00	5.00	1.00
NMeFOSAA	2355-31-9	2.00 U	0.56	2.00	5.00	2.00
NEtFOSAA	2991-50-6	1.00 U	0.49	1.00	5.00	1.00
PFBS	375-73-5	0.50 U	0.13	0.50	5.00	0.50
PFHxS	355-46-4	0.40 U	0.11	0.40	5.00	0.40
PFOS	1763-23-1	0.50 U	0.19	0.50	5.00	0.50
Surrogate Recoveries (%)						
13C5-PFHxA		98				106
13C4-PFHpA		98				103
13C8-PFOA		101				104
13C9-PFNA		100				103
13C6-PFDA		103				99
13C7-PFUnA		102				101
13C2-PFDoA		98				102
13C2-PFTeDA		93				104
d3-MeFOSAA		100				59
d5-EtFOSAA		96				64
13C3-PFBS		95				88
13C3-PFHxS		103				86
13C8-PFOS		96				103

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID

Battelle ID
Sample Type
Collection Date
Extraction Date
Analysis Date
Analytical Instrument
% Moisture
Matrix
Sample Size
Size Unit-Basis

Units			MDL	LOD	LOQ
PFHxA	307-24-4	U	0.19	0.50	5.00
PFHpA	375-85-9	U	0.16	0.50	5.00
PFOA	335-67-1	U	0.18	0.50	5.00
PFNA	375-95-1	U	0.26	1.00	5.00
PFDA	335-76-2	U	0.16	0.50	5.00
PFUnA	2058-94-8	U	0.29	1.00	5.00
PFDoA	307-55-1	U	0.18	0.50	5.00
PFTrDA	72629-94-8	U	0.15	0.50	5.00
PFTeDA	376-06-7	U	0.25	1.00	5.00
NMeFOSAA	2355-31-9	U	0.56	2.00	5.00
NEtFOSAA	2991-50-6	U	0.49	1.00	5.00
PFBS	375-73-5	U	0.13	0.50	5.00
PFHxS	355-46-4	U	0.11	0.40	5.00
PFOS	1763-23-1	U	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	
13C4-PFHpA	
13C8-PFOA	
13C9-PFNA	
13C6-PFDA	
13C7-PFUnA	
13C2-PFDoA	
13C2-PFTeDA	
d3-MeFOSAA	
d5-EtFOSAA	
13C3-PFBS	
13C3-PFHxS	
13C8-PFOS	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		Procedural Blank			
Battelle ID		CR890PB-FS			
Sample Type		PB			
Collection Date		10/01/2018			
Extraction Date		10/01/2018			
Analysis Date		10/14/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		WATER			
Sample Size		0.250			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00
PFHpA	375-85-9	0.50 U	0.16	0.50	5.00
PFOA	335-67-1	0.97 J	0.18	0.50	5.00
PFNA	375-95-1	1.00 U	0.26	1.00	5.00
PFDA	335-76-2	0.50 U	0.16	0.50	5.00
PFUnA	2058-94-8	1.00 U	0.29	1.00	5.00
PFDoA	307-55-1	0.50 U	0.18	0.50	5.00
PFTrDA	72629-94-8	0.50 U	0.15	0.50	5.00
PFTeDA	376-06-7	1.00 U	0.25	1.00	5.00
NMeFOSAA	2355-31-9	2.00 U	0.56	2.00	5.00
NEtFOSAA	2991-50-6	1.00 U	0.49	1.00	5.00
PFBS	375-73-5	0.50 U	0.13	0.50	5.00
PFHxS	355-46-4	0.40 U	0.11	0.40	5.00
PFOS	1763-23-1	0.50 U	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	106
13C4-PFHpA	107
13C8-PFOA	109
13C9-PFNA	110
13C6-PFDA	112
13C7-PFUnA	127
13C2-PFDoA	111
13C2-PFTeDA	108
d3-MeFOSAA	96
d5-EtFOSAA	103
13C3-PFBS	93
13C3-PFHxS	94
13C8-PFOS	101

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		Laboratory Control Sample					
Battelle ID		CR891LCS-FS					
Sample Type		LCS					
Collection Date		10/01/2018					
Extraction Date		10/01/2018					
Analysis Date		10/14/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS					
% Moisture		NA					
Matrix		WATER					
Sample Size		0.250					
Size Unit-Basis		L				Control Limits	
Units		ng/L	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	29.08	30.30	96		51	137
PFHpA	375-85-9	28.25	30.00	94		48	136
PFOA	335-67-1	32.29	30.00	108		49	141
PFNA	375-95-1	31.58	30.00	105		58	122
PFDA	335-76-2	28.57	30.00	95		59	135
PFUnA	2058-94-8	29.56	30.00	99		64	134
PFDoA	307-55-1	29.88	30.00	100		75	131
PFTrDA	72629-94-8	29.99	30.00	100		42	148
PFTeDA	376-06-7	28.77	30.00	96		42	158
NMeFOSAA	2355-31-9	33.80	30.00	113		50	146
NEtFOSAA	2991-50-6	27.03	30.00	90		51	131
PFBS	375-73-5	30.51	30.30	101		56	134
PFHxS	355-46-4	28.73	30.30	95		52	128
PFOS	1763-23-1	28.05	30.00	94		40	144
Surrogate Recoveries (%)							
13C5-PFHxA		116					
13C4-PFHpA		111					
13C8-PFOA		105					
13C9-PFNA		111					
13C6-PFDA		114					
13C7-PFUnA		121					
13C2-PFDoA		117					
13C2-PFTeDA		114					
d3-MeFOSAA		101					
d5-EtFOSAA		116					
13C3-PFBS		121					
13C3-PFHxS		109					
13C8-PFOS		116					

BATTELLE
It can be done

Glossary of Data Qualifiers

Flag:	Application:
B	Analyte found in the sample at a concentration <10x the level found in the procedural blank
D	Dilution Run. Initial run outside the initial calibration range of the instrument
E	Estimate, result is greater than the highers concentration level in the calibration
H	Surrogate diluted out. Used when surrogate recovery is affected by excessive dilution of the sample extract.
J	Analyte detected below the Limit of Quantitation (LOQ)
ME	Significant Matrix Interference - Estimated value.
MI	Significant Matrix Interference - value could not be determined.
n	Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO), but meets secondary criteria
N	Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO)
NA	Not Applicable
T	Holding Time (HT) exceeded
U	Analyte not detected or detected below the Method detection limit (MDL) value, Limit of Detection (LOD) reported

CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15

AQ, GW

Batch 18-0583

Package DP-18-0288

Submitted to:
CH2M
1100 NE Circle Blvd Suite 300
Corvallis, OR 97330 USA

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

BATTELLE
It can be done

CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15

AQ, GW

Batch 18-0583

Package DP-18-0288

Submitted to:
CH2M
1100 NE Circle Blvd Suite 300
Corvallis, OR 97330 USA

NELAP Accreditation Number: E87856 (Florida Department of Health)
DoD-ELAP Accreditation Number: 91667

Submitted by:
Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

Analyst Approval: schumitzd@battelle.org 2018.10.19 14:06:00 -04'00'

QC Chemist Approval: Digitally signed by devinec@battelle.org DN: cn=devinec@battelle.org Date: 2018.10.26 15:20:06 -04'00'

Project Manager Approval: Digitally signed by Jonathan Thorn Date: 2018.10.26 21:50:42 -04'00'

BATTELLE
It can be done

CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15

AQ, GW

Batch 18-0583

Package DP-18-0288

1	***Work Plan*** Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports.	1
2	***Tables*** Analytical Data Tables, Qualifier Definitions.	37
3	***Miscellaneous Documentation*** Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report.	62
4	***Sample Preparation Records*** Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report.	235
5	***Analytical Calibrations*** Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check.	260
6	***Analytical Data*** Raw Data Quantification Reports.	508
7	***Chromatograms*** Sample And Standard Chromatograms.	796
8	***Unused Data***	1201

BATTELLE

It can be done

BATTELLE

Signature Page

Battelle 2018 (1 of 2)
Signature Page

Name (Printed)	Signature	Initials	Date
Jonathan Thorn		JRT	4/4/2018
Robert Lizotte, Jr.		BL	4.4.2018
FRANCO PALA			4-4-2018
Carla Devine		CRD	4/4/18
Denise Schumitz		DMS	4/4/18
Candace Penn McCoy		CPM	4/4/2018
Rich Rostucci		RR	4/4/2018
Michael Mehta			4/4/2018
Christie Usher		cu	4/4/18
Kevin McInerney			4/4/18
Stephanie Schultz		SAS	4/4/18
Jordan Tower		JCT	4/4/18
KRISTEN NICHOLS		KN	4/4/18
Clinton H Brown		CB	4/4/18
Matt Schumitz		MS	4-4-18
Sam Guimaraes		SG	4-4-18
Lauren Griffith			4.4.18

BATTELLE

Signature Page

Battelle 2018 (2 of 2)
Signature Page

Name (Printed)	Signature	Initials	Date
KAVITHA DASU		KD	04/04/18
Kayla Lamarre		KAL	04/04/18
Weidong Li		W.L	04/04/18
Tracy W Stenner		TWS	04/04/18
Ellyn M Fitch		EMF	12-April-2018
Gail DeRuzzo		GD	4/18/18
Zachary Willenberg		ZJW	4/20/18

Sample Summary

Client: CH2M
SDG: 18-0583
Project/Site: Naval Base Ventura County
CTO: 4164

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR890PB-FS	Procedural Blank	WATER	10/1/2018	10/1/2018
CR891LCS-FS	Laboratory Control Sample	WATER	10/1/2018	10/1/2018
J8358-FS	VC-PM323-DW01-0918	GW	9/24/2018	9/27/2018
J8359-FS	VC-PM323-DW03-0918	GW	9/24/2018	9/27/2018
J8368-FS	VC-SO-FB05-092418	AQ	9/24/2018	9/27/2018
J8369-FS	VC-SO-EB05-092418	AQ	9/24/2018	9/27/2018
J8370-FS	VC-PM324-DW01-0918	GW	9/24/2018	9/27/2018
J8371-FS	VC-PM324-DW01P-0918	GW	9/24/2018	9/27/2018
J8372-FS	VC-PM324-DW03-0918	GW	9/24/2018	9/27/2018
J8382-FS	VC-PM64B-DW01-0918	GW	9/24/2018	9/27/2018
J8383-FS	VC-PM64B-DW02-0918	GW	9/24/2018	9/27/2018
J8384-FS	VC-PM64B-DW03-0918	GW	9/24/2018	9/27/2018
J8385-FS	VC-PM64B-DW03P-0918	GW	9/24/2018	9/27/2018
J8395-FS	VC-HS09-DW01-0918	GW	9/25/2018	9/27/2018
J8396-FS	VC-HS09-DW02-0918	GW	9/25/2018	9/27/2018
J8397-FS	VC-HS09-DW03-0918	GW	9/25/2018	9/27/2018
J8398-FS	VC-AQ-FB-092518	AQ	9/25/2018	9/27/2018
J8399-FS	VC-AQ-EB-092518	AQ	9/25/2018	9/27/2018
J8400-FS	VC-HS09-DW03P-0918	GW	9/25/2018	9/27/2018

Work Plan

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title:	CTO-4164: Analysis of Non-Potable Waters
Project Number:	100110125-01
Client:	CH2M 1100 NE Circle Blvd Suite 300 Corvallis, OR 97330 USA
Client Contact Information:	Tiffany Hill Project Chemist (541) 768-3109(V) NA tiffany.hill@jacobs.com
Effective Date of QAPP:	9/11/2018
Version Number:	100110125-01(L)-02
Project Manager:	Thorn, Jonathan
Laboratory Task Manager:	Thorn, Jonathan
Deliverable Due Date:	10/19/2018

2.0 SCOPE OF WORK

Overview:	Analysis of non-potable water samples for PFAS.
Matrix:	Water

2.1 TECHNICAL APPROACH

2.1.1 Sample Receipt, Storage, and Handling

The list of samples for this project plan are presented in Attachment 1.

Storage Directions:	Store refrigerated.
Sub_Sampling:	None
Procedures:	NA
Contact:	NA
Comment:	None
Archiving:	Store remaining samples for six months after submission of final reports. Notify client prior to sample disposal.
Disposal:	Dispose of any remaining samples in the appropriate waste stream.

2.1.2 Sample Preparation

Samples will be batched as they arrive, with a 28-day TAT from receipt of samples.

Samples Expected:	Samples Per Batch:	Batches Expected:
150	20	8

Batch quality control samples are defined in Table 1.

Target samples are presented in Attachment 1.

Table 1: Quality Control Samples

Type:	*Description:*	*Count:*	*Rgt:*	*Reference:*	*Comment:*
PB	Laboratory control reagent blank.	1 per batch	--	NA	
LCS	Laboratory Control Sample	1 per batch	No	NA	
MS	Spiked field sample for determining method accuracy in the presence of matrix.	1 per batch	--	NA	Background for MS/MSD will be indicated on COC.
MSD	Spiked field sample for determining method accuracy and precision in the presence of matrix.	1 per batch	--	NA	Background for MS/MSD will be indicated on COC.

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

SOP No.-Rev:	**5-370-06**
SOP Title:	*Extraction of Poly and Perfluoroalkyl Substances from Environmental Matrices*
Sample Size:	250 ml
SIS and LCS/MS Compounds:	Defined in Table 2.
Deviations:	• Do not split samples post extract, PIV adjusted to compensate for removal of split.
Comments:	• All waters will be pre-screened per draft SOP 5-370-07.

Table 2: SIS and LCS/MS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PFAS - DoD Low Level Labelled Extracted Internal Standards (SIS)	JY28 SIS	~ 0.250 ng	50 uL	NA

Standard Type	Standard Contents		Spike Amount (ng)	Volume (uL)	Comment
PFAS - DoD Second Source LCS/MS Solution	JZ88	LCS/MS	~ 7.5 ng	150 uL	MS/MSD only - vary spike by batch 100, 150, 200, 250, 300 µL (pre-screening data will indicate if background sample is high level and needs a higher level fortification).
PFAS - DoD Second Source LCS/MS Solution	JZ88	LCS/MS	~ 2.50 ng	50 uL	LCS sample only - vary spike for each batch 50, 100, and 150 µL.

2.1.3.2 Cleanup

None.

RIS spiking levels are presented in Table 3.

Extract PIV (uL): 1000

Table 3: RIS Spiking Level

Standard Type	Standard Contents		Spike Amount (ng)	Volume (uL)	Comment
PFAS - DoD Internal Standard Spiking Solution	JY26	RIS	~ 0.250 ng	50 uL	NA

2.1.4 Instrumental Analysis

The list of analytes along with data quality criteria are presented in Attachment 2.

1) SOP_No-Rev: **5-369-06**

SOP_Title: *Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS)*

Deviations: None

Comments: None

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

2.2. DELIVERABLES

Deliverables Due:	10/19/2018
LIMS Reports:	*No*
Histograms:	*No*
Excel Tables:	*Yes*
EICs:	*No*
Chromatograms:	*No*
EDDs:	*Yes*
Comments:	• Individual data sets will be due 28 days after receipt of each sample set. • Full Level 4 data package (QSM 5.1 Table B-15 compliant) required. • SEDD file required. • weekly updates to client on status required.

3.0 QUALITY

The Method Quality Objectives are defined in Attachment 3.

4.0 ORGANIZATION AND COMMUNICATION

4.1 ORGANIZATION

The project team is defined in Table 4. Supervisors may make substitutions with Project Manager concurrence.

Table 4: Project Team and Roles

Staff Member	Role	Comment
Jonathan R. Thorn	Project Manager	NA
Stephanie A. Schultz	Sample Preparation	NA
Denise M. Schumitz	LC-MS/MS Analysis	NA
Matt D. Schumitz	Sample Custody	NA
Carla R. Devine	Quality Control Officer	NA
Zachary J. Willenberg	Quality Assurance Officer	NA

4.2 COMMUNICATION

A kick-off meeting will be held to discuss project scope and goals.

5.0 SCHEDULE

The project schedule is presented in Table 5.

Table 5. Schedule of Laboratory Activities

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Sample Receipt	09/21/2018	09/21/2018	0	Timeline provided is an example based on samples arriving on 9/21. Schedule will shift for each delivery.
Sample Preparation	09/21/2018	09/25/2018	4	NA
Instrument Analysis	09/25/2018	10/05/2018	10	NA
Quality Control Review	10/05/2018	10/10/2018	5	NA
Quality Assurance Review	10/10/2018	10/15/2018	5	NA

6.0 BUDGET

The labor budget for the analytical task is presented in Table 6.

Table 6. Labor Budget (Laboratory Analytical Task)

Labor Activity:	Hours/ Batch:	Batches:	Total Hours:	Comment:
Sample Receipt	2	10	20	Hours are based on batches of 20 samples.
Sample Preparation	8	10	80	NA
Instrument Analysis	8	10	80	NA
Quality Control Review	3	10	30	NA
Quality Assurance Review	1	10	10	NA

7.0 STAFF DEVELOPMENT

None anticipated

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Shipment: **SHP-180921-01**

Status: Pending

Description: NBVC Basewide SI

Range: J8210-J8277

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility: Location:	No:	Comments:
1	J8210	VC-PM3009-DW01-0918	09/17/2018 3:10 pm	GW	R0119 (NA)		
2	J8211	VC-PM3009-DW02-0918	09/17/2018 4:23 pm	GW	R0119 (NA)		
3	J8212	VC-PM3009-DW02P-0918	09/17/2018 4:27 pm	GW	R0119 (NA)		
4	J8213	VC-PM3009-DW03-0918	09/17/2018 4:38 pm	GW	R0119 (NA)		
5	J8214	VC-PM372-DW01-0918	09/18/2018 10:07 am	GW	R0119 (NA)		
6	J8215	VC-PM372-DW02-0918	09/18/2018 9:25 am	GW	R0119 (NA)		
7	J8216	VC-PM372-DW02P-0918	09/18/2018 9:27 am	GW	R0119 (NA)		
8	J8217	VC-PM372-DW03-0918	09/18/2018 11:49 am	GW	R0119 (NA)		
9	J8241	VC-PM649-DW01-0918	09/18/2018 12:50 pm	GW	R0119 (NA)		
10	J8242	VC-PM649-DW01P-0918	09/18/2018 12:55 pm	GW	R0119 (NA)		
11	J8243	VC-PM649-DW02-0918	09/18/2018 3:35 pm	GW	R0119 (NA)		
12	J8244	VC-PM649-DW03-0918	09/18/2018 2:02 pm	GW	R0119 (NA)		
13	J8245	VC-PM649-DW04-0918	09/18/2018 2:02 pm	GW	R0119 (NA)		
14	J8246	VC-AQ-FB01-0918	09/18/2018 1:30 pm	AQ	R0119 (NA)		
15	J8247	VC-AQ-EB01-0918	09/18/2018 1:40 pm	AQ	R0119 (NA)		
16	J8259	VC-PM365-DW01-0918	09/19/2018 11:10 am	GW	R0119 (NA)		
17	J8260	VC-PM365-DW02-0918	09/19/2018 12:10 pm	GW	R0119 (NA)		
18	J8261	VC-PM365-DW02P-0918	09/19/2018 12:18 pm	GW	R0119 (NA)		
19	J8262	VC-PM365-DW03-0918	09/19/2018 11:10 am	GW	R0119 (NA)		
20	J8272	VC-PM553-DW01-0918	09/19/2018 2:30 pm	GW	R0119 (NA)		
21	J8273	VC-PM553-DW01P-0918	09/19/2018 2:45 pm	GW	R0119 (NA)		
22	J8274	VC-PM553-DW02-0918	09/19/2018 3:15 pm	GW	R0119 (NA)		
23	J8275	VC-PM553-DW03-0918	09/19/2018 12:06 pm	GW	R0119 (NA)		
24	J8276	VC-SO-FB02-0918	09/19/2018 2:35 pm	AQ	R0119 (NA)		
25	J8277	VC-SO-EB02-0918	09/19/2018 2:30 pm	AQ	R0119 (NA)		

Shipment: **SHP-180925-02**

Status: Approved

Description: NBVC Basewide SI

Range: J8285-J8337

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility: Location:	No:	Comments:
1	J8285	VC-CS94-DW01-0918	09/21/2018 10:54 am	GW	R0119 (NA)		
2	J8286	VC-CS94-DW01P-0918	09/21/2018 10:58 am	GW	R0119 (NA)		
3	J8287	VC-CS94-DW02-0918	09/21/2018 11:50 am	GW	R0119 (NA)		
4	J8288	VC-CS94-DW03-0918	09/21/2018 11:08 am	GW	R0119 (NA)		
5	J8289	VC-CS94-DW04-0918	09/21/2018 12:14 pm	GW	R0119 (NA)		
6	J8290	VC-CS94-DW05-0918	09/21/2018 12:23 pm	GW	R0119 (NA)		
7	J8308	VC-SO-FB04-092118	09/21/2018 2:20 pm	AQ	R0119 (NA)		

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: **SHP-180925-02**

Status: Approved

Description: NBVC Basewide SI

Range: J8285-J8337

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
8	J8309	VC-SO-EB04-092118	09/21/2018 2:20 pm	AQ	R0119 (NA)			
9	J8319	VC-PM323-324-DW01-0918	09/20/2018 2:38 pm	GW	R0119 (NA)			
10	J8320	VC-PM323-324-DW01P-0918	09/20/2018 2:45 pm	GW	R0119 (NA)			
11	J8321	VC-PM323-324-DW02-0918	09/20/2018 11:41 am	GW	R0119 (NA)			
12	J8322	VC-PM323-324-DW03-0918	09/20/2018 10:35 am	GW	R0119 (NA)			
13	J8323	VC-AQ-FB03-092018	09/20/2018 8:00 am	AQ	R0119 (NA)			
14	J8324	VC-AQ-EB03-092018	09/20/2018 8:00 am	AQ	R0119 (NA)			
15	J8330	VC-PM323-DW02-0918	09/20/2018 3:13 pm	GW	R0119 (NA)			
16	J8331	VC-PM323-DW02P-0918	09/20/2018 4:02 pm	GW	R0119 (NA)			
17	J8337	VC-PM324-DW02-0918	09/20/2018 2:00 pm	GW	R0119 (NA)			

Shipment: **SHP-180927-02**

Status: Approved

Description: NBVC Basewide SI

Range: J8358-J8400

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J8358	VC-PM323-DW01-0918	09/24/2018 10:21 am	GW	R0119 (NA)			
2	J8359	VC-PM323-DW03-0918	09/24/2018 11:10 am	GW	R0119 (NA)			
3	J8368	VC-SO-FB05-092418	09/24/2018 1:30 pm	AQ	R0119 (NA)			
4	J8369	VC-SO-EB05-092418	09/24/2018 1:30 pm	AQ	R0119 (NA)			
5	J8370	VC-PM324-DW01-0918	09/24/2018 1:45 pm	GW	R0119 (NA)			
6	J8371	VC-PM324-DW01P-0918	09/24/2018 2:02 pm	GW	R0119 (NA)			
7	J8372	VC-PM324-DW03-0918	09/24/2018 11:15 am	GW	R0119 (NA)			
8	J8382	VC-PM64B-DW01-0918	09/24/2018 3:00 pm	GW	R0119 (NA)			
9	J8383	VC-PM64B-DW02-0918	09/24/2018 3:31 pm	GW	R0119 (NA)			
10	J8384	VC-PM64B-DW03-0918	09/24/2018 2:28 pm	GW	R0119 (NA)			
11	J8385	VC-PM64B-DW03P-0918	09/24/2018 2:35 pm	GW	R0119 (NA)			
12	J8395	VC-HS09-DW01-0918	09/25/2018 2:25 pm	GW	R0119 (NA)			
13	J8396	VC-HS09-DW02-0918	09/25/2018 3:03 pm	GW	R0119 (NA)			
14	J8397	VC-HS09-DW03-0918	09/25/2018 1:19 pm	GW	R0119 (NA)			
15	J8398	VC-AQ-FB-092518	09/25/2018 2:35 pm	AQ	R0119 (NA)			
16	J8399	VC-AQ-EB-092518	09/25/2018 2:30 pm	AQ	R0119 (NA)			
17	J8400	VC-HS09-DW03P-0918	09/25/2018 1:56 pm	GW	R0119 (NA)			

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: **SHP-180928-03**

Status: Pending

Description: NBVC Basewide SI

Range: J8455-J8483

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J8455	VC-SO-FB07-09262018	09/26/2018 11:43 am	AQ	R0118 (NA)			
2	J8456	VC-SO-EB07-09262018	09/26/2018 11:45 am	AQ	R0118 (NA)			
3	J8457	VC-MS09-DW01-0918	09/26/2018 10:16 am	GW	R0118 (NA)			
4	J8458	VC-MS09-DW02-0918	09/26/2018 10:05 am	GW	R0118 (NA)			
5	J8459	VC-MS09-DW03-0918	09/26/2018 11:10 am	GW	R0118 (NA)			
6	J8460	VC-MS09-DW04-0918	09/26/2018 12:22 pm	GW	R0118 (NA)			
7	J8461	VC-MS09-DW04P-0918	09/26/2018 12:20 pm	GW	R0118 (NA)			
8	J8462	VC-MS09-DW05-0918	09/26/2018 11:35 am	GW	R0118 (NA)			
9	J8477	VC-PM367-DW01-0918	09/27/2018 10:36 am	GW	R0119 (NA)			
10	J8478	VC-PM367-DW02-0918	09/27/2018 9:50 am	GW	R0119 (NA)			
11	J8479	VC-PM367-DW03-0918	09/27/2018 10:43 am	GW	R0119 (NA)			
12	J8480	VC-PM367-DW03P-0918	09/27/2018 10:46 am	GW	R0119 (NA)			
13	J8481	VC-PM367-DW04-0918	09/27/2018 10:04 am	GW	R0119 (NA)			
14	J8482	VC-AQ-FB08-09272018	09/27/2018 10:00 am	AQ	R0119 (NA)			
15	J8483	VC-AQ-EB08-09272018	09/27/2018 12:00 pm	AQ	R0119 (NA)			

Shipment: **SHP-181005-03**

Status: Approved

Description: NBVC Basewide SI

Range: J8613-J8628

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J8613	VC-PM553-GW0601A-1018	10/01/2018 11:47 am	GW	R0119 (NA)			
2	J8614	VC-AQ-FB09-10012018	10/01/2018 3:57 pm	AQ	R0119 (NA)			
3	J8615	VC-AQ-EB09-10012018	10/01/2018 4:00 pm	AQ	R0119 (NA)			
4	J8616	VC-PM13-GW21-1018	10/01/2018 2:33 pm	GW	R0119 (NA)			
5	J8617	VC-KCHA16-GW01-1018	10/02/2018 11:50 am	GW	R0119 (NA)			
6	J8618	VC-KCHA16-GW01P-1018	10/02/2018 11:54 am	GW	R0119 (NA)			
7	J8619	VC-KCHA16-GW02-1018	10/02/2018 10:15 am	GW	R0119 (NA)			
8	J8620	VC-KCHA16-GW03-1018	10/02/2018 1:18 pm	GW	R0119 (NA)			
9	J8621	VC-AQ-FB10-10022018	10/02/2018 4:00 pm	AQ	R0119 (NA)			
10	J8622	VC-AQ-EB10-10022018	10/02/2018 4:10 pm	AQ	R0119 (NA)			
11	J8623	VC-S09GW01-1018	10/03/2018 12:22 pm	GW	R0119 (NA)			
12	J8624	VC-S09GW04-1018	10/02/2018 4:25 pm	GW	R0119 (NA)			
13	J8625	VC-S09GW04P-1018	10/02/2018 4:29 pm	GW	R0119 (NA)			
14	J8626	VC-S09GW06-1018	10/03/2018 11:22 am	GW	R0119 (NA)			
15	J8627	VC-S14GW01-1018	10/03/2018 2:39 pm	GW	R0119 (NA)			
16	J8628	VC-S14GW03-1018	10/03/2018 3:35 pm	GW	R0119 (NA)			

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: **SHP-181009-01**

Status: Pending

Description: NBVC Basewide SI

Range: J8667-J8722

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J8667	VC-CS12-DW01-1018	10/06/2018 8:44 am	GW	R0119 (NA)			
2	J8668	VC-CS12-DW01P-1018	10/06/2018 8:48 am	GW	R0119 (NA)			
3	J8669	VC-CS12-DW02-1018	10/06/2018 11:22 am	GW	R0119 (NA)			
4	J8670	VC-CS12-DW03-1018	10/06/2018 10:30 am	GW	R0119 (NA)			
5	J8683	VC-CS10-DW01-1018	10/06/2018 1:38 pm	GW	R0119 (NA)			
6	J8684	VC-CS10-DW02-1018	10/06/2018 10:30 am	GW	R0119 (NA)			
7	J8685	VC-CS10-DW02P-1018	10/06/2018 10:40 am	GW	R0119 (NA)			
8	J8686	VC-CS10-DW03-1018	10/06/2018 12:07 pm	GW	R0119 (NA)			
9	J8687	VC-CS10-DW04-1018	10/06/2018 10:55 am	GW	R0119 (NA)			
10	J8688	VC-CS18-DW01-1018	10/06/2018 3:18 pm	GW	R0119 (NA)			
11	J8714	VC-FB11-10062018	10/06/2018 6:34 pm	AQ	R0119 (NA)			
12	J8715	VC-EB11-10062018	10/06/2018 6:36 pm	AQ	R0119 (NA)			
13	J8716	VC-CS00-DW01-1018	10/06/2018 2:32 pm	GW	R0119 (NA)			
14	J8717	VC-CS00-DW02-1018	10/06/2018 4:25 pm	GW	R0119 (NA)			
15	J8718	VC-CS00-DW02P-1018	10/06/2018 4:27 pm	GW	R0119 (NA)			
16	J8719	VC-CS00-DW03-1018	10/06/2018 5:05 pm	GW	R0119 (NA)			
17	J8720	VC-CS00-DW04-1018	10/06/2018 1:30 pm	GW	R0119 (NA)			
18	J8721	VC-CS00-DW05-1018	10/06/2018 6:02 pm	GW	R0119 (NA)			
19	J8722	VC-CS00-DW06-1018	10/06/2018 5:40 pm	GW	R0119 (NA)			

Shipment: **SHP-181012-02**

Status: Pending

Description: NBVC Basewide SI

Range: J8801-J8806

Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J8801	VC-SD-FB12-10092018	10/09/2018 5:00 pm	AQ	R0119 (NA)			
2	J8802	VC-SD-EB12-10092018	10/09/2018 5:05 pm	AQ	R0119 (NA)			
3	J8803	VC-SD-EB13-10092018	10/09/2018 5:10 pm	AQ	R0119 (NA)			
4	J8804	VC-S14GW02-1018	10/09/2018 12:20 pm	GW	R0119 (NA)			
5	J8805	VC-S14GW02P-1018	10/09/2018 12:24 pm	GW	R0119 (NA)			
6	J8806	VC-S14GW19-1018	10/09/2018 2:46 pm	GW	R0119 (NA)			

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name:	Master_369
SOP Reference:	5-369 - Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS)
Description:	PFAS by DoD QSM 5.1 Table B-15
Matrix:	L - Liquid Samples, like water or sea water, prepared and anlyzed under the same class of detection limits.
Detection Limit Study:	5-369
Instrument:	LC-MS/MS
MQO Criteria	Universal_LC
Standard Report:	Standard Result Report

Method Specific Reporting				Holding Times (days)		Data Flags	
Result Units:	ng/L	***Unit Conversion:***	(none)	***Sample:***	14	***DL_Flag:***	U
Weight Basis:	LIQUID	***Result Format:***	Fixed Digits	***Frozen:***	14	***RL_Flag:***	J
Standard Basis:	SIS	***# of Figures/Digits:***	2	***Extract:***	28	***PB_Flag:***	B
Oil Weight Basis:	No	***Oil Weight Source:***	Oil Weight			***DIL_Flag:***	D
U-Value Substition:	U-Flag=MD	***Histograms:***	No			***HT_Flag:***	T
ECD_Reporting:	No						

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
1	Perfluoro-n-hexanoic acid	PFHxA	T		13C5-PFHxA	No	No
2	Perfluoro-n-heptanoic Acid	PFHpA	T		13C4-PFHpA	No	No
3	Perfluoro-n-octanoic Acid	PFOA	T		13C8-PFOA	No	No
4	Perfluorononanoic Acid	PFNA	T		13C9-PFNA	No	No
5	Perfluoro-n-decanoic Acid	PFDA	T		13C6-PFDA	No	No
6	Perfluoro-n-undecanoic acid	PFUnA	T		13C7-PFUnA	No	No
7	Perfluoro-n-dodecanoic acid	PFDoA	T		13C2-PFDoA	No	No
8	Perfluoro-n-tridecanoic acid	PFTrDA	T		13C2-PFTeDA	No	No
9	Perfluoro-n-tetradecanoic acid	PFTeDA	T		13C2-PFTeDA	No	No
10	N-methylperfluoro-1-octanesulfonamidoacetic acid	NMeFOSAA	T		d3-MeFOSAA	No	No
11	N-ethylperfluoro-octanesulfonamidoacetic acid	NEtFOSAA	T		d5-EtFOSAA	No	No
12	Perfluoro-1-butanesulfonate	PFBS	T		13C3-PFBS	No	No
13	Perfluoro-1-hexanesulfonate	PFHxS	T		13C3-PFHxS	No	No
14	Perfluoro-1-octanesulfonate	PFOS	T		13C8-PFOS	No	No
1	13C5-PFHxA	13C5-PFHxA	SIS	13C2-PFOA		No	No
2	13C4-PFHpA	13C4-PFHpA	SIS	13C2-PFOA		No	No
3	13C8-PFOA	13C8-PFOA	SIS	13C2-PFOA		No	No
4	13C9-PFNA	13C9-PFNA	SIS	13C2-PFOA		No	No

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_369

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
5	13C6-PFDA	13C6-PFDA	SIS	13C2-PFDA		No	No
6	13C7-PFUnA	13C7-PFUnA	SIS	13C2-PFDA		No	No
7	13C2-PFDoA	13C2-PFDoA	SIS	13C2-PFDA		No	No
8	13C2-PFTeDA	13C2-PFTeDA	SIS	13C2-PFDA		No	No
9	d3-MeFOSAA	d3-MeFOSAA	SIS	13C4-PFOS		No	No
10	d5-EtFOSAA	d5-EtFOSAA	SIS	13C4-PFOS		No	No
11	13C3-PFBS	13C3-PFBS	SIS	13C4-PFOS		No	No
12	13C3-PFHxS	13C3-PFHxS	SIS	13C4-PFOS		No	No
13	13C8-PFOS	13C8-PFOS	SIS	13C4-PFOS		No	No

Total Analytes: 27

Subtract Peaks:

None

Sum Peaks:

None

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_369

ICAL Acceptance Criteria:

Curve Fit:	Limit Mean(%):	Mean Qual:	Limit Ind.:	Ind. Qual:	Min Points:	Points Qual:	Comments:
Linear	NA	NA	0.99	N	5	N	y = Bx + C
Quadratic	NA	NA	0.99	N	6	N	y = Ax^2 + Bx + C

Continuing Calibration Verification Criteria:

CCV Name: 5-369

Frequency Hrs:		Mean PD(%):		Individual PD(%):		RIS/SIS RT Window (min):		Area Limit Low(%):	Area Limit High(%):		Comment:
12	(N)	30	(N)	30	(N)	0.04	(N)	-50	100	(N)	NA

Independent Calibration Verification:

ICC Name: 5-369

Mean PD Limit(%):		Ind. PD Limit(%):		RIS/SIS Window Limit (Secs):		Area Limit High(%):	Area Limit Low(%):		Comment:
30	(N)	30	(N)	0.04	(N)	-50	100	(N)	NA

Mass Discrimination Criteria:

None

Degredation Check Criteria:

None

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application	***Universal_LC***		
MQO:	**Acceptance Criteria**	**Qual:**	**Corrective Action:**
Procedural Blank	Samples must be greater than five times the blank concentration (>5xPB).	B	Review with Project Manager; re-analyze or justify results in project records.
PB Measurement Quality Objective	Organic results in the Procedural Blank are less than 1/2 times the LOQ (<1/2xLOQ)	N	Review with Project Manager; re-analyze or justify results in project records.
Laboratory Control Sample	Recovery values 70-130%.	N	Review with project manager; re-analyze or justify reporting the results in project records.
Matrix Spike / Matrix Spike Duplicate Recovery	Organics 70-130%. Analyte concentration in MS/MSD must be greater than five times reported background concentration.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the Original	n	
Matrix Spike/Spike Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Analyte concentration in MS/MSD must be greater than five times reported background concentration.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the Original	n	
Standard Reference Material Accuracy	Organics Percent Difference less than 30% from a range of certified values on average. Analyte concentration must be greater than five times the Method Detection Limit (>5xMDL).	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Target is less than 5 times the MDL	n	
Analytical Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Analyte concentration must be > 5x MDL.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Original is less than 5 times the MDL	n	

BATTELLE
It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application	***Universal_LC***		
MQO:	**Acceptance Criteria**	**Qual:**	**Corrective Action:**
Analytical Triplicate Precision	Organics results less than 30% Relative Standard Deviation (RSD). Analyte concentration must be > 5x MDL.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
	Organics Results in the Original is less than 5 times the MDL	n	
Surrogate Compound Recovery	Recovery results between 50% and 150%.	N	Review with Project Manager; re-analyze or justify reporting results in the project records.
Control Oil	RPD < 30% for at least 90% of analytes	N	Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Instrument Calibration	5-369-6: R-squared greater than or equal to 0.990		Results examined by project manager, task leader, or subcontractor lab manager. Reextraction, reanalysis, or justification documented.
Independent Calibration Check Solution	5-369-6: Individual PD less than or equal to 30%. Mean Percent Difference less than or equal to 30%.	N	Review with Project Manager; re-analyze or justify in project records.
Continuing Calibration Verification	5-369-6: Individual PD less than or equal to 30%. Mean Percent Difference less than or equal to 30%.	N	Review with Project Manager; re-analyze or justify in project records.

Sample Receipt Form

Approved: ☑ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Thursday, September 27, 2018 10:30 AM

No. of Shipping Containers: 2

SHIPMENT

Method of Delivery: Commercial Carrier **Tracking Number:** Fed Ex

COC Forms: ☑ **Shipped with samples** ☐ **No Forms**

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smps
1 of 2	Cooler	782963465419	Custody Seals	Intact	Intact	Therm_1	0.2	17
2 of 2	Cooler	782963465420	Custody Seals	Intact	Intact	Therm_1	0.9	43

Samples

Sample Labels:
☑ Sample labels agree with COC forms
☐ Discrepancies (see Sample Custody Corrective Action Form)

Container Seals:
☐ Tape ☐ Custody Seals ☐ Other Seals (See sample Log)
☑ Seals intact for each shipping container
☐ Seals broken (See sample log for impacted samples)

Condition of Samples:
☑ Sample containers intact
☐ Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 0.9 Temperature Blank used ☑ Yes ☐ No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: ☐ Yes ☐ No ☑ Unknown

Initial pH 5-9?: ☐ Yes ☐ No ☑ NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: ☐ Yes ☐ No ☑ NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: ☐ Yes ☐ No ☑ NA
Individual sample deviations noted on sample log

Samples Containers:
Samples returned in PC-grade jars: ☐ Yes ☐ No ☑ Unknown /Lot No.: Unknown

Storage Location: Custody: Refrigerator - R0119 (NA) **BDO IDs Assigned:** J8352 - J8411

Samples logged in by: Schumitz, Matt **Date/Time:** 09/27/2018 10:30 AM

Approved By: Fitch, Ellyn **Approved On:** 10/8/2018 8:44:00 AM

Authorized By: **Authorized On:**

BATTELLE
It can be done

ShpNo: SHP-180927-02

Battelle Project No: 0110125-01

Report Corrective Actions

Corrective Action No: 1 **of** 1

Authorized ☐ **Approved:** ☐

COC Client: CH2M

COC Project: NBVC Basewide SI

COC Date: 9/27/2018 8:37:0

BATTELLE
It can be done

ShpNo: SHP-180927-02

Battelle Project No: 0110125-01

Report Corrective Actions

Corrective Action No: 1 **of** 1

Authorized ☐ Approved: ☐

	Description of Problem:	Explanation:
Client Id	Jars and C-O-C do not have matching Ids	VC-SO-FB05-092418 has 1 bottle that matches the COC and the 1 bottle labelled as VC-AQ-FB05-092418
	Jars and C-O-C do not have matching Ids	VC-SO-EB05-092418 has 1 bottle that matches that ID and the 1 bottle labelled as VC-AQ-EB05-092418
	Jars and C-O-C do not have matching Ids	VC-AQ-FB-092518 and VC-AQ-EB-092518 contain "06" after the FB and EB on the sample labels.
	Jars and C-O-C do not have matching Ids	The last COC has 6 samples that don't match from COC to sample labels. COC Label VC-AOC16-SB01-0918 VC-AOC16-SB01-0102 VC-AOC16-SB01-0918 VC-AOC16-SB01-0506 VC-AOC16-SB02-0918 VC-AOC16-SB02-0102 VC-AOC16-SB02-0918 VC-AOC16-SB02-0506 VC-AOC16-SB03-0918 VC-AOC16-SB03-0102 VC-AOC16-SB03-0918 VC-AOC16-SB03-0506
	Jars and C-O-C do not have matching Ids	Sample VC-PM324-SB03-0102-MSD does not have 0102 listed on the sample label.
	Jars and C-O-C do not have matching Ids	The EB and FB samples do not match COC to Bottle: COC VC-SO-FB05-092418 (J8368) VC-SO-EB05-092418 (J8369) VC-AQ-FB-092518 (J8398) VC-AQ-EB-092518 (J8399) Labels 1 bottle: VC-SO-FB05-092418, 1 bottle: VC-AQ-FB05-092418 (J8368) 1 bottle: VC-SO-EB05-092418, 1 bottle: VC-AQ-EB05-092418 (J8369) VC-SO-FB06-092518 (J8398) VC-SO-EB06-092518 (J8399)

Documentation of project manager notification

Sample Custodian	Schumitz, Matt	**Date:**	9/27/2018 2:24:00 PM
Laboratory Manager:	Thorn, Jonathan	**Date:**	10/5/2018 11:01:00 A
Project Manager:	Thorn, Jonathan	**Date:**	10/5/2018 11:01:00 A

BATTELLE
It can be done

ShpNo: SHP-180927-02

Battelle Project No: 0110125-01

Report Corrective Actions

Corrective Action No: 1 **of** 1

Authorized ☐ Approved: ☐

Documentation of client notification (should be completed by project manager within 24 hrs):

On 27-Sep-18 **I contacted** Hill, Tiffany **at** CH2M

Results of communication with client (Describe any corrective action directed by the client):

Received clarification on all sample IDs from client. Email is included in the COC records.

Date this form was received back to the custodian: _____

Reference Number: _____

Fitch, Ellyn M

From: Schumitz, Matthew
Sent: Friday, October 05, 2018 7:31 AM
To: Thorn, Jonathan R
Cc: Fitch, Ellyn M
Subject: FW: SHP-180927-02 corrections

FYI

From: Hill, Tiffany/CVO <Tiffany.Hill@jacobs.com>
Sent: Thursday, October 04, 2018 4:54 PM
To: Schumitz, Matthew <SCHUMITZM@battelle.org>
Subject: RE: SHP-180927-02 corrections

Message received from outside the Battelle network. Carefully examine it before you open any links or attachments.

Hi Matthew,

The way you have it logged in now is correct. Sorry about my typo on the date collected.

Thanks,

Tiffany Hill | Jacobs | Chemist, ATEN-Global Environmental Solutions | 541.768.3109 direct | 541.908.3794 mobile | Tiffany.Hill@jacobs.com | www.jacobs.com

---

From: Schumitz, Matthew [mailto:SCHUMITZM@battelle.org]
Sent: Thursday, October 04, 2018 1:40 PM
To: Hill, Tiffany/CVO <Tiffany.Hill@jacobs.com>
Subject: [EXTERNAL] SHP-180927-02 corrections

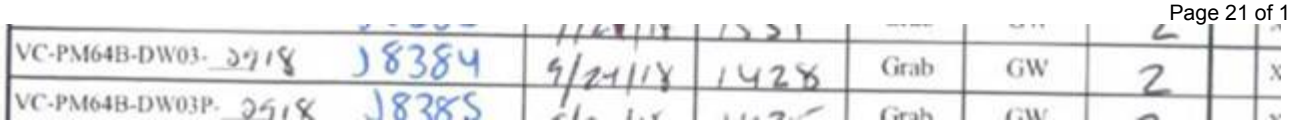
Hi Tiffany,

There has been some confusion with one of the corrections that you sent for us to make from the shipment we received on 9/27. See below I have snippets of your memo, the COC and our log in page.
The sample ID appears to correct across the board, but we do notice that the collection date is listed as 9/25/18 on your memo, should we change that to reflect that date?

If it would be easier we can have a quick chat or however you think is best to handle this.

Thanks

J8384	VC-PM64B-DW02-0918	VC-PM64B-DW03-0918	9/25/18	14:28	SHP-180927-02



VC-PM64B-DW03-0918	J8384	9/24/18	1428	Grab	GW	2	
VC-PM64B-DW03P-0918	J8385			Grab	GW		

J8384	VC-PM64B-DW03-0918	09/24/18 14:28

Matthew Schumitz

Technician - Sample Custodian
Analytical Chemistry Services
Office: 781.681.5588
schumitzm@battelle.org

Battelle
141 Longwater Dr.
Suite 202
Norwell, MA 02061
http://www.battelle.org

Connect with Battelle
Facebook | LinkedIn
Twitter | YouTube

This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and/or otherwise exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, any disclosure, dissemination, distribution, copying or other use of this communication or its substance is prohibited. If you have received this communication in error, please return to the sender and delete from your computer system.

NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.

MEMORANDUM CH2MHILL

Corrections to COCs

TO: Jonathan Thorn, Battelle

COPIES: File
Laboratory Package SDG: SHP 180927-02

FROM: Tiffany Hill
Project Chemist

DATE: October 1, 2018

This memo is to document corrections made to entries on the Chains of Custody (COC) and Logins for NB Ventura County, CTO-4164.

The corrections include changes to the sample IDs on the COC and Login:

Battelle ID	Sample ID on Login	Correct Sample ID	Date Collected	Time Collected	SDG
J8384	VC-PM64B-DW02-0918	VC-PM64B-DW03-0918	9/25/18	14:28	SHP-180927-02
J8404	VC-AOC16-SB01-0918	VC-AOC16-SB01-0102	9/25/18	9:43	SHP-180927-02
J8405	VC-AOC16-SB01-0918	VC-AOC16-SB01-0506	9/25/18	9:57	SHP-180927-02
J8407	VC-AOC16-SB02-0918	VC-AOC16-SB02-0102	9/25/18	10:06	SHP-180927-02
J8408	VC-AOC16-SB02-0918	VC-AOC16-SB02-0506	9/25/18	10:10	SHP-180927-02
J8410	VC-AOC16-SB03-0918	VC-AOC16-SB03-0102	9/25/18	9:44	SHP-180927-02
J8411	VC-AOC16-SB03-0918	VC-AOC16-SB03-0506	9/25/18	9:53	SHP-180927-02

BATTELLE
It can be done

ShpNo SHP-180927-02

Battelle Project No:0110125-01

Sample Receipt Form Details

Approved: ☑ Authorized ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Thursday, September 27, 2018 10:30 AM

No. of Shipping Containers: 2

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8352	VC-PM323-SS01-000H	09/24/18 9:52	09/27/18 8:42	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8353	VC-PM323-SB01-0102	09/24/18 9:53	09/27/18 8:42	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8354	VC-PM323-SB01-0506	09/24/18 10:01	09/27/18 8:43	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8355	VC-PM323-SS03-000H	09/24/18 9:20	09/27/18 8:43	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8356	VC-PM323-SB03-0102	09/24/18 9:23	09/27/18 8:43	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8357	VC-PM323-SB03-0506	09/24/18 10:30	09/27/18 8:44	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8358	VC-PM323-DW01-0918	09/24/18 10:21	09/27/18 8:44	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8359	VC-PM323-DW03-0918	09/24/18 11:10	09/27/18 8:45	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8360	VC-PM324-SS01-000H	09/24/18 13:08	09/27/18 9:13	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8361	VC-PM324-SB01-0102	09/24/18 13:11	09/27/18 9:13	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8362	VC-PM324-SB01-0506	09/24/18 13:30	09/27/18 9:14	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8363	VC-PM324-SS03-000H	09/24/18 10:49	09/27/18 9:15	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8364	VC-PM324-SB03-0102	09/24/18 10:50	09/27/18 9:15	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8365	VC-PM324-SB03-0506	09/24/18 11:02	09/27/18 9:16	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8366	VC-PM324-SB03-0102-MS	09/24/18 10:50	09/27/18 9:16	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8367	VC-PM324-SB03-0102-MSD	09/24/18 10:50	09/27/18 9:17	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8368	VC-SO-FB05-092418	09/24/18 13:30	09/27/18 9:17	2	AQ	0.2	NA	NA	NA	R0119 (NA)			
J8369	VC-SO-EB05-092418	09/24/18 13:30	09/27/18 9:18	2	AQ	0.2	NA	NA	NA	R0119 (NA)			
J8370	VC-PM324-DW01-0918	09/24/18 13:45	09/27/18 9:19	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8371	VC-PM324-DW01P-0918	09/24/18 14:02	09/27/18 9:19	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8372	VC-PM324-DW03-0918	09/24/18 11:15	09/27/18 9:20	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8373	VC-PM64B-SS01-000H	09/24/18 14:34	09/27/18 9:21	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8374	VC-PM64B-SB01-0102	09/24/18 14:38	09/27/18 9:22	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8375	VC-PM64B-SB01-0506	09/24/18 14:50	09/27/18 9:22	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8376	VC-PM64B-SS02-000H	09/24/18 15:02	09/27/18 9:23	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8377	VC-PM64B-SB02-0102	09/24/18 15:03	09/27/18 9:23	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8378	VC-PM64B-SB02-0506	09/24/18 15:16	09/27/18 9:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8379	VC-PM64B-SS03-000H	09/24/18 13:52	09/27/18 9:24	1	SS	0.9	NA	NA	NA	R0119 (NA)			

BATTELLE
It can be done

ShpNo SHP-180927-02

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☑ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Thursday, September 27, 2018 10:30 AM

No. of Shipping Containers: 2

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8380	VC-PM64B-SB03-0102	09/24/18 13:53	09/27/18 9:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8381	VC-PM64B-SB03-0506	09/24/18 14:13	09/27/18 9:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8382	VC-PM64B-DW01-0918	09/24/18 15:00	09/27/18 9:25	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8383	VC-PM64B-DW02-0918	09/24/18 15:31	09/27/18 9:26	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8384	VC-PM64B-DW03-0918	09/24/18 14:28	09/27/18 9:26	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8385	VC-PM64B-DW03P-0918	09/24/18 14:35	09/27/18 9:26	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8386	VC-HS09-SB01-0102	09/25/18 13:21	09/27/18 9:27	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8387	VC-HS09-SB01-0506	09/25/18 14:04	09/27/18 9:28	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8388	VC-HS09-SB02-0102	09/25/18 14:39	09/27/18 9:28	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8389	VC-HS09-SB02-0506	09/25/18 14:47	09/27/18 9:29	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8390	VC-HS09-SS03-000H	09/25/18 12:54	09/27/18 9:29	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8391	VC-HS09-SB03-0102	09/25/18 12:55	09/27/18 9:29	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8392	VC-HS09-SB03-0506	09/25/18 13:05	09/27/18 9:30	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8393	VC-HS09-SB03-0506-MS	09/25/18 13:05	09/27/18 9:30	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8394	VC-HS09-SB03-0506-MSD	09/25/18 13:05	09/27/18 9:30	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8395	VC-HS09-DW01-0918	09/25/18 14:25	09/27/18 9:31	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8396	VC-HS09-DW02-0918	09/25/18 15:03	09/27/18 9:31	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8397	VC-HS09-DW03-0918	09/25/18 13:19	09/27/18 9:31	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8398	VC-AQ-FB-092518	09/25/18 14:35	09/27/18 9:32	2	AQ	0.2	NA	NA	NA	R0119 (NA)			
J8399	VC-AQ-EB-092518	09/25/18 14:30	09/27/18 9:32	2	AQ	0.2	NA	NA	NA	R0119 (NA)			
J8400	VC-HS09-DW03P-0918	09/25/18 13:56	09/27/18 9:33	2	GW	0.2	NA	NA	NA	R0119 (NA)			
J8401	VC-HS09-SS01-000H	09/25/18 13:20	09/27/18 9:33	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8402	VC-HS09-SS02-000H	09/25/18 14:35	09/27/18 9:34	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8403	VC-AOC16-SS01-000H	09/25/18 9:43	09/27/18 9:35	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8404	VC-AOC16-SB01-0102	09/25/18 9:43	09/27/18 9:35	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8405	VC-AOC16-SB01-0506	09/25/18 9:57	09/27/18 9:35	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8406	VC-AOC16-SS02-000H	09/25/18 10:05	09/27/18 9:36	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8407	VC-AOC16-SB02-0102	09/25/18 10:06	09/27/18 9:37	1	SB	0.9	NA	NA	NA	R0119 (NA)			

BATTELLE
It can be done

ShpNo SHP-180927-02

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☑ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Thursday, September 27, 2018 10:30 AM

No. of Shipping Containers: 2

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8408	VC-AOC16-SB02-0506	09/25/18 10:10	09/27/18 9:37	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8409	VC-AOC16-SS03-000H	09/25/18 9:43	09/27/18 9:37	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8410	VC-AOC16-SB03-0102	09/25/18 9:44	09/27/18 9:38	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8411	VC-AOC16-SB03-0506	09/25/18 9:53	09/27/18 9:38	1	SB	0.9	NA	NA	NA	R0119 (NA)			

Total Samples: 60

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 3
Project Name: NBVC Basewide SI	Normal X Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 1 of 10
Project No.: 675803	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM323-SS01-000H J8352	9/24/18	0952	Grab	SS	1	X
VC-PM323-SB01-0102 J8353	9/24/18	0953	Grab	SB	1	X
VC-PM323-SB01-0506 J8354	9/24/18	1001	Grab	SB	1	X
~~VC-PM323-SS02-000H~~			~~Grab~~	~~SS~~		~~X~~
~~VC-PM323-SB02-~~			~~Grab~~	~~SB~~		~~X~~
~~VC-PM323-SB02-~~			~~Grab~~	~~SB~~		~~X~~
VC-PM323-SS03-000H J8355	9/24/18	0920	Grab	SS	1	X
VC-PM323-SB03-0102 J8356	9/24/18	0923	Grab	SB	1	X
VC-PM323-SB03-0506 J8357	9/24/18	1030	Grab	SB	1	X
~~VC-PM323-S-MS~~			~~Grab~~			~~X~~
~~VC-PM323-S-SD~~			~~Grab~~			~~X~~
~~FDT-SO-FB~~			~~Grab~~	~~AQ~~		~~X~~

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Victoria Kilbert	Jacobs	9/26/18 1400		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-577-8628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:		
Project Name: NBVC Basewide SI	Normal ☒ Priority ☐ RUSH ☐		COC # 3
Project No.: 695803	Time Zone: PST		Page# 2 of 10

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: PFAS by Method 537 Mod	Preservative: NA
VC-PM323-DW01-0918 J8358	9/24/18	1021	Grab	GW	2	X	
~~VC-PM323-DW02~~			Grab	GW		X	
~~VC-PM323-DW02P~~			Grab	GW		X	
VC-PM323-DW03-0918 J8359	9/24/18	1110	Grab	GW	2	X	
~~FDT-AQ-FB~~			Grab	AQ		X	
~~FDT-AQ-EB~~			Grab	AQ		X	

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign)	Company	Date/Time	Received by (Print/Sign)	Company	Date/Time
V. Kilbert	Jacobs	9/26/18 1400	NM	Battelle	9-27-18 1030

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information
Tiffany Hill
1100 NE Circle Blvd, Suite 300
Corvallis, OR
97330

Project Manager: Eric Davis
Sampler Information (print name): V. Kilbert
Phone: 724-977-3628
Email: victor.r.kilbert@jacobs.com
Turnaround Time (TAT) Requested:
Normal ☒
Priority ☐
RUSH ☐
Time Zone: PST

Project Name: NBVC Basewide SI
Project No.: 695803

Sampling Site: PM324

Site Information:

COC # 3

Page# 3 of 10

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: Preservative NA	Analysis: PFAS by Method 537 Mod
VC-PM324-SS01-000H J8360	9/24/18	1308	Grab	SS	1		X
VC-PM324-SB01-0102 J8361	9/24/18	1311	Grab	SB	1		X
VC-PM324-SB01-0506 J8362	9/24/18	1330	Grab	SB	1		X
~~VC-PM324-SS02-000H~~			Grab	SS			X
~~VC-PM324-SB02-~~			Grab	SB			X
~~VC-PM324-SB02-~~			Grab	SB			X
VC-PM324-SS03-000H J8363	9/24/18	1049	Grab	SS	1		X
VC-PM324-SB03-0102 J8364	9/24/18	1050	Grab	SB	1		X
VC-PM324-SB03-0506 J8365	9/24/18	1102	Grab	SB	1		X
VC-PM324-SB03-0102-MS J8366 (VB)	9/24/18	1050	Grab	SB	1		X
VC-PM324-SB03-0102-MSD J8367	9/24/18	1050	Grab	SB	1		X
~~EDT-SO-FB05~~-092418 J8368 VC	9/24/18	1330	Grab	AQ	2		X

~~GW screen~~

Receipt Temperature:(°C)

Samples Intact: Yes - No

Samples on Ice: Yes - No

Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/24/18 1400		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:		
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST		COC # 3 Page# 4 of 10

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Preservative: NA	Analysis: PFAS by Method 537 Mod
~~FDT~~-SO-EB-05-092418 J8369	9/24/18	1330	Grab	AQ	2		X

on GW screen

VK

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/24/18 1400		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 3
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 5 of 10

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM324-DW01-0918 J8370	9/24/18	1345	Grab	GW	2	X
VC-PM324-DW01P-0918 J8371	9/24/18	1402	Grab	GW	2	X
~~VC-PM324-DW02~~			~~Grab~~	~~GW~~		X
VC-PM324-DW03-0918 J8372	9/24/18	1115	Grab	GW	2	X
~~FDT-AQ-FB~~			Grab	AQ		X
~~FDT-AQ-EB~~			~~Grab~~	~~AQ~~		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/24/18 1400	M	Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM64B	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724 977 3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 3
Project Name: NBVC Basewide SI	Normal ☒ Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 6 of 10
Project No.: 695803	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM64B-SS01-000H J8373	9/24/18	1434	Grab	SS	1	X
VC-PM64B-SB01-0102 J8374	9/24/18	1438	Grab	SB	1	X
VC-PM64B-SB01-0506 J8375	9/24/18	1450	Grab	SB	1	X
VC-PM64B-SS02-000H J8376	9/24/18	1502	Grab	SS	1	X
VC-PM64B-SB02-0102 J8377	9/24/18	1503	Grab	SB	1	X
VC-PM64B-SB02-0506 J8378	9/24/18	1516	Grab	SB	1	X
VC-PM64B-SS03-000H J8379	9/24/18	1352	Grab	SS	1	X
VC-PM64B-SB03-0102 J8380	9/24/18	1353	Grab	SB	1	X
VC-PM64B-SB03-0506 J8381	9/24/18	1413	Grab	SB	1	X
~~VC-PM64B-S MS~~			~~Grab~~			X
~~VC-PM64B-S SD~~			~~Grab~~			X
~~FDT-SO-FB~~			~~Grab~~	~~AQ~~		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V Kilbert	Jacobs	9/26/18 1400		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM64B	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: Email: 724.977-3628 Turnaround Time (TAT) Requested:	Preservative: NA	COC #: 3
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☒ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page#: 7 A 10

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM64B-DW01-0918 J8382	9/24/18	1500	Grab	GW	2	X
VC-PM64B-DW02-0918 J8383	9/24/18	1531	Grab	GW	2	X
VC-PM64B-DW03-0918 J8384	9/24/18	1428	Grab	GW	2	X
VC-PM64B-DW03P-0918 J8385	9/24/18	1435	Grab	GW	2	X
~~FDT-AQ-EB~~			Grab	AQ		X
~~FDT-AQ-EB~~			Grab	AQ		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/26/18 1700		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: HS09	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email:	Preservative: NA	COC # 3
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal ☒ Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 8 of 10
Project No.: 695503	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: PFAS by Method 537 Mod
VC-HS09-SB01-0102 J8386	9/25/18	1321	Grab	SB	1	X
VC-HS09-SB01-0506 J8387	9/25/18	1404	Grab	SB	1	X
VC-HS09-SB02-0102 J8388	9/25/18	1439	Grab	SB	1	X
VC-HS09-SB02-0506 J8389	9/25/18	1447	Grab	SB	1	X
VC-HS09-SS03-0004 J8390	9/25/18	1254	Grab	SS	1	X
VC-HS09-SB03-0102 J8391	9/25/18	1255	Grab	SB	1	X
VC-HS09-SB03-0506 J8392	9/25/18	1305	Grab	SB	1	X
J8393 VC-HS09-SB03-0506-MS	9/25/18	1305	Grab	SB	1	X
J8394 VC-HS09-SB03-0506-MSD	9/25/18	1305	Grab	SB	1	X
~~FDT-SO-FB~~			~~Grab~~	~~AQ~~		~~X~~
~~FDT-SO-EB~~			~~Grab~~	~~AQ~~		~~X~~

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	9/26/18 1400		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information
Tiffany Hill
1100 NE Circle Blvd, Suite 300
Corvallis, OR
97330

Project Manager: Eric Davis
Sampler Information (print name): V. Kilbut
Phone: 724-977-3628
Email:

Turnaround Time (TAT) Requested:
Normal ☒
Priority ☐
RUSH ☐

Project Name: NBVC Basewide SI
Project No.: 695803
Time Zone: PST

Sampling Site: HS09
Site Information:

COC # 3
Page# 9 of 10

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Preservative: NA	Analysis: PFAS by Method 537 Mod
~~VC-S09GW01-~~			~~Grab~~	~~GW~~			X
~~VC-S09GW04-~~			~~Grab~~	~~GW~~			X
~~VC-S09GW04P-~~			~~Grab~~	~~GW~~			X
VC-HS09-DW01-0918 J8395	9/25/18	1425	Grab	GW	2		X
VC-HS09-DW02-0918 J8396	9/25/18	1503	Grab	GW	2		X
VC-HS09-DW03-0918 J8397	9/25/18	1319	Grab	GW	2		X
(VC) VC-~~FDT~~-AQ-FB-092518 J8398	9/25/18	1435	Grab	AQ	2		X
VC-~~FDT~~-AQ-EB-092518 J8399	9/25/18	~~1350~~ 1439	Grab	AQ	2		X
J8400 VC-HS09-DW03P-0918	9/25/18	1356	Grab	GW	2		X
J8401 VC-HS09-SS01-000H	9/25/18	1320	Grab	SS	1		X
J8402 VC-HS09-SS02-000H	9/25/18	1435	Grab	SS	1		X
			~~Grab~~				

Receipt Temperature:(°C)

Samples Intact: Yes - No

Samples on Ice: Yes - No

Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V Kilbut	Jacobs	9/26/18 1400	NM	Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

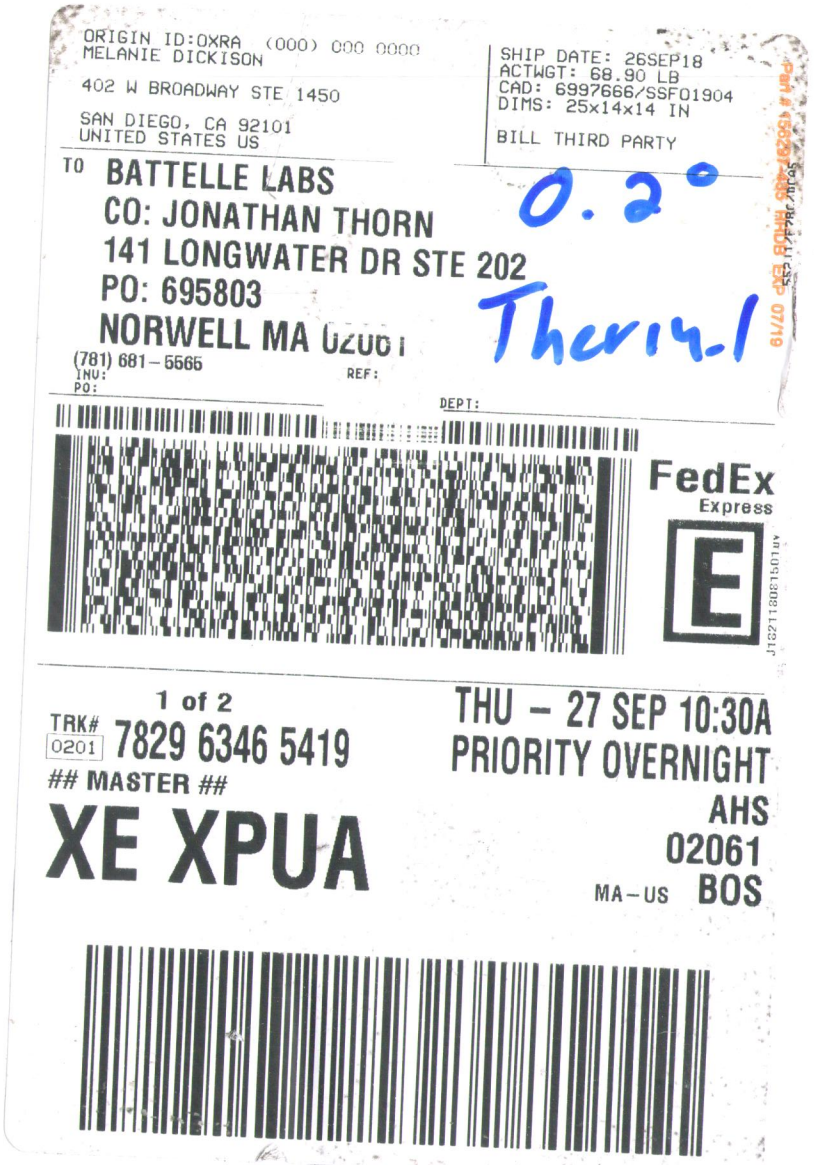
Client Contact Information	Project Manager: Eric Davis	Sampling Site: AOC 16	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email:	Preservative: NA	COC # 3
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal [X] Priority [ ] RUSH [ ]	Analysis: PFAS by Method 537 Mod	Page# 10 of 10
Project No.: 695803	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-AOC16-SS01-000H J8403	7/25/18	0943	Grab	SS	1	X
VC-AOC16-SB01-0918 J8404	7/25/18	0944	Grab	SB	1	X
VC-AOC16-SB01-0918 J8405	7/25/18	0957	Grab	SB	1	X
VC-AOC16-SS02-000H J8406	7/25/18	1005	Grab	SS	1	X
VC-AOC16-SB02-0918 J8407	7/25/18	1006	Grab	SB	1	X
VC-AOC16-SB02-0918 J8408	7/25/18	1010	Grab	SB	1	X
VC-AOC16-SS03-000H J8409	7/25/18	0943	Grab	SS	1	X
VC-AOC16-SB03-0918 J8410	7/25/18	0944	Grab	SB	1	X
VC-AOC16-SB03-0918 J8411	7/25/18	0953	Grab	SB	1	X
~~VC-AOC16-S - -MS~~			~~Grab~~			~~X~~
~~VC-AOC16-S - -SD~~			~~Grab~~			~~X~~
~~FDT-SO-EB~~			~~Grab~~	AQ		~~X~~

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
V. Kilbert	Jacobs	7/26/18 1400		Battelle	9-27-18 1030
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:


ORIGIN ID:OXRA (000) 000 0000
MELANIE DICKISON
402 W BROADWAY STE 1450
SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 26SEP18
ACTWGT: 68.90 LB
CAD: 6997666/SSFO1904
DIMS: 25x14x14 IN
BILL THIRD PARTY

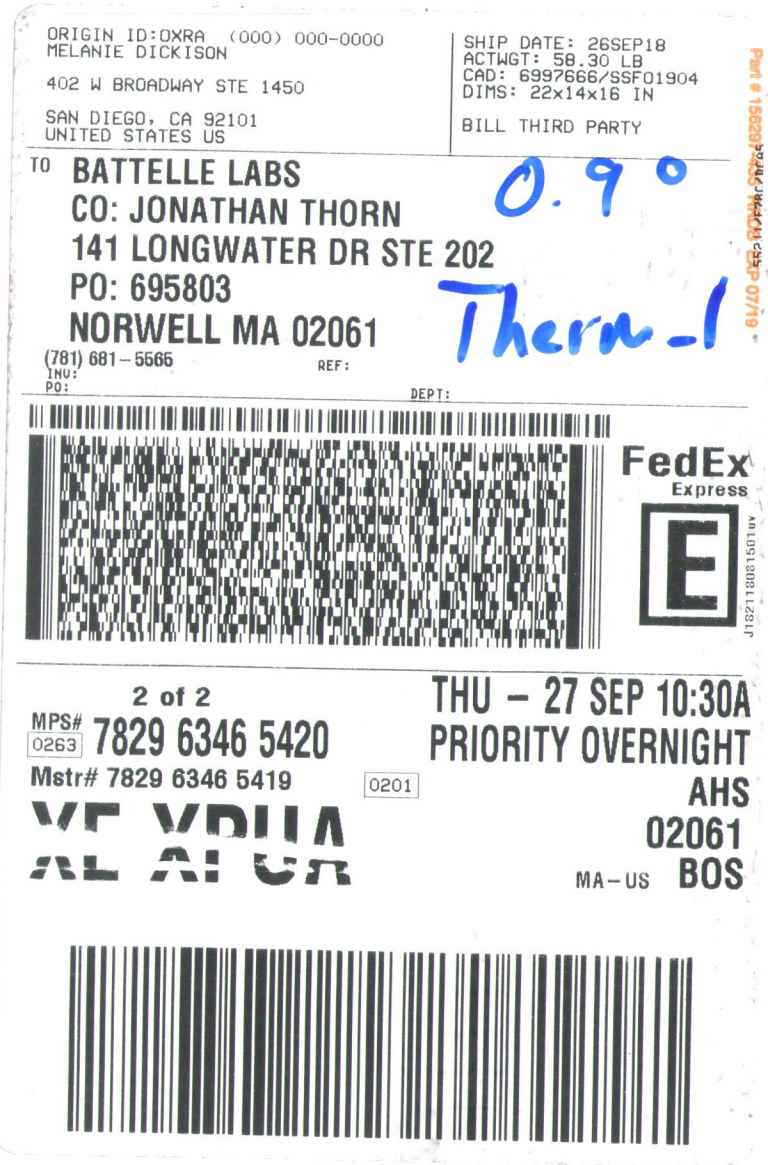
TO BATTELLE LABS
CO: JONATHAN THORN
141 LONGWATER DR STE 202
PO: 695803
NORWELL MA 02061
(781) 681-5565
INV:
PO:
REF:
DEPT:

0.2°
Therm_1

FedEx Express

1 of 2
TRK# 0201 7829 6346 5419
MASTER
XE XPUA

THU - 27 SEP 10:30A
PRIORITY OVERNIGHT
AHS
02061
MA-US BOS


ORIGIN ID:OXRA (000) 000-0000
MELANIE DICKISON
402 W BROADWAY STE 1450
SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 26SEP18
ACTWGT: 58.30 LB
CAD: 6997666/SSFO1904
DIMS: 22x14x16 IN
BILL THIRD PARTY

TO BATTELLE LABS
CO: JONATHAN THORN
141 LONGWATER DR STE 202
PO: 695803
NORWELL MA 02061
(781) 681-5565
INV:
PO:
REF:
DEPT:

0.9°
Therm_1

FedEx Express

2 of 2
MPS# 0263 7829 6346 5420
Mstr# 7829 6346 5419
0201
XE XPUA

THU - 27 SEP 10:30A
PRIORITY OVERNIGHT
AHS
02061
MA-US BOS

Data Tables

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM323-DW01-0918				
Battelle ID		J8358-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/14/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.002				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	98691.97	D	593.75	1562.50	15625.00
PFHpA	375-85-9	19268.22	D	200.00	625.00	6250.00
PFOA	335-67-1	78844.62	D	562.50	1562.50	15625.00
PFNA	375-95-1	3302.84		32.50	125.00	625.00
PFDA	335-76-2	142.55	J	20.00	62.50	625.00
PFUnA	2058-94-8	83.00	J	36.25	125.00	625.00
PFDoA	307-55-1	62.50	U	22.50	62.50	625.00
PFTrDA	72629-94-8	62.50	U	18.75	62.50	625.00
PFTeDA	376-06-7	125.00	U	31.25	125.00	625.00
NMeFOSAA	2355-31-9	250.00	U	70.00	250.00	625.00
NEtFOSAA	2991-50-6	125.00	U	61.25	125.00	625.00
PFBS	375-73-5	28789.50	D	162.50	625.00	6250.00
PFHxS	355-46-4	223525.26	D	343.75	1250.00	15625.00
PFOS	1763-23-1	2146745.62	D	5937.50	15625.00	156250.00

Surrogate Recoveries (%)

13C5-PFHxA	99	
13C4-PFHpA	94	
13C8-PFOA	71	
13C9-PFNA	99	D
13C6-PFDA	106	
13C7-PFUnA	112	D
13C2-PFDoA	96	D
13C2-PFTeDA	97	D
d3-MeFOSAA	108	D
d5-EtFOSAA	113	D
13C3-PFBS	101	D
13C3-PFHxS	101	D
13C8-PFOS	101	D

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM323-DW03-0918				
Battelle ID		J8359-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/14/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.105				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	2066.04	D	22.62	59.52	595.24
PFHpA	375-85-9	715.02	D	3.81	11.90	119.05
PFOA	335-67-1	606.57	D	4.29	11.90	119.05
PFNA	375-95-1	2.38	U	0.62	2.38	11.90
PFDA	335-76-2	1.19	U	0.38	1.19	11.90
PFUnA	2058-94-8	2.38	U	0.69	2.38	11.90
PFDoA	307-55-1	1.19	U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19	U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38	U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76	U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38	U	1.17	2.38	11.90
PFBS	375-73-5	1643.89	D	15.48	59.52	595.24
PFHxS	355-46-4	11395.49	D	65.48	238.10	2976.19
PFOS	1763-23-1	23.19		0.45	1.19	11.90

Surrogate Recoveries (%)

13C5-PFHxA	116
13C4-PFHpA	83
13C8-PFOA	87
13C9-PFNA	96
13C6-PFDA	112
13C7-PFUnA	116
13C2-PFDoA	106
13C2-PFTeDA	104
d3-MeFOSAA	91
d5-EtFOSAA	115
13C3-PFBS	127
13C3-PFHxS	87
13C8-PFOS	109

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-SO-FB05-092418				
Battelle ID		J8368-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/14/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		AQ				
Sample Size		0.275				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	0.45	U	0.17	0.45	4.55
PFHpA	375-85-9	0.45	U	0.15	0.45	4.55
PFOA	335-67-1	0.74	J	0.16	0.45	4.55
PFNA	375-95-1	0.91	U	0.24	0.91	4.55
PFDA	335-76-2	0.45	U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91	U	0.26	0.91	4.55
PFDoA	307-55-1	0.45	U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45	U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91	U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82	U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91	U	0.45	0.91	4.55
PFBS	375-73-5	0.45	U	0.12	0.45	4.55
PFHxS	355-46-4	0.36	U	0.10	0.36	4.55
PFOS	1763-23-1	0.26	J	0.17	0.45	4.55

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	95
13C8-PFOA	104
13C9-PFNA	97
13C6-PFDA	115
13C7-PFUnA	111
13C2-PFDoA	100
13C2-PFTeDA	100
d3-MeFOSAA	91
d5-EtFOSAA	111
13C3-PFBS	103
13C3-PFHxS	93
13C8-PFOS	98

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-SO-EB05-092418				
Battelle ID		J8369-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/14/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		AQ				
Sample Size		0.295				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	44.45		0.16	0.42	4.24
PFHpA	375-85-9	4.71		0.14	0.42	4.24
PFOA	335-67-1	8.19	B	0.15	0.42	4.24
PFNA	375-95-1	0.85	U	0.22	0.85	4.24
PFDA	335-76-2	0.42	U	0.14	0.42	4.24
PFUnA	2058-94-8	0.85	U	0.25	0.85	4.24
PFDoA	307-55-1	0.42	U	0.15	0.42	4.24
PFTrDA	72629-94-8	0.42	U	0.13	0.42	4.24
PFTeDA	376-06-7	0.85	U	0.21	0.85	4.24
NMeFOSAA	2355-31-9	1.69	U	0.47	1.69	4.24
NEtFOSAA	2991-50-6	0.85	U	0.42	0.85	4.24
PFBS	375-73-5	16.43		0.11	0.42	4.24
PFHxS	355-46-4	133.30	D	2.33	8.47	105.93
PFOS	1763-23-1	213.24	D	4.03	10.59	105.93

Surrogate Recoveries (%)

13C5-PFHxA	103
13C4-PFHpA	104
13C8-PFOA	102
13C9-PFNA	93
13C6-PFDA	103
13C7-PFUnA	96
13C2-PFDoA	95
13C2-PFTeDA	94
d3-MeFOSAA	121
d5-EtFOSAA	133
13C3-PFBS	146
13C3-PFHxS	116
13C8-PFOS	129

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM324-DW01-0918				
Battelle ID		J8370-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.026				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	5674.50	D	45.67	120.19	1201.92
PFHpA	375-85-9	1939.55	D	38.46	120.19	1201.92
PFOA	335-67-1	3234.14	D	43.27	120.19	1201.92
PFNA	375-95-1	25.08	J	2.50	9.62	48.08
PFDA	335-76-2	4.81	U	1.54	4.81	48.08
PFUnA	2058-94-8	9.62	U	2.79	9.62	48.08
PFDoA	307-55-1	4.81	U	1.73	4.81	48.08
PFTrDA	72629-94-8	4.81	U	1.44	4.81	48.08
PFTeDA	376-06-7	9.62	U	2.40	9.62	48.08
NMeFOSAA	2355-31-9	19.23	U	5.38	19.23	48.08
NEtFOSAA	2991-50-6	9.62	U	4.71	9.62	48.08
PFBS	375-73-5	3962.93	D	31.25	120.19	1201.92
PFHxS	355-46-4	31307.48	D	52.88	192.31	2403.85
PFOS	1763-23-1	8879.00	D	45.67	120.19	1201.92

Surrogate Recoveries (%)

13C5-PFHxA	130	
13C4-PFHpA	99	
13C8-PFOA	82	
13C9-PFNA	84	
13C6-PFDA	116	
13C7-PFUnA	121	
13C2-PFDoA	105	
13C2-PFTeDA	105	
d3-MeFOSAA	118	
d5-EtFOSAA	120	
13C3-PFBS	118	D
13C3-PFHxS	105	
13C8-PFOS	88	

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM324-DW01P-0918				
Battelle ID		J8371-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.026				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	5198.88	D	91.35	240.38	2403.85
PFHpA	375-85-9	2501.85	D	15.38	48.08	480.77
PFOA	335-67-1	2752.83	D	86.54	240.38	2403.85
PFNA	375-95-1	26.17	J	2.50	9.62	48.08
PFDA	335-76-2	4.81	U	1.54	4.81	48.08
PFUnA	2058-94-8	9.62	U	2.79	9.62	48.08
PFDoA	307-55-1	4.81	U	1.73	4.81	48.08
PFTrDA	72629-94-8	4.81	U	1.44	4.81	48.08
PFTeDA	376-06-7	9.62	U	2.40	9.62	48.08
NMeFOSAA	2355-31-9	19.23	U	5.38	19.23	48.08
NEtFOSAA	2991-50-6	9.62	U	4.71	9.62	48.08
PFBS	375-73-5	3728.11	D	62.50	240.38	2403.85
PFHxS	355-46-4	29104.43	D	105.77	384.62	4807.69
PFOS	1763-23-1	11017.63	D	91.35	240.38	2403.85

Surrogate Recoveries (%)

13C5-PFHxA	122	
13C4-PFHpA	95	
13C8-PFOA	85	
13C9-PFNA	75	
13C6-PFDA	113	
13C7-PFUnA	124	
13C2-PFDoA	104	
13C2-PFTeDA	108	
d3-MeFOSAA	133	
d5-EtFOSAA	101	D
13C3-PFBS	106	D
13C3-PFHxS	109	D
13C8-PFOS	109	D

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM324-DW03-0918			
Battelle ID		J8372-FS			
Sample Type		SA			
Collection Date		09/24/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.105			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	502.27 D	4.52	11.90	119.05
PFHpA	375-85-9	126.19	0.38	1.19	11.90
PFOA	335-67-1	229.72 D	4.29	11.90	119.05
PFNA	375-95-1	8.17 J	0.62	2.38	11.90
PFDA	335-76-2	1.17 J	0.38	1.19	11.90
PFUnA	2058-94-8	2.38 U	0.69	2.38	11.90
PFDoA	307-55-1	1.19 U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19 U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38 U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76 U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38 U	1.17	2.38	11.90
PFBS	375-73-5	168.44 D	3.10	11.90	119.05
PFHxS	355-46-4	1626.41 D	2.62	9.52	119.05
PFOS	1763-23-1	9041.91 D	28.27	74.40	744.05

Surrogate Recoveries (%)

13C5-PFHxA	140
13C4-PFHpA	126
13C8-PFOA	87
13C9-PFNA	58
13C6-PFDA	104
13C7-PFUnA	137
13C2-PFDoA	136
13C2-PFTeDA	127
d3-MeFOSAA	105 D
d5-EtFOSAA	126 D
13C3-PFBS	120 D
13C3-PFHxS	104 D
13C8-PFOS	110 D

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW01-0918				
Battelle ID		J8382-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.265				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	99.23	D	2.99	7.86	78.62
PFHpA	375-85-9	27.30		0.15	0.47	4.72
PFOA	335-67-1	58.43		0.17	0.47	4.72
PFNA	375-95-1	2.94	J	0.25	0.94	4.72
PFDA	335-76-2	0.40	J	0.15	0.47	4.72
PFUnA	2058-94-8	0.94	U	0.27	0.94	4.72
PFDoA	307-55-1	0.47	U	0.17	0.47	4.72
PFTrDA	72629-94-8	0.47	U	0.14	0.47	4.72
PFTeDA	376-06-7	0.94	U	0.24	0.94	4.72
NMeFOSAA	2355-31-9	1.89	U	0.53	1.89	4.72
NEtFOSAA	2991-50-6	0.94	U	0.46	0.94	4.72
PFBS	375-73-5	32.30		0.12	0.47	4.72
PFHxS	355-46-4	720.19	D	1.73	6.29	78.62
PFOS	1763-23-1	715.75	D	2.99	7.86	78.62
Surrogate Recoveries (%)						
13C5-PFHxA		118				
13C4-PFHpA		121				
13C8-PFOA		97				
13C9-PFNA		92				
13C6-PFDA		107				
13C7-PFUnA		132				
13C2-PFDoA		122				
13C2-PFTeDA		115				
d3-MeFOSAA		96	D			
d5-EtFOSAA		112	D			
13C3-PFBS		100				
13C3-PFHxS		96	D			
13C8-PFOS		104				

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW02-0918				
Battelle ID		J8383-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.105				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	812.74	D	4.52	11.90	119.05
PFHpA	375-85-9	199.04	D	3.81	11.90	119.05
PFOA	335-67-1	252.73	D	4.29	11.90	119.05
PFNA	375-95-1	150.59		0.62	2.38	11.90
PFDA	335-76-2	16.06		0.38	1.19	11.90
PFUnA	2058-94-8	2.38	U	0.69	2.38	11.90
PFDoA	307-55-1	1.19	U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19	U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38	U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76	U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38	U	1.17	2.38	11.90
PFBS	375-73-5	284.18	D	3.10	11.90	119.05
PFHxS	355-46-4	2491.69	D	13.10	47.62	595.24
PFOS	1763-23-1	7307.48	D	22.62	59.52	595.24

Surrogate Recoveries (%)

13C5-PFHxA	148	
13C4-PFHpA	140	
13C8-PFOA	94	
13C9-PFNA	59	
13C6-PFDA	102	
13C7-PFUnA	119	
13C2-PFDoA	112	
13C2-PFTeDA	106	
d3-MeFOSAA	102	D
d5-EtFOSAA	113	D
13C3-PFBS	115	D
13C3-PFHxS	99	D
13C8-PFOS	94	D

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW03-0918				
Battelle ID		J8384-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.105				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	1636.80	D	11.31	29.76	297.62
PFHpA	375-85-9	331.94	D	3.81	11.90	119.05
PFOA	335-67-1	580.04	D	4.29	11.90	119.05
PFNA	375-95-1	21.12		0.62	2.38	11.90
PFDA	335-76-2	0.55	J	0.38	1.19	11.90
PFUnA	2058-94-8	2.38	U	0.69	2.38	11.90
PFDoA	307-55-1	1.19	U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19	U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38	U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76	U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38	U	1.17	2.38	11.90
PFBS	375-73-5	159.09	D	3.10	11.90	119.05
PFHxS	355-46-4	5979.52	D	21.83	79.36	992.06
PFOS	1763-23-1	16829.57	D	125.66	330.69	3306.88

Surrogate Recoveries (%)

13C5-PFHxA	138	
13C4-PFHpA	107	
13C8-PFOA	84	
13C9-PFNA	51	
13C6-PFDA	110	
13C7-PFUnA	133	
13C2-PFDoA	122	
13C2-PFTeDA	112	
d3-MeFOSAA	98	D
d5-EtFOSAA	89	D
13C3-PFBS	93	D
13C3-PFHxS	96	D
13C8-PFOS	90	D

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW03P-0918				
Battelle ID		J8385-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.100				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	1674.97	D	4.75	12.50	125.00
PFHpA	375-85-9	306.25	D	4.00	12.50	125.00
PFOA	335-67-1	517.48	D	4.50	12.50	125.00
PFNA	375-95-1	22.45		0.65	2.50	12.50
PFDA	335-76-2	0.42	J	0.40	1.25	12.50
PFUnA	2058-94-8	2.50	U	0.73	2.50	12.50
PFDoA	307-55-1	1.25	U	0.45	1.25	12.50
PFTrDA	72629-94-8	1.25	U	0.38	1.25	12.50
PFTeDA	376-06-7	2.50	U	0.63	2.50	12.50
NMeFOSAA	2355-31-9	5.00	U	1.40	5.00	12.50
NEtFOSAA	2991-50-6	2.50	U	1.23	2.50	12.50
PFBS	375-73-5	163.78	D	3.25	12.50	125.00
PFHxS	355-46-4	6212.24	D	22.92	83.33	1041.66
PFOS	1763-23-1	14140.01	D	39.58	104.17	1041.66

Surrogate Recoveries (%)

13C5-PFHxA	145	
13C4-PFHpA	123	
13C8-PFOA	87	
13C9-PFNA	55	
13C6-PFDA	110	
13C7-PFUnA	123	
13C2-PFDoA	103	
13C2-PFTeDA	100	
d3-MeFOSAA	89	D
d5-EtFOSAA	109	D
13C3-PFBS	100	D
13C3-PFHxS	96	D
13C8-PFOS	107	D

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW01-0918				
Battelle ID		J8395-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.275				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	262.03	D	1.73	4.55	45.45
PFHpA	375-85-9	136.76		0.15	0.45	4.55
PFOA	335-67-1	685.22	D	8.18	22.73	227.27
PFNA	375-95-1	10.47		0.24	0.91	4.55
PFDA	335-76-2	0.45	U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91	U	0.26	0.91	4.55
PFDoA	307-55-1	0.45	U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45	U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91	U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82	U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	2.42	J	0.45	0.91	4.55
PFBS	375-73-5	90.23		0.12	0.45	4.55
PFHxS	355-46-4	415.01	D	1.00	3.64	45.45
PFOS	1763-23-1	104.13	D	1.73	4.55	45.45

Surrogate Recoveries (%)

13C5-PFHxA	56	
13C4-PFHpA	60	
13C8-PFOA	62	
13C9-PFNA	85	
13C6-PFDA	125	
13C7-PFUnA	141	
13C2-PFDoA	149	
13C2-PFTeDA	145	
d3-MeFOSAA	132	
d5-EtFOSAA	114	D
13C3-PFBS	70	
13C3-PFHxS	105	
13C8-PFOS	103	

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW02-0918				
Battelle ID		J8396-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.245				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	53.90		0.19	0.51	5.10
PFHpA	375-85-9	55.85		0.16	0.51	5.10
PFOA	335-67-1	257.28	D	1.84	5.10	51.02
PFNA	375-95-1	72.18		0.27	1.02	5.10
PFDA	335-76-2	5.95		0.16	0.51	5.10
PFUnA	2058-94-8	1.96	J	0.30	1.02	5.10
PFDoA	307-55-1	0.51	U	0.18	0.51	5.10
PFTrDA	72629-94-8	0.51	U	0.15	0.51	5.10
PFTeDA	376-06-7	1.02	U	0.26	1.02	5.10
NMeFOSAA	2355-31-9	2.04	U	0.57	2.04	5.10
NEtFOSAA	2991-50-6	1.02	U	0.50	1.02	5.10
PFBS	375-73-5	28.95		0.13	0.51	5.10
PFHxS	355-46-4	137.87	D	1.12	4.08	51.02
PFOS	1763-23-1	75.23	D	1.94	5.10	51.02

Surrogate Recoveries (%)

13C5-PFHxA	118
13C4-PFHpA	109
13C8-PFOA	84
13C9-PFNA	85
13C6-PFDA	109
13C7-PFUnA	108
13C2-PFDoA	103
13C2-PFTeDA	90
d3-MeFOSAA	112
d5-EtFOSAA	140
13C3-PFBS	134
13C3-PFHxS	124
13C8-PFOS	131

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW03-0918				
Battelle ID		J8397-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.290				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	75.12	D	1.64	4.31	43.10
PFHpA	375-85-9	33.17		0.14	0.43	4.31
PFOA	335-67-1	425.54	D	1.55	4.31	43.10
PFNA	375-95-1	25.33		0.22	0.86	4.31
PFDA	335-76-2	1.07	J	0.14	0.43	4.31
PFUnA	2058-94-8	0.86	U	0.25	0.86	4.31
PFDoA	307-55-1	0.43	U	0.16	0.43	4.31
PFTrDA	72629-94-8	0.43	U	0.13	0.43	4.31
PFTeDA	376-06-7	0.86	U	0.22	0.86	4.31
NMeFOSAA	2355-31-9	1.72	U	0.48	1.72	4.31
NEtFOSAA	2991-50-6	0.86	U	0.42	0.86	4.31
PFBS	375-73-5	38.45		0.11	0.43	4.31
PFHxS	355-46-4	161.02	D	0.95	3.45	43.10
PFOS	1763-23-1	259.97	D	1.64	4.31	43.10

Surrogate Recoveries (%)

13C5-PFHxA	94
13C4-PFHpA	103
13C8-PFOA	79
13C9-PFNA	80
13C6-PFDA	118
13C7-PFUnA	127
13C2-PFDoA	126
13C2-PFTeDA	122
d3-MeFOSAA	111
d5-EtFOSAA	143
13C3-PFBS	110
13C3-PFHxS	129
13C8-PFOS	108

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-AQ-FB-092518				
Battelle ID		J8398-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		AQ				
Sample Size		0.285				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	0.44	U	0.17	0.44	4.39
PFHpA	375-85-9	0.44	U	0.14	0.44	4.39
PFOA	335-67-1	0.80	J	0.16	0.44	4.39
PFNA	375-95-1	0.88	U	0.23	0.88	4.39
PFDA	335-76-2	0.44	U	0.14	0.44	4.39
PFUnA	2058-94-8	0.88	U	0.25	0.88	4.39
PFDoA	307-55-1	0.44	U	0.16	0.44	4.39
PFTrDA	72629-94-8	0.44	U	0.13	0.44	4.39
PFTeDA	376-06-7	0.88	U	0.22	0.88	4.39
NMeFOSAA	2355-31-9	1.75	U	0.49	1.75	4.39
NEtFOSAA	2991-50-6	0.88	U	0.43	0.88	4.39
PFBS	375-73-5	0.44	U	0.11	0.44	4.39
PFHxS	355-46-4	0.35	U	0.10	0.35	4.39
PFOS	1763-23-1	0.44	U	0.17	0.44	4.39

Surrogate Recoveries (%)

13C5-PFHxA	101
13C4-PFHpA	98
13C8-PFOA	100
13C9-PFNA	94
13C6-PFDA	110
13C7-PFUnA	120
13C2-PFDoA	106
13C2-PFTeDA	104
d3-MeFOSAA	105
d5-EtFOSAA	111
13C3-PFBS	105
13C3-PFHxS	97
13C8-PFOS	99

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-AQ-EB-092518				
Battelle ID		J8399-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		AQ				
Sample Size		0.285				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	0.44	U	0.17	0.44	4.39
PFHpA	375-85-9	0.44	U	0.14	0.44	4.39
PFOA	335-67-1	0.74	J	0.16	0.44	4.39
PFNA	375-95-1	0.88	U	0.23	0.88	4.39
PFDA	335-76-2	0.44	U	0.14	0.44	4.39
PFUnA	2058-94-8	0.88	U	0.25	0.88	4.39
PFDoA	307-55-1	0.44	U	0.16	0.44	4.39
PFTrDA	72629-94-8	0.44	U	0.13	0.44	4.39
PFTeDA	376-06-7	0.88	U	0.22	0.88	4.39
NMeFOSAA	2355-31-9	1.75	U	0.49	1.75	4.39
NEtFOSAA	2991-50-6	0.88	U	0.43	0.88	4.39
PFBS	375-73-5	0.69	J	0.11	0.44	4.39
PFHxS	355-46-4	0.35	U	0.10	0.35	4.39
PFOS	1763-23-1	0.17	J	0.17	0.44	4.39

Surrogate Recoveries (%)

13C5-PFHxA	109
13C4-PFHpA	100
13C8-PFOA	110
13C9-PFNA	98
13C6-PFDA	113
13C7-PFUnA	117
13C2-PFDoA	112
13C2-PFTeDA	122
d3-MeFOSAA	104
d5-EtFOSAA	119
13C3-PFBS	107
13C3-PFHxS	102
13C8-PFOS	94

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW03P-0918				
Battelle ID		J8400-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.275				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	487.07	D	1.73	4.55	45.45
PFHpA	375-85-9	76.66	D	1.45	4.55	45.45
PFOA	335-67-1	508.22	D	1.64	4.55	45.45
PFNA	375-95-1	37.79		0.24	0.91	4.55
PFDA	335-76-2	2.50	J	0.15	0.45	4.55
PFUnA	2058-94-8	0.91	U	0.26	0.91	4.55
PFDoA	307-55-1	0.45	U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45	U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91	U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82	U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91	U	0.45	0.91	4.55
PFBS	375-73-5	186.15	D	1.18	4.55	45.45
PFHxS	355-46-4	1776.55	D	16.67	60.61	757.58
PFOS	1763-23-1	5397.89	D	107.95	284.09	2840.91

Surrogate Recoveries (%)

13C5-PFHxA	79	
13C4-PFHpA	78	
13C8-PFOA	60	
13C9-PFNA	54	
13C6-PFDA	108	
13C7-PFUnA	140	
13C2-PFDoA	128	
13C2-PFTeDA	126	
d3-MeFOSAA	123	D
d5-EtFOSAA	118	D
13C3-PFBS	140	D
13C3-PFHxS	112	D
13C8-PFOS	99	D

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		KB80 IB			
Battelle ID		KB80 IB_10/14/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		10/14/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		Water			
Sample Size		0.250			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00
PFHpA	375-85-9	0.50 U	0.16	0.50	5.00
PFOA	335-67-1	0.50 U	0.18	0.50	5.00
PFNA	375-95-1	1.00 U	0.26	1.00	5.00
PFDA	335-76-2	0.50 U	0.16	0.50	5.00
PFUnA	2058-94-8	1.00 U	0.29	1.00	5.00
PFDoA	307-55-1	0.50 U	0.18	0.50	5.00
PFTrDA	72629-94-8	0.50 U	0.15	0.50	5.00
PFTeDA	376-06-7	1.00 U	0.25	1.00	5.00
NMeFOSAA	2355-31-9	2.00 U	0.56	2.00	5.00
NEtFOSAA	2991-50-6	1.00 U	0.49	1.00	5.00
PFBS	375-73-5	0.50 U	0.13	0.50	5.00
PFHxS	355-46-4	0.40 U	0.11	0.40	5.00
PFOS	1763-23-1	0.50 U	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	93
13C4-PFHpA	94
13C8-PFOA	106
13C9-PFNA	97
13C6-PFDA	106
13C7-PFUnA	94
13C2-PFDoA	99
13C2-PFTeDA	100
d3-MeFOSAA	87
d5-EtFOSAA	89
13C3-PFBS	90
13C3-PFHxS	93
13C8-PFOS	94

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		KB80 IB			
Battelle ID		KB80 IB_10/15/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		Water			
Sample Size		0.250			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00
PFHpA	375-85-9	- -	-	-	-
PFOA	335-67-1	0.50 U	0.18	0.50	5.00
PFNA	375-95-1	- -	-	-	-
PFDA	335-76-2	- -	-	-	-
PFUnA	2058-94-8	- -	-	-	-
PFDoA	307-55-1	- -	-	-	-
PFTrDA	72629-94-8	- -	-	-	-
PFTeDA	376-06-7	- -	-	-	-
NMeFOSAA	2355-31-9	- -	-	-	-
NEtFOSAA	2991-50-6	- -	-	-	-
PFBS	375-73-5	- -	-	-	-
PFHxS	355-46-4	0.40 U	0.11	0.40	5.00
PFOS	1763-23-1	0.50 U	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	- -
13C4-PFHpA	- -
13C8-PFOA	- -
13C9-PFNA	- -
13C6-PFDA	- -
13C7-PFUnA	- -
13C2-PFDoA	- -
13C2-PFTeDA	- -
d3-MeFOSAA	- -
d5-EtFOSAA	- -
13C3-PFBS	- -
13C3-PFHxS	- -
13C8-PFOS	- -

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		KB80 IB				KB80 IB
Battelle ID		KB80 IB_10/17/2018				KB80 IB_10/19/2018
Sample Type		IB				IB
Collection Date		NA				NA
Extraction Date		NA				NA
Analysis Date		10/17/2018				10/19/2018
Analytical Instrument		Sciex 5500 LC/MS/MS				Sciex 5500 LC/MS/MS
% Moisture		NA				NA
Matrix		Water				Water
Sample Size		0.250				0.250
Size Unit-Basis		L				NA
Units		ng/L	MDL	LOD	LOQ	ng/L
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00	0.50
PFHpA	375-85-9	0.50 U	0.16	0.50	5.00	0.50
PFOA	335-67-1	0.50 U	0.18	0.50	5.00	0.50
PFNA	375-95-1	1.00 U	0.26	1.00	5.00	1.00
PFDA	335-76-2	0.50 U	0.16	0.50	5.00	0.50
PFUnA	2058-94-8	1.00 U	0.29	1.00	5.00	1.00
PFDoA	307-55-1	0.50 U	0.18	0.50	5.00	0.50
PFTrDA	72629-94-8	0.50 U	0.15	0.50	5.00	0.50
PFTeDA	376-06-7	1.00 U	0.25	1.00	5.00	1.00
NMeFOSAA	2355-31-9	2.00 U	0.56	2.00	5.00	2.00
NEtFOSAA	2991-50-6	1.00 U	0.49	1.00	5.00	1.00
PFBS	375-73-5	0.50 U	0.13	0.50	5.00	0.50
PFHxS	355-46-4	0.40 U	0.11	0.40	5.00	0.40
PFOS	1763-23-1	0.50 U	0.19	0.50	5.00	0.50
Surrogate Recoveries (%)						
13C5-PFHxA		98				106
13C4-PFHpA		98				103
13C8-PFOA		101				104
13C9-PFNA		100				103
13C6-PFDA		103				99
13C7-PFUnA		102				101
13C2-PFDoA		98				102
13C2-PFTeDA		93				104
d3-MeFOSAA		100				59
d5-EtFOSAA		96				64
13C3-PFBS		95				88
13C3-PFHxS		103				86
13C8-PFOS		96				103

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID

Battelle ID
Sample Type
Collection Date
Extraction Date
Analysis Date
Analytical Instrument
% Moisture
Matrix
Sample Size
Size Unit-Basis

Units			MDL	LOD	LOQ
PFHxA	307-24-4	U	0.19	0.50	5.00
PFHpA	375-85-9	U	0.16	0.50	5.00
PFOA	335-67-1	U	0.18	0.50	5.00
PFNA	375-95-1	U	0.26	1.00	5.00
PFDA	335-76-2	U	0.16	0.50	5.00
PFUnA	2058-94-8	U	0.29	1.00	5.00
PFDoA	307-55-1	U	0.18	0.50	5.00
PFTrDA	72629-94-8	U	0.15	0.50	5.00
PFTeDA	376-06-7	U	0.25	1.00	5.00
NMeFOSAA	2355-31-9	U	0.56	2.00	5.00
NEtFOSAA	2991-50-6	U	0.49	1.00	5.00
PFBS	375-73-5	U	0.13	0.50	5.00
PFHxS	355-46-4	U	0.11	0.40	5.00
PFOS	1763-23-1	U	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	
13C4-PFHpA	
13C8-PFOA	
13C9-PFNA	
13C6-PFDA	
13C7-PFUnA	
13C2-PFDoA	
13C2-PFTeDA	
d3-MeFOSAA	
d5-EtFOSAA	
13C3-PFBS	
13C3-PFHxS	
13C8-PFOS	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		Procedural Blank			
Battelle ID		CR890PB-FS			
Sample Type		PB			
Collection Date		10/01/2018			
Extraction Date		10/01/2018			
Analysis Date		10/14/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		WATER			
Sample Size		0.250			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.50 U	0.19	0.50	5.00
PFHpA	375-85-9	0.50 U	0.16	0.50	5.00
PFOA	335-67-1	0.97 J	0.18	0.50	5.00
PFNA	375-95-1	1.00 U	0.26	1.00	5.00
PFDA	335-76-2	0.50 U	0.16	0.50	5.00
PFUnA	2058-94-8	1.00 U	0.29	1.00	5.00
PFDoA	307-55-1	0.50 U	0.18	0.50	5.00
PFTrDA	72629-94-8	0.50 U	0.15	0.50	5.00
PFTeDA	376-06-7	1.00 U	0.25	1.00	5.00
NMeFOSAA	2355-31-9	2.00 U	0.56	2.00	5.00
NEtFOSAA	2991-50-6	1.00 U	0.49	1.00	5.00
PFBS	375-73-5	0.50 U	0.13	0.50	5.00
PFHxS	355-46-4	0.40 U	0.11	0.40	5.00
PFOS	1763-23-1	0.50 U	0.19	0.50	5.00

Surrogate Recoveries (%)

13C5-PFHxA	106
13C4-PFHpA	107
13C8-PFOA	109
13C9-PFNA	110
13C6-PFDA	112
13C7-PFUnA	127
13C2-PFDoA	111
13C2-PFTeDA	108
d3-MeFOSAA	96
d5-EtFOSAA	103
13C3-PFBS	93
13C3-PFHxS	94
13C8-PFOS	101

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		Laboratory Control Sample					
Battelle ID		CR891LCS-FS					
Sample Type		LCS					
Collection Date		10/01/2018					
Extraction Date		10/01/2018					
Analysis Date		10/14/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS					
% Moisture		NA					
Matrix		WATER					
Sample Size		0.250					
Size Unit-Basis		L				Control Limits	
Units		ng/L	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	29.08	30.30	96		51	137
PFHpA	375-85-9	28.25	30.00	94		48	136
PFOA	335-67-1	32.29	30.00	108		49	141
PFNA	375-95-1	31.58	30.00	105		58	122
PFDA	335-76-2	28.57	30.00	95		59	135
PFUnA	2058-94-8	29.56	30.00	99		64	134
PFDoA	307-55-1	29.88	30.00	100		75	131
PFTrDA	72629-94-8	29.99	30.00	100		42	148
PFTeDA	376-06-7	28.77	30.00	96		42	158
NMeFOSAA	2355-31-9	33.80	30.00	113		50	146
NEtFOSAA	2991-50-6	27.03	30.00	90		51	131
PFBS	375-73-5	30.51	30.30	101		56	134
PFHxS	355-46-4	28.73	30.30	95		52	128
PFOS	1763-23-1	28.05	30.00	94		40	144
Surrogate Recoveries (%)							
13C5-PFHxA		116					
13C4-PFHpA		111					
13C8-PFOA		105					
13C9-PFNA		111					
13C6-PFDA		114					
13C7-PFUnA		121					
13C2-PFDoA		117					
13C2-PFTeDA		114					
d3-MeFOSAA		101					
d5-EtFOSAA		116					
13C3-PFBS		121					
13C3-PFHxS		109					
13C8-PFOS		116					

BATTELLE
It can be done

Glossary of Data Qualifiers

Flag:	Application:
B	Analyte found in the sample at a concentration <10x the level found in the procedural blank
D	Dilution Run. Initial run outside the initial calibration range of the instrument
E	Estimate, result is greater than the highers concentration level in the calibration
H	Surrogate diluted out. Used when surrogate recovery is affected by excessive dilution of the sample extract.
J	Analyte detected below the Limit of Quantitation (LOQ)
ME	Significant Matrix Interference - Estimated value.
MI	Significant Matrix Interference - value could not be determined.
n	Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO), but meets secondary criteria
N	Quality Control (QC) value is outside the accuracy or precision Data Quality Objective (DQO)
NA	Not Applicable
T	Holding Time (HT) exceeded
U	Analyte not detected or detected below the Method detection limit (MDL) value, Limit of Detection (LOD) reported

Miscellaneous Documentation

Project:	CTO-4164 Naval Base Ventura County, California
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	GW and AQ
Data Set:	DP-18-0288
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
9/24-25/2018	9/27/2018	0.2 and 0.9
Corrective Actions	Some samples differed from COC to sample containers. Client provided updated client ID information via email that was included with the sample custody records.	
Sample Storage	The water samples were stored refrigerated until extraction.	
Related samples	NA	

	METHOD SUMMARIES
Sample Preparation	Water samples were spiked with surrogates in the original sample container from the field. The water was extracted using a weak ion exchange solid phase extraction (SPE) cartridge and eluted from the SPE with 0.4% NH_3 in methanol. Extracts were concentrated to dryness under nitrogen with a water bath set between 35 °C and 45 °C, reconstituted with 80:20 methanol/water (V/V) and fortified with internal standard. Extracts were transferred for LC-MS/MS analysis.
Prep comments	All samples were pre-screened prior to initial extraction. Based on the concentrations detected in the pre-screening results and a discussion with the CH2M Project Chemist, the following samples used a reduced volume for extraction to avoid contamination of the laboratory and the instrument: J8358-FS (VC-PM323-DW01-0918) J8359-FS (VC-PM323-DW03-0918) J8370-FS (VC-PM324-DW01-0918) J8371-FS (VC-PM324-DW01P-0918) J8372-FS (VC-PM324-DW03-0918) J8383-FS (VC-PM64B-DW02-0918) J8384-FS (VC-PM64B-DW03-0918) J8385-FS (VC-PM64B-DW03P-0918)
Analysis	PFAS were measured by liquid chromatography tandem mass spectrometry (LC-MS/MS) in the multiple reaction monitoring (MRM). An initial calibration consisting of representative target analytes, labelled analogs, and internal standards was analyzed prior to analysis to demonstrate the linear range of analysis. Calibration verification was performed at the beginning and end of 10 injections and at the end of each sequence. Target PFAS were quantified using the isotope dilution method. Samples are reported in ng/L concentrations.
Analysis Comments	Samples analyzed on Sciex 5500 LC-MS/MS.

	The ion ratio for PFHpA in sample J8397-FS (VC-HS09-DW03-0918) and PFOA in sample J8359-FS (VC-PM323-DW03-0918) was above the 50% RPD criteria. When detected, PFHxS and PFOS contain both linear and branched isomers. In cases were native PFAS compounds were reported from dilutions (above calibration in non-diluted extracts), the extracted internal standard (surrogate) used to quantify the native compound was also reported from the dilution.

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/1/2018	10/14-15, 17, and 19/2018

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
≤ ½ the LOQ Samples >10x PB	One exceedance noted.
	PFOA in samples J8369-FS (VC-SO-EB05-092418) is B qualified as the result detected is less than 10x the amount detected in the blank. The PB passes criteria at 0.97 ng/L.

Laboratory Control Spike (LCS)	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery	No exceedances noted.
	No comments.

Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A MS/MSD was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery and <30% RPD	An MS/MSD was not prepared with this batch.
	No comments.

Extracted Internal Standard Analytes	Labelled analog compounds were added prior to extraction. The recoveries are calculated to measure extraction efficiency.
50-150% of true value	No exceedances noted.
	No comments.

Internal Standard Analytes	Labelled analog compounds were added prior to analysis.
+/- 50% of the area of the L5 calibration point.	No exceedances noted.
	There are several instances where 13C2-PFOA and 13C4-PFOS would fail IS area criteria. These failures are due to the amount of native PFOA and PFOS found in the samples interfering with the internal standards in the non-diluted extracts. In these cases, the extracted internal standards that would use these two internal standards are reported from a dilution to mitigate the interferences from the high concentrations in the non-diluted samples. No data is reported from extracts where the IS areas would have failed criteria. Two extracts exhibited areas outside of acceptable limits, extract J8384-FS-D(5) and J8358-FS(0). A fresh aliquot of each extract was analyzed with passing results. The original results can be found in the unused data section of the full data package.

Initial Calibration (ICAL)	The LC-MS/MS was calibrated with multi-level calibration curve for all compounds using linear or quadradic curve fitting.
+/- 30% of true value, $R^2 \geq 0.99$	No exceedances noted.
	No comments.

Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
+/- 30% of true value	No exceedances noted.
	No comments.

Continuing Calibration Verification (CCV)	Continuing calibration standards were run at the beginning and end of 10 injections and at the end of the sequence to ensure that initial calibration is still valid.
+/- 30% of true value	No exceedances noted.
	No comments.

Instrument Blank (IB)	Immediately following the highest standard analyzed and daily prior to sample analysis.
≤ ½ the LOQ	No exceedances noted.
	No comments.

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project Number: 100110125-01
Preparation Batch: 18-0583
Data Set: DP-18-0288
Test Code: Master_369

QC Parameter:	Exceed:	Justification:
Procedural Blank	0	None
PB Measurement Quality Objective	1	PFOA is B qualified in the J8369 because the response is <10x that of the PB. A fresh aliquot of the PB was run against a fresh calibration with the same results. The original run is being reported and the rerun raw data can be found in the unused data section of this data package. DMS 10/23/2018
Laboratory Control Sample	0	None
Matrix Spike / Matrix Spike Duplicate Recovery	NA	NA
Matrix Spike / Matrix Spike Duplicate Precision	NA	NA
Extracted Internal Standard Analytes (Surrogates)	0	None
Instrument Calibration	0	None
Instrument Blank	0	None
Independent Calibration Check	0	None
Continuing Calibration Verification	0	None

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-4164 Naval Base Ventura County,	**Data Set Number:**	DP-18-0288
Project Number:	100110125-01	**Prep Batch Number:**	18-0583
Entered By:	Denise Schumitz	**Entered On:**	10/23/2018
Test Code (Matrix Type):	Master_369(L)		

Samples that were manually integrated are noted on the quant reports with the comment (TRUE). DMS 10/23/2018

J8384-FS-D(5) and J8358-FS(0) did not meet the passing criteria for all injected internal standard areas. A fresh aliquot of each sample was taken and run, with passing results. The original raw data for these samples can be found in the unused data section of this data package.
DMS 10/23/2018

In cases were native PFAS compounds were reported from dilutions (above calibration in non-diluted extracts), the extracted internal standard (surrogate) used to quantify the native compound was also reported from the dilution.
DMS 10/23/2018

There are forty two instances of extracted internal standards (surrogates) that would fall 50%-150% recovery criteria if reported from the non-diluted extract. This is due to the higher levels of native PFOA and PFOS found in the samples interfering with the 13C2-PFOA and 13C4-PFOS internal standards used to quantify the surrogates. In these cases, the surrogates are reported from dilutions, however, the native compounds are reported from the non-diluted extracts as the interferences are with the internal standards and not the surrogates used to quantify the native compounds.
DMS 10/23/2018

Task Leader Approval:

SupervisorApproval:

PM Approval:



Digitally signed by Jonathan Thorn
Date: 2018.10.24 09:00:00 -04'00'

Example Calculation for PFAS

Calculation of final concentration from area:

$$Concentration = \left[\frac{PA - b}{m}\right] * C_{IS} * PIV * DF/S$$

Where:

PA = Area of target / area of internal standard
b = y intercept from calibration curve
CIS = concentration of internal standard (ng/L)
m = slope of calibration
DF = dilution factor
S = Sample Size
PIV = Pre-injection volume (L)

Sample ID:	J8359-FS-D(5)
Client Sample ID:	VC-PM323-DW03-0918
Sample Size:	0.105
Units:	L
Dilution Factor:	50.000
PIV (L):	0.001
Target Analyte:	PFBS
MRM Transition:	298.9 / 80.0
Data file:	18-0585_18-0583.wiff
Result table:	18-0585_18-0583_BASE
Area:	1,486,508.82
IS Name:	13C3-PFBS
IS Area:	36,382.64
IS Amount (ng/L):	232.25
y-intercept:	0.15261
slope:	2.73849

$$\text{Concentration} = \frac{[(1486508.82/36382.64) - 0.15261]}{2.73849} * 232.25 * 0.001 * 50 / 0.105$$

ng/L = 1,643.89

*Final concentration may vary based on rounding.

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batch: 18-0583
Data Set: DP-18-0288

		CR890PB-FS (Procedural Blank)	CR891LCS-FS (Laboratory Control Sample)	J8358-FS (VC-PM323-DW01-0918)	J8359-FS (VC-PM323-DW03-0918)	J8368-FS (VC-SO-FB05-092418)	J8369-FS (VC-SO-EB05-092418)
PFHxA	307-24-4	-	L	L	L	-	L
PFHpA	375-85-9	-	L	L	L	-	L
PFOA	335-67-1	-	L	L	L	-	L
PFNA	375-95-1	-	L	L	-	-	-
PFDA	335-76-2	-	L	-	-	-	-
PFUnA	2058-94-8	-	L	-	-	-	-
PFDoA	307-55-1	-	L	-	-	-	-
PFTrDA	72629-94-8	-	L	-	-	-	-
PFTeDA	376-06-7	-	L	-	-	-	-
NMeFOSAA	2355-31-9	-	L	-	-	-	-
NEtFOSAA	2991-50-6	-	L	-	-	-	-
PFBS	375-73-5	-	L	L	L	-	L
PFHxS	355-46-4	-	L/Br	L/Br	L/Br	-	L/Br
PFOS	1763-23-1	-	L/Br	L/Br	L/Br	-	L/Br

"L" :Linear
"Br": branched
"L/Br": Linear/Branched
"-": Not detected

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batch
Data Set: DP-18-

	J8370-FS (VC-PM324-DW01-0918)	J8371-FS (VC-PM324-DW01P-0918)	J8372-FS (VC-PM324-DW03-0918)	J8382-FS (VC-PM64B-DW01-0918)	J8383-FS (VC-PM64B-DW02-0918)	J8384-FS (VC-PM64B-DW03-0918)	J8385-FS (VC-PM64B-DW03P-0918)	J8395-FS (VC-HS09-DW01-0918)
PFHxA	L	L	L	L	L	L	L	L
PFHpA	L	L	L	L	L	L	L	L
PFOA	L	L	L	L	L	L	L	L
PFNA	-	-	-	-	L	L	L	L
PFDA	-	-	-	-	L	-	-	-
PFUnA	-	-	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-	-	-
PFTrDA	-	-	-	-	-	-	-	-
PFTeDA	-	-	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-	-	-
PFBS	L	L	L	L	L	L	L	L
PFHxS	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br
PFOS	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br

"L" :Linear
"Br": branched
"L/Br": Linear/Bra
"-": Not detected

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batcl
Data Set: DP-18-

	J8396-FS (VC-HS09-DW02-0918)	J8397-FS (VC-HS09-DW03-0918)	J8398-FS (VC-AQ-FB-092518)	J8399-FS (VC-AQ-EB-092518)	J8400-FS (VC-HS09-DW03P-0918)
PFHxA	L	L	-	-	L
PFHpA	L	L	-	-	L
PFOA	L	L	-	-	L
PFNA	L	L	-	-	-
PFDA	L	-	-	-	-
PFUnA	-	-	-	-	-
PFDoA	-	-	-	-	-
PFTrDA	-	-	-	-	-
PFTeDA	-	-	-	-	-
NMeFOSAA	-	-	-	-	-
NEtFOSAA	-	-	-	-	-
PFBS	L	L	-	-	L
PFHxS	L/Br	L/Br	-	-	L/Br
PFOS	L/Br	L/Br	-	-	L/Br

"L" :Linear
"Br": branched
"L/Br": Linear/Bra
"-": Not detected

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

BATTELLE
It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/14/18 13:08	13C2-PFOA	77,227.86	38,613.93	115,841.79

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/14/18 12:25	13C2-PFOA	77,765.59	38,613.93	115,841.79	
KB74	L2	10/14/18 12:35	13C2-PFOA	80,226.33	38,613.93	115,841.79	
KB75	L3	10/14/18 12:46	13C2-PFOA	75,380.30	38,613.93	115,841.79	
KB76	L4	10/14/18 12:57	13C2-PFOA	78,496.63	38,613.93	115,841.79	
KB77	L5	10/14/18 13:08	13C2-PFOA	77,227.86	38,613.93	115,841.79	
KB78	L6	10/14/18 13:19	13C2-PFOA	75,790.65	38,613.93	115,841.79	
KB79	L7	10/14/18 13:30	13C2-PFOA	68,673.21	38,613.93	115,841.79	
KB80 IB	Instrument Blank	10/14/18 13:41	13C2-PFOA	75,584.96	38,613.93	115,841.79	
KB81 ICC	ICC	10/14/18 13:51	13C2-PFOA	84,191.62	38,613.93	115,841.79	
CR890PB-FS(0)	Procedural Blank	10/14/18 21:28	13C2-PFOA	75,358.77	38,613.93	115,841.79	
CR891LCS-FS(0)	Laboratory Control Sample	10/14/18 21:39	13C2-PFOA	73,398.41	38,613.93	115,841.79	
~~J8358-FS(0)~~	~~VC-PM323-DW01-0918~~	~~10/14/18 21:49~~	~~13C2-PFOA~~	~~28,914.57~~	~~38,613.93~~	~~115,841.79~~	~~N~~
J8358-FS-D(3)	VC-PM323-DW01-0918	10/14/18 22:00	13C2-PFOA	82,922.99	38,613.93	115,841.79	
J8358-FS-D(5)	VC-PM323-DW01-0918	10/14/18 22:11	13C2-PFOA	78,477.04	38,613.93	115,841.79	
J8358-FS-D(7)	VC-PM323-DW01-0918	10/14/18 22:22	13C2-PFOA	83,322.04	38,613.93	115,841.79	
J8359-FS(0)	VC-PM323-DW03-0918	10/14/18 22:33	13C2-PFOA	86,867.21	38,613.93	115,841.79	
J8359-FS-D(3)	VC-PM323-DW03-0918	10/14/18 22:44	13C2-PFOA	77,434.82	38,613.93	115,841.79	
J8359-FS-D(5)	VC-PM323-DW03-0918	10/14/18 22:55	13C2-PFOA	86,458.60	38,613.93	115,841.79	
J8359-FS-D(7)	VC-PM323-DW03-0918	10/14/18 23:06	13C2-PFOA	84,005.58	38,613.93	115,841.79	
KB76 CCV	CCV	10/14/18 23:16	13C2-PFOA	78,069.21	38,613.93	115,841.79	
J8368-FS(0)	VC-SO-FB05-092418	10/14/18 23:38	13C2-PFOA	79,989.58	38,613.93	115,841.79	
J8369-FS(0)	VC-SO-EB05-092418	10/14/18 23:49	13C2-PFOA	70,037.32	38,613.93	115,841.79	
J8370-FS(0)	VC-PM324-DW01-0918	10/15/18 0:00	13C2-PFOA	73,370.50	38,613.93	115,841.79	
J8370-FS-D(3)	VC-PM324-DW01-0918	10/15/18 0:11	13C2-PFOA	82,319.73	38,613.93	115,841.79	
J8370-FS-D(5)	VC-PM324-DW01-0918	10/15/18 0:22	13C2-PFOA	82,770.06	38,613.93	115,841.79	
J8371-FS(0)	VC-PM324-DW01P-0918	10/15/18 0:43	13C2-PFOA	79,699.68	38,613.93	115,841.79	
J8371-FS-D(3)	VC-PM324-DW01P-0918	10/15/18 0:54	13C2-PFOA	93,357.70	38,613.93	115,841.79	
J8371-FS-D(5)	VC-PM324-DW01P-0918	10/15/18 1:05	13C2-PFOA	79,830.44	38,613.93	115,841.79	
J8371-FS-D(7)	VC-PM324-DW01P-0918	10/15/18 1:16	13C2-PFOA	83,134.65	38,613.93	115,841.79	
KB77 CCV	CCV	10/15/18 1:27	13C2-PFOA	87,229.99	38,613.93	115,841.79	
J8372-FS(0)	VC-PM324-DW03-0918	10/15/18 1:49	13C2-PFOA	80,360.79	38,613.93	115,841.79	
J8372-FS-D(3)	VC-PM324-DW03-0918	10/15/18 2:00	13C2-PFOA	82,251.73	38,613.93	115,841.79	
J8372-FS-D(5)	VC-PM324-DW03-0918	10/15/18 2:11	13C2-PFOA	73,070.02	38,613.93	115,841.79	
J8372-FS-D(7)	VC-PM324-DW03-0918	10/15/18 2:21	13C2-PFOA	81,611.69	38,613.93	115,841.79	
J8382-FS(0)	VC-PM64B-DW01-0918	10/15/18 2:32	13C2-PFOA	71,511.69	38,613.93	115,841.79	
J8382-FS-D(3)	VC-PM64B-DW01-0918	10/15/18 2:43	13C2-PFOA	76,516.48	38,613.93	115,841.79	
J8383-FS(0)	VC-PM64B-DW02-0918	10/15/18 2:54	13C2-PFOA	78,444.89	38,613.93	115,841.79	
J8383-FS-D(3)	VC-PM64B-DW02-0918	10/15/18 3:05	13C2-PFOA	80,497.30	38,613.93	115,841.79	
J8383-FS-D(5)	VC-PM64B-DW02-0918	10/15/18 3:16	13C2-PFOA	82,630.21	38,613.93	115,841.79	
J8383-FS-D(7)	VC-PM64B-DW02-0918	10/15/18 3:27	13C2-PFOA	82,671.03	38,613.93	115,841.79	
KB76 CCV	CCV	10/15/18 3:38	13C2-PFOA	78,557.33	38,613.93	115,841.79	
J8384-FS(0)	VC-PM64B-DW03-0918	10/15/18 3:59	13C2-PFOA	79,890.54	38,613.93	115,841.79	
J8384-FS-D(3)	VC-PM64B-DW03-0918	10/15/18 4:10	13C2-PFOA	77,470.58	38,613.93	115,841.79	
~~J8384-FS-D(5)~~	~~VC-PM64B-DW03-0918~~	~~10/15/18 4:21~~	~~13C2-PFOA~~	~~27,680.41~~	~~38,613.93~~	~~115,841.79~~	N
J8384-FS-D(7)	VC-PM64B-DW03-0918	10/15/18 4:32	13C2-PFOA	85,178.25	38,613.93	115,841.79	
J8384-FS-D(9)	VC-PM64B-DW03-0918	10/15/18 4:43	13C2-PFOA	76,618.37	38,613.93	115,841.79	
J8385-FS(0)	VC-PM64B-DW03P-0918	10/15/18 4:54	13C2-PFOA	66,758.94	38,613.93	115,841.79	
J8385-FS-D(3)	VC-PM64B-DW03P-0918	10/15/18 5:05	13C2-PFOA	74,122.29	38,613.93	115,841.79	
J8385-FS-D(5)	VC-PM64B-DW03P-0918	10/15/18 5:16	13C2-PFOA	74,053.34	38,613.93	115,841.79	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

BATTELLE
It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/14/18 13:08	13C2-PFOA	77,227.86	38,613.93	115,841.79

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
J8385-FS-D(7)	VC-PM64B-DW03P-0918	10/15/18 5:26	13C2-PFOA	77,581.50	38,613.93	115,841.79	
J8385-FS-D(9)	VC-PM64B-DW03P-0918	10/15/18 5:37	13C2-PFOA	73,195.56	38,613.93	115,841.79	
KB77 CCV	CCV	10/15/18 5:48	13C2-PFOA	74,626.97	38,613.93	115,841.79	
J8395-FS(0)	VC-HS09-DW01-0918	10/15/18 8:44	13C2-PFOA	51,093.20	38,613.93	115,841.79	
J8395-FS-D(3)	VC-HS09-DW01-0918	10/15/18 8:55	13C2-PFOA	79,986.89	38,613.93	115,841.79	
J8396-FS(0)	VC-HS09-DW02-0918	10/15/18 9:05	13C2-PFOA	90,050.08	38,613.93	115,841.79	
J8396-FS-D(3)	VC-HS09-DW02-0918	10/15/18 9:16	13C2-PFOA	75,198.32	38,613.93	115,841.79	
J8397-FS(0)	VC-HS09-DW03-0918	10/15/18 9:27	13C2-PFOA	89,901.53	38,613.93	115,841.79	
J8397-FS-D(3)	VC-HS09-DW03-0918	10/15/18 9:38	13C2-PFOA	81,817.69	38,613.93	115,841.79	
J8398-FS(0)	VC-AQ-FB-092518	10/15/18 9:49	13C2-PFOA	74,617.66	38,613.93	115,841.79	
KB76 CCV	CCV	10/15/18 10:00	13C2-PFOA	76,297.67	38,613.93	115,841.79	
J8399-FS(0)	VC-AQ-EB-092518	10/15/18 10:21	13C2-PFOA	74,528.82	38,613.93	115,841.79	
J8400-FS(0)	VC-HS09-DW03P-0918	10/15/18 10:32	13C2-PFOA	83,302.06	38,613.93	115,841.79	
J8400-FS-D(3)	VC-HS09-DW03P-0918	10/15/18 10:43	13C2-PFOA	75,454.46	38,613.93	115,841.79	
J8400-FS-D(5)	VC-HS09-DW03P-0918	10/15/18 10:54	13C2-PFOA	78,179.94	38,613.93	115,841.79	
KB77 CCV	CCV	10/15/18 11:05	13C2-PFOA	77,780.10	38,613.93	115,841.79	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

BATTELLE
It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/14/18 13:08	13C2-PFDA	89,813.46	44,906.73	134,720.19

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/14/18 12:25	13C2-PFDA	86,188.94	44,906.73	134,720.19	
KB74	L2	10/14/18 12:35	13C2-PFDA	88,161.46	44,906.73	134,720.19	
KB75	L3	10/14/18 12:46	13C2-PFDA	88,686.54	44,906.73	134,720.19	
KB76	L4	10/14/18 12:57	13C2-PFDA	95,650.49	44,906.73	134,720.19	
KB77	L5	10/14/18 13:08	13C2-PFDA	89,813.46	44,906.73	134,720.19	
KB78	L6	10/14/18 13:19	13C2-PFDA	97,422.57	44,906.73	134,720.19	
KB79	L7	10/14/18 13:30	13C2-PFDA	78,612.45	44,906.73	134,720.19	
KB80 IB	Instrument Blank	10/14/18 13:41	13C2-PFDA	83,522.57	44,906.73	134,720.19	
KB81 ICC	ICC	10/14/18 13:51	13C2-PFDA	89,002.65	44,906.73	134,720.19	
CR890PB-FS(0)	Procedural Blank	10/14/18 21:28	13C2-PFDA	81,980.66	44,906.73	134,720.19	
CR891LCS-FS(0)	Laboratory Control Sample	10/14/18 21:39	13C2-PFDA	87,862.21	44,906.73	134,720.19	
~~J8358-FS(0)~~	~~VC-PM323-DW01-0918~~	~~10/14/18 21:49~~	~~13C2-PFDA~~	~~22,234.70~~	~~44,906.73~~	~~134,720.19~~	~~N~~
J8358-FS-D(3)	VC-PM323-DW01-0918	10/14/18 22:00	13C2-PFDA	91,318.22	44,906.73	134,720.19	
J8358-FS-D(5)	VC-PM323-DW01-0918	10/14/18 22:11	13C2-PFDA	91,463.80	44,906.73	134,720.19	
J8358-FS-D(7)	VC-PM323-DW01-0918	10/14/18 22:22	13C2-PFDA	89,807.35	44,906.73	134,720.19	
J8359-FS(0)	VC-PM323-DW03-0918	10/14/18 22:33	13C2-PFDA	82,942.61	44,906.73	134,720.19	
J8359-FS-D(3)	VC-PM323-DW03-0918	10/14/18 22:44	13C2-PFDA	89,762.13	44,906.73	134,720.19	
J8359-FS-D(5)	VC-PM323-DW03-0918	10/14/18 22:55	13C2-PFDA	99,630.58	44,906.73	134,720.19	
J8359-FS-D(7)	VC-PM323-DW03-0918	10/14/18 23:06	13C2-PFDA	91,935.67	44,906.73	134,720.19	
KB76 CCV	CCV	10/14/18 23:16	13C2-PFDA	91,773.41	44,906.73	134,720.19	
J8368-FS(0)	VC-SO-FB05-092418	10/14/18 23:38	13C2-PFDA	87,426.28	44,906.73	134,720.19	
J8369-FS(0)	VC-SO-EB05-092418	10/14/18 23:49	13C2-PFDA	101,775.34	44,906.73	134,720.19	
J8370-FS(0)	VC-PM324-DW01-0918	10/15/18 0:00	13C2-PFDA	81,641.95	44,906.73	134,720.19	
J8370-FS-D(3)	VC-PM324-DW01-0918	10/15/18 0:11	13C2-PFDA	88,454.92	44,906.73	134,720.19	
J8370-FS-D(5)	VC-PM324-DW01-0918	10/15/18 0:22	13C2-PFDA	89,504.09	44,906.73	134,720.19	
J8371-FS(0)	VC-PM324-DW01P-0918	10/15/18 0:43	13C2-PFDA	84,702.95	44,906.73	134,720.19	
J8371-FS-D(3)	VC-PM324-DW01P-0918	10/15/18 0:54	13C2-PFDA	105,943.47	44,906.73	134,720.19	
J8371-FS-D(5)	VC-PM324-DW01P-0918	10/15/18 1:05	13C2-PFDA	88,960.00	44,906.73	134,720.19	
J8371-FS-D(7)	VC-PM324-DW01P-0918	10/15/18 1:16	13C2-PFDA	98,979.27	44,906.73	134,720.19	
KB77 CCV	CCV	10/15/18 1:27	13C2-PFDA	97,640.24	44,906.73	134,720.19	
J8372-FS(0)	VC-PM324-DW03-0918	10/15/18 1:49	13C2-PFDA	80,072.42	44,906.73	134,720.19	
J8372-FS-D(3)	VC-PM324-DW03-0918	10/15/18 2:00	13C2-PFDA	87,508.86	44,906.73	134,720.19	
J8372-FS-D(5)	VC-PM324-DW03-0918	10/15/18 2:11	13C2-PFDA	85,047.91	44,906.73	134,720.19	
J8372-FS-D(7)	VC-PM324-DW03-0918	10/15/18 2:21	13C2-PFDA	92,249.60	44,906.73	134,720.19	
J8382-FS(0)	VC-PM64B-DW01-0918	10/15/18 2:32	13C2-PFDA	84,988.05	44,906.73	134,720.19	
J8382-FS-D(3)	VC-PM64B-DW01-0918	10/15/18 2:43	13C2-PFDA	94,823.77	44,906.73	134,720.19	
J8383-FS(0)	VC-PM64B-DW02-0918	10/15/18 2:54	13C2-PFDA	90,401.08	44,906.73	134,720.19	
J8383-FS-D(3)	VC-PM64B-DW02-0918	10/15/18 3:05	13C2-PFDA	95,386.67	44,906.73	134,720.19	
J8383-FS-D(5)	VC-PM64B-DW02-0918	10/15/18 3:16	13C2-PFDA	94,872.08	44,906.73	134,720.19	
J8383-FS-D(7)	VC-PM64B-DW02-0918	10/15/18 3:27	13C2-PFDA	94,568.61	44,906.73	134,720.19	
KB76 CCV	CCV	10/15/18 3:38	13C2-PFDA	86,390.05	44,906.73	134,720.19	
J8384-FS(0)	VC-PM64B-DW03-0918	10/15/18 3:59	13C2-PFDA	84,160.87	44,906.73	134,720.19	
J8384-FS-D(3)	VC-PM64B-DW03-0918	10/15/18 4:10	13C2-PFDA	91,960.58	44,906.73	134,720.19	
~~J8384-FS-D(5)~~	~~VC-PM64B-DW03-0918~~	~~10/15/18 4:21~~	~~13C2-PFDA~~	~~30,288.26~~	~~44,906.73~~	~~134,720.19~~	N
J8384-FS-D(7)	VC-PM64B-DW03-0918	10/15/18 4:32	13C2-PFDA	95,654.20	44,906.73	134,720.19	
J8384-FS-D(9)	VC-PM64B-DW03-0918	10/15/18 4:43	13C2-PFDA	92,520.68	44,906.73	134,720.19	
J8385-FS(0)	VC-PM64B-DW03P-0918	10/15/18 4:54	13C2-PFDA	82,529.95	44,906.73	134,720.19	
J8385-FS-D(3)	VC-PM64B-DW03P-0918	10/15/18 5:05	13C2-PFDA	89,354.13	44,906.73	134,720.19	
J8385-FS-D(5)	VC-PM64B-DW03P-0918	10/15/18 5:16	13C2-PFDA	84,284.27	44,906.73	134,720.19	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

BATTELLE
It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/14/18 13:08	13C2-PFDA	89,813.46	44,906.73	134,720.19

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
J8385-FS-D(7)	VC-PM64B-DW03P-0918	10/15/18 5:26	13C2-PFDA	92,168.90	44,906.73	134,720.19	
J8385-FS-D(9)	VC-PM64B-DW03P-0918	10/15/18 5:37	13C2-PFDA	87,672.59	44,906.73	134,720.19	
KB77 CCV	CCV	10/15/18 5:48	13C2-PFDA	82,017.42	44,906.73	134,720.19	
J8395-FS(0)	VC-HS09-DW01-0918	10/15/18 8:44	13C2-PFDA	57,053.14	44,906.73	134,720.19	
J8395-FS-D(3)	VC-HS09-DW01-0918	10/15/18 8:55	13C2-PFDA	89,728.94	44,906.73	134,720.19	
J8396-FS(0)	VC-HS09-DW02-0918	10/15/18 9:05	13C2-PFDA	101,177.05	44,906.73	134,720.19	
J8396-FS-D(3)	VC-HS09-DW02-0918	10/15/18 9:16	13C2-PFDA	87,155.36	44,906.73	134,720.19	
J8397-FS(0)	VC-HS09-DW03-0918	10/15/18 9:27	13C2-PFDA	80,164.83	44,906.73	134,720.19	
J8397-FS-D(3)	VC-HS09-DW03-0918	10/15/18 9:38	13C2-PFDA	91,839.79	44,906.73	134,720.19	
J8398-FS(0)	VC-AQ-FB-092518	10/15/18 9:49	13C2-PFDA	83,752.67	44,906.73	134,720.19	
KB76 CCV	CCV	10/15/18 10:00	13C2-PFDA	83,523.22	44,906.73	134,720.19	
J8399-FS(0)	VC-AQ-EB-092518	10/15/18 10:21	13C2-PFDA	86,086.84	44,906.73	134,720.19	
J8400-FS(0)	VC-HS09-DW03P-0918	10/15/18 10:32	13C2-PFDA	76,798.41	44,906.73	134,720.19	
J8400-FS-D(3)	VC-HS09-DW03P-0918	10/15/18 10:43	13C2-PFDA	88,033.37	44,906.73	134,720.19	
J8400-FS-D(5)	VC-HS09-DW03P-0918	10/15/18 10:54	13C2-PFDA	90,754.87	44,906.73	134,720.19	
KB77 CCV	CCV	10/15/18 11:05	13C2-PFDA	90,948.35	44,906.73	134,720.19	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

BATTELLE
It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/14/18 13:08	13C4-PFOS	29,058.35	14,529.18	43,587.53

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/14/18 12:25	13C4-PFOS	26,230.38	14,529.18	43,587.53	
KB74	L2	10/14/18 12:35	13C4-PFOS	31,838.16	14,529.18	43,587.53	
KB75	L3	10/14/18 12:46	13C4-PFOS	26,637.97	14,529.18	43,587.53	
KB76	L4	10/14/18 12:57	13C4-PFOS	27,528.74	14,529.18	43,587.53	
KB77	L5	10/14/18 13:08	13C4-PFOS	29,058.35	14,529.18	43,587.53	
KB78	L6	10/14/18 13:19	13C4-PFOS	27,746.91	14,529.18	43,587.53	
KB79	L7	10/14/18 13:30	13C4-PFOS	22,794.83	14,529.18	43,587.53	
KB80 IB	Instrument Blank	10/14/18 13:41	13C4-PFOS	27,916.23	14,529.18	43,587.53	
KB81 ICC	ICC	10/14/18 13:51	13C4-PFOS	29,947.74	14,529.18	43,587.53	
CR890PB-FS(0)	Procedural Blank	10/14/18 21:28	13C4-PFOS	28,173.91	14,529.18	43,587.53	
CR891LCS-FS(0)	Laboratory Control Sample	10/14/18 21:39	13C4-PFOS	26,308.42	14,529.18	43,587.53	
~~J8358-FS(0)~~	~~VC-PM323-DW01-0918~~	~~10/14/18 21:49~~	~~13C4-PFOS~~	~~5,242.45~~	~~14,529.18~~	~~43,587.53~~	~~N~~
J8358-FS-D(3)	VC-PM323-DW01-0918	10/14/18 22:00	13C4-PFOS	19,856.39	14,529.18	43,587.53	
J8358-FS-D(5)	VC-PM323-DW01-0918	10/14/18 22:11	13C4-PFOS	25,990.82	14,529.18	43,587.53	
J8358-FS-D(7)	VC-PM323-DW01-0918	10/14/18 22:22	13C4-PFOS	27,508.69	14,529.18	43,587.53	
J8359-FS(0)	VC-PM323-DW03-0918	10/14/18 22:33	13C4-PFOS	26,261.37	14,529.18	43,587.53	
J8359-FS-D(3)	VC-PM323-DW03-0918	10/14/18 22:44	13C4-PFOS	27,094.03	14,529.18	43,587.53	
J8359-FS-D(5)	VC-PM323-DW03-0918	10/14/18 22:55	13C4-PFOS	28,328.66	14,529.18	43,587.53	
J8359-FS-D(7)	VC-PM323-DW03-0918	10/14/18 23:06	13C4-PFOS	28,665.42	14,529.18	43,587.53	
KB76 CCV	CCV	10/14/18 23:16	13C4-PFOS	28,823.38	14,529.18	43,587.53	
J8368-FS(0)	VC-SO-FB05-092418	10/14/18 23:38	13C4-PFOS	27,801.13	14,529.18	43,587.53	
J8369-FS(0)	VC-SO-EB05-092418	10/14/18 23:49	13C4-PFOS	21,278.47	14,529.18	43,587.53	
J8370-FS(0)	VC-PM324-DW01-0918	10/15/18 0:00	13C4-PFOS	23,814.23	14,529.18	43,587.53	
J8370-FS-D(3)	VC-PM324-DW01-0918	10/15/18 0:11	13C4-PFOS	26,829.04	14,529.18	43,587.53	
J8370-FS-D(5)	VC-PM324-DW01-0918	10/15/18 0:22	13C4-PFOS	29,375.02	14,529.18	43,587.53	
J8371-FS(0)	VC-PM324-DW01P-0918	10/15/18 0:43	13C4-PFOS	19,418.39	14,529.18	43,587.53	
J8371-FS-D(3)	VC-PM324-DW01P-0918	10/15/18 0:54	13C4-PFOS	29,294.88	14,529.18	43,587.53	
J8371-FS-D(5)	VC-PM324-DW01P-0918	10/15/18 1:05	13C4-PFOS	28,380.87	14,529.18	43,587.53	
J8371-FS-D(7)	VC-PM324-DW01P-0918	10/15/18 1:16	13C4-PFOS	29,252.61	14,529.18	43,587.53	
KB77 CCV	CCV	10/15/18 1:27	13C4-PFOS	32,469.77	14,529.18	43,587.53	
J8372-FS(0)	VC-PM324-DW03-0918	10/15/18 1:49	13C4-PFOS	14,874.36	14,529.18	43,587.53	
J8372-FS-D(3)	VC-PM324-DW03-0918	10/15/18 2:00	13C4-PFOS	24,626.31	14,529.18	43,587.53	
J8372-FS-D(5)	VC-PM324-DW03-0918	10/15/18 2:11	13C4-PFOS	23,592.20	14,529.18	43,587.53	
J8372-FS-D(7)	VC-PM324-DW03-0918	10/15/18 2:21	13C4-PFOS	24,993.88	14,529.18	43,587.53	
J8382-FS(0)	VC-PM64B-DW01-0918	10/15/18 2:32	13C4-PFOS	22,226.42	14,529.18	43,587.53	
J8382-FS-D(3)	VC-PM64B-DW01-0918	10/15/18 2:43	13C4-PFOS	29,211.46	14,529.18	43,587.53	
J8383-FS(0)	VC-PM64B-DW02-0918	10/15/18 2:54	13C4-PFOS	14,933.02	14,529.18	43,587.53	
J8383-FS-D(3)	VC-PM64B-DW02-0918	10/15/18 3:05	13C4-PFOS	20,662.38	14,529.18	43,587.53	
J8383-FS-D(5)	VC-PM64B-DW02-0918	10/15/18 3:16	13C4-PFOS	26,938.85	14,529.18	43,587.53	
J8383-FS-D(7)	VC-PM64B-DW02-0918	10/15/18 3:27	13C4-PFOS	26,242.69	14,529.18	43,587.53	
KB76 CCV	CCV	10/15/18 3:38	13C4-PFOS	30,256.47	14,529.18	43,587.53	
~~J8384-FS(0)~~	~~VC-PM64B-DW03-0918~~	~~10/15/18 3:59~~	~~13C4-PFOS~~	~~12,421.72~~	~~14,529.18~~	~~43,587.53~~	~~N~~
J8384-FS-D(3)	VC-PM64B-DW03-0918	10/15/18 4:10	13C4-PFOS	19,182.65	14,529.18	43,587.53	
~~J8384-FS-D(5)~~	~~VC-PM64B-DW03-0918~~	~~10/15/18 4:21~~	~~13C4-PFOS~~	~~9,145.58~~	~~14,529.18~~	~~43,587.53~~	N
J8384-FS-D(7)	VC-PM64B-DW03-0918	10/15/18 4:32	13C4-PFOS	28,582.40	14,529.18	43,587.53	
J8384-FS-D(9)	VC-PM64B-DW03-0918	10/15/18 4:43	13C4-PFOS	27,591.04	14,529.18	43,587.53	
~~J8385-FS(0)~~	~~VC-PM64B-DW03P-0918~~	~~10/15/18 4:54~~	~~13C4-PFOS~~	~~9,437.99~~	~~14,529.18~~	~~43,587.53~~	~~N~~
J8385-FS-D(3)	VC-PM64B-DW03P-0918	10/15/18 5:05	13C4-PFOS	24,649.32	14,529.18	43,587.53	
J8385-FS-D(5)	VC-PM64B-DW03P-0918	10/15/18 5:16	13C4-PFOS	23,605.10	14,529.18	43,587.53	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

BATTELLE
It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/14/18 13:08	13C4-PFOS	29,058.35	14,529.18	43,587.53

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
J8385-FS-D(7)	VC-PM64B-DW03P-0918	10/15/18 5:26	13C4-PFOS	24,637.45	14,529.18	43,587.53	
J8385-FS-D(9)	VC-PM64B-DW03P-0918	10/15/18 5:37	13C4-PFOS	26,779.18	14,529.18	43,587.53	
KB77 CCV	CCV	10/15/18 5:48	13C4-PFOS	25,564.57	14,529.18	43,587.53	
J8395-FS(0)	VC-HS09-DW01-0918	10/15/18 8:44	13C4-PFOS	17,635.00	14,529.18	43,587.53	
J8395-FS-D(3)	VC-HS09-DW01-0918	10/15/18 8:55	13C4-PFOS	26,854.32	14,529.18	43,587.53	
J8396-FS(0)	VC-HS09-DW02-0918	10/15/18 9:05	13C4-PFOS	23,645.68	14,529.18	43,587.53	
J8396-FS-D(3)	VC-HS09-DW02-0918	10/15/18 9:16	13C4-PFOS	28,421.21	14,529.18	43,587.53	
J8397-FS(0)	VC-HS09-DW03-0918	10/15/18 9:27	13C4-PFOS	21,357.48	14,529.18	43,587.53	
J8397-FS-D(3)	VC-HS09-DW03-0918	10/15/18 9:38	13C4-PFOS	28,046.81	14,529.18	43,587.53	
J8398-FS(0)	VC-AQ-FB-092518	10/15/18 9:49	13C4-PFOS	24,647.29	14,529.18	43,587.53	
KB76 CCV	CCV	10/15/18 10:00	13C4-PFOS	29,467.05	14,529.18	43,587.53	
J8399-FS(0)	VC-AQ-EB-092518	10/15/18 10:21	13C4-PFOS	26,189.14	14,529.18	43,587.53	
~~J8400-FS(0)~~	~~VC-HS09-DW03P-0918~~	~~10/15/18 10:32~~	~~13C4-PFOS~~	~~13,398.97~~	~~14,529.18~~	~~43,587.53~~	~~N~~
J8400-FS-D(3)	VC-HS09-DW03P-0918	10/15/18 10:43	13C4-PFOS	23,985.56	14,529.18	43,587.53	
J8400-FS-D(5)	VC-HS09-DW03P-0918	10/15/18 10:54	13C4-PFOS	25,506.67	14,529.18	43,587.53	
KB77 CCV	CCV	10/15/18 11:05	13C4-PFOS	26,679.79	14,529.18	43,587.53	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

BATTELLE
It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/17/18 20:30	13C2-PFOA	80,369.12	40,184.56	120,553.68

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/17/18 19:46	13C2-PFOA	79,095.63	40,184.56	120,553.68	
KB74	L2	10/17/18 19:57	13C2-PFOA	89,971.31	40,184.56	120,553.68	
KB75	L3	10/17/18 20:08	13C2-PFOA	87,799.30	40,184.56	120,553.68	
KB76	L4	10/17/18 20:19	13C2-PFOA	84,567.91	40,184.56	120,553.68	
KB77	L5	10/17/18 20:30	13C2-PFOA	80,369.12	40,184.56	120,553.68	
KB78	L6	10/17/18 20:41	13C2-PFOA	85,964.25	40,184.56	120,553.68	
KB79	L7	10/17/18 20:52	13C2-PFOA	86,636.81	40,184.56	120,553.68	
KB80 IB	Instrument Blank	10/17/18 21:02	13C2-PFOA	85,730.94	40,184.56	120,553.68	
KB81 ICC	ICC	10/17/18 21:13	13C2-PFOA	85,242.44	40,184.56	120,553.68	
KB75 ISC	Instrument Sensitivity Check	10/19/18 18:16	13C2-PFOA	81,344.96	40,184.56	120,553.68	
KB80 IB	Instrument Blank	10/19/18 18:27	13C2-PFOA	68,811.37	40,184.56	120,553.68	
~~CR890PB-FS(0)~~	~~Procecural Blank~~	~~10/19/18 19:22~~	~~13C2-PFOA~~	~~74,724.44~~	~~40,184.56~~	~~120,553.68~~	
J8384-FS-D(5)	VC-PM64B-DW03-0918	10/19/18 19:32	13C2-PFOA	77,964.34	40,184.56	120,553.68	
J8358-FS(0)	VC-PM64B-DW03P-0918	10/19/18 19:43	13C2-PFOA	82,652.46	40,184.56	120,553.68	
KB76 CCV	CCV	10/19/18 20:38	13C2-PFOA	80,189.24	40,184.56	120,553.68	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

BATTELLE
It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/17/18 20:30	13C2-PFDA	90,129.70	45,064.85	135,194.55

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/17/18 19:46	13C2-PFDA	100,139.46	45,064.85	135,194.55	
KB74	L2	10/17/18 19:57	13C2-PFDA	103,883.83	45,064.85	135,194.55	
KB75	L3	10/17/18 20:08	13C2-PFDA	98,052.33	45,064.85	135,194.55	
KB76	L4	10/17/18 20:19	13C2-PFDA	99,978.99	45,064.85	135,194.55	
KB77	L5	10/17/18 20:30	13C2-PFDA	90,129.70	45,064.85	135,194.55	
KB78	L6	10/17/18 20:41	13C2-PFDA	104,169.70	45,064.85	135,194.55	
KB79	L7	10/17/18 20:52	13C2-PFDA	100,765.46	45,064.85	135,194.55	
KB80 IB	Instrument Blank	10/17/18 21:02	13C2-PFDA	96,280.28	45,064.85	135,194.55	
KB81 ICC	ICC	10/17/18 21:13	13C2-PFDA	103,402.36	45,064.85	135,194.55	
KB75 ISC	Instrument Sensitivity Check	10/19/18 18:16	13C2-PFDA	90,191.16	45,064.85	135,194.55	
KB80 IB	Instrument Blank	10/19/18 18:27	13C2-PFDA	83,787.58	45,064.85	135,194.55	
~~CR890PB-FS(0)~~	~~Procecural Blank~~	~~10/19/18 19:22~~	~~13C2-PFDA~~	~~87,697.01~~	~~45,064.85~~	~~135,194.55~~	
J8384-FS-D(5)	VC-PM64B-DW03-0918	10/19/18 19:32	13C2-PFDA	91,723.20	45,064.85	135,194.55	
J8358-FS(0)	VC-PM64B-DW03P-0918	10/19/18 19:43	13C2-PFDA	61,731.56	45,064.85	135,194.55	
KB76 CCV	CCV	10/19/18 20:38	13C2-PFDA	87,976.17	45,064.85	135,194.55	

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

BATTELLE
It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB77	L5	10/17/18 20:30	13C4-PFOS	31,518.26	15,759.13	47,277.39

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/17/18 19:46	13C4-PFOS	29,846.55	15,759.13	47,277.39	
KB74	L2	10/17/18 19:57	13C4-PFOS	34,856.85	15,759.13	47,277.39	
KB75	L3	10/17/18 20:08	13C4-PFOS	30,684.77	15,759.13	47,277.39	
KB76	L4	10/17/18 20:19	13C4-PFOS	30,962.75	15,759.13	47,277.39	
KB77	L5	10/17/18 20:30	13C4-PFOS	31,518.26	15,759.13	47,277.39	
KB78	L6	10/17/18 20:41	13C4-PFOS	29,589.19	15,759.13	47,277.39	
KB79	L7	10/17/18 20:52	13C4-PFOS	26,984.04	15,759.13	47,277.39	
KB80 IB	Instrument Blank	10/17/18 21:02	13C4-PFOS	29,371.12	15,759.13	47,277.39	
KB81 ICC	ICC	10/17/18 21:13	13C4-PFOS	33,690.55	15,759.13	47,277.39	
KB75 ISC	Instrument Sensitivity Check	10/19/18 18:16	13C4-PFOS	31,112.11	15,759.13	47,277.39	
KB80 IB	Instrument Blank	10/19/18 18:27	13C4-PFOS	28,447.31	15,759.13	47,277.39	
~~CR890PB-FS(0)~~	~~Procecural Blank~~	~~10/19/18 19:22~~	~~13C4-PFOS~~	~~29,050.36~~	~~15,759.13~~	~~47,277.39~~	
J8384-FS-D(5)	VC-PM64B-DW03-0918	10/19/18 19:32	13C4-PFOS	20,386.63	15,759.13	47,277.39	
~~J8358-FS(0)~~	~~VC-PM64B-DW03P-0918~~	~~10/19/18 19:43~~	~~13C4-PFOS~~	~~7,533.04~~	~~15,759.13~~	~~47,277.39~~	~~N~~
KB76 CCV	CCV	10/19/18 20:38	13C4-PFOS	28,672.60	15,759.13	47,277.39	

BATTELLE

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 23/10/2018 4:18:33 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 1:30:11 PM	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFBS_1	298.9 / 80.0	1.55	23	>10
PFBS_2	298.9 / 99.0	1.55	24	>10
PFHxA_1	313.0 / 269.0	1.87	23	>10
PFHxA_2	313.0 / 119.0	1.86	23	>10
PFHpA_1	363.0 / 319.0	2.27	29	>10
PFHpA_2	363.0 / 169.0	2.27	33	>10
PFHxS_1	399.0 / 80.0	2.30	55	>10
PFHxS_2	399.0 / 99.0	2.30	44	>10
PFOA_1	413.0 / 369.0	2.68	38	>10
PFOA_2	413.0 / 169.0	2.68	39	>10
PFNA_1	463.0 / 419.0	3.08	33	>10
PFNA_2	463.0 / 219.0	3.08	48	>10
PFOS_1	499.0 / 80.0	3.08	51	>10
PFOS_2	499.0 / 99.0	3.08	48	>10
PFDA_1	513.0 / 469.0	3.44	47	>10
PFDA_2	513.0 / 219.0	3.44	43	>10
PFUnA_1	563.0 / 519.0	3.76	62	>10
PFUnA_2	563.0 / 269.0	3.76	52	>10
PFDoA_1	613.0 / 569.0	4.05	62	>10
PFDoA_2	613.0 / 319.0	4.05	47	>10
PFTrDA_1	663.0 / 619.0	4.30	71	>10
PFTrDA_2	663.0 / 169.0	4.30	63	>10
PFTeDA_1	713.0 / 669.0	4.52	94	>10
PFTeDA_2	713.0 / 169.0	4.51	53	>10
NMeFOSAA_1	570.0 / 419.0	3.59	22	>10
NMeFOSAA_2	570.0 / 512.0	3.59	36	>10
NEtFOSAA_1	584.0 / 419.0	3.76	40	>10
NEtFOSAA_2	584.0 / 483.0	3.76	24	>10

BATTELLE

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 23/10/2018 3:10:09 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 1:30:11 PM	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
13C2-PFDoA	615.0 / 570.0	4.04	46	>10
d3-MeFOSAA	573.0 / 419.0	3.58	27	>10
d5-EtFOSAA	589.0 / 419.0	3.75	21	>10
13C5-PFHxA	318.0 / 273.0	1.85	49	>10
13C4-PFHpA	367.0 / 322.0	2.26	30	>10
13C8-PFOA	421.0 / 376.0	2.67	42	>10
13C9-PFNA	472.0 / 427.0	3.07	28	>10
13C6-PFDA	519.0 / 474.0	3.42	36	>10
13C7-PFUnA	570.0 / 525.0	3.75	41	>10
13C2-PFTeDA	715.0 / 670.0	4.51	41	>10
13C3-PFBS	302.0 / 99.0	1.53	33	>10
13C3-PFHxS	402.0 / 99.0	2.29	33	>10
13C8-PFOS	507.0 / 99.0	3.07	31	>10

BATTELLE

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:09 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFBS_1	298.9 / 80.0	1.56	22	>10
PFBS_2	298.9 / 99.0	1.56	22	>10
PFHxA_1	313.0 / 269.0	1.89	21	>10
PFHxA_2	313.0 / 119.0	1.88	22	>10
PFHpA_1	363.0 / 319.0	2.29	30	>10
PFHpA_2	363.0 / 169.0	2.30	23	>10
PFHxS_1	399.0 / 80.0	2.32	33	>10
PFHxS_2	399.0 / 99.0	2.32	35	>10
PFOA_1	413.0 / 369.0	2.71	32	>10
PFOA_2	413.0 / 169.0	2.71	30	>10
PFNA_1	463.0 / 419.0	3.11	29	>10
PFNA_2	463.0 / 219.0	3.11	27	>10
PFOS_1	499.0 / 80.0	3.10	43	>10
PFOS_2	499.0 / 99.0	3.10	45	>10
PFDA_1	513.0 / 469.0	3.47	31	>10
PFDA_2	513.0 / 219.0	3.47	34	>10
PFUnA_1	563.0 / 519.0	3.79	30	>10
PFUnA_2	563.0 / 269.0	3.79	43	>10
PFDoA_1	613.0 / 569.0	4.07	39	>10
PFDoA_2	613.0 / 319.0	4.07	46	>10
PFTrDA_1	663.0 / 619.0	4.32	56	>10
PFTrDA_2	663.0 / 169.0	4.32	40	>10
PFTeDA_1	713.0 / 669.0	4.54	59	>10
PFTeDA_2	713.0 / 169.0	4.54	64	>10
NMeFOSAA_1	570.0 / 419.0	3.62	29	>10
NMeFOSAA_2	570.0 / 512.0	3.62	39	>10
NEtFOSAA_1	584.0 / 419.0	3.78	31	>10
NEtFOSAA_2	584.0 / 483.0	3.78	19	>10

BATTELLE

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 23/10/2018 4:54:16 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 8:52:06 PM	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
13C2-PFDoA	615.0 / 570.0	4.07	23	>10
d3-MeFOSAA	573.0 / 419.0	3.62	18	>10
d5-EtFOSAA	589.0 / 419.0	3.78	27	>10
13C5-PFHxA	318.0 / 273.0	1.87	23	>10
13C4-PFHpA	367.0 / 322.0	2.28	26	>10
13C8-PFOA	421.0 / 376.0	2.70	47	>10
13C9-PFNA	472.0 / 427.0	3.09	24	>10
13C6-PFDA	519.0 / 474.0	3.45	29	>10
13C7-PFUnA	570.0 / 525.0	3.78	36	>10
13C2-PFTeDA	715.0 / 670.0	4.54	38	>10
13C3-PFBS	302.0 / 99.0	1.54	24	>10
13C3-PFHxS	402.0 / 99.0	2.31	27	>10
13C8-PFOS	507.0 / 99.0	3.09	33	>10

BATTELLE
It can be done

Precision and Bias at the LOQ for PFAS in non-potable Water

Analyte	CAS No.	Average (ng/L)	ST DEV	2 Sigma	n
PFBA	375-22-4	12.29	2.02	4.04	13
PFPeA	2706-90-3	10.73	1.51	3.02	9
PFHxA	307-24-4	9.93	1.30	2.60	39
PFHpA	375-85-9	9.42	1.57	3.14	39
PFOA	335-67-1	10.18	1.47	2.94	40
PFNA	375-95-1	9.64	1.15	2.30	39
PFDA	335-76-2	9.89	1.32	2.64	39
PFUnA	2058-94-8	9.86	1.31	2.62	39
PFDoA	307-55-1	10.75	1.29	2.58	39
PFTrDA	72629-94-8	11.18	1.54	3.08	39
PFTeDA	376-06-7	10.70	1.91	3.82	39
NMeFOSAA	2355-31-9	10.26	1.87	3.74	39
NEtFOSAA	2991-50-6	9.63	1.54	3.08	39
PFOSA	754-91-6	9.74	1.14	2.28	4
PFBS	375-73-5	10.05	1.44	2.88	40
PFPeS	BDO-2114	9.80	0.96	1.92	5
PFHxS	355-46-4	9.76	1.40	2.80	39
PFHpS	375-99-6	10.96	0.96	1.92	10
PFOS	1763-23-1	10.09	1.36	2.72	38
PFNS	98789-57-2	9.34	1.10	2.20	4
PFDS	2806-15-7	10.13	1.88	3.76	9
4:2FTS	BDO-2205	11.03	1.26	2.52	9
6:2FTS	27619-97-2	12.52	2.91	5.82	9
8:2FTS	39108-34-4	12.11	2.54	5.08	9

BATTELLE DETECTION LIMITS FOR PFAS IN NON-POTABLE WATER

Analytical SOP 5-369
Extraction SOP 5-370

PFAS by LC-MS/MS Compliant with QSM 5.1 Compliant Table B-15

Analyte	CAS No.	MDL (ng/L)	LOD (ng/L)	LOQ (ng/L)
PFBA	375-22-4	0.14	0.5	5.0
PFPeA	2706-90-3	0.31	1.0	5.0
PFHxA	307-24-4	0.19	0.5	5.0
PFHpA	375-85-9	0.16	0.5	5.0
PFOA	335-67-1	0.18	0.5	5.0
PFNA	375-95-1	0.26	1.0	5.0
PFDA	335-76-2	0.16	0.5	5.0
PFUnA	2058-94-8	0.29	1.0	5.0
PFDoA	307-55-1	0.18	0.5	5.0
PFTrDA	72629-94-8	0.15	0.5	5.0
PFTeDA	376-06-7	0.25	1.0	5.0
NMeFOSAA	2355-31-9	0.56	2.0	5.0
NEtFOSAA	2991-50-6	0.49	1.0	5.0
PFOSA	754-91-6	TBD	TBD	TBD
PFBS	375-73-5	0.13	0.5	5.0
PFPeS	BDO-2114	0.67	2.5	5.0
PFHxS	355-46-4	0.11	0.4	5.0
PFHpS	375-99-6	0.20	0.5	5.0
PFOS	1763-23-1	0.19	0.5	5.0
PFNS	98789-57-2	0.46	1.0	5.0
PFDS	2806-15-7	0.17	0.5	5.0
4:2FTS	BDO-2205	0.14	0.5	5.0
6:2FTS	27619-97-2	1.36	2.5	5.0
8:2FTS	39108-34-4	0.22	0.5	5.0

Analytes on NELAP and ELAP QSM 5.1 Scope of accreditation

Battelle and its logos are registered trademarks of Battelle Memorial Institute. © Battelle Memorial Institute 2018. All Rights Reserved.

ID 596 04/18

Analytical Transitions for PFAS in non-potable water, solid, and tissue

EPA 537 MOD DoD QSM 5.1 compliant with Table B-15 requirements

Analyte	CAS No.	Type	Primary Transition	Secondary Transition
PFBA	375-22-4	Target	213.0 / 169.0	NA
PFPeA	2706-90-3	Target	263.0 / 219.0	NA
PFHxA	307-24-4	Target	313.0 / 269.0	313.0 / 119.0
PFHpA	375-85-9	Target	363.0 / 319.0	363.0 / 169.0
PFOA	335-67-1	Target	413.0 / 369.0	413.0 / 169.0
PFNA	375-95-1	Target	463.0 / 419.0	463.0 / 219.0
PFDA	335-76-2	Target	513.0 / 469.0	513.0 / 219.0
PFUnA	2058-94-8	Target	563.0 / 519.0	563.0 / 269.0
PFDoA	307-55-1	Target	613.0 / 569.0	613.0 / 319.0
PFTrDA	72629-94-8	Target	663.0 / 619.0	663.0 / 169.0
PFTeDA	376-06-7	Target	713.0 / 669.0	713.0 / 169.0
NMeFOSAA	2355-31-9	Target	570.0 / 419.0	570.0 / 512.0
NEtFOSAA	2991-50-6	Target	584.0 / 419.0	584.0 / 483.0
PFOSA	754-91-6	Target	498.0 / 78.0	498.0 / 83.0
PFBS	375-73-5	Target	299.0 / 80.0	299.0 / 99.0
PFPeS	BDO-2114	Target	349.0 / 99.0	249.0 / 80.0
PFHxS	355-46-4	Target	399.0 / 80.0	399.0 / 99.0
PFHpS	375-99-6	Target	449.0 / 80.0	449.0 / 99.0
PFOS	1763-23-1	Target	499.0 / 80.0	499.0 / 99.0
PFNS	98789-57-2	Target	549.0 / 99.0	549.0 / 80.0
PFDS	2806-15-7	Target	599.0 / 80.0	599.0 / 99.0
4:2FTS	BDO-2205	Target	327.0 / 307.0	327.0 / 80.0
6:2FTS	27619-97-2	Target	427.0 / 407.0	427.0 / 81.0
8:2FTS	39108-34-4	Target	527.0 / 507.0	527.0 / 487.0
13C4-PFBA	BDO-2105	SIS[1]	217.0 / 172.0	NA
13C5-PFPeA	BDO-2216	SIS[1]	268.0 / 223.0	NA
13C5-PFHxA	BDO-2217	SIS[1]	318.0 / 273.0	NA

Analyte	CAS No.	Type	Primary Transition	Secondary Transition
13C4-PFHpA	BDO-2218	SIS[1]	367.0 / 322.0	NA
13C8-PFOA	BDO-2219	SIS[1]	421.0 / 376.0	NA
13C9-PFNA	BDO-2221	SIS[1]	472.0 / 427.0	NA
13C6-PFDA	BDO-2222	SIS[1]	519.0 / 474.0	NA
13C7-PFUnA	BDO-2223	SIS[1]	570.0 / 525.0	NA
13C2-PFDoA	BDO-2112	SIS[1]	615.0 / 570.0	NA
13C2-PFTeDA	BDO-2224	SIS[1]	715.0 / 670.0	NA
d3-MeFOSAA	BDO-1838	SIS[1]	573.0 / 419.0	NA
d5-EtFOSAA	BDO-1839	SIS[1]	589.0 / 419.0	NA
13C8-FOSA	BDO-2225	SIS[1]	506.0 / 78.0	NA
13C3-PFBS	BDO-2226	SIS[1]	302.0 / 99.0	NA
13C3-PFHxS	BDO-2227	SIS[1]	402.0 / 99.0	NA
13C8-PFOS	BDO-2228	SIS[1]	507.0 / 99.0	NA
13C2-4:2FTS	BDO-2229	SIS[1]	329.0 / 81.0	NA
13C2-6:2FTS	BDO-2230	SIS[1]	429.0 / 81.0	NA
13C2-8:2FTS	BDO-2220	SIS[1]	529.0 / 81.0	NA
13C3-PFBA	BDO-2231	IS[2]	216.0 / 172.0	NA
13C2-PFOA	BDO-2107	IS[2]	415.0 / 370.0	NA
13C2-PFDA	BDO-2110	IS[2]	515.0 / 470.0	NA
13C4-PFOS	BDO-2121	IS[2]	503.0 / 99.0	NA

[1] – extracted internal standard (surrogate)
[2] – injection internal standard

BATTELLE

Non-Potable Water Calibration to Sample Equivalents

ICAL (ng/L)	PIV (mL)	DF[1]	Sample Size (L)	Sample Equivalent (ng/L)[2]
25	1	1	0.250	0.1
50	1	1	0.250	0.2
100	1	1	0.250	0.4
250	1	1	0.250	1.0
500	1	1	0.250	2.0
1,000	1	1	0.250	4.0
2,500	1	1	0.250	10.0
10,000	1	1	0.250	40.0
20,000	1	1	0.250	80.0

[1] - base level dilution as part of the extraction procedure

[2] - calculated equivalent of a sample based on the ICAL concentration

Zef Scientific Inc.

12707 High Bluff Dr.
Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

QTRAP 5500

LC/MS/MS Detector System

Appendix ZEFPM003-2L

QTRAP 5500
Preventive Maintenance Checklist

Preventive Maintenance Date:	12-June-2018

Request ID:	9749
Company Name:	Battelle Memorial Institute
Instrument ID:	X60666
Instrument Model:	QTRAP 5500
Instrument Serial Number:	AU23051004

☑ **PASS** ☐ **FAIL**

Any failure will lead to an automatic Service Call being open to investigate fault.

Preventive Maintenance is performed twice every year unless specified in the Service Contract. It is designed to help maintain optimum system performance and to help diagnose any system deficiencies.

Engineer is required the assigned Request ID for this PM otherwise making this job invalid.

Comments: Suspected issue with pulse gas manifold. TRAP testing in POSITIVE mode couldn't be finished because of pulse gas issue. The same issue will be taken care in separate service call.

Performed By: Kaustubh Dhayagude **Date:** 12-June-2018

Approved By :_____ **Date:** _____

© This document is the property of Zef Scientific and intended for Zef Scientific Inc trained engineers use only. No copying, all or partial, is permitted without prior authorization.

Zef Scientific Inc.

12707 High Bluff Dr.
Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

QTRAP 5500

LC/MS/MS Detector System

Appendix ZEFPM003-2L

PRE PM PPG PERFORMANCE EVALUATION:

☑ Consult Customer concerning the unit overall performance.
☑ Check Logbook for Services recently performed.
☑ Check Vacuum Pressure:

CAD Settings	Vacuum Reading (x 10^{-5} Torr)	Acceptance Criteria
☑ CAD 0	0.6	0.4 to 1.1 x10^{-5} Torr
☑ CAD Low	1.3	Read Only
☑ CAD Medium	2.7	Read Only
☑ CAD High	3.7	Read Only
☑ CAD 12	3.7	2.4 to 4.5 x10^{-5} Torr

☑ Check for Front end contamination symptoms. Run Q1 POS PPG using PPG 2e-7for a few minutes and check for any TIC signal degradation or huge sensitivity drop where the sensitivity result can't pass specification

☑ No degradation or Sensitivity drop

☑ Check for Q3 contamination symptoms. Run Q3 POS PPG using PPG 2e-7for a few minutes and check for any TIC signal degradation or huge sensitivity drop where the sensitivity result can't pass specification

☑ No degradation or Sensitivity drop

Pre PM PPG Test: Perform each of the following tests. Optimize ion source position only. The specifications listed for these Pre PM tests are guidelines only, not required to be met.

☑ Perform Q1 POS using POS PPG 2e-7M. Scan Rate 10 Da/s. Record 10 mca.

Mass	Q1 Intensity		Q1 Width Value	Width Specs
	Value	Spec		
Q1 175.133	4.01 e6	Read Only	0.6998	Read Only
Q1 500.380	2.81 e7	Read Only	0.7038	Read Only
Q1 906.673	4.21 e7	Read Only	0.7071	Read Only

☑ Perform Q3 POS using POS PPG 2e-7M. Scan Rate 10 Da/s. Record 10 mca.

Mass	Q3 Intensity		Q3 Width Value	Width Specs
	Value	Spec		
Q3 175.133	5.45 e6	Read Only	0.6873	Read Only
Q3 500.380	2.69 e7	Read Only	0.7591	Read Only
Q3 906.673	4.50 e7	Read Only	0.7843	Read Only

© This document is the property of Zef Scientific and intended for Zef Scientific Inc trained engineers use only. No copying, all or partial, is permitted without prior authorization.

Zef Scientific Inc.

12707 High Bluff Dr.
Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

QTRAP 5500

LC/MS/MS Detector System

Appendix ZEFPM003-2L

☐ Perform MSMS POS in Product Ion scan with 609.3 parent and record daughter 195.1 using Reserpine 0.167 pmol/ul at the scan rate of 10 Da/s for 10 MCA. Calculate transmission efficiency comparing Q1POS 609 intensity. Transmission Efficiency: :__28.87%__ (Read Only)

Mass	MSMS Intensity		MSMS Width Value	Width Specs
	Value	Spec		
Q1 609.3	4.26 e7	Read Only	0.7011	Read Only
MS/MS 195.1	1.23 e7	Read Only	0.7069	Read Only

☑ Perform Q1 NEG using NEG PPG 3e-5M. Scan Rate 10 Da/s. Record 10 mca.

Mass	Q1 Intensity		Q1 Width Value	Width Specs
	Value	Spec		
Q1 933.636	1.42 e7	Read Only	0.7686	Read Only

☑ Perform Q3 NEG using NEG PPG 3e-5M. Scan Rate 10 Da/s. Record 10 mca.

Mass	Q3 Intensity		Q3 Width Value	Width Specs
	Value	Spec		
Q3 933.636	2.24 e7	Read Only	0.7243	Read Only

☑ Perform Product Ion scan using NEG PPG 3e-5M. Record10mca.

Mass	Scan Rate	MCA	MSMS Intensity		MSMS Width Value	Width Specs
			Value	Spec		
MSMS 45	10	10	3.31 e6	Read Only	0.6746	Read Only

© This document is the property of Zef Scientific and intended for Zef Scientific Inc trained engineers use only. No copying, all or partial, is permitted without prior authorization.

Zef Scientific Inc.

12707 High Bluff Dr.
Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

QTRAP 5500

LC/MS/MS Detector System

Appendix ZEFPM003-2L

PREVENTIVE MAINTENANCE CHECKLIST:

☑ Check Cooling Fans for Turbo Pumps while MS is ON.
☑ Check QJet and QPS tuning voltage for reference.
☐ Record AC input Voltage while MS is OFF: _____(200-240VAC).
If Out-of-Range, notify customer.

☑ Clean Interface
- ☑ Curtain Plate
- ☑ Orifice Plate
- ☑ QJet
- ☑ Q0 Rods.

☑ Replace Roughing Pump Oil.
☑ Inspect Oil Exhaust Filter, if Applicable. ☐ N/A
☑ Clean and inspect built-in divert valve if used. ☐ N/A
☑ Check Multiplier Voltage, optimize if necessary.
☑ Replace four Air Filters at the bottom of the mass spectrometer.

☑Pump down overnight if possible. ☐ N/A

☑Perform Maintenance on Turbo V source.

☑Replace Electrode, if necessary. ☐ N/A
☑Check Turbo heaters resistances.
☑Check if Temperature is reached at 500C with TIS Probe installed.
☐Check if Temperature is reached at 500C with APCI Probe installed. ☑ N/A

© This document is the property of Zef Scientific and intended for Zef Scientific Inc trained engineers use only. No copying, all or partial, is permitted without prior authorization.

Zef Scientific Inc.

12707 High Bluff Dr.
Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

QTRAP 5500

LC/MS/MS Detector System
Appendix ZEFPM003-2L

POST PM PPG PERFORMANCE TESTS:

☑ Set-up Sample for Infusion.
☑ Check spray and adjust sprayer's position of the TIS source.
☑ Check Vacuum Pressure:

CAD Settings	Vacuum Reading (x 10^{-5} Torr)	Acceptance Criteria
☑ CAD 0	0.7	0.4 to 1.1 x10^{-5} Torr
☑ CAD Low	1.3	Read Only
☑ CAD Medium	2.7	Read Only
☑ CAD High	3.7	Read Only
☑ CAD 12	3.7	2.4 to 4.5 x10^{-5} Torr

☑ Perform Q1 POS using POS PPG 2e-7M. Mass calibrate to less than 0.1 amu.

Mass	Q1 Intensity		Q1 Width	Width Specs
	Value	Spec	Value	
Scan Rate 10 Da/s Record 10 mca				
Q1 175.133	5.04 e6	≥1.2^{e}6	0.6737	0.6 to 0.8
Q1 500.380	1.60 e7	≥9.0^{e}6	0.6961	0.6 to 0.8
Q1 906.673	2.84 e7	≥1.4^{e}7	0.7179	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q1 906.673	1.33 e8	≥6.8^{e}7	0.7465	0.6 to 0.8

☑ Perform Q3 POS using POS PPG 2e-7M. Mass calibrate to less than 0.1 amu.

Mass	Q3 Intensity		Q3 Width	Width Specs
	Value	Spec	Value	
Scan Rate 10 Da/s Record 10 mca				
Q3 175.133	5.02 e6	≥1.2^{e}6	0.6719	0.6 to 0.8
Q3 500.380	1.72 e7	≥9.0^{e}6	0.7443	0.6 to 0.8
Q3 906.673	3.00 e7	≥1.4^{e}7	0.7504	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q3 906.673	1.46 e8	≥6.8^{e}7	0.7202	0.6 to 0.8

☑ Perform "Product of 609.3" POS and record product ion 195.1 using Reserpine 0.167pmol/uL. Record 10 mca. Calculate Transmission efficiency comparing Q1POS 609 intensity.
Transmission Efficiency: 21.10% (≥ 10.0%)

Mass	MSMS Intensity		Width	Width Specs
	Value	Spec	Value	
Q1 609.3	5.78 e7	N/A	0.6888	Read Only
MS/MS 195.1	1.22 e7	N/A	0.7003	Read Only

© This document is the property of Zef Scientific and intended for Zef Scientific Inc trained engineers use only. No copying, all or partial, is permitted without prior authorization.

Zef Scientific Inc.

12707 High Bluff Dr.
Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

QTRAP 5500

LC/MS/MS Detector System

Appendix ZEFPM003-2L

☑ Perform Q1 NEG using NEG PPG 3e-5M. Mass calibrate to less than 0.1 amu.

Mass	Scan Rate	Mca	Q1 Intensity		Q1 Width Value	Width Specs
			Value	Spec		
Q1 933.636	10	10	1.35 e7	≥1.0^{e}7	0.7486	0.6 to 0.8
Q1 933.636	1000	50	7.52 e7	≥4.0^{e}7	0.7206	0.6 to 0.8

☑ Perform Q3 NEG using NEG PPG 3e-5M. Mass calibrate to less than 0.1 amu.

Mass	Scan Rate	Mca	Q3 Intensity		Q3 Width Value	Width Specs
			Value	Spec		
Q3 933.636	10	10	2.15 e7	≥8.0^{e}6	0.7492	0.6 to 0.8
Q3 933.636	1000	50	8.33 e7	≥4.0^{e}7	0.7299	0.6 to 0.8

☑ Perform Product Ion scan using NEG PPG 3e-5M.

Mass	Scan Rate	Mca	MSMS Intensity		MSMS Width Value	Width Specs
			Value	Spec		
MSMS 45	10	10	3.33 e6	Read Only	0.6387	Read Only

☑ Perform ER POS 118.087 and 922.01 using ESI Tuning Mix 1:100 in ES Tuning Dilution Solvent. Apply suggested Scan Rate and Record number of MCA. Mass calibrate to less than 0.1 amu.

Mass	Fill Time (ms)	ER Intensity		ER Width Value	Width Specs
		Value	Spec		
ScanRate : 1000 Da/s ; 50 Mca					
ER 118.087	0.05	8.54 e6	≥7.2 ^{e}6	0.1473	<0.35
ER 922.010	0.05	4.96 e7	≥2.8 ^{e}6	0.2434	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 118.087	0.05		≥2.4 ^{e}7		<0.65
ER 922.010	0.05		≥6.8 ^{e}7		<0.65

☑ Perform ER NEG 431.982 and 601.978 using ESI Tuning Mix 1:100 in ES Tuning Dilution Solvent. Apply suggested Scan Rate and Record number of MCA. Mass calibrate to less than 0.1 amu.

Mass	Fill Time (ms)	ER Intensity		ER Width Value	Width Specs
		Value	Spec		
ScanRate : 1000 Da/s ; 50 Mca					
ER 431.982	0.05	1.81 e8	≥4.4 ^{e}7	0.1862	<0.35
ER 601.978	0.05	1.70 e8	≥5.6 ^{e}7	0.1809	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 431.982	0.05	5.72 e8	≥1.2 ^{e}8	0.5102	<0.65
ER 601.978	0.05	4.52 e8	≥1.6 ^{e}8	0.6187	<0.65

© This document is the property of Zef Scientific and intended for Zef Scientific Inc trained engineers use only. No copying, all or partial, is permitted without prior authorization.

Zef Scientific Inc.

12707 High Bluff Dr.
Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

QTRAP 5500

LC/MS/MS Detector System

Appendix ZEFPM003-2L

☑ Perform EPI POS 397.2 using Reserpine 0.167pmol/uL. Record 20 mca.

Mass	Scan Rate (Da/s)	Q0 Trapping OFF		Q0 Trapping ON	
		Intensity	Spec	Intensity	Spec
EPI 397.2	10000	> 3.0 e6	≥2.0 e6	> 7.0 e6	≥6.4 e6

☑ Perform MS3 POS full scan Fragmentation ON & OFF using Reserpine 0.167pmol/uL. Record 20 mca.

Mass	Scan Rate (Da/s)	Fragamentation OFF		Fragmentation ON	
		Intensity	Spec	Intensity	Spec
MS3 397.2	1000	Yes	Contains only 397.2	N/A	N/A
☐ 236 OR ☑ 365	1000	Yes	Fragment Intensity	> 2.0 e6	≥1.6x $10^{e}6$

REVIEW:

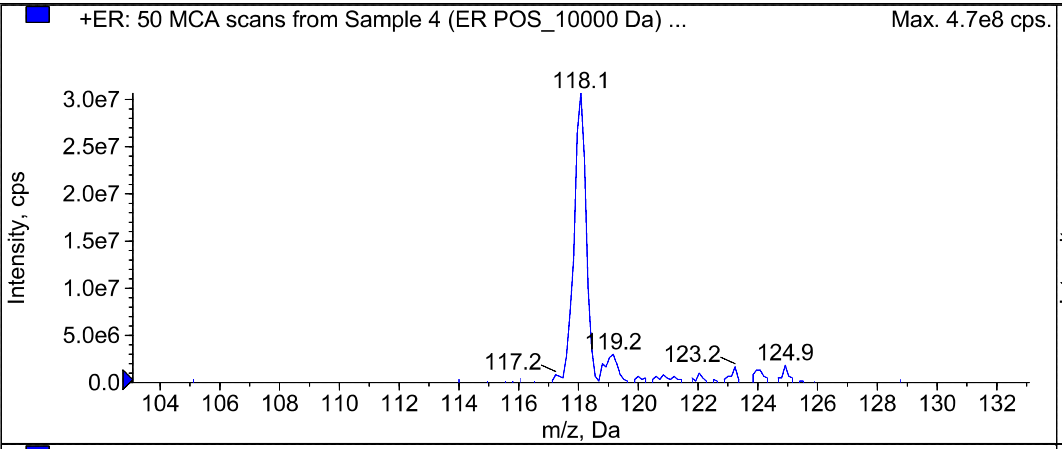
☑ Attach all spectrums printouts to this procedure.
☑ If any parameter setting access modes were changed during the PM, ensure they are returned to their normal access mode and that their offsets are adjusted to match optimized values from the post-PM acquisition files.
☐ Empty tuning cache folder, if necessary. ☑ N/A
☑ Update Service Work Order status
☑ Fill and replace PM Label.

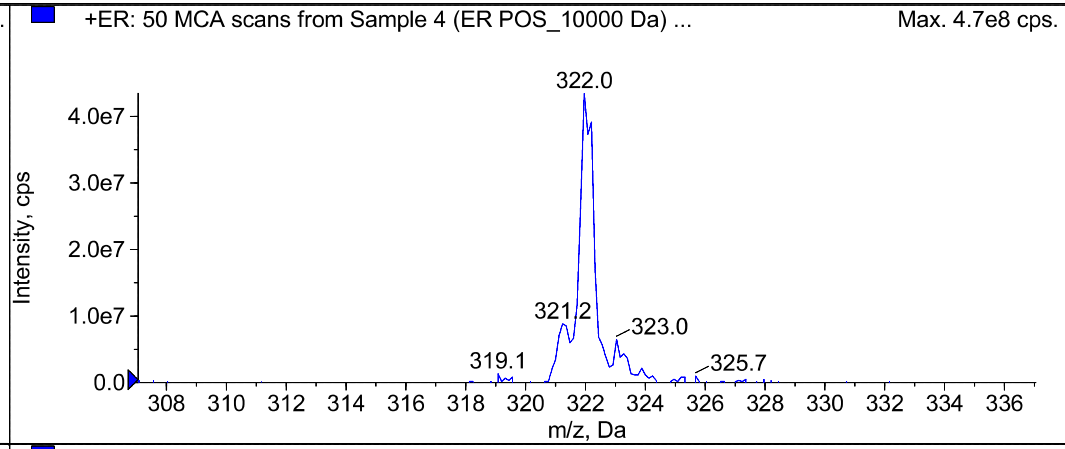
END OF PREVENTIVE MAINTENANCE CHECKLIST

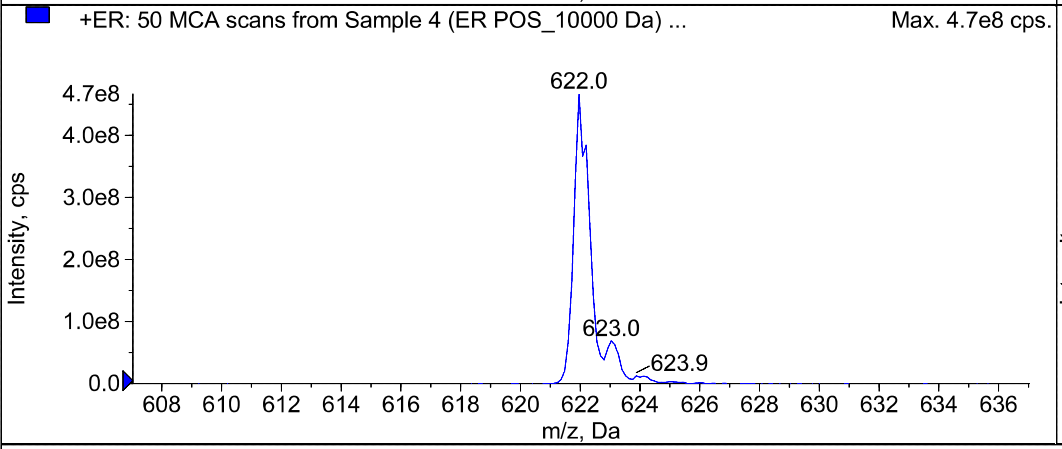
Document history:

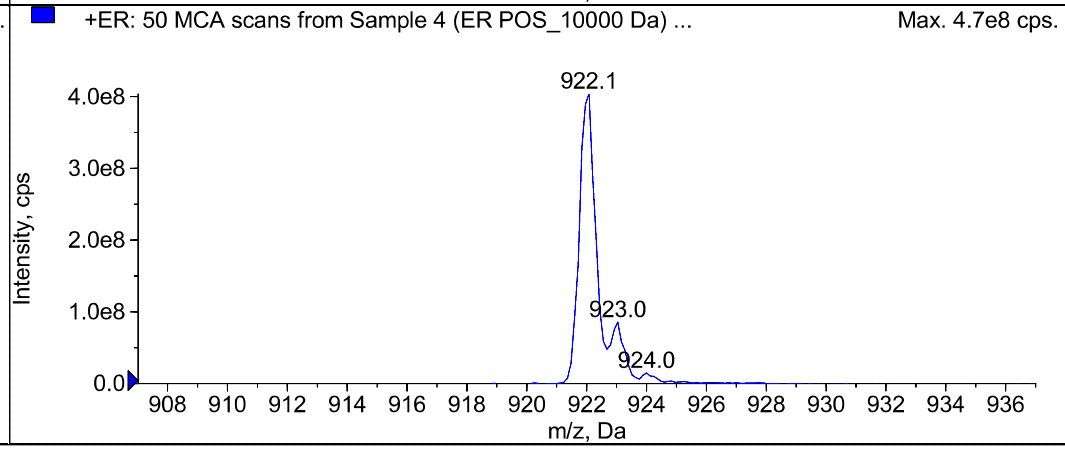
06 OCT 2016: Appendix ZEFPM003-2L: Removed requirements to fit Manufacturer's testing criteria.

© This document is the property of Zef Scientific and intended for Zef Scientific Inc trained engineers use only. No copying, all or partial, is permitted without prior authorization.









Peak List for " +ER: 50 MCA scans from Sample 4 (ER POS_10000 Da) of TRAP ER with NEW Pulse Manifold.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	118.0870	118.0702	3.0667e7	0.4146	0.0168
2	322.0490	322.0509	4.3500e7	0.4945	-1.9159e-3
3	622.0290	622.0370	4.6717e8	0.5757	-8.0044e-3
4	922.0100	922.0101	4.0400e8	0.5732	-1.4148e-4

Battelle Standard ID	Description	Intermediate Solutions	Battelle Reagent ID (purchased solutions)
KB33	PFAS - DoD Low Level Labelled Extracted Internal Standards (SIS)	JY27	180726-05
KC19	PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)	KB71	180726-05
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	-	180726-05
KB72	PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)	KB71	180726-05
JZ88	PFAS - DoD Second Source LCS/MS Solution	-	170724-01
KB83	PFAS - DoD High Level Second Source LCS/MS Solution	-	181001-01
KC02	PFAS - DoD High Level Second Source LCS/MS Solution	-	181001-01
KC03	PFAS - DoD Internal Standard Spiking Solution	JY25	180726-04
KC52	PFAS - DoD Internal Standard Spiking Solution	JY25	180726-04
KB73	PFAS - DoD Calibration L1	KB71	180726-05
KB73	PFAS - DoD Calibration L1	JY23	180705-02
KB73	PFAS - DoD Calibration L1	JY25	180726-04
KB74	PFAS - DoD Calibration L2	JY25	180726-04
KB74	PFAS - DoD Calibration L2	KB71	180726-05
KB74	PFAS - DoD Calibration L2	JY23	180705-02
KB75	PFAS - DoD Calibration L3	KB70	180705-02
KB75	PFAS - DoD Calibration L3	KB71	180726-05
KB75	PFAS - DoD Calibration L3	JY25	180726-04
KB76	PFAS - DoD Calibration L4	JY25	180726-04
KB76	PFAS - DoD Calibration L4	KB71	180726-05
KB76	PFAS - DoD Calibration L4	KB70	180705-02
KB77	PFAS - DoD Calibration L5	KB70	180705-02
KB77	PFAS - DoD Calibration L5	KB71	180726-05
KB77	PFAS - DoD Calibration L5	JY25	180726-04
KB78	PFAS - DoD Calibraiton L6	JY25	180726-04
KB78	PFAS - DoD Calibraiton L6	KB70	180705-02
KB78	PFAS - DoD Calibraiton L6	KB71	180726-05
KB79	PFAS - DoD Calibration L7	KB71	180726-05
KB79	PFAS - DoD Calibration L7	KB70	180705-02
KB79	PFAS - DoD Calibration L7	JY25	180726-04
KB80	PFAS - DoD Instrument Blank	JY25	180726-04
KB80	PFAS - DoD Instrument Blank	KB71	180726-05
KB81	PFAS - DoD ICC	KB82	170724-01
KB81	PFAS - DoD ICC	KB71	180726-05
KB81	PFAS - DoD ICC	JY25	180726-04
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-02
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-03
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-04
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-06
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-07

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: JX28

Description: PFAS Branched Standard Stock

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180618-02	Branched NEtFOSAA Standard (50 µg/mL)	Neat	~50.000000	01/17/23	---	---	100 uL	1	10	~0.5000
180618-03	Branched NMeFOSAA Standard (50 µg/mL)	Neat	~50.000000	01/17/23	---	---	100 uL	1	10	~0.5000
180618-04	PFOA - Technical Mix	Neat	~50.000000	02/16/22	---	---	100 uL	1	10	~0.5000
180618-06	Branched PFHxS Standard (50 µg/mL)	Neat	~50.000000	01/04/22	---	---	100 uL	1	10	~0.5000
180618-07	Branched PFOS Standard (50 µg/mL)	Neat	~50.000000	01/12/22	---	---	100 uL	1	10	~0.5000

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 6/18/2018 **Expiration Date:** 6/18/2019

Solution Volume 25 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Balance ID: _____

Comment:

Solvent:	Lot:
Methanol (HPLC)	179315

Approved By: Thorn, Jonathan **Date:** 7/3/2018 8:10:00 AM

BATTELLE

It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JX28

Description: PFAS Branched Standard Stock

Stock Id: 180618-02

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
N-ethylperfluoro-octanesulfonamidoacetic acid	100	50.00	1	100.000	1	10	0.50000

Stock Id: 180618-03

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
N-methylperfluoro-1-octanesulfonamidoacetic acid	100	50.00	1	100.000	1	10	0.50000

Stock Id: 180618-04

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
Perfluoro-n-octanoic Acid	100	50.00	1	100.000	1	10	0.50000

Stock Id: 180618-06

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
Perfluoro-1-hexanesulfonate	100	50.00	1	100.000	1	10	0.50000

Stock Id: 180618-07

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
Perfluoro-1-octanesulfonate	100	50.00	1	100.000	1	10	0.50000

Final Concentrations:

Analyte:	Conc (ug/mL):
N-ethylperfluoro-octanesulfonamidoacetic acid	.50000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.50000
Perfluoro-1-hexanesulfonate	.50000
Perfluoro-1-octanesulfonate	.50000
Perfluoro-n-octanoic Acid	.50000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180618-02	Pipette	I0793912B
180618-03	Pipette	I0793912B
180618-04	Pipette	I0793912B
180618-06	Pipette	I0793912B
180618-07	Pipette	I0793912B

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 6/18/2018 **Expiration Date:** 6/18/2019

Solution Volume 25 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment:

Approved By: Thorn, Jonathan **Date:** 7/3/2018 8:10:00 AM

BATTELLE

It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: JY23

Description: PFAS - DoD Low ICAL Stock

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180705-02	PFOA - DOD	Neat	~1.000000	06/19/23	---	---	500 uL	1	100	~0.0050

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 7/16/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 4 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Balance ID:

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan **Date:** 8/29/2018 10:10:00 AM

BATTELLE

It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JY23

Description: PFAS - DoD Low ICAL Stock

Stock Id: 180705-02

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	500	1.01	1	100.000	1	100	0.00505
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	500	1.01	1	100.000	1	100	0.00505
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	500	1.00	1	100.000	1	100	0.00500
(Na) Perfluoro-1-decanesulfonate	500	1.01	1	100.000	1	100	0.00505
(NA) Perfluoro-1-heptanesulfonate	500	1.00	1	100.000	1	100	0.00500
(Na) Perfluoro-1-nonanesulfonate	500	1.01	1	100.000	1	100	0.00505
N-ethylperfluoro-octanesulfonamidoacetic acid	500	1.00	1	100.000	1	100	0.00500
N-methylperfluoro-1-octanesulfonamidoacetic acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-1-butanesulfonate	500	1.01	1	100.000	1	100	0.00505
Perfluoro-1-hexanesulfonate	500	1.01	1	100.000	1	100	0.00505
Perfluoro-1-octanesulfonamide	500	1.00	1	100.000	1	100	0.00500
Perfluoro-1-octanesulfonate	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-butanoic Acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-decanoic Acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-dodecanoic acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-heptanoic Acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-hexanoic acid	500	1.01	1	100.000	1	100	0.00505
Perfluoro-n-octanoic Acid	500	1.00	1	100.000	1	100	0.00500
Perfluorononanoic Acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-pentanoic acid	500	1.01	1	100.000	1	100	0.00505
Perfluoro-n-tetradecanoic acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-tridecanoic acid	500	1.00	1	100.000	1	100	0.00500
Perfluoro-n-undecanoic acid	500	1.00	1	100.000	1	100	0.00500
Sodium perfluoro-1-pentanesulfonate	500	1.00	1	100.000	1	100	0.00500

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00505
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00505
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00500
(Na) Perfluoro-1-decanesulfonate	.00505
(NA) Perfluoro-1-heptanesulfonate	.00500
(Na) Perfluoro-1-nonanesulfonate	.00505
N-ethylperfluoro-octanesulfonamidoacetic acid	.00500
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00500
Perfluoro-1-butanesulfonate	.00505

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 7/16/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 4 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan **Date:** 8/29/2018 10:10:00 AM

BATTELLE

It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JY23

Description: PFAS - DoD Low ICAL Stock

Perfluoro-1-hexanesulfonate	.00505
Perfluoro-1-octanesulfonamide	.00500
Perfluoro-1-octanesulfonate	.00500
Perfluoro-n-butanoic Acid	.00500
Perfluoro-n-decanoic Acid	.00500
Perfluoro-n-dodecanoic acid	.00500
Perfluoro-n-heptanoic Acid	.00500
Perfluoro-n-hexanoic acid	.00505
Perfluoro-n-octanoic Acid	.00500
Perfluorononanoic Acid	.00500
Perfluoro-n-pentanoic acid	.00505
Perfluoro-n-tetradecanoic acid	.00500
Perfluoro-n-tridecanoic acid	.00500
Perfluoro-n-undecanoic acid	.00500
Sodium perfluoro-1-pentanesulfonate	.00500

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180705-02	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 7/16/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 4 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan **Date:** 8/29/2018 10:10:00 AM

BATTELLE

It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: JY25

Description: PFAS - DoD Internal Standard Stock Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180726-04	Mass-labelled PFAS injection standards	Neat	~2.000000	05/02/22	---	---	625 uL	1	25	~0.0500

Solution Prepared By: Schultz, Stephanie	**Date Prepared:** 7/16/2018	**Expiration Date:**	7/16/2019
Solution Volume 40 mL X 1 Vials	**Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107		

Balance ID:

Comment: 96/4 Methanol/Milli-q water (RP-180803-1)

Approved By: Thorn, Jonathan **Date:** 8/29/2018 10:09:00 AM

BATTELLE

It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JY25

Description: PFAS - DoD Internal Standard Stock Solution

Stock Id: 180726-04

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	625	2.00	1	100.000	1	25	0.05000
13C2-PFOA	625	2.00	1	100.000	1	25	0.05000
13C3-PFBA	625	2.00	1	100.000	1	25	0.05000
13C4-PFOS	625	1.91	1	100.000	1	25	0.04785

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-PFDA	.05000
13C2-PFOA	.05000
13C3-PFBA	.05000
13C4-PFOS	.04785

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180726-04	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 7/16/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/Milli-q water (RP-180803-1)

Approved By: Thorn, Jonathan **Date:** 8/29/2018 10:09:00 AM

BATTELLE

It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: JY27

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180726-05	Mass-labelled PFAS Extraction Standard Solution	Neat	~1.000000	02/07/23	---	---	1000 uL	1	20	~0.0500

Solution Prepared By: Schultz, Stephanie	**Date Prepared:** 7/16/2018	**Expiration Date:**	7/16/2019
Solution Volume 40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water (RP-180803-1)

Approved By: Schumitz, Denise **Date:** 8/8/2018 9:17:00 AM

BATTELLE

It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JY27

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

Stock Id: 180726-05

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	1000	0.94	1	100.000	1	20	0.04675
13C2-6:2FTS	1000	0.95	1	100.000	1	20	0.04745
13C2-8:2FTS	1000	0.96	1	100.000	1	20	0.04790
13C2-PFDoA	1000	1.00	1	100.000	1	20	0.05000
13C2-PFTeDA	1000	1.00	1	100.000	1	20	0.05000
13C3-PFBS	1000	0.93	1	100.000	1	20	0.04645
13C3-PFHxS	1000	0.95	1	100.000	1	20	0.04730
13C4-PFBA	1000	1.00	1	100.000	1	20	0.05000
13C4-PFHpA	1000	1.00	1	100.000	1	20	0.05000
13C5-PFHxA	1000	1.00	1	100.000	1	20	0.05000
13C5-PFPeA	1000	1.00	1	100.000	1	20	0.05000
13C6-PFDA	1000	1.00	1	100.000	1	20	0.05000
13C7-PFUnA	1000	1.00	1	100.000	1	20	0.05000
13C8-FOSA	1000	1.00	1	100.000	1	20	0.05000
13C8-PFOA	1000	1.00	1	100.000	1	20	0.05000
13C8-PFOS	1000	0.96	1	100.000	1	20	0.04785
13C9-PFNA	1000	1.00	1	100.000	1	20	0.05000
d3-MeFOSAA	1000	1.00	1	100.000	1	20	0.05000
d5-EtFOSAA	1000	1.00	1	100.000	1	20	0.05000

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-4:2FTS	.04675
13C2-6:2FTS	.04745
13C2-8:2FTS	.04790
13C2-PFDoA	.05000
13C2-PFTeDA	.05000
13C3-PFBS	.04645
13C3-PFHxS	.04730
13C4-PFBA	.05000
13C4-PFHpA	.05000
13C5-PFHxA	.05000
13C5-PFPeA	.05000
13C6-PFDA	.05000
13C7-PFUnA	.05000
13C8-FOSA	.05000

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 7/16/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/Milli-q water (RP-180803-1)

Approved By: Schumitz, Denise **Date:** 8/8/2018 9:17:00 AM

BATTELLE

It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JY27

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

13C8-PFOA	.05000
13C8-PFOS	.04785
13C9-PFNA	.05000
d3-MeFOSAA	.05000
d5-EtFOSAA	.05000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180726-05	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 7/16/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/Milli-q water (RP-180803-1)

Approved By: Schumitz, Denise **Date:** 8/8/2018 9:17:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **JZ88**

Description: PFAS - DoD Second Source LCS/MS Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
170724-01	PFOA- 2nd Source	Neat	~1.000000	03/22/22	---	---	1000 uL	1	20	~0.0500

Solution Prepared By: Schultz, Stephanie	**Date Prepared:** 8/20/2018	**Expiration Date:**	8/20/2019
Solution Volume 40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107		

Balance ID:

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 8/21/2018 7:17:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JZ88

Description: PFAS - DoD Second Source LCS/MS Solution

Stock Id: 170724-01

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	1.01	1	100.000	1	20	0.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	20	0.05050
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-nonanesulfonate	1000	1.01	1	100.000	1	20	0.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	20	0.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-1-butanesulfonate	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-1-hexanesulfonate	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-1-octanesulfonamide	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-1-octanesulfonate	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-butanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-decanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-dodecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-heptanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-hexanoic acid	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-n-octanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluorononanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-pentanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-tetradecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-tridecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-undecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Sodium perfluoro-1-pentanesulfonate	1000	1.00	1	100.000	1	20	0.05000

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.05000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.05000
(Na) Perfluoro-1-decanesulfonate	.05050
(NA) Perfluoro-1-heptanesulfonate	.05000
(Na) Perfluoro-1-nonanesulfonate	.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.05000
Perfluoro-1-butanesulfonate	.05050

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 8/20/2018 **Expiration Date:** 8/20/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 8/21/2018 7:17:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: JZ88

Description: PFAS - DoD Second Source LCS/MS Solution

Perfluoro-1-hexanesulfonate	.05050
Perfluoro-1-octanesulfonamide	.05000
Perfluoro-1-octanesulfonate	.05000
Perfluoro-n-butanoic Acid	.05000
Perfluoro-n-decanoic Acid	.05000
Perfluoro-n-dodecanoic acid	.05000
Perfluoro-n-heptanoic Acid	.05000
Perfluoro-n-hexanoic acid	.05050
Perfluoro-n-octanoic Acid	.05000
Perfluorononanoic Acid	.05000
Perfluoro-n-pentanoic acid	.05000
Perfluoro-n-tetradecanoic acid	.05000
Perfluoro-n-tridecanoic acid	.05000
Perfluoro-n-undecanoic acid	.05000
Sodium perfluoro-1-pentanesulfonate	.05000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
170724-01	Pipette	C0982448K

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 8/20/2018 **Expiration Date:** 8/20/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 8/21/2018 7:17:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: KB33

Description: PFAS - DoD Low Level Labelled Extracted Internal Standards (SIS)

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	2500 uL	1	25	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	9/24/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID:

Comment: 96/4 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 9/24/2018 3:46:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB33

Description: PFAS - DoD Low Level Labelled Extracted Internal Standards (SIS)

Stock Id: JY27

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	2500	0.05	---	---	1	25	0.00468
13C2-6:2FTS	2500	0.05	---	---	1	25	0.00475
13C2-8:2FTS	2500	0.05	---	---	1	25	0.00479
13C2-PFDoA	2500	0.05	---	---	1	25	0.00500
13C2-PFTeDA	2500	0.05	---	---	1	25	0.00500
13C3-PFBS	2500	0.05	---	---	1	25	0.00465
13C3-PFHxS	2500	0.05	---	---	1	25	0.00473
13C4-PFBA	2500	0.05	---	---	1	25	0.00500
13C4-PFHpA	2500	0.05	---	---	1	25	0.00500
13C5-PFHxA	2500	0.05	---	---	1	25	0.00500
13C5-PFPeA	2500	0.05	---	---	1	25	0.00500
13C6-PFDA	2500	0.05	---	---	1	25	0.00500
13C7-PFUnA	2500	0.05	---	---	1	25	0.00500
13C8-FOSA	2500	0.05	---	---	1	25	0.00500
13C8-PFOA	2500	0.05	---	---	1	25	0.00500
13C8-PFOS	2500	0.05	---	---	1	25	0.00478
13C9-PFNA	2500	0.05	---	---	1	25	0.00500
d3-MeFOSAA	2500	0.05	---	---	1	25	0.00500
d5-EtFOSAA	2500	0.05	---	---	1	25	0.00500

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-4:2FTS	.00468
13C2-6:2FTS	.00475
13C2-8:2FTS	.00479
13C2-PFDoA	.00500
13C2-PFTeDA	.00500
13C3-PFBS	.00465
13C3-PFHxS	.00473
13C4-PFBA	.00500
13C4-PFHpA	.00500
13C5-PFHxA	.00500
13C5-PFPeA	.00500
13C6-PFDA	.00500
13C7-PFUnA	.00500
13C8-FOSA	.00500

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/24/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 9/24/2018 3:46:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB33

Description: PFAS - DoD Low Level Labelled Extracted Internal Standards (SIS)

13C8-PFOA	.00500
13C8-PFOS	.00478
13C9-PFNA	.00500
d3-MeFOSAA	.00500
d5-EtFOSAA	.00500

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY27	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/24/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 9/24/2018 3:46:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB70**

Description: PFAS - DoD High ICAL Stock

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180705-02	PFOA - ICAL Mix	Neat	~1.000000	06/19/23	---	---	1000 uL	1	20	~0.0500

Solution Prepared By: Schultz, Stephanie	**Date Prepared:** 10/1/2018	**Expiration Date:**	10/1/2019
Solution Volume 40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107		

Balance ID:

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:03:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB70

Description: PFAS - DoD High ICAL Stock

Stock Id: 180705-02

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	1.01	1	100.000	1	20	0.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.01	1	100.000	1	20	0.05050
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	20	0.05050
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-nonanesulfonate	1000	1.01	1	100.000	1	20	0.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	20	0.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-1-butanesulfonate	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-1-hexanesulfonate	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-1-octanesulfonamide	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-1-octanesulfonate	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-butanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-decanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-dodecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-heptanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-hexanoic acid	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-n-octanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluorononanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-pentanoic acid	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-n-tetradecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-tridecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-undecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Sodium perfluoro-1-pentanesulfonate	1000	1.00	1	100.000	1	20	0.05000

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.05050
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.05000
(Na) Perfluoro-1-decanesulfonate	.05050
(NA) Perfluoro-1-heptanesulfonate	.05000
(Na) Perfluoro-1-nonanesulfonate	.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.05000
Perfluoro-1-butanesulfonate	.05050

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:03:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB70**

Description: PFAS - DoD High ICAL Stock

Perfluoro-1-hexanesulfonate	.05050
Perfluoro-1-octanesulfonamide	.05000
Perfluoro-1-octanesulfonate	.05000
Perfluoro-n-butanoic Acid	.05000
Perfluoro-n-decanoic Acid	.05000
Perfluoro-n-dodecanoic acid	.05000
Perfluoro-n-heptanoic Acid	.05000
Perfluoro-n-hexanoic acid	.05050
Perfluoro-n-octanoic Acid	.05000
Perfluorononanoic Acid	.05000
Perfluoro-n-pentanoic acid	.05050
Perfluoro-n-tetradecanoic acid	.05000
Perfluoro-n-tridecanoic acid	.05000
Perfluoro-n-undecanoic acid	.05000
Sodium perfluoro-1-pentanesulfonate	.05000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180705-02	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:03:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB71**

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
180726-05	Mass-labelled PFAS Extraction Standard Solution	Neat	~1.000000	02/07/23	---	---	1000 uL	1	20	~0.0500

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	10/1/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/4/2018 2:44:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB71

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

Stock Id: 180726-05

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	1000	0.94	1	100.000	1	20	0.04675
13C2-6:2FTS	1000	0.95	1	100.000	1	20	0.04745
13C2-8:2FTS	1000	0.96	1	100.000	1	20	0.04790
13C2-PFDoA	1000	1.00	1	100.000	1	20	0.05000
13C2-PFTeDA	1000	1.00	1	100.000	1	20	0.05000
13C3-PFBS	1000	0.93	1	100.000	1	20	0.04645
13C3-PFHxS	1000	0.95	1	100.000	1	20	0.04730
13C4-PFBA	1000	1.00	1	100.000	1	20	0.05000
13C4-PFHpA	1000	1.00	1	100.000	1	20	0.05000
13C5-PFHxA	1000	1.00	1	100.000	1	20	0.05000
13C5-PFPeA	1000	1.00	1	100.000	1	20	0.05000
13C6-PFDA	1000	1.00	1	100.000	1	20	0.05000
13C7-PFUnA	1000	1.00	1	100.000	1	20	0.05000
13C8-FOSA	1000	1.00	1	100.000	1	20	0.05000
13C8-PFOA	1000	1.00	1	100.000	1	20	0.05000
13C8-PFOS	1000	0.96	1	100.000	1	20	0.04785
13C9-PFNA	1000	1.00	1	100.000	1	20	0.05000
d3-MeFOSAA	1000	1.00	1	100.000	1	20	0.05000
d5-EtFOSAA	1000	1.00	1	100.000	1	20	0.05000

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-4:2FTS	.04675
13C2-6:2FTS	.04745
13C2-8:2FTS	.04790
13C2-PFDoA	.05000
13C2-PFTeDA	.05000
13C3-PFBS	.04645
13C3-PFHxS	.04730
13C4-PFBA	.05000
13C4-PFHpA	.05000
13C5-PFHxA	.05000
13C5-PFPeA	.05000
13C6-PFDA	.05000
13C7-PFUnA	.05000
13C8-FOSA	.05000

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/4/2018 2:44:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB71

Description: PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)

13C8-PFOA	.05000
13C8-PFOS	.04785
13C9-PFNA	.05000
d3-MeFOSAA	.05000
d5-EtFOSAA	.05000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
180726-05	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/4/2018 2:44:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB72**

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	2500 uL	1	25	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	10/1/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID:

Comment: 96/4 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/4/2018 2:44:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB72

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	2500	0.05	---	---	1	25	0.00468
13C2-6:2FTS	2500	0.05	---	---	1	25	0.00475
13C2-8:2FTS	2500	0.05	---	---	1	25	0.00479
13C2-PFDoA	2500	0.05	---	---	1	25	0.00500
13C2-PFTeDA	2500	0.05	---	---	1	25	0.00500
13C3-PFBS	2500	0.05	---	---	1	25	0.00465
13C3-PFHxS	2500	0.05	---	---	1	25	0.00473
13C4-PFBA	2500	0.05	---	---	1	25	0.00500
13C4-PFHpA	2500	0.05	---	---	1	25	0.00500
13C5-PFHxA	2500	0.05	---	---	1	25	0.00500
13C5-PFPeA	2500	0.05	---	---	1	25	0.00500
13C6-PFDA	2500	0.05	---	---	1	25	0.00500
13C7-PFUnA	2500	0.05	---	---	1	25	0.00500
13C8-FOSA	2500	0.05	---	---	1	25	0.00500
13C8-PFOA	2500	0.05	---	---	1	25	0.00500
13C8-PFOS	2500	0.05	---	---	1	25	0.00478
13C9-PFNA	2500	0.05	---	---	1	25	0.00500
d3-MeFOSAA	2500	0.05	---	---	1	25	0.00500
d5-EtFOSAA	2500	0.05	---	---	1	25	0.00500

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-4:2FTS	.00468
13C2-6:2FTS	.00475
13C2-8:2FTS	.00479
13C2-PFDoA	.00500
13C2-PFTeDA	.00500
13C3-PFBS	.00465
13C3-PFHxS	.00473
13C4-PFBA	.00500
13C4-PFHpA	.00500
13C5-PFHxA	.00500
13C5-PFPeA	.00500
13C6-PFDA	.00500
13C7-PFUnA	.00500
13C8-FOSA	.00500

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/4/2018 2:44:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB72

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)

13C8-PFOA	.00500
13C8-PFOS	.00478
13C9-PFNA	.00500
d3-MeFOSAA	.00500

Syringes/Pipettes:

Solution Prepared By:	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date:**	10/1/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Comment: 96/4 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/4/2018 2:44:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB73**

Description: PFAS - DoD Calibration L1

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY23	PFAS - DoD Low ICAL Stock	Solution	~0	07/16/19	---	---	200 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB73

Description: PFAS - DoD Calibration L1

Stock Id: JY23

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	200	0.01	---	---	1	10	0.00010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	200	0.01	---	---	1	10	0.00010
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	200	0.01	---	---	1	10	0.00010
(Na) Perfluoro-1-decanesulfonate	200	0.01	---	---	1	10	0.00010
(NA) Perfluoro-1-heptanesulfonate	200	0.01	---	---	1	10	0.00010
(Na) Perfluoro-1-nonanesulfonate	200	0.01	---	---	1	10	0.00010
N-ethylperfluoro-octanesulfonamidoacetic acid	200	0.01	---	---	1	10	0.00010
N-methylperfluoro-1-octanesulfonamidoacetic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-1-butanesulfonate	200	0.01	---	---	1	10	0.00010
Perfluoro-1-hexanesulfonate	200	0.01	---	---	1	10	0.00010
Perfluoro-1-octanesulfonamide	200	0.01	---	---	1	10	0.00010
Perfluoro-1-octanesulfonate	200	0.01	---	---	1	10	0.00010
Perfluoro-n-butanoic Acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-decanoic Acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-dodecanoic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-heptanoic Acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-hexanoic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-octanoic Acid	200	0.01	---	---	1	10	0.00010
Perfluorononanoic Acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-pentanoic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-tetradecanoic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-tridecanoic acid	200	0.01	---	---	1	10	0.00010
Perfluoro-n-undecanoic acid	200	0.01	---	---	1	10	0.00010
Sodium perfluoro-1-pentanesulfonate	200	0.01	---	---	1	10	0.00010

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB73**

Description: PFAS - DoD Calibration L1

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHpA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00010
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00010
(Na) Perfluoro-1-decanesulfonate	.00010
(NA) Perfluoro-1-heptanesulfonate	.00010
(Na) Perfluoro-1-nonanesulfonate	.00010
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB73**

Description: PFAS - DoD Calibration L1

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00010
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00010
Perfluoro-1-butanesulfonate	.00010
Perfluoro-1-hexanesulfonate	.00010
Perfluoro-1-octanesulfonamide	.00010
Perfluoro-1-octanesulfonate	.00010
Perfluoro-n-butanoic Acid	.00010
Perfluoro-n-decanoic Acid	.00010
Perfluoro-n-dodecanoic acid	.00010
Perfluoro-n-heptanoic Acid	.00010
Perfluoro-n-hexanoic acid	.00010
Perfluoro-n-octanoic Acid	.00010
Perfluorononanoic Acid	.00010
Perfluoro-n-pentanoic acid	.00010
Perfluoro-n-tetradecanoic acid	.00010
Perfluoro-n-tridecanoic acid	.00010
Perfluoro-n-undecanoic acid	.00010
Sodium perfluoro-1-pentanesulfonate	.00010

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY23	Pipette	B814657482
JY25	Pipette	B814659662
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB74**

Description: PFAS - DoD Calibration L2

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY23	PFAS - DoD Low ICAL Stock	Solution	~0	07/16/19	---	---	500 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB74

Description: PFAS - DoD Calibration L2

Stock Id: JY23

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	500	0.01	---	---	1	10	0.00025
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	500	0.01	---	---	1	10	0.00025
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	500	0.01	---	---	1	10	0.00025
(Na) Perfluoro-1-decanesulfonate	500	0.01	---	---	1	10	0.00025
(NA) Perfluoro-1-heptanesulfonate	500	0.01	---	---	1	10	0.00025
(Na) Perfluoro-1-nonanesulfonate	500	0.01	---	---	1	10	0.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	500	0.01	---	---	1	10	0.00025
N-methylperfluoro-1-octanesulfonamidoacetic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-1-butanesulfonate	500	0.01	---	---	1	10	0.00025
Perfluoro-1-hexanesulfonate	500	0.01	---	---	1	10	0.00025
Perfluoro-1-octanesulfonamide	500	0.01	---	---	1	10	0.00025
Perfluoro-1-octanesulfonate	500	0.01	---	---	1	10	0.00025
Perfluoro-n-butanoic Acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-decanoic Acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-dodecanoic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-heptanoic Acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-hexanoic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-octanoic Acid	500	0.01	---	---	1	10	0.00025
Perfluorononanoic Acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-pentanoic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-tetradecanoic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-tridecanoic acid	500	0.01	---	---	1	10	0.00025
Perfluoro-n-undecanoic acid	500	0.01	---	---	1	10	0.00025
Sodium perfluoro-1-pentanesulfonate	500	0.01	---	---	1	10	0.00025

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB74**

Description: PFAS - DoD Calibration L2

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHpA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00025
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00025
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00025
(Na) Perfluoro-1-decanesulfonate	.00025
(NA) Perfluoro-1-heptanesulfonate	.00025
(Na) Perfluoro-1-nonanesulfonate	.00025
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB74**

Description: PFAS - DoD Calibration L2

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00025
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00025
Perfluoro-1-butanesulfonate	.00025
Perfluoro-1-hexanesulfonate	.00025
Perfluoro-1-octanesulfonamide	.00025
Perfluoro-1-octanesulfonate	.00025
Perfluoro-n-butanoic Acid	.00025
Perfluoro-n-decanoic Acid	.00025
Perfluoro-n-dodecanoic acid	.00025
Perfluoro-n-heptanoic Acid	.00025
Perfluoro-n-hexanoic acid	.00025
Perfluoro-n-octanoic Acid	.00025
Perfluorononanoic Acid	.00025
Perfluoro-n-pentanoic acid	.00025
Perfluoro-n-tetradecanoic acid	.00025
Perfluoro-n-tridecanoic acid	.00025
Perfluoro-n-undecanoic acid	.00025
Sodium perfluoro-1-pentanesulfonate	.00025

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY23	Pipette	B820865811
JY25	Pipette	B814659662
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB75**

Description: PFAS - DoD Calibration L3

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB70	PFAS - DoD High ICAL Stock	Solution	~0	10/01/19	---	---	100 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB75

Description: PFAS - DoD Calibration L3

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB70

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	100	0.05	---	---	1	10	0.00051
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	100	0.05	---	---	1	10	0.00051
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	100	0.05	---	---	1	10	0.00050
(Na) Perfluoro-1-decanesulfonate	100	0.05	---	---	1	10	0.00051
(NA) Perfluoro-1-heptanesulfonate	100	0.05	---	---	1	10	0.00050
(Na) Perfluoro-1-nonanesulfonate	100	0.05	---	---	1	10	0.00051
N-ethylperfluoro-octanesulfonamidoacetic acid	100	0.05	---	---	1	10	0.00050
N-methylperfluoro-1-octanesulfonamidoacetic acid	100	0.05	---	---	1	10	0.00050
Perfluoro-1-butanesulfonate	100	0.05	---	---	1	10	0.00051
Perfluoro-1-hexanesulfonate	100	0.05	---	---	1	10	0.00051
Perfluoro-1-octanesulfonamide	100	0.05	---	---	1	10	0.00050
Perfluoro-1-octanesulfonate	100	0.05	---	---	1	10	0.00050
Perfluoro-n-butanoic Acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-decanoic Acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-dodecanoic acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-heptanoic Acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-hexanoic acid	100	0.05	---	---	1	10	0.00051
Perfluoro-n-octanoic Acid	100	0.05	---	---	1	10	0.00050
Perfluorononanoic Acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-pentanoic acid	100	0.05	---	---	1	10	0.00051
Perfluoro-n-tetradecanoic acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-tridecanoic acid	100	0.05	---	---	1	10	0.00050
Perfluoro-n-undecanoic acid	100	0.05	---	---	1	10	0.00050
Sodium perfluoro-1-pentanesulfonate	100	0.05	---	---	1	10	0.00050

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB75**

Description: PFAS - DoD Calibration L3

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHpA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00051
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00051
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00050
(Na) Perfluoro-1-decanesulfonate	.00051
(NA) Perfluoro-1-heptanesulfonate	.00050
(Na) Perfluoro-1-nonanesulfonate	.00051
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB75

Description: PFAS - DoD Calibration L3

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00050
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00050
Perfluoro-1-butanesulfonate	.00051
Perfluoro-1-hexanesulfonate	.00051
Perfluoro-1-octanesulfonamide	.00050
Perfluoro-1-octanesulfonate	.00050
Perfluoro-n-butanoic Acid	.00050
Perfluoro-n-decanoic Acid	.00050
Perfluoro-n-dodecanoic acid	.00050
Perfluoro-n-heptanoic Acid	.00050
Perfluoro-n-hexanoic acid	.00051
Perfluoro-n-octanoic Acid	.00050
Perfluorononanoic Acid	.00050
Perfluoro-n-pentanoic acid	.00051
Perfluoro-n-tetradecanoic acid	.00050
Perfluoro-n-tridecanoic acid	.00050
Perfluoro-n-undecanoic acid	.00050
Sodium perfluoro-1-pentanesulfonate	.00050

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
KB70	Pipette	B814659662
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB76**

Description: PFAS - DoD Calibration L4

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB70	PFAS - DoD High ICAL Stock	Solution	~0	10/01/19	---	---	1000 uL	1	50	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	250 uL	1	50	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	250 uL	1	50	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 2 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB76

Description: PFAS - DoD Calibration L4

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	250	0.05	---	---	1	50	0.00025
13C2-PFOA	250	0.05	---	---	1	50	0.00025
13C3-PFBA	250	0.05	---	---	1	50	0.00025
13C4-PFOS	250	0.05	---	---	1	50	0.00024

Stock Id: KB70

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	0.05	---	---	1	50	0.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	0.05	---	---	1	50	0.00101
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	0.05	---	---	1	50	0.00100
(Na) Perfluoro-1-decanesulfonate	1000	0.05	---	---	1	50	0.00101
(NA) Perfluoro-1-heptanesulfonate	1000	0.05	---	---	1	50	0.00100
(Na) Perfluoro-1-nonanesulfonate	1000	0.05	---	---	1	50	0.00101
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	0.05	---	---	1	50	0.00100
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-1-butanesulfonate	1000	0.05	---	---	1	50	0.00101
Perfluoro-1-hexanesulfonate	1000	0.05	---	---	1	50	0.00101
Perfluoro-1-octanesulfonamide	1000	0.05	---	---	1	50	0.00100
Perfluoro-1-octanesulfonate	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-butanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-decanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-dodecanoic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-heptanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-hexanoic acid	1000	0.05	---	---	1	50	0.00101
Perfluoro-n-octanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluorononanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-pentanoic acid	1000	0.05	---	---	1	50	0.00101
Perfluoro-n-tetradecanoic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-tridecanoic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-undecanoic acid	1000	0.05	---	---	1	50	0.00100
Sodium perfluoro-1-pentanesulfonate	1000	0.05	---	---	1	50	0.00100

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	250	0.05	---	---	1	50	0.00023

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 2 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB76**

Description: PFAS - DoD Calibration L4

13C2-6:2FTS	250	0.05	---	---	1	50	0.00024
13C2-8:2FTS	250	0.05	---	---	1	50	0.00024
13C2-PFDoA	250	0.05	---	---	1	50	0.00025
13C2-PFTeDA	250	0.05	---	---	1	50	0.00025
13C3-PFBS	250	0.05	---	---	1	50	0.00023
13C3-PFHxS	250	0.05	---	---	1	50	0.00024
13C4-PFBA	250	0.05	---	---	1	50	0.00025
13C4-PFHpA	250	0.05	---	---	1	50	0.00025
13C5-PFHxA	250	0.05	---	---	1	50	0.00025
13C5-PFPeA	250	0.05	---	---	1	50	0.00025
13C6-PFDA	250	0.05	---	---	1	50	0.00025
13C7-PFUnA	250	0.05	---	---	1	50	0.00025
13C8-FOSA	250	0.05	---	---	1	50	0.00025
13C8-PFOA	250	0.05	---	---	1	50	0.00025
13C8-PFOS	250	0.05	---	---	1	50	0.00024
13C9-PFNA	250	0.05	---	---	1	50	0.00025
d3-MeFOSAA	250	0.05	---	---	1	50	0.00025
d5-EtFOSAA	250	0.05	---	---	1	50	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00101
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00100
(Na) Perfluoro-1-decanesulfonate	.00101
(NA) Perfluoro-1-heptanesulfonate	.00100
(Na) Perfluoro-1-nonanesulfonate	.00101
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 2 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB76**

Description: PFAS - DoD Calibration L4

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00100
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00100
Perfluoro-1-butanesulfonate	.00101
Perfluoro-1-hexanesulfonate	.00101
Perfluoro-1-octanesulfonamide	.00100
Perfluoro-1-octanesulfonate	.00100
Perfluoro-n-butanoic Acid	.00100
Perfluoro-n-decanoic Acid	.00100
Perfluoro-n-dodecanoic acid	.00100
Perfluoro-n-heptanoic Acid	.00100
Perfluoro-n-hexanoic acid	.00101
Perfluoro-n-octanoic Acid	.00100
Perfluorononanoic Acid	.00100
Perfluoro-n-pentanoic acid	.00101
Perfluoro-n-tetradecanoic acid	.00100
Perfluoro-n-tridecanoic acid	.00100
Perfluoro-n-undecanoic acid	.00100
Sodium perfluoro-1-pentanesulfonate	.00100

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814657482
KB70	Pipette	B820865811
KB71	Pipette	B814657482

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 2 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:40:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB77**

Description: PFAS - DoD Calibration L5

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB70	PFAS - DoD High ICAL Stock	Solution	~0	10/01/19	---	---	2500 uL	1	50	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	250 uL	1	50	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	250 uL	1	50	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 2 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB77

Description: PFAS - DoD Calibration L5

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	250	0.05	---	---	1	50	0.00025
13C2-PFOA	250	0.05	---	---	1	50	0.00025
13C3-PFBA	250	0.05	---	---	1	50	0.00025
13C4-PFOS	250	0.05	---	---	1	50	0.00024

Stock Id: KB70

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	2500	0.05	---	---	1	50	0.00253
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	2500	0.05	---	---	1	50	0.00253
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	2500	0.05	---	---	1	50	0.00250
(Na) Perfluoro-1-decanesulfonate	2500	0.05	---	---	1	50	0.00253
(NA) Perfluoro-1-heptanesulfonate	2500	0.05	---	---	1	50	0.00250
(Na) Perfluoro-1-nonanesulfonate	2500	0.05	---	---	1	50	0.00253
N-ethylperfluoro-octanesulfonamidoacetic acid	2500	0.05	---	---	1	50	0.00250
N-methylperfluoro-1-octanesulfonamidoacetic acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-1-butanesulfonate	2500	0.05	---	---	1	50	0.00253
Perfluoro-1-hexanesulfonate	2500	0.05	---	---	1	50	0.00253
Perfluoro-1-octanesulfonamide	2500	0.05	---	---	1	50	0.00250
Perfluoro-1-octanesulfonate	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-butanoic Acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-decanoic Acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-dodecanoic acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-heptanoic Acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-hexanoic acid	2500	0.05	---	---	1	50	0.00253
Perfluoro-n-octanoic Acid	2500	0.05	---	---	1	50	0.00250
Perfluorononanoic Acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-pentanoic acid	2500	0.05	---	---	1	50	0.00253
Perfluoro-n-tetradecanoic acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-tridecanoic acid	2500	0.05	---	---	1	50	0.00250
Perfluoro-n-undecanoic acid	2500	0.05	---	---	1	50	0.00250
Sodium perfluoro-1-pentanesulfonate	2500	0.05	---	---	1	50	0.00250

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	250	0.05	---	---	1	50	0.00023

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 2 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB77

Description: PFAS - DoD Calibration L5

13C2-6:2FTS	250	0.05	---	---	1	50	0.00024
13C2-8:2FTS	250	0.05	---	---	1	50	0.00024
13C2-PFDoA	250	0.05	---	---	1	50	0.00025
13C2-PFTeDA	250	0.05	---	---	1	50	0.00025
13C3-PFBS	250	0.05	---	---	1	50	0.00023
13C3-PFHxS	250	0.05	---	---	1	50	0.00024
13C4-PFBA	250	0.05	---	---	1	50	0.00025
13C4-PFHpA	250	0.05	---	---	1	50	0.00025
13C5-PFHxA	250	0.05	---	---	1	50	0.00025
13C5-PFPeA	250	0.05	---	---	1	50	0.00025
13C6-PFDA	250	0.05	---	---	1	50	0.00025
13C7-PFUnA	250	0.05	---	---	1	50	0.00025
13C8-FOSA	250	0.05	---	---	1	50	0.00025
13C8-PFOA	250	0.05	---	---	1	50	0.00025
13C8-PFOS	250	0.05	---	---	1	50	0.00024
13C9-PFNA	250	0.05	---	---	1	50	0.00025
d3-MeFOSAA	250	0.05	---	---	1	50	0.00025
d5-EtFOSAA	250	0.05	---	---	1	50	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00253
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00253
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00250
(Na) Perfluoro-1-decanesulfonate	.00253
(NA) Perfluoro-1-heptanesulfonate	.00250
(Na) Perfluoro-1-nonanesulfonate	.00253
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 2 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB77

Description: PFAS - DoD Calibration L5

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00250
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00250
Perfluoro-1-butanesulfonate	.00253
Perfluoro-1-hexanesulfonate	.00253
Perfluoro-1-octanesulfonamide	.00250
Perfluoro-1-octanesulfonate	.00250
Perfluoro-n-butanoic Acid	.00250
Perfluoro-n-decanoic Acid	.00250
Perfluoro-n-dodecanoic acid	.00250
Perfluoro-n-heptanoic Acid	.00250
Perfluoro-n-hexanoic acid	.00253
Perfluoro-n-octanoic Acid	.00250
Perfluorononanoic Acid	.00250
Perfluoro-n-pentanoic acid	.00253
Perfluoro-n-tetradecanoic acid	.00250
Perfluoro-n-tridecanoic acid	.00250
Perfluoro-n-undecanoic acid	.00250
Sodium perfluoro-1-pentanesulfonate	.00250

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814657482
KB70	Pipette	OU16914
KB71	Pipette	B814657482

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 2 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB78**

Description: PFAS - DoD Calibraiton L6

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB70	PFAS - DoD High ICAL Stock	Solution	~0	10/01/19	---	---	2000 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By Schultz, Stephanie	**Date Prepared:** 10/1/2018	**Expiration Date**	7/16/2019
Solution Volume 40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB78

Description: PFAS - DoD Calibraiton L6

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB70

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	2000	0.05	---	---	1	10	0.01010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	2000	0.05	---	---	1	10	0.01010
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	2000	0.05	---	---	1	10	0.01000
(Na) Perfluoro-1-decanesulfonate	2000	0.05	---	---	1	10	0.01010
(NA) Perfluoro-1-heptanesulfonate	2000	0.05	---	---	1	10	0.01000
(Na) Perfluoro-1-nonanesulfonate	2000	0.05	---	---	1	10	0.01010
N-ethylperfluoro-octanesulfonamidoacetic acid	2000	0.05	---	---	1	10	0.01000
N-methylperfluoro-1-octanesulfonamidoacetic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-1-butanesulfonate	2000	0.05	---	---	1	10	0.01010
Perfluoro-1-hexanesulfonate	2000	0.05	---	---	1	10	0.01010
Perfluoro-1-octanesulfonamide	2000	0.05	---	---	1	10	0.01000
Perfluoro-1-octanesulfonate	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-butanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-decanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-dodecanoic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-heptanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-hexanoic acid	2000	0.05	---	---	1	10	0.01010
Perfluoro-n-octanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluorononanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-pentanoic acid	2000	0.05	---	---	1	10	0.01010
Perfluoro-n-tetradecanoic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-tridecanoic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-undecanoic acid	2000	0.05	---	---	1	10	0.01000
Sodium perfluoro-1-pentanesulfonate	2000	0.05	---	---	1	10	0.01000

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB78**

Description: PFAS - DoD Calibraiton L6

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHpA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.01010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.01010
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.01000
(Na) Perfluoro-1-decanesulfonate	.01010
(NA) Perfluoro-1-heptanesulfonate	.01000
(Na) Perfluoro-1-nonanesulfonate	.01010
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB78

Description: PFAS - DoD Calibraiton L6

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.01000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.01000
Perfluoro-1-butanesulfonate	.01010
Perfluoro-1-hexanesulfonate	.01010
Perfluoro-1-octanesulfonamide	.01000
Perfluoro-1-octanesulfonate	.01000
Perfluoro-n-butanoic Acid	.01000
Perfluoro-n-decanoic Acid	.01000
Perfluoro-n-dodecanoic acid	.01000
Perfluoro-n-heptanoic Acid	.01000
Perfluoro-n-hexanoic acid	.01010
Perfluoro-n-octanoic Acid	.01000
Perfluorononanoic Acid	.01000
Perfluoro-n-pentanoic acid	.01010
Perfluoro-n-tetradecanoic acid	.01000
Perfluoro-n-tridecanoic acid	.01000
Perfluoro-n-undecanoic acid	.01000
Sodium perfluoro-1-pentanesulfonate	.01000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
KB70	Pipette	OU16914
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB79**

Description: PFAS - DoD Calibration L7

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB70	PFAS - DoD High ICAL Stock	Solution	~0	10/01/19	---	---	4000 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB79

Description: PFAS - DoD Calibration L7

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB70

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	4000	0.05	---	---	1	10	0.02020
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	4000	0.05	---	---	1	10	0.02020
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	4000	0.05	---	---	1	10	0.02000
(Na) Perfluoro-1-decanesulfonate	4000	0.05	---	---	1	10	0.02020
(NA) Perfluoro-1-heptanesulfonate	4000	0.05	---	---	1	10	0.02000
(Na) Perfluoro-1-nonanesulfonate	4000	0.05	---	---	1	10	0.02020
N-ethylperfluoro-octanesulfonamidoacetic acid	4000	0.05	---	---	1	10	0.02000
N-methylperfluoro-1-octanesulfonamidoacetic acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-1-butanesulfonate	4000	0.05	---	---	1	10	0.02020
Perfluoro-1-hexanesulfonate	4000	0.05	---	---	1	10	0.02020
Perfluoro-1-octanesulfonamide	4000	0.05	---	---	1	10	0.02000
Perfluoro-1-octanesulfonate	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-butanoic Acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-decanoic Acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-dodecanoic acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-heptanoic Acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-hexanoic acid	4000	0.05	---	---	1	10	0.02020
Perfluoro-n-octanoic Acid	4000	0.05	---	---	1	10	0.02000
Perfluorononanoic Acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-pentanoic acid	4000	0.05	---	---	1	10	0.02020
Perfluoro-n-tetradecanoic acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-tridecanoic acid	4000	0.05	---	---	1	10	0.02000
Perfluoro-n-undecanoic acid	4000	0.05	---	---	1	10	0.02000
Sodium perfluoro-1-pentanesulfonate	4000	0.05	---	---	1	10	0.02000

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB79**

Description: PFAS - DoD Calibration L7

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHpA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.02020
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.02020
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.02000
(Na) Perfluoro-1-decanesulfonate	.02020
(NA) Perfluoro-1-heptanesulfonate	.02000
(Na) Perfluoro-1-nonanesulfonate	.02020
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB79**

Description: PFAS - DoD Calibration L7

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.02000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.02000
Perfluoro-1-butanesulfonate	.02020
Perfluoro-1-hexanesulfonate	.02020
Perfluoro-1-octanesulfonamide	.02000
Perfluoro-1-octanesulfonate	.02000
Perfluoro-n-butanoic Acid	.02000
Perfluoro-n-decanoic Acid	.02000
Perfluoro-n-dodecanoic acid	.02000
Perfluoro-n-heptanoic Acid	.02000
Perfluoro-n-hexanoic acid	.02020
Perfluoro-n-octanoic Acid	.02000
Perfluorononanoic Acid	.02000
Perfluoro-n-pentanoic acid	.02020
Perfluoro-n-tetradecanoic acid	.02000
Perfluoro-n-tridecanoic acid	.02000
Perfluoro-n-undecanoic acid	.02000
Sodium perfluoro-1-pentanesulfonate	.02000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
KB70	Pipette	OU16914
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB80**

Description: PFAS - DoD Instrument Blank

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID:

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB80

Description: PFAS - DoD Instrument Blank

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023
13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHpA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB80**

Description: PFAS - DoD Instrument Blank

13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025
13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB81**

Description: PFAS - DoD ICC

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB82	PFAS - DoD Second Source LCS/MS Solution	Solution	~0	10/01/19	---	---	200 uL	1	10	~0.0000
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	50 uL	1	10	~0.0000
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	50 uL	1	10	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB81

Description: PFAS - DoD ICC

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	50	0.05	---	---	1	10	0.00025
13C2-PFOA	50	0.05	---	---	1	10	0.00025
13C3-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFOS	50	0.05	---	---	1	10	0.00024

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	50	0.05	---	---	1	10	0.00023
13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-PFHpA	50	0.05	---	---	1	10	0.00025
13C5-PFHxA	50	0.05	---	---	1	10	0.00025
13C5-PFPeA	50	0.05	---	---	1	10	0.00025
13C6-PFDA	50	0.05	---	---	1	10	0.00025
13C7-PFUnA	50	0.05	---	---	1	10	0.00025
13C8-FOSA	50	0.05	---	---	1	10	0.00025
13C8-PFOA	50	0.05	---	---	1	10	0.00025
13C8-PFOS	50	0.05	---	---	1	10	0.00024
13C9-PFNA	50	0.05	---	---	1	10	0.00025
d3-MeFOSAA	50	0.05	---	---	1	10	0.00025
d5-EtFOSAA	50	0.05	---	---	1	10	0.00025

Stock Id: KB82

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	200	0.05	---	---	1	10	0.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	200	0.05	---	---	1	10	0.00100
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	200	0.05	---	---	1	10	0.00100
(Na) Perfluoro-1-decanesulfonate	200	0.05	---	---	1	10	0.00101
(NA) Perfluoro-1-heptanesulfonate	200	0.05	---	---	1	10	0.00100
(Na) Perfluoro-1-nonanesulfonate	200	0.05	---	---	1	10	0.00101

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB81**

Description: PFAS - DoD ICC

N-ethylperfluoro-octanesulfonamidoacetic acid	200	0.05	---	---	1	10	0.00100
N-methylperfluoro-1-octanesulfonamidoacetic acid	200	0.05	---	---	1	10	0.00100
Perfluoro-1-butanesulfonate	200	0.05	---	---	1	10	0.00101
Perfluoro-1-hexanesulfonate	200	0.05	---	---	1	10	0.00101
Perfluoro-1-octanesulfonamide	200	0.05	---	---	1	10	0.00100
Perfluoro-1-octanesulfonate	200	0.05	---	---	1	10	0.00100
Perfluoro-n-butanoic Acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-decanoic Acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-dodecanoic acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-heptanoic Acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-hexanoic acid	200	0.05	---	---	1	10	0.00101
Perfluoro-n-octanoic Acid	200	0.05	---	---	1	10	0.00100
Perfluorononanoic Acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-pentanoic acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-tetradecanoic acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-tridecanoic acid	200	0.05	---	---	1	10	0.00100
Perfluoro-n-undecanoic acid	200	0.05	---	---	1	10	0.00100
Sodium perfluoro-1-pentanesulfonate	200	0.05	---	---	1	10	0.00100

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00100
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.00100
(Na) Perfluoro-1-decanesulfonate	.00101
(NA) Perfluoro-1-heptanesulfonate	.00100
(Na) Perfluoro-1-nonanesulfonate	.00101
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB81**

Description: PFAS - DoD ICC

13C4-PFOS	.00024
13C5-PFHxA	.00025
13C5-PFPeA	.00025
13C6-PFDA	.00025
13C7-PFUnA	.00025
13C8-FOSA	.00025
13C8-PFOA	.00025
13C8-PFOS	.00024
13C9-PFNA	.00025
d3-MeFOSAA	.00025
d5-EtFOSAA	.00025
N-ethylperfluoro-octanesulfonamidoacetic acid	.00100
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00100
Perfluoro-1-butanesulfonate	.00101
Perfluoro-1-hexanesulfonate	.00101
Perfluoro-1-octanesulfonamide	.00100
Perfluoro-1-octanesulfonate	.00100
Perfluoro-n-butanoic Acid	.00100
Perfluoro-n-decanoic Acid	.00100
Perfluoro-n-dodecanoic acid	.00100
Perfluoro-n-heptanoic Acid	.00100
Perfluoro-n-hexanoic acid	.00101
Perfluoro-n-octanoic Acid	.00100
Perfluorononanoic Acid	.00100
Perfluoro-n-pentanoic acid	.00100
Perfluoro-n-tetradecanoic acid	.00100
Perfluoro-n-tridecanoic acid	.00100
Perfluoro-n-undecanoic acid	.00100
Sodium perfluoro-1-pentanesulfonate	.00100

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
KB71	Pipette	B814659662
KB82	Pipette	B814657482

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:41:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB82**

Description: PFAS - DoD Second Source LCS/MS Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
170724-01	PFOA - 2nd Source	Neat	~1.000000	03/22/22	---	---	1000 uL	1	20	~0.0500

Solution Prepared By: Schultz, Stephanie	**Date Prepared:** 10/1/2018	**Expiration Date:**	10/1/2019
Solution Volume 40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107		

Balance ID:

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:05:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB82

Description: PFAS - DoD Second Source LCS/MS Solution

Stock Id: 170724-01

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	1.01	1	100.000	1	20	0.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	20	0.05050
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-nonanesulfonate	1000	1.01	1	100.000	1	20	0.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	20	0.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-1-butanesulfonate	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-1-hexanesulfonate	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-1-octanesulfonamide	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-1-octanesulfonate	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-butanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-decanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-dodecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-heptanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-hexanoic acid	1000	1.01	1	100.000	1	20	0.05050
Perfluoro-n-octanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluorononanoic Acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-pentanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-tetradecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-tridecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-n-undecanoic acid	1000	1.00	1	100.000	1	20	0.05000
Sodium perfluoro-1-pentanesulfonate	1000	1.00	1	100.000	1	20	0.05000

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.05000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.05000
(Na) Perfluoro-1-decanesulfonate	.05050
(NA) Perfluoro-1-heptanesulfonate	.05000
(Na) Perfluoro-1-nonanesulfonate	.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.05000
Perfluoro-1-butanesulfonate	.05050

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:05:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB82

Description: PFAS - DoD Second Source LCS/MS Solution

Perfluoro-1-hexanesulfonate	.05050
Perfluoro-1-octanesulfonamide	.05000
Perfluoro-1-octanesulfonate	.05000
Perfluoro-n-butanoic Acid	.05000
Perfluoro-n-decanoic Acid	.05000
Perfluoro-n-dodecanoic acid	.05000
Perfluoro-n-heptanoic Acid	.05000
Perfluoro-n-hexanoic acid	.05050
Perfluoro-n-octanoic Acid	.05000
Perfluorononanoic Acid	.05000
Perfluoro-n-pentanoic acid	.05000
Perfluoro-n-tetradecanoic acid	.05000
Perfluoro-n-tridecanoic acid	.05000
Perfluoro-n-undecanoic acid	.05000
Sodium perfluoro-1-pentanesulfonate	.05000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
170724-01	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:05:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☐

Standard Laboratory ID Number: KB83

Description: PFAS - DoD High Level Second Source LCS/MS Solution

Stock Id: 181001-01

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	1.01	1	100.000	1	5	0.20200
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	5	0.20200
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) Perfluoro-1-nonanesulfonate	1000	1.01	1	100.000	1	5	0.20200
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	5	0.20000
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-1-butanesulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-hexanesulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-octanesulfonamide	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-1-octanesulfonate	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-butanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-decanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-dodecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-heptanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-hexanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-octanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluorononanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-pentanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-tetradecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-tridecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-undecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Sodium perfluoro-1-pentanesulfonate	1000	1.00	1	100.000	1	5	0.20000

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.20200
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.20000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.20000
(Na) Perfluoro-1-decanesulfonate	.20200
(NA) Perfluoro-1-heptanesulfonate	.20000
(Na) Perfluoro-1-nonanesulfonate	.20200
N-ethylperfluoro-octanesulfonamidoacetic acid	.20000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.20000
Perfluoro-1-butanesulfonate	.20200

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: _____ **Date:** _____

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☐

Standard Laboratory ID Number: KB83

Description: PFAS - DoD High Level Second Source LCS/MS Solution

Perfluoro-1-hexanesulfonate	.20200
Perfluoro-1-octanesulfonamide	.20000
Perfluoro-1-octanesulfonate	.20000
Perfluoro-n-butanoic Acid	.20000
Perfluoro-n-decanoic Acid	.20000
Perfluoro-n-dodecanoic acid	.20000
Perfluoro-n-heptanoic Acid	.20000
Perfluoro-n-hexanoic acid	.20200
Perfluoro-n-octanoic Acid	.20000
Perfluorononanoic Acid	.20000
Perfluoro-n-pentanoic acid	.20200
Perfluoro-n-tetradecanoic acid	.20000
Perfluoro-n-tridecanoic acid	.20000
Perfluoro-n-undecanoic acid	.20000
Sodium perfluoro-1-pentanesulfonate	.20000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
181001-01	Pipette	B820865811

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: _____ **Date:** _____

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☐

Standard Laboratory ID Number: **KB83**

Description: PFAS - DoD High Level Second Source LCS/MS Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
181001-01	PFOA - 2nd source	Neat	~1.000000	09/20/23	---	---	1000 uL	1	5	~0.2000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/1/2018	**Expiration Date**	10/1/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: _____ **Date:** _____

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB89

Description: PFAS Branched Solution (~5,000 ng/L)

Stock Id: JX28

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
N-ethylperfluoro-octanesulfonamidoacetic acid	100	0.50	---	---	1	10	0.00500
N-methylperfluoro-1-octanesulfonamidoacetic acid	100	0.50	---	---	1	10	0.00500
Perfluoro-1-hexanesulfonate	100	0.50	---	---	1	10	0.00500
Perfluoro-1-octanesulfonate	100	0.50	---	---	1	10	0.00500
Perfluoro-n-octanoic Acid	100	0.50	---	---	1	10	0.00500

Final Concentrations:

Analyte:	Conc (ug/mL):
N-ethylperfluoro-octanesulfonamidoacetic acid	.00500
N-methylperfluoro-1-octanesulfonamidoacetic acid	.00500
Perfluoro-1-hexanesulfonate	.00500
Perfluoro-1-octanesulfonate	.00500
Perfluoro-n-octanoic Acid	.00500

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JX28	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/3/2018 **Expiration Date:** 6/18/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:43:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB89**

Description: PFAS Branched Solution (~5,000 ng/L)

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JX28	PFAS Branched Standard Stock	Solution	~0	06/18/19	---	---	100 uL	1	10	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/3/2018	**Expiration Date**	6/18/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 9:43:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KC02**

Description: PFAS - DoD High Level Second Source LCS/MS Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
181001-01	PFOA - 2nd source	Neat	~1.000000	09/20/23	---	---	1000 uL	1	5	~0.2000

Solution Prepared By: Schumitz, Denise	**Date Prepared:** 10/8/2018	**Expiration Date:**	10/8/2019
Solution Volume 40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/8/2018 11:44:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KC02

Description: PFAS - DoD High Level Second Source LCS/MS Solution

Stock Id: 181001-01

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	1.01	1	100.000	1	5	0.20200
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	5	0.20200
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) Perfluoro-1-nonanesulfonate	1000	1.01	1	100.000	1	5	0.20200
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	5	0.20000
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-1-butanesulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-hexanesulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-octanesulfonamide	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-1-octanesulfonate	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-butanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-decanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-dodecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-heptanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-hexanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-octanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluorononanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-pentanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-tetradecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-tridecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-undecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Sodium perfluoro-1-pentanesulfonate	1000	1.00	1	100.000	1	5	0.20000

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.20200
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.20000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.20000
(Na) Perfluoro-1-decanesulfonate	.20200
(NA) Perfluoro-1-heptanesulfonate	.20000
(Na) Perfluoro-1-nonanesulfonate	.20200
N-ethylperfluoro-octanesulfonamidoacetic acid	.20000
N-methylperfluoro-1-octanesulfonamidoacetic acid	.20000
Perfluoro-1-butanesulfonate	.20200

Solution Prepared By: Schumitz, Denise **Date Prepared:** 10/8/2018 **Expiration Date:** 10/8/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/8/2018 11:44:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KC02

Description: PFAS - DoD High Level Second Source LCS/MS Solution

Perfluoro-1-hexanesulfonate	.20200
Perfluoro-1-octanesulfonamide	.20000
Perfluoro-1-octanesulfonate	.20000
Perfluoro-n-butanoic Acid	.20000
Perfluoro-n-decanoic Acid	.20000
Perfluoro-n-dodecanoic acid	.20000
Perfluoro-n-heptanoic Acid	.20000
Perfluoro-n-hexanoic acid	.20200
Perfluoro-n-octanoic Acid	.20000
Perfluorononanoic Acid	.20000
Perfluoro-n-pentanoic acid	.20200
Perfluoro-n-tetradecanoic acid	.20000
Perfluoro-n-tridecanoic acid	.20000
Perfluoro-n-undecanoic acid	.20000
Sodium perfluoro-1-pentanesulfonate	.20000

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
181001-01	Pipette	B820865811

Solution Prepared By: Schumitz, Denise **Date Prepared:** 10/8/2018 **Expiration Date:** 10/8/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 80/20 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/8/2018 11:44:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KC03**

Description: PFAS - DoD Internal Standard Spiking Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	2500 uL	1	25	~0.0000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	10/9/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 4:15:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KC03

Description: PFAS - DoD Internal Standard Spiking Solution

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	2500	0.05	---	---	1	25	0.00500
13C2-PFOA	2500	0.05	---	---	1	25	0.00500
13C3-PFBA	2500	0.05	---	---	1	25	0.00500
13C4-PFOS	2500	0.05	---	---	1	25	0.00479

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-PFDA	.00500
13C2-PFOA	.00500
13C3-PFBA	.00500
13C4-PFOS	.00479

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/9/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/Milli-q water

Approved By: Schumitz, Denise **Date:** 10/9/2018 4:15:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KC19**

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	10/01/19	---	---	2500 uL	1	25	~0.0000

Solution Prepared By: Schultz, Stephanie		**Date Prepared:**	10/16/2018	**Expiration Date:**	10/1/2019
Solution Volume 40 **mL X** 1 **Vials**		**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 96/4 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/18/2018 11:55:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KC19

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)

Stock Id: KB71

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	2500	0.05	---	---	1	25	0.00468
13C2-6:2FTS	2500	0.05	---	---	1	25	0.00475
13C2-8:2FTS	2500	0.05	---	---	1	25	0.00479
13C2-PFDoA	2500	0.05	---	---	1	25	0.00500
13C2-PFTeDA	2500	0.05	---	---	1	25	0.00500
13C3-PFBS	2500	0.05	---	---	1	25	0.00465
13C3-PFHxS	2500	0.05	---	---	1	25	0.00473
13C4-PFBA	2500	0.05	---	---	1	25	0.00500
13C4-PFHpA	2500	0.05	---	---	1	25	0.00500
13C5-PFHxA	2500	0.05	---	---	1	25	0.00500
13C5-PFPeA	2500	0.05	---	---	1	25	0.00500
13C6-PFDA	2500	0.05	---	---	1	25	0.00500
13C7-PFUnA	2500	0.05	---	---	1	25	0.00500
13C8-FOSA	2500	0.05	---	---	1	25	0.00500
13C8-PFOA	2500	0.05	---	---	1	25	0.00500
13C8-PFOS	2500	0.05	---	---	1	25	0.00478
13C9-PFNA	2500	0.05	---	---	1	25	0.00500
d3-MeFOSAA	2500	0.05	---	---	1	25	0.00500
d5-EtFOSAA	2500	0.05	---	---	1	25	0.00500

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-4:2FTS	.00468
13C2-6:2FTS	.00475
13C2-8:2FTS	.00479
13C2-PFDoA	.00500
13C2-PFTeDA	.00500
13C3-PFBS	.00465
13C3-PFHxS	.00473
13C4-PFBA	.00500
13C4-PFHpA	.00500
13C5-PFHxA	.00500
13C5-PFPeA	.00500
13C6-PFDA	.00500
13C7-PFUnA	.00500
13C8-FOSA	.00500

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/16/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/18/2018 11:55:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KC19**

Description: PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)

13C8-PFOA	.00500
13C8-PFOS	.00478
13C9-PFNA	.00500
d3-MeFOSAA	.00500
d5-EtFOSAA	.00500

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
KB71	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/16/2018 **Expiration Date:** 10/1/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/18/2018 11:55:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KC52**

Description: PFAS - DoD Internal Standard Spiking Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY25	PFAS - DoD Internal Standard Stock Solution	Solution	~0	07/16/19	---	---	2500 uL	1	25	~0.0000

Solution Prepared By: Schultz, Stephanie		**Date Prepared:**	10/19/2018	**Expiration Date:**	7/16/2019
Solution Volume 40 **mL X** 1 **Vials**		**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 96/4 methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/23/2018 8:56:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KC52

Description: PFAS - DoD Internal Standard Spiking Solution

Stock Id: JY25

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-PFDA	2500	0.05	---	---	1	25	0.00500
13C2-PFOA	2500	0.05	---	---	1	25	0.00500
13C3-PFBA	2500	0.05	---	---	1	25	0.00500
13C4-PFOS	2500	0.05	---	---	1	25	0.00479

Final Concentrations:

Analyte:	Conc (ug/mL):
13C2-PFDA	.00500
13C2-PFOA	.00500
13C3-PFBA	.00500
13C4-PFOS	.00479

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/19/2018 **Expiration Date:** 7/16/2019

Solution Volume 40 **mL X** 1 **Vials** **Refrigerator/Freezer No:** LC Laboratory: Refrigerator - R0107

Comment: 96/4 methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/23/2018 8:56:00 AM

BATTELLE
It can be done

BDO Id: 170724-01

Reagent Receipt Report

Approved: ☐ **Authorized** ☐

Name: PFOA- 2nd Source
Vendor: ABSOLUTE STANDARDS
Catalogue No: 99207
Type: Solution
Lot No: 032217
Quantity: 5 ea mL **% Moisture:**
Description: PFOA - 2nd Source

Received: 7/24/2017
Custodian: Schumitz, Matt
Expires: 3/22/2022
Consumed:
Stored In: LC Laboratory - F0111

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
(Na) 1H,1H,2H,2H-Perfluorodecane	39108-34-4	1.0100	100.00	--	--	☐			
(Na) 1H,1H,2H,2H-Perfluorohexane s	414911-30-1	1.0000	100.00	--	--	☐			
(Na) 1H,1H,2H,2H-Perfluorooctane s	27619-97-2	1.0000	100.00	--	--	☐			
(Na) Perfluoro-1-decanesulfonate	2806-15-7	1.0100	100.00	--	--	☐			
(NA) Perfluoro-1-heptanesulfonate	375-92-8	1.0000	100.00	--	--	☐			
(Na) Perfluoro-1-nonanesulfonate	98789-57-2	1.0100	100.00	--	--	☐			
N-ethylperfluoro-octanesulfonamidoa	2991-50-6	1.0000	100.00	--	--	☐			
N-methylperfluoro-1-octanesulfonami	2355-31-9	1.0000	100.00	--	--	☐			
Perfluoro-1-butanesulfonate	375-73-5	1.0100	100.00	--	--	☐			
Perfluoro-1-hexanesulfonate	355-46-4	1.0100	100.00	--	--	☐			
Perfluoro-1-octanesulfonamide	754-91-6	1.0000	100.00	--	--	☐			
Perfluoro-1-octanesulfonate	1763-23-1	1.0000	100.00	--	--	☐			
Perfluoro-n-butanoic Acid	375-22-4	1.0000	100.00	--	--	☐			
Perfluoro-n-decanoic Acid	335-76-2	1.0000	100.00	--	--	☐			
Perfluoro-n-dodecanoic acid	307-55-1	1.0000	100.00	--	--	☐			
Perfluoro-n-heptanoic Acid	375-85-9	1.0000	100.00	--	--	☐			
Perfluoro-n-hexanoic acid	307-24-4	1.0100	100.00	--	--	☐			
Perfluoro-n-octanoic Acid	335-67-1	1.0000	100.00	--	--	☐			
Perfluorononanoic Acid	375-95-1	1.0000	100.00	--	--	☐			
Perfluoro-n-pentanoic acid	2706-90-3	1.0000	100.00	--	--	☐			
Perfluoro-n-tetradecanoic acid	376-06-7	1.0000	100.00	--	--	☐			
Perfluoro-n-tridecanoic acid	72629-94-8	1.0000	100.00	--	--	☐			
Perfluoro-n-undecanoic acid	2058-94-8	1.0000	100.00	--	--	☐			
Sodium perfluoro-1-pentanesulfonate	2706-91-4	1.0000	100.00	--	--	☐			

Total Analytes: 24

Notes:

Approved by: _____ **Approved on:** _____

Authorized by: _____ **Authorized on:** _____

CERTIFIED WEIGHT REPORT

17024-01

Part Number:	99207
Lot Number:	032217
Description:	PFOA - DOD
	24 components
Expiration Date:	032222
Recommended Storage:	Freezer (0 °C)
Nominal Concentration (µg/mL):	1.0
NIST Test ID#:	822-275872-11

Solvent(s):	Lot#	
Methanol (1 mM KOH)	031317	(98%)
2-Propanol	23214	(2%)

5E-05 Balance Uncertainty
0.007 Flask Uncertainty

Volume(s) shown below were combined and diluted to (mL): 50.0

Paul Barron		032217
Formulated By:	Paul Barron	DATE
Pedro Rentas		032217
Reviewed By:	Pedro L. Rentas	DATE

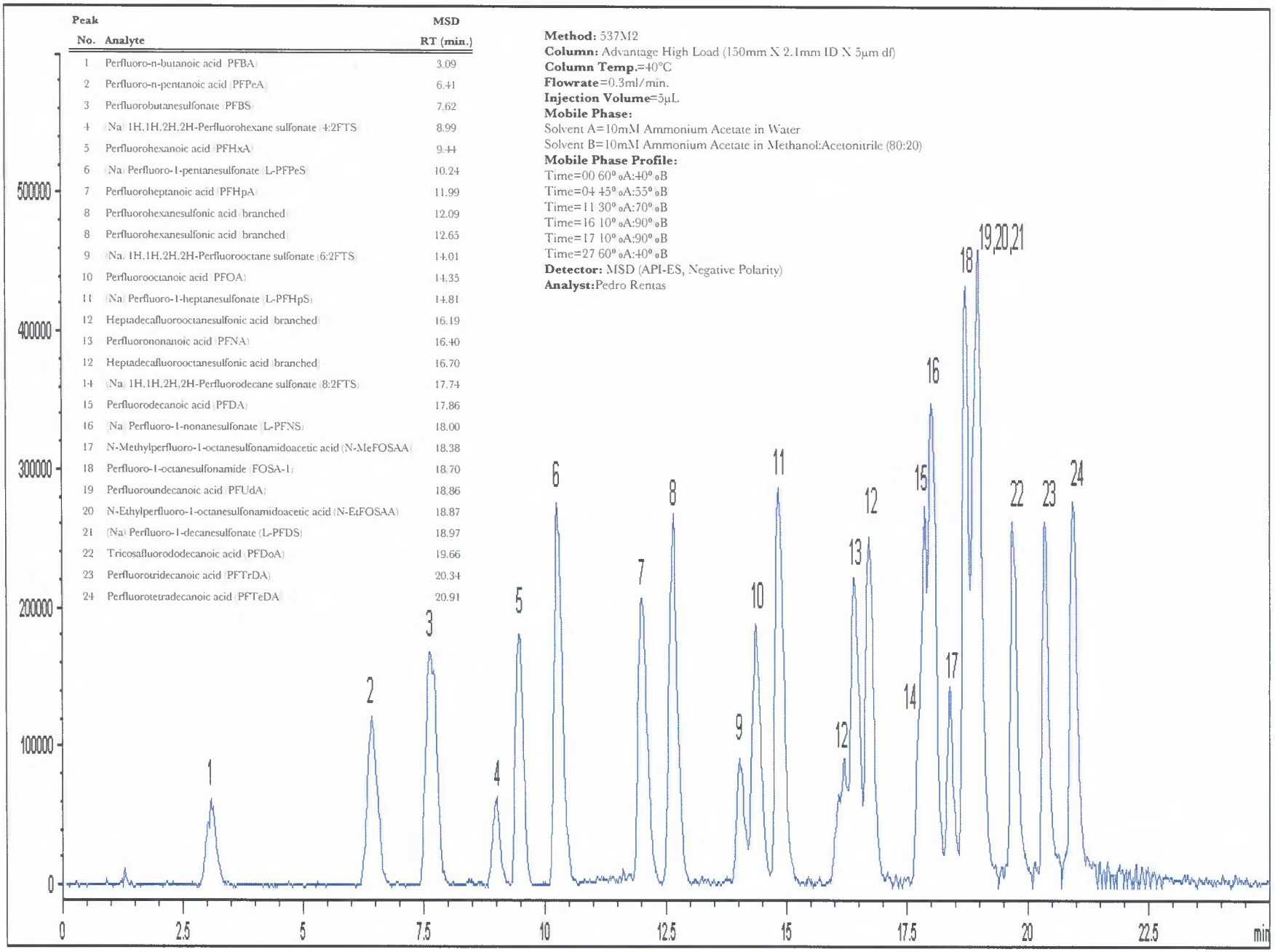
Note: All assigned values are anion concentrations.

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Perfluoro-n-butanoic acid	3670	PFBA0516	0.02	1.00	0.004	50.0	1.00	0.01	375-22-4	N/A	N/A
2. Perfluoro-n-pentanoic acid	3669	PFPeA0516	0.02	1.00	0.004	50.0	1.00	0.01	2706-90-3	N/A	N/A
3. Perfluorohexanoic acid	99199	030617	0.02	1.00	0.004	50.3	1.01	0.01	307-24-4	N/A	N/A
4. Perfluoroheptanoic acid	99197	030517	0.02	1.00	0.004	50.1	1.00	0.01	375-85-9	N/A	N/A
5. Perfluorooctanoic acid	99202	030617	0.02	1.00	0.004	50.2	1.00	0.01	335-67-1	N/A	ipr-rat 189mg/kg
6. Perfluorononanoic acid	99200	030617	0.02	1.00	0.004	50.1	1.00	0.01	375-95-1	N/A	N/A
7. Perfluorodecanoic acid	99195	030617	0.02	1.00	0.004	50.1	1.00	0.01	335-76-2	N/A	orl-rat 57mg/kg
8. Perfluoroundecanoic acid	99205	030617	0.02	1.00	0.004	50.1	1.00	0.01	2058-94-8	N/A	N/A
9. Tricosafluorododecanoic acid	99196	030617	0.02	1.00	0.004	50.1	1.00	0.01	307-55-1	N/A	N/A
10. Perfluorotridecanoic acid	99204	030617	0.02	1.00	0.004	50.1	1.00	0.01	72629-94-8	N/A	N/A
11. Perfluorotetradecanoic acid	99203	030617	0.02	1.00	0.004	50.1	1.00	0.01	376-06-7	N/A	N/A
12. Perfluoro-1-octanesulfonamide	3677	FOSA0916I	0.02	1.00	0.004	50.0	1.00	0.01	754-91-6	N/A	N/A
13. N-Methylperfluoro-1-octanesulfonamidoacetic acid	3667	NMeFOSAA0117	0.02	1.00	0.004	50.0	1.00	0.01	2355-31-9	N/A	N/A
14. N-Ethylperfluoro-1-octanesulfonamidoacetic acid	3664	NEtFOSAA0117	0.02	1.00	0.004	50.0	1.00	0.01	2991-50-6	N/A	N/A
15. Perfluorobutanesulfonic acid	99194	031017	0.02	1.00	0.004	50.7	1.01	0.01	375-73-5	N/A	N/A
16. Perfluoro-1-pentanesulfonic acid	3956	LPFPeS0117	0.0214	1.07	0.004	46.9	1.00	0.01	00-00-0	N/A	N/A
17. Perfluorohexanesulfonic acid (branched)	99198	030617	0.02	1.00	0.004	50.6	1.01	0.01	3871-99-6	N/A	N/A
18. Perfluoro-1-heptanesulfonic acid	3672	LPFHpS1016	0.021	1.05	0.004	47.6	1.00	0.01	375-92-8	N/A	N/A
19. Heptadecafluorooctanesulfonic acid (branched)	99201	030617	0.02	1.00	0.004	50.2	1.00	0.01	1763-23-1	N/A	N/A
20. Perfluoro-1-nonanesulfonic acid	3957	LPFNS0516	0.021	1.05	0.004	48.0	1.01	0.01	98789-57-2	N/A	N/A
21. Perfluoro-1-decanesulfonic acid	3671	LPFDS0217	0.021	1.05	0.004	48.2	1.01	0.01	2806-15-7	N/A	N/A
22. 1H,1H,2H,2H-Perfluorohexane sulfonic acid	3955	42FTS1216	0.0214	1.07	0.004	46.7	1.00	0.01	00-00-0	N/A	N/A
23. 1H,1H,2H,2H-Perfluorooctane sulfonic acid	3661	62FTS0616	0.021	1.05	0.004	47.4	1.00	0.01	27619-97-2	N/A	N/A
24. 1H,1H,2H,2H-Perfluorodecane sulfonic acid	3662	82FTS1216	0.021	1.05	0.004	47.9	1.01	0.01	39108-34-4	N/A	N/A

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Peak No.	Analyte	MSD RT (min.)
1	Perfluoro-n-butanoic acid (PFBA)	3.09
2	Perfluoro-n-pentanoic acid (PFPeA)	6.41
3	Perfluorobutanesulfonate (PFBS)	7.62
4	(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate (4:2FTS)	8.99
5	Perfluorohexanoic acid (PFHxA)	9.44
6	(Na) Perfluoro-1-pentanesulfonate (L-PFPeS)	10.24
7	Perfluoroheptanoic acid (PFHpA)	11.99
8	Perfluorohexanesulfonic acid (branched)	12.09
8	Perfluorohexanesulfonic acid (branched)	12.63
9	(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate (6:2FTS)	14.01
10	Perfluorooctanoic acid (PFOA)	14.35
11	(Na) Perfluoro-1-heptanesulfonate (L-PFHpS)	14.81
12	Heptadecafluorooctanesulfonic acid (branched)	16.19
13	Perfluorononanoic acid (PFNA)	16.40
12	Heptadecafluorooctanesulfonic acid (branched)	16.70
14	(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2FTS)	17.74
15	Perfluorodecanoic acid (PFDA)	17.86
16	(Na) Perfluoro-1-nonanesulfonate (L-PFNS)	18.00
17	N-Methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	18.38
18	Perfluoro-1-octanesulfonamide (FOSA-1)	18.70
19	Perfluoroundecanoic acid (PFUdA)	18.86
20	N-Ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	18.87
21	(Na) Perfluoro-1-decanesulfonate (L-PFDS)	18.97
22	Tricosafluorododecanoic acid (PFDoA)	19.66
23	Perfluorotridecanoic acid (PFTrDA)	20.34
24	Perfluorotetradecanoic acid (PFTeDA)	20.91

Method: 537M2
Column: Advantage High Load (150mm X 2.1mm ID X 5µm df)
Column Temp.=40°C
Flowrate=0.3ml/min.
Injection Volume=5µL
Mobile Phase:
Solvent A=10mM Ammonium Acetate in Water
Solvent B=10mM Ammonium Acetate in Methanol:Acetonitrile (80:20)
Mobile Phase Profile:
Time=00 60% A:40% B
Time=04 45% A:55% B
Time=11 30% A:70% B
Time=16 10% A:90% B
Time=17 10% A:90% B
Time=27 60% A:40% B
Detector: MSD (API-ES, Negative Polarity)
Analyst: Pedro Rentas



BATTELLE

It can be done

BDO Id: 180618-02

Reagent Receipt Report

Approved: ☐ Authorized ☐

Name:	Branched NEtFOSAA Standard (50 µ	Received:	6/18/2018
Vendor:	Wellington Laboratories	Custodian:	Thorn, Jonathan
Catalogue No:	br-NEtFOSAAA	Expires:	1/17/2023
Type:	Solution	Consumed:	
Lot No:	brNEtFOSAA0118	Stored In:	Sample Preparation - C0103
Quantity:	1 ea mL % Moisture: 0		
Description:	Branched NEtFOSAA Standard (50 µg/mL)		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:

Notes:

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____

180618-02

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-NEtFOSAA

N-Ethylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-NEtFOSAA
LOT NUMBER:	brNEtFOSAA0118
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	01/10/2018
LAST TESTED: (mm/dd/yyyy)	01/17/2018
EXPIRY DATE: (mm/dd/yyyy)	01/17/2023
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **br-NEtFOSAA; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

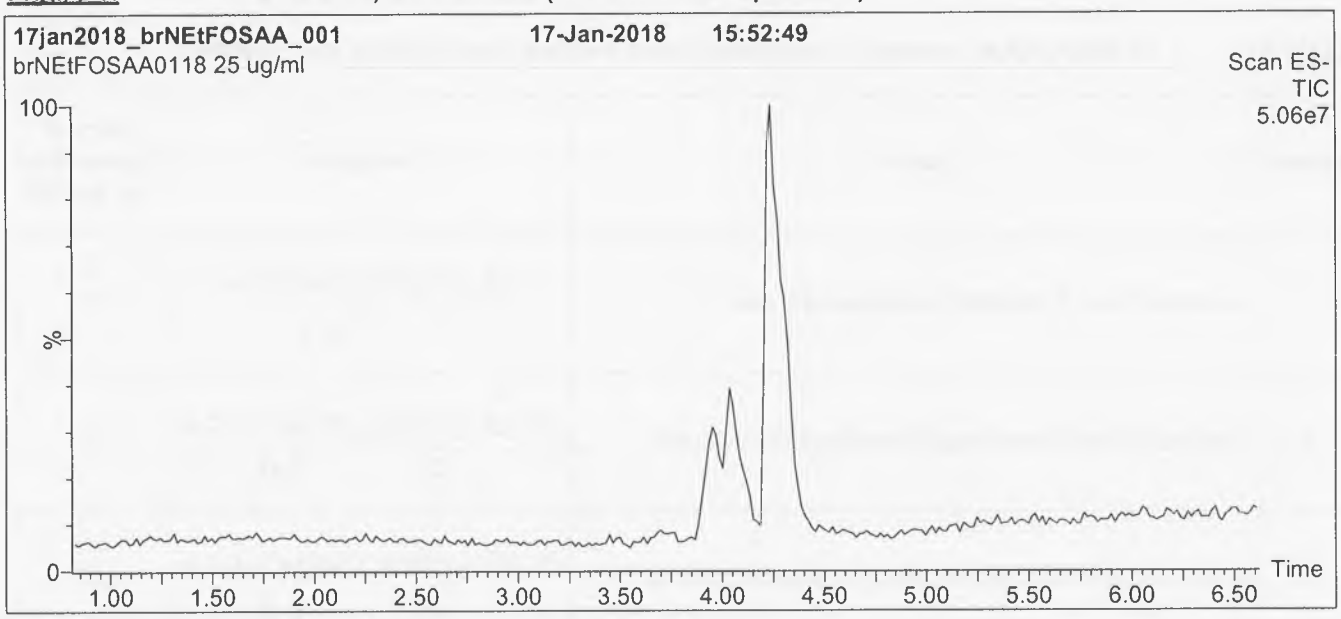
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(C_2H_5)CH_2CO_2H$	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(C_2H_5)CH_2CO_2H$	2.3
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_2CF(CF_3)(CF_2)_3SO_2N(C_2H_5)CH_2CO_2H$	2.2
4	N-ethylperfluoro-5-methylheptanesulfonamidoacetic acid	$CF_3CF_2CF(CF_3)(CF_2)_4SO_2N(C_2H_5)CH_2CO_2H$	5.4
5	N-ethylperfluoro-6-methylheptanesulfonamidoacetic acid	$CF_3CF(CF_3)(CF_2)_5SO_2N(C_2H_5)CH_2CO_2H$	10.4
6	N-ethylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$CF_3C(CF_3)_2(CF_2)_4SO_2N(C_2H_5)CH_2CO_2H$	0.3
7	N-ethylperfluoro-4,5-dimethylhexanesulfonamidoacetic acid	$CF_3CF(CF_3)CF(CF_2)_3SO_2N(C_2H_5)CH_2CO_2H$	0.3
8	N-ethylperfluoro-3,5-dimethylhexanesulfonamidoacetic acid	$CF_3CF(CF_3)CF_2CF(CF_2)_2SO_2N(C_2H_5)CH_2CO_2H$	0.3
9	Other Unidentified Isomers		1.3

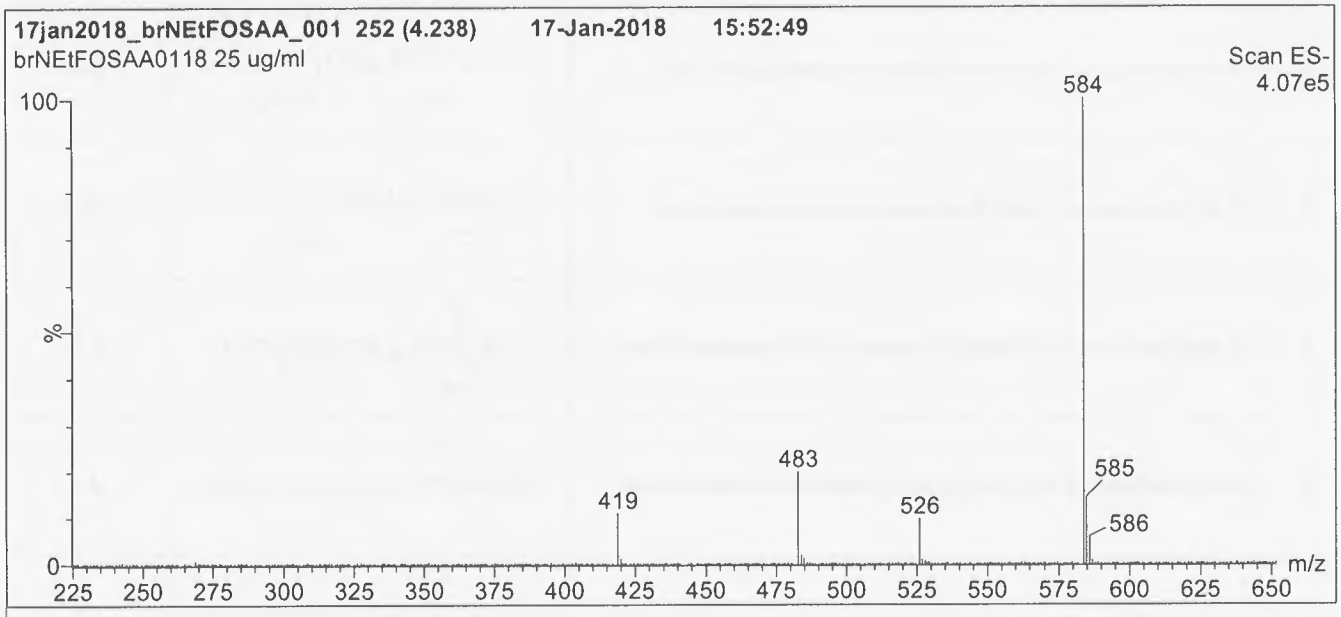
* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By: _____ **Date:** 03/22/2018
(mm/dd/yyyy)

B.G. Chittim, General Manager

Figure 1: **br-NEtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

Time: 10 min

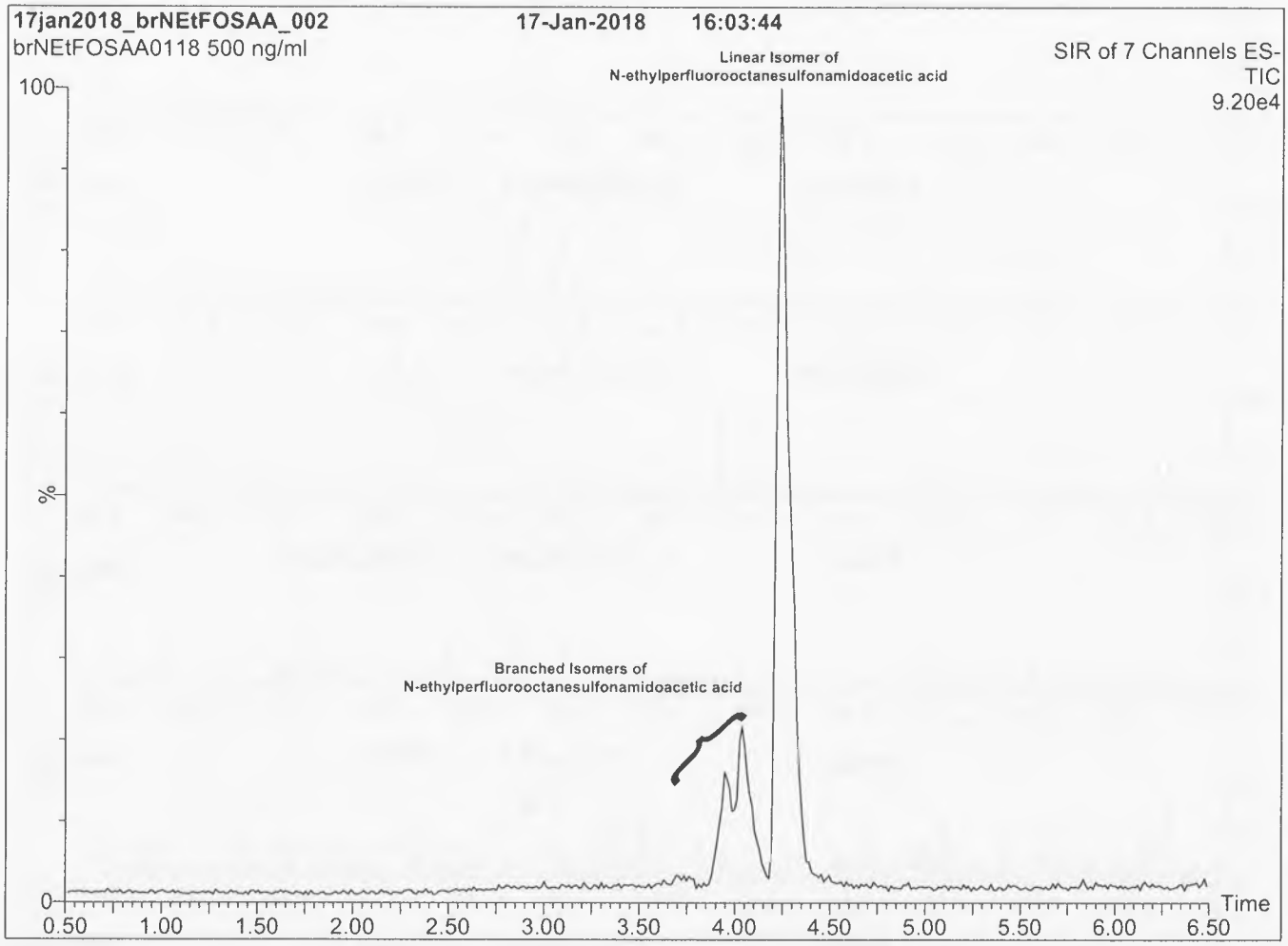
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **br-NEtFOSAA; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

Time: 10 min

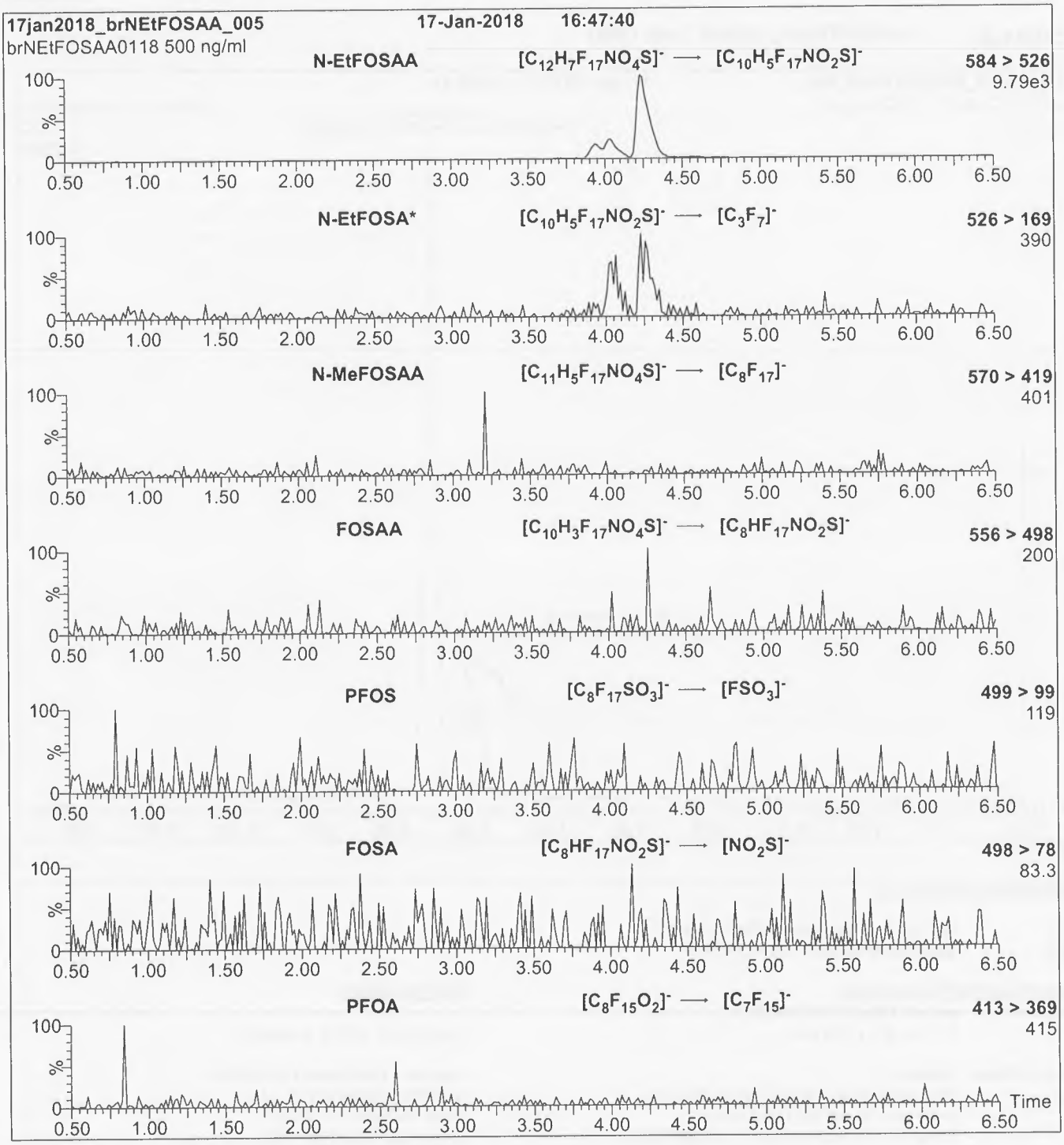
Flow: 300 µl/min

MS Parameters

Experiment: SIR (7 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15-60
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 3: **br-NEtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



***Note**: N-EtFOSA is formed by in-source fragmentation.

Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11-40 (variable)

BATTELLE

It can be done

BDO Id: 180618-03

Reagent Receipt Report

Approved: ☐ Authorized ☐

Name:	Branched NMeFOSAA Standard (50	Received:	6/18/2018
Vendor:	Wellington Laboratories	Custodian:	Thorn, Jonathan
Catalogue No:	brNMeFOSAA	Expires:	1/17/2023
Type:	Solution	Consumed:	
Lot No:	brNMeFOSAA0118	Stored In:	Sample Preparation - C0103
Quantity:	1 ea mL % Moisture: 0		
Description:	Branched NMeFOSAA Standard (50 µg/mL)		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:

Notes:

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____

180618-03

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NMeFOSAA

N-Methylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-NMeFOSAA
LOT NUMBER:	brNMeFOSAA0118
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	01/10/2018
LAST TESTED: (mm/dd/yyyy)	01/17/2018
EXPIRY DATE: (mm/dd/yyyy)	01/17/2023
RECOMMENDED STORAGE:	Refrigerate ampoule

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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: **br-NMeFOSAA; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

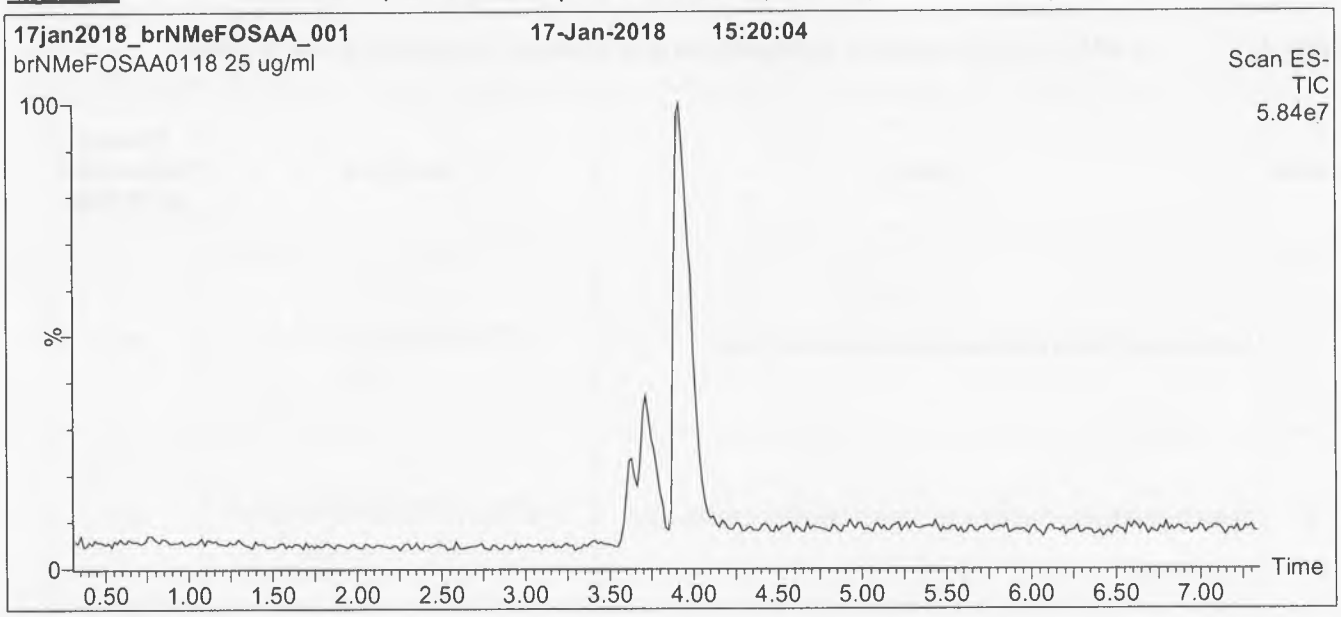
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(CH_3)CH_2CO_2H$	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(CH_3)CH_2CO_2H$	0.7
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_2CF(CF_3)(CF_2)_3SO_2N(CH_3)CH_2CO_2H$	2.0
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$CF_3CF_2CF(CF_3)(CF_2)_4SO_2N(CH_3)CH_2CO_2H$	6.0
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$CF_3CF(CF_3)(CF_2)_5SO_2N(CH_3)CH_2CO_2H$	14.0
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$CF_3C(CF_3)_2(CF_2)_4SO_2N(CH_3)CH_2CO_2H$	0.2
7	Other Unidentified Isomers		1.1

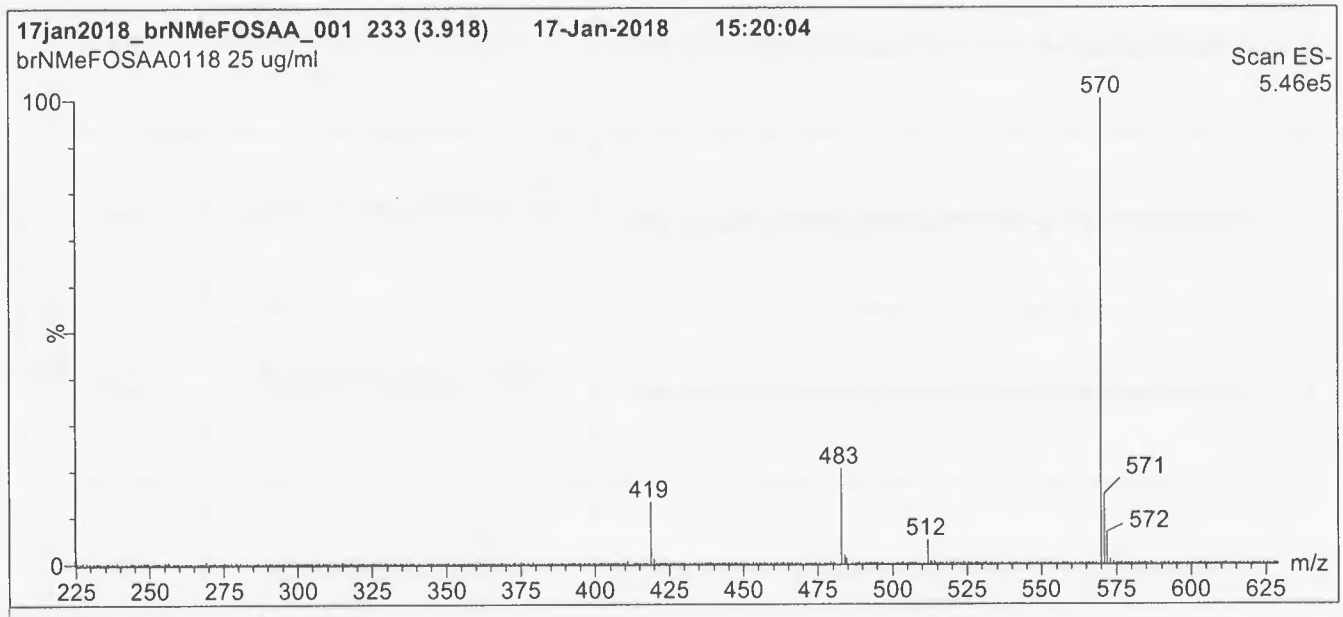
* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By: _____ **Date:** 03/22/2018 (mm/dd/yyyy)

B.G. Chittim, General Manager

Figure 1: **br-NMeFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

Time: 10 min

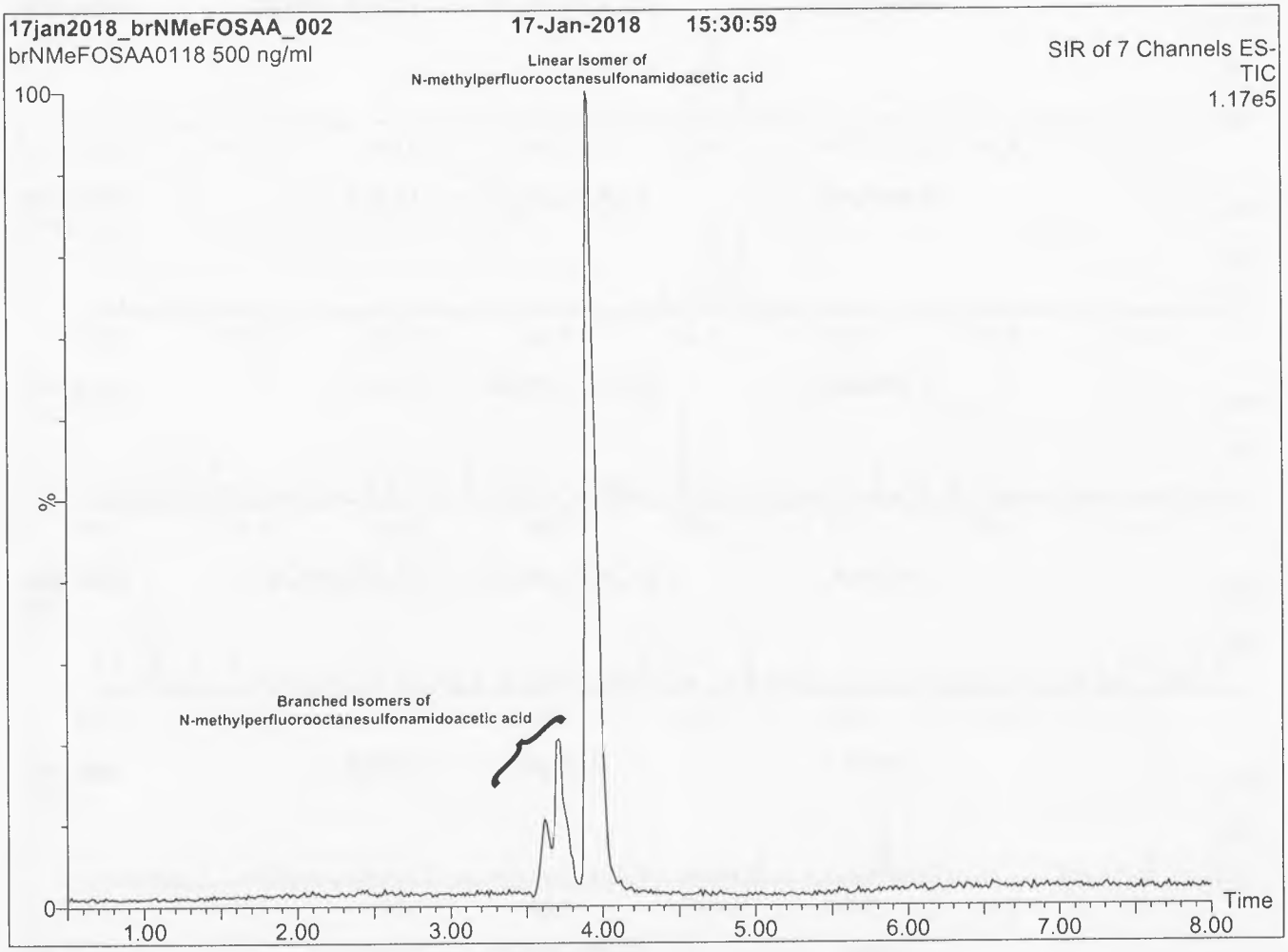
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **br-NMeFOSAA; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

Time: 10 min

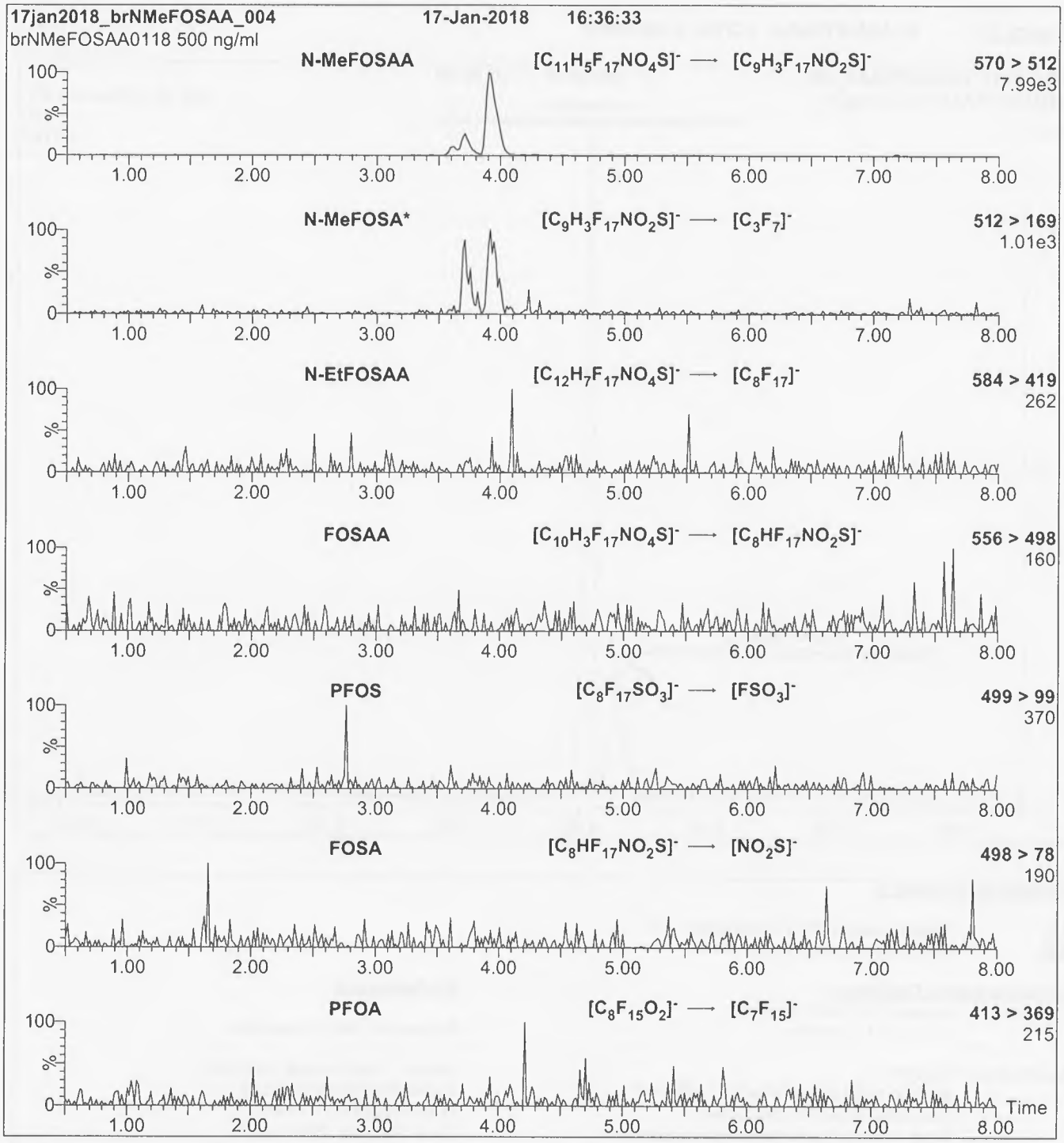
Flow: 300 µl/min

MS Parameters

Experiment: SIR (7 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15-60
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 3: **br-NMeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



***Note**: N-MeFOSA is formed by in-source fragmentation.

Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11-40 (variable)

BATTELLE

It can be done

BDO Id: 180618-04

Reagent Receipt Report

Approved: ☐ Authorized ☐

Name:	PFOA - Technical Mix	Received:	6/18/2018
Vendor:	Wellington Laboratories	Custodian:	Thorn, Jonathan
Catalogue No:	T-PFOA	Expires:	2/16/2022
Type:	Solution	Consumed:	
Lot No:	TPFOA0217	Stored In:	Sample Preparation - C0103
Quantity:	1 ea mL % Moisture: 0		
Description:	PFOA - Technical Mix		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:

Notes:

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____

180618-04

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	T-PFOA	**LOT NUMBER:**	TPFOA0217
COMPOUND:	Technical Ammonium Perfluorooctanoate		
STRUCTURE:	(see Table A)	**CAS #:**	95328-99-7 (for linear ammonium perfluorooctanoate)

MOLECULAR FORMULA:	$C_8F_{15}O_2NH_4$
CONCENTRATION:	50 ± 2.5 µg/ml (gravimetric)
CHEMICAL PURITY:	Technical material
SOLVENT(S):	Methanol/Water (<1%)
LAST TESTED: (mm/dd/yyyy)	02/16/2017
EXPIRY DATE: (mm/dd/yyyy)	02/16/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)
Figure 4: LC/MS Elution Profile of the Perfluorooctanoic Acid Isomers

ADDITIONAL INFORMATION:

- See page 2 for further details.
- This technical mixture is >97% ammonium perfluorooctanoate (branched and linear isomers). The remaining 3% consists of common impurities such as the perfluoroheptanoic and perfluorohexanoic acids.
- It is recommended that this solution be used as a *qualitative or semi-quantitative standard only*.
- Contains 4 mole eq. of NaOH to prevent conversion of any carboxylic acids to their corresponding methyl esters.
- The molecular weight of perfluoro-n-octanoic acid is 414.07 g/mol.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/22/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used for the identification and/or semi-quantitative determination of the specific chemical compound(s) it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

CHARACTERIZATION / HOMOGENEITY:

This product is a technical mixture obtained from an industrial manufacturer. It has been characterized as to its content and components using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Testing of samples in solution has shown it to be homogeneous. As this product is a technical mixture, it should not be used to quantitate any of the listed components.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

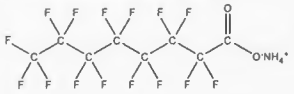
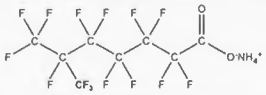
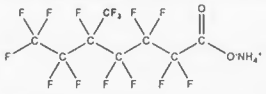
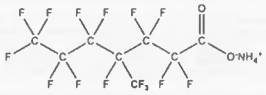
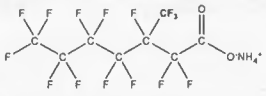
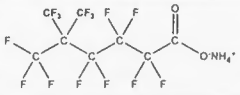
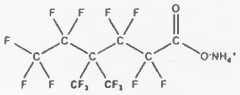
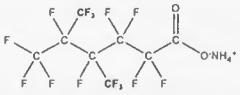
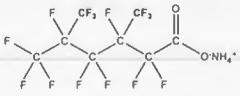
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

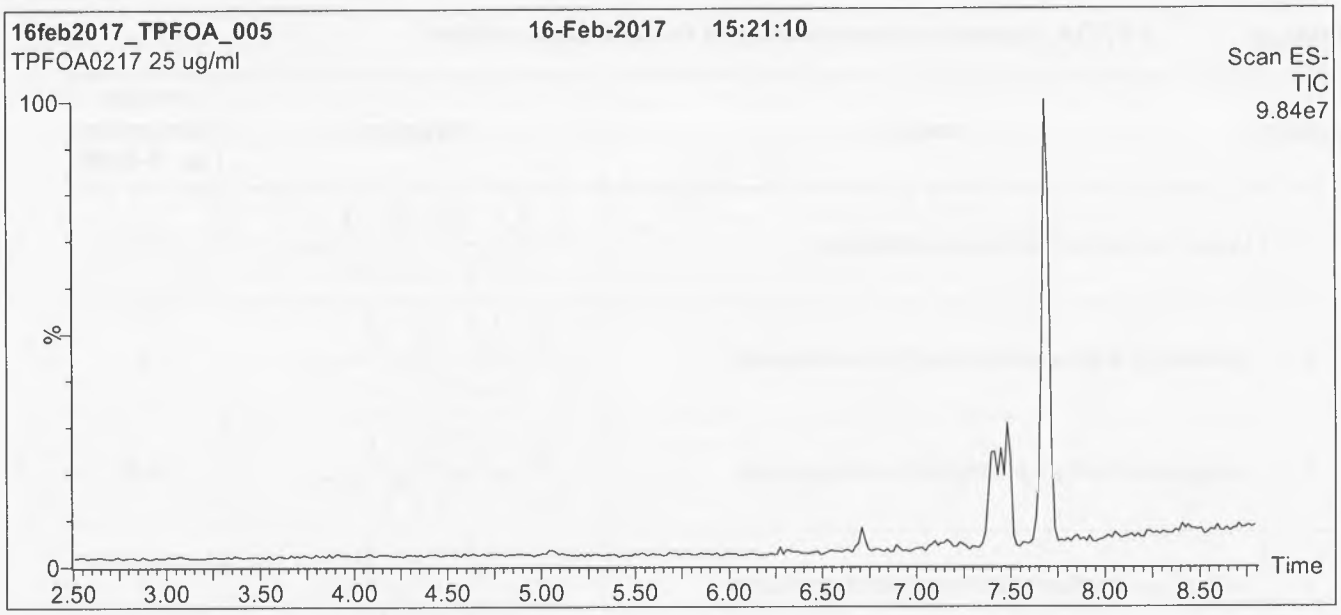
Table A: **T-PFOA; Isomeric Components and Percent Composition***

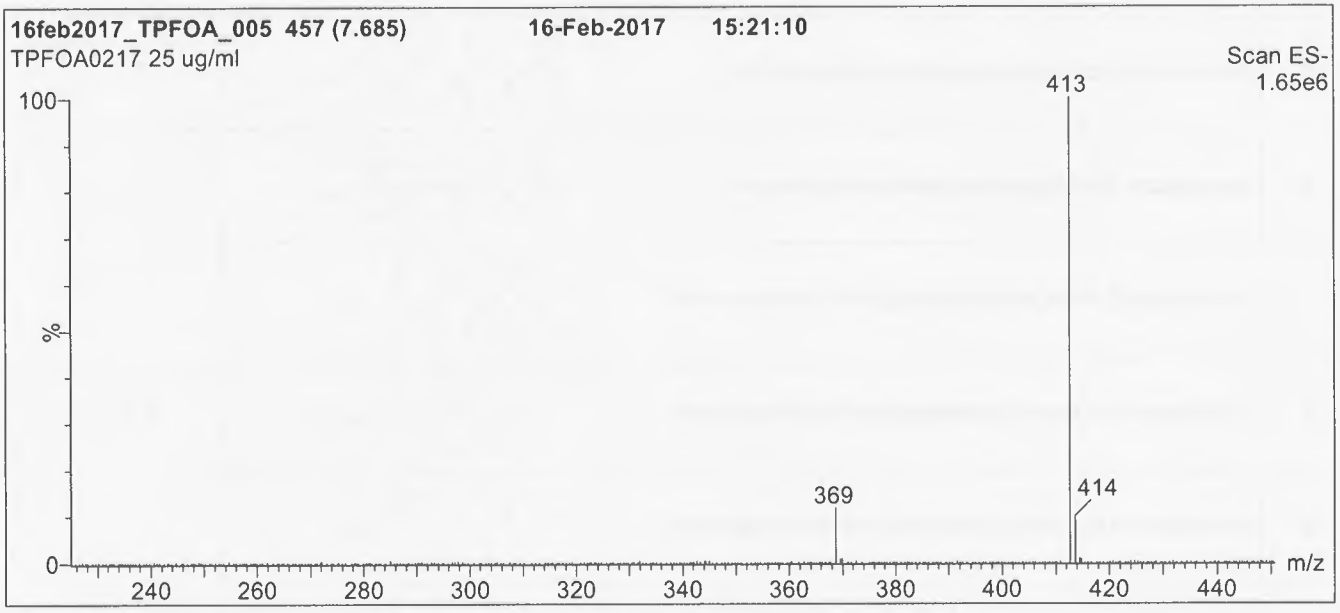
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Linear ammonium perfluoro-n-octanoate		79
2	Ammonium 6-trifluoromethylperfluoroheptanoate		9
3	Ammonium 5-trifluoromethylperfluoroheptanoate		4.5
4	Ammonium 4-trifluoromethylperfluoroheptanoate		4
5	Ammonium 3-trifluoromethylperfluoroheptanoate		3
6[a]	Ammonium 2-trifluoromethylperfluoroheptanoate		0.5
7	Ammonium 5,5-bis(trifluoromethyl)perfluorohexanoate		
8	Ammonium 4,4-bis(trifluoromethyl)perfluorohexanoate		
9[a]	Ammonium 4,5-bis(trifluoromethyl)perfluorohexanoate		
10	Ammonium 3,5-bis(trifluoromethyl)perfluorohexanoate		

* Percent Composition was determined by ^{19}F-NMR. The percentages displayed are of total ammonium perfluorooctanoate isomers only (isomers are labelled in Figure 4).

[a] Presence of this isomer could not be verified by LC/MS due to co-elution.

Figure 1: **T-PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions:

Column: Kinetex PFP
2.6 µm, 4.6 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 5 min. Ramp to
90% organic over 5 min and hold for 1.5 min.
Return to initial conditions over 0.5 min.
Time: 13 min

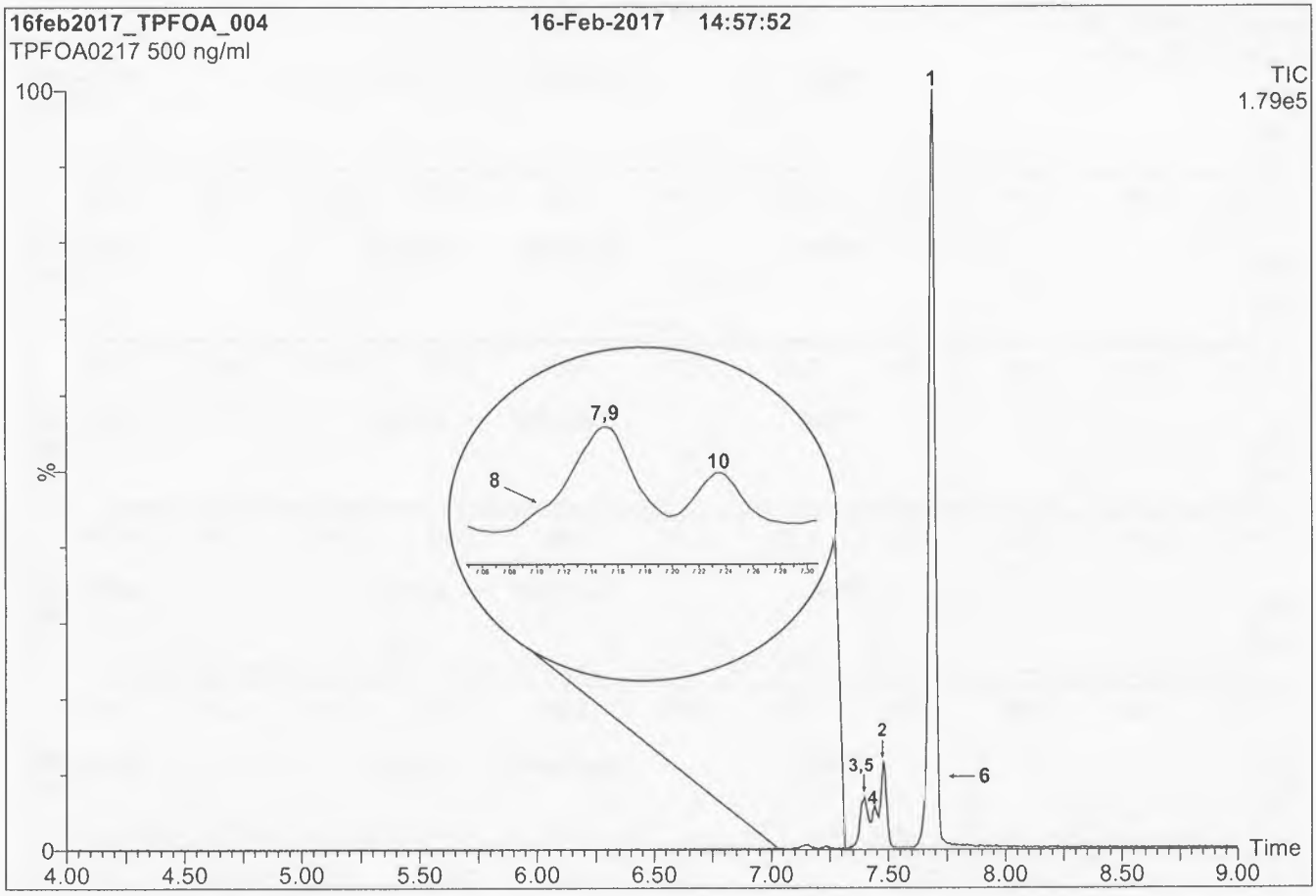
Flow: 1.0 ml/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **T-PFOA; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions:

Column: Kinetex PFP
2.6 µm, 4.6 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 5 min. Ramp to
90% organic over 5 min and hold for 1.5 min.
Return to initial conditions over 0.5 min.
Time: 13 min

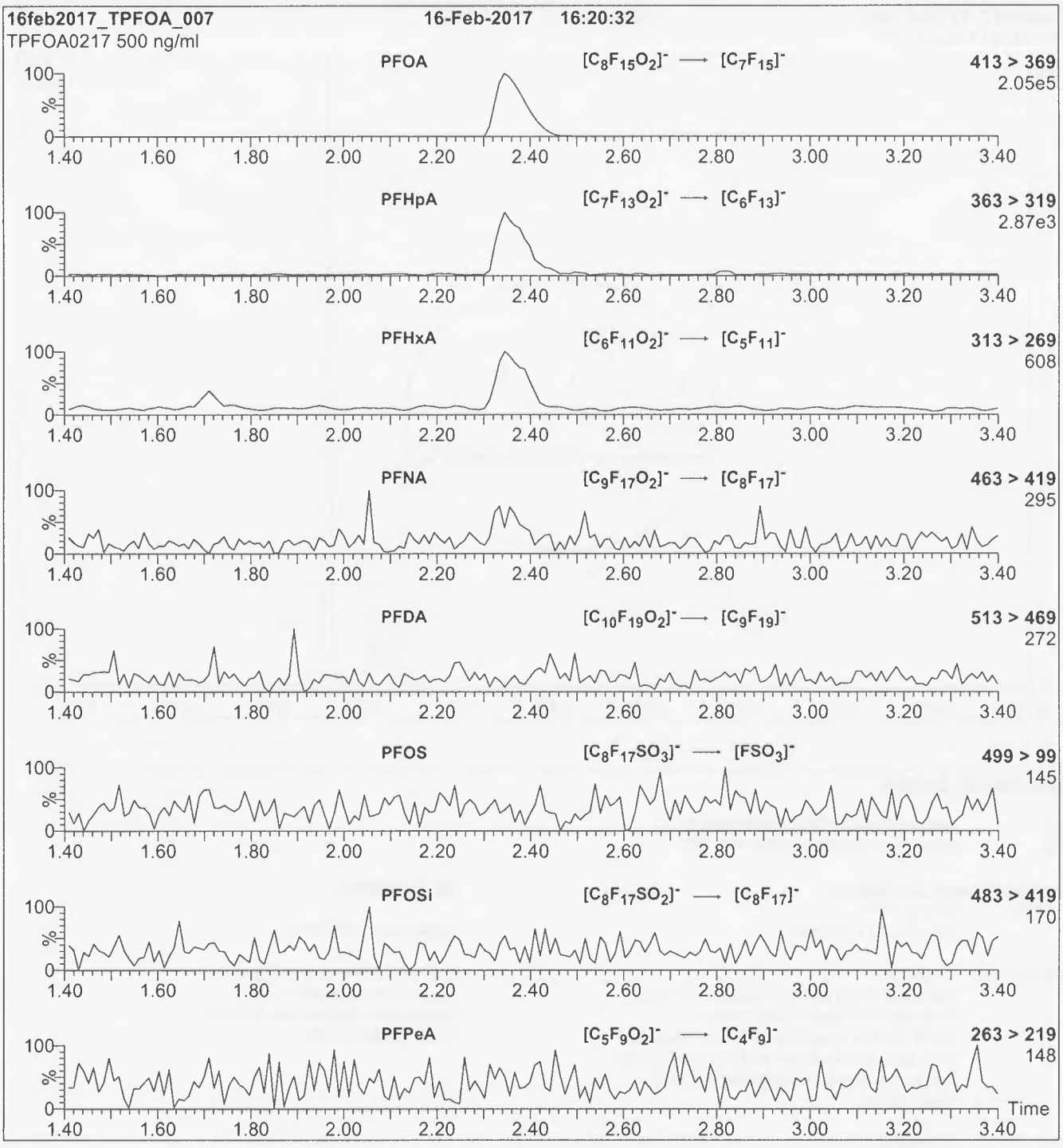
Flow: 1.0 ml/min

MS Parameters:

Experiment: SIR (ES^-)

Source conditions: see Figure 1
Source Temperature = 110 °C
Desolvation Temperature = 325 °C
Cone Voltage = 15V

Figure 3: **T-PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml T-PFOA)

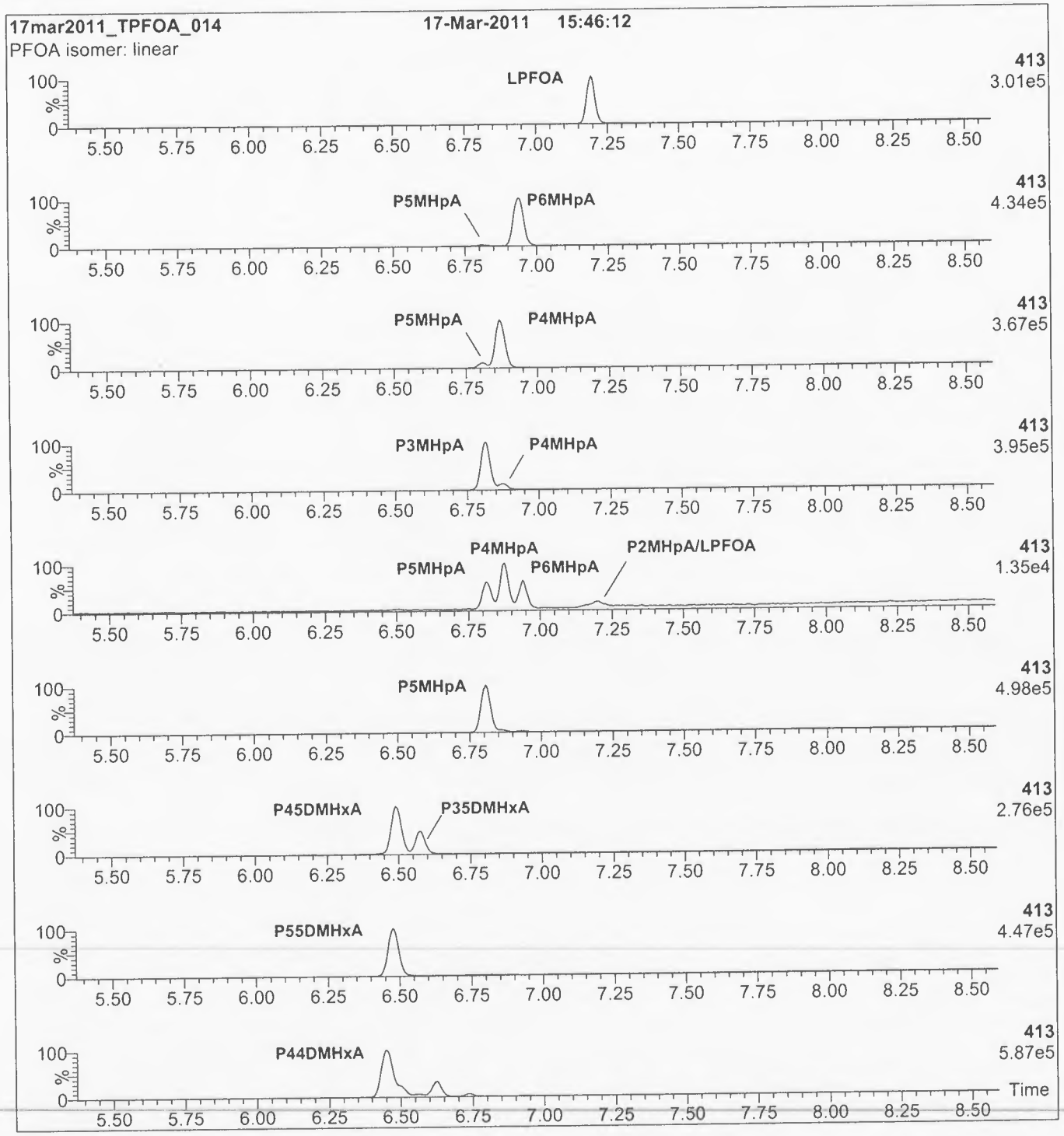
Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = variable (9-40)

Figure 4: **T-PFOA; LC/MS Elution Profile of the Perfluorooctanoic Acid Isomers**



Conditions for Figure 4:

Same as Figure 2.

BATTELLE

It can be done

BDO Id: 180618-06

Reagent Receipt Report

Approved: ☐ Authorized ☐

Name:	Branched PFHxS Standard (50 µg/m	Received:	6/18/2018
Vendor:	Wellington Laboratories	Custodian:	Thorn, Jonathan
Catalogue No:	br-PFHxSK	Expires:	1/4/2022
Type:	Solution	Consumed:	
Lot No:	brPFHxSK0117	Stored In:	Sample Preparation - C0103
Quantity:	1 ea mL % Moisture: 0		
Description:	Branched PFHxS Standard (50 µg/mL)		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:

Notes:

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____

180618-06

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK0117
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)	01/03/2017
LAST TESTED: (mm/dd/yyyy)	01/04/2017
EXPIRY DATE: (mm/dd/yyyy)	01/04/2022
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)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

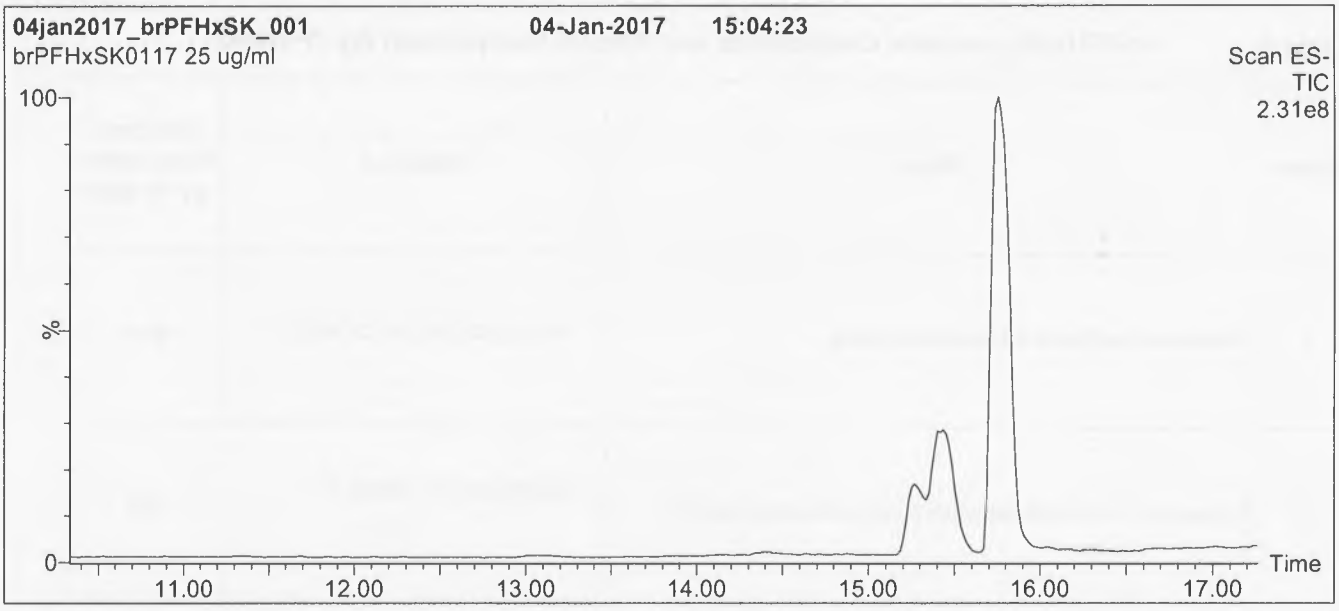
Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

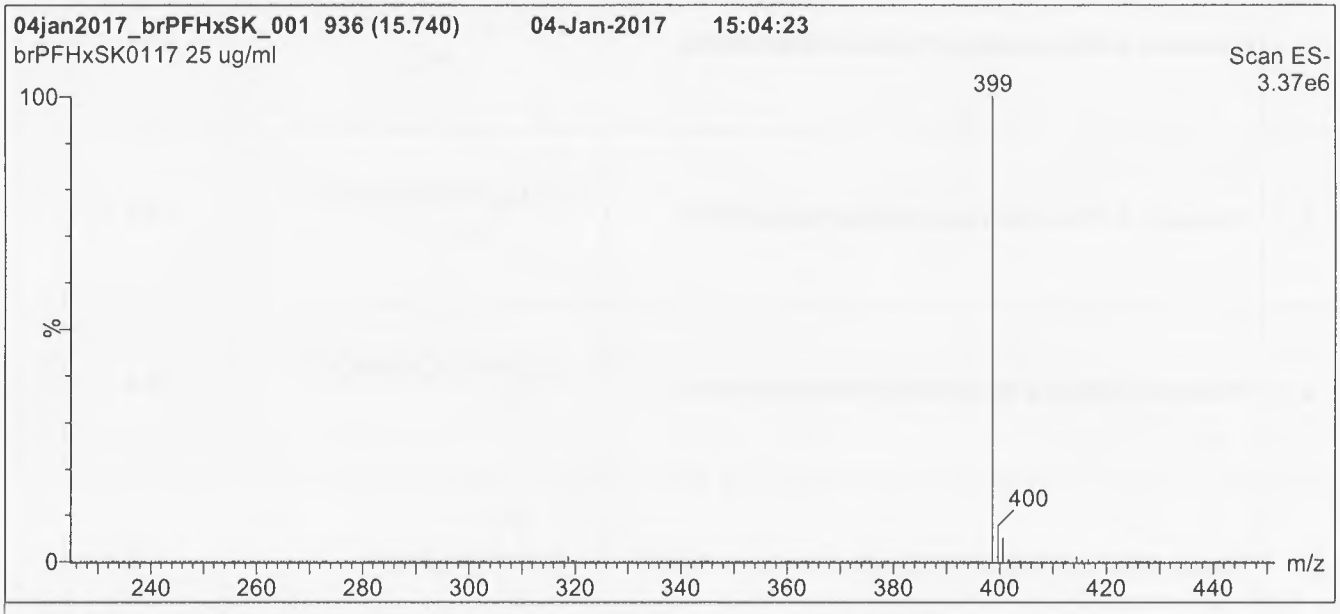
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$CF_3C(CF_3)_2CF_2CF_2SO_3^-K^+$	0.2
7	Other Unidentified Isomers		0.5

* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Certified By: B.G. Chittim **Date:** 01/20/2017 (mm/dd/yyyy)

Figure 1: **br-PFHxSK; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

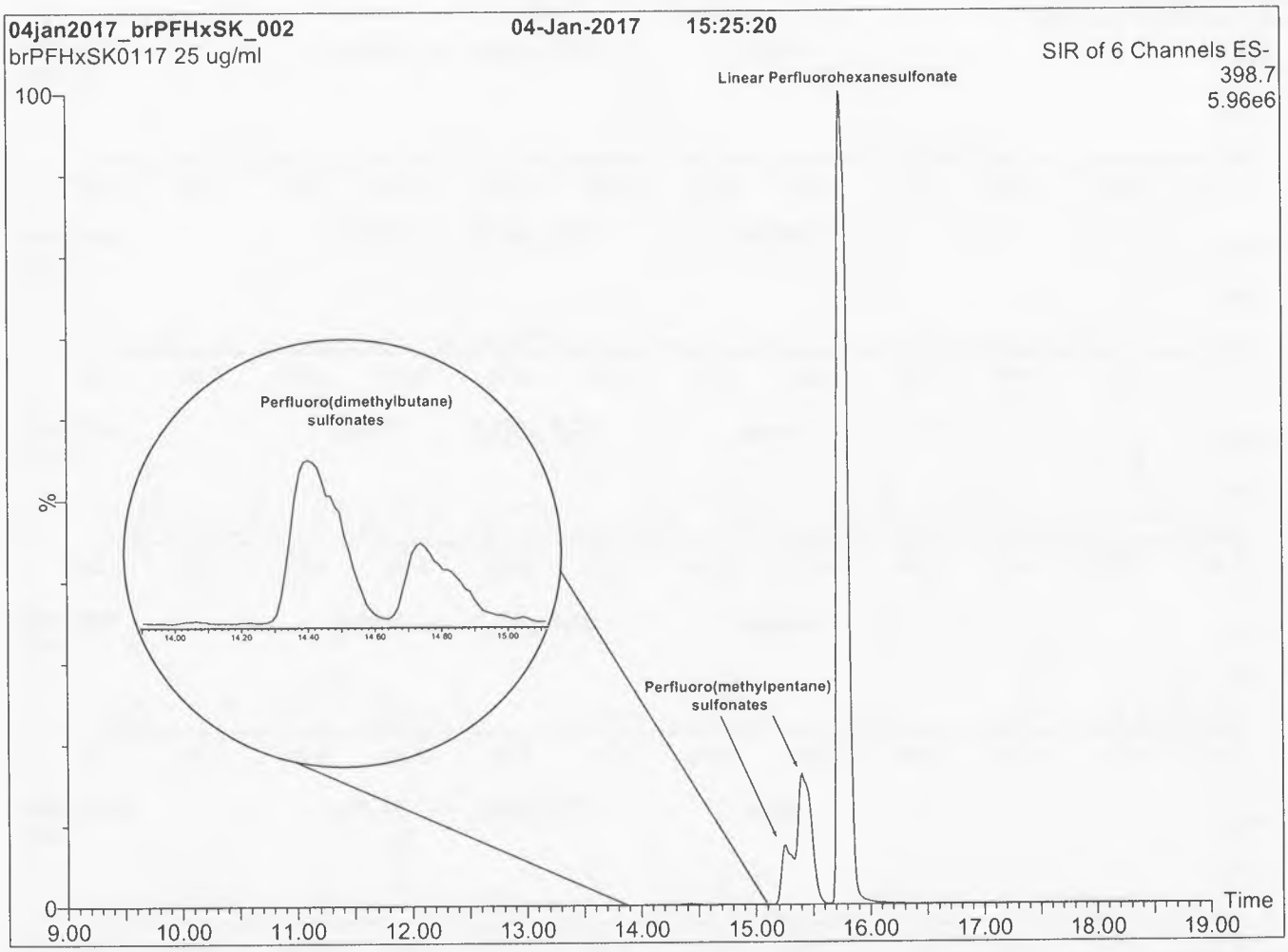
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **br-PFHxSK; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to
90% organic over 3 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 20 min

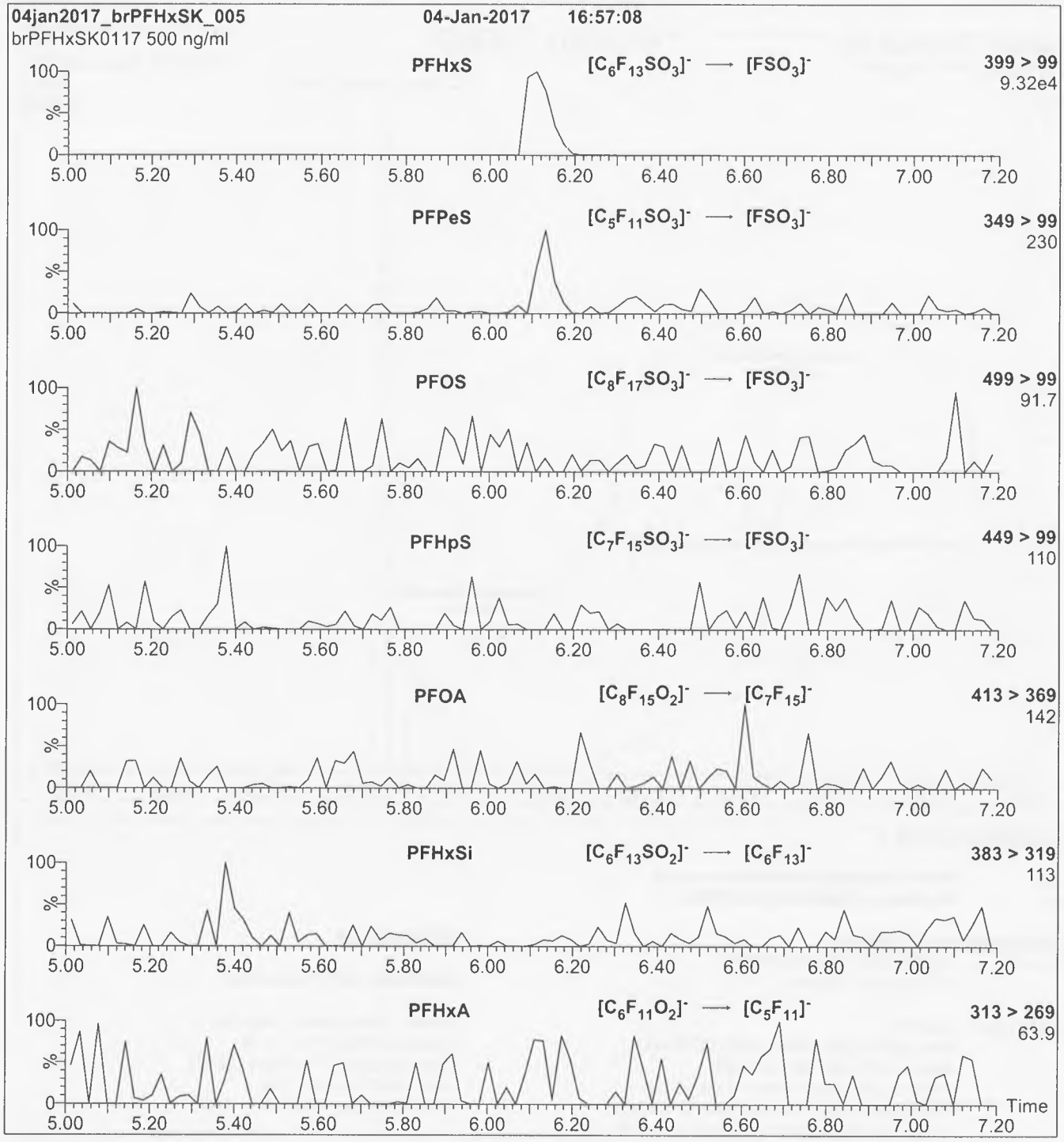
Flow: 300 µl/min

MS Parameters

Experiment: SIR (6 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = variable (15-62)
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 3: **br-PFHxSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml br-PFHxSK)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 30

BATTELLE

It can be done

BDO Id: 180618-07

Reagent Receipt Report

Approved: ☐ Authorized ☐

Name:	Branched PFOS Standard (50 µg/mL	**Received:**	6/18/2018
Vendor:	Wellington Laboratories	**Custodian:**	Thorn, Jonathan
Catalogue No:	br-PFOSK	**Expires:**	1/12/2022
Type:	Solution	**Consumed:**	
Lot No:	brPFOSK0117	**Stored In:**	Sample Preparation - C0103
Quantity:	1 ea mL **% Moisture:** 0		
Description:	Branched PFOS Standard (50 µg/mL)		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:

Notes:

Approved by: _____ **Approved on:** _____

Authorized by: _____ **Authorized on:** _____

180618-07

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK0117
CONCENTRATION:	50 ± 2.5 µg/ml (total potassium salt)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	01/09/2017
LAST TESTED: (mm/dd/yyyy)	01/12/2017
EXPIRY DATE: (mm/dd/yyyy)	01/12/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

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).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

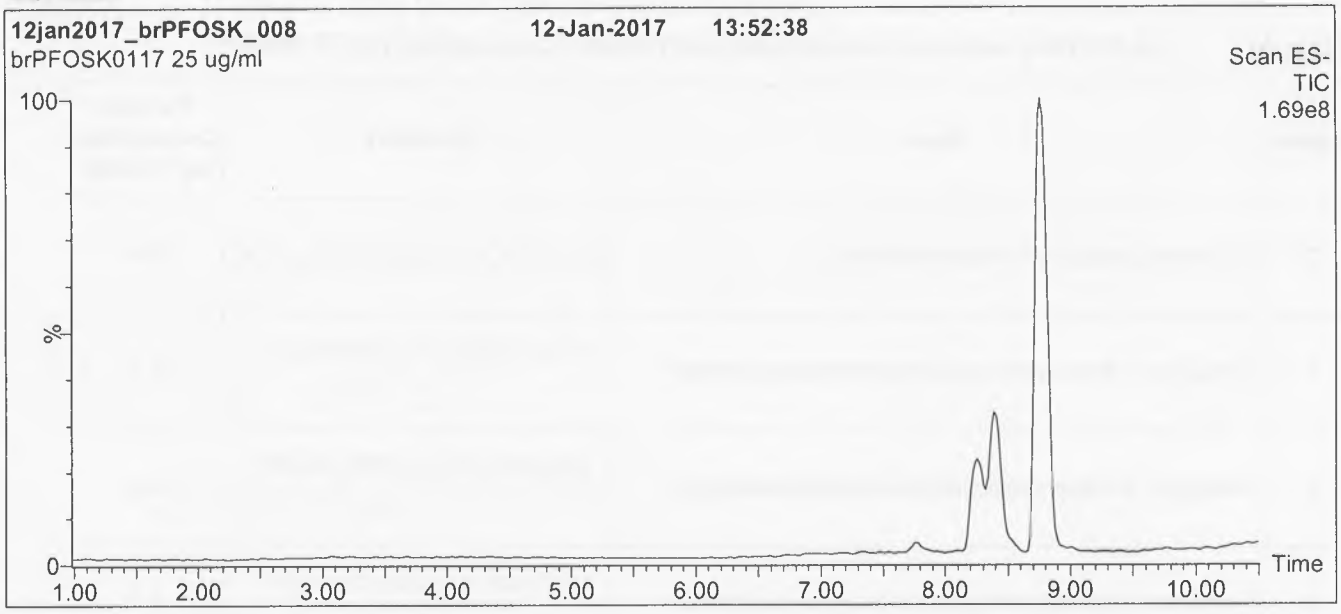
Table A: **br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

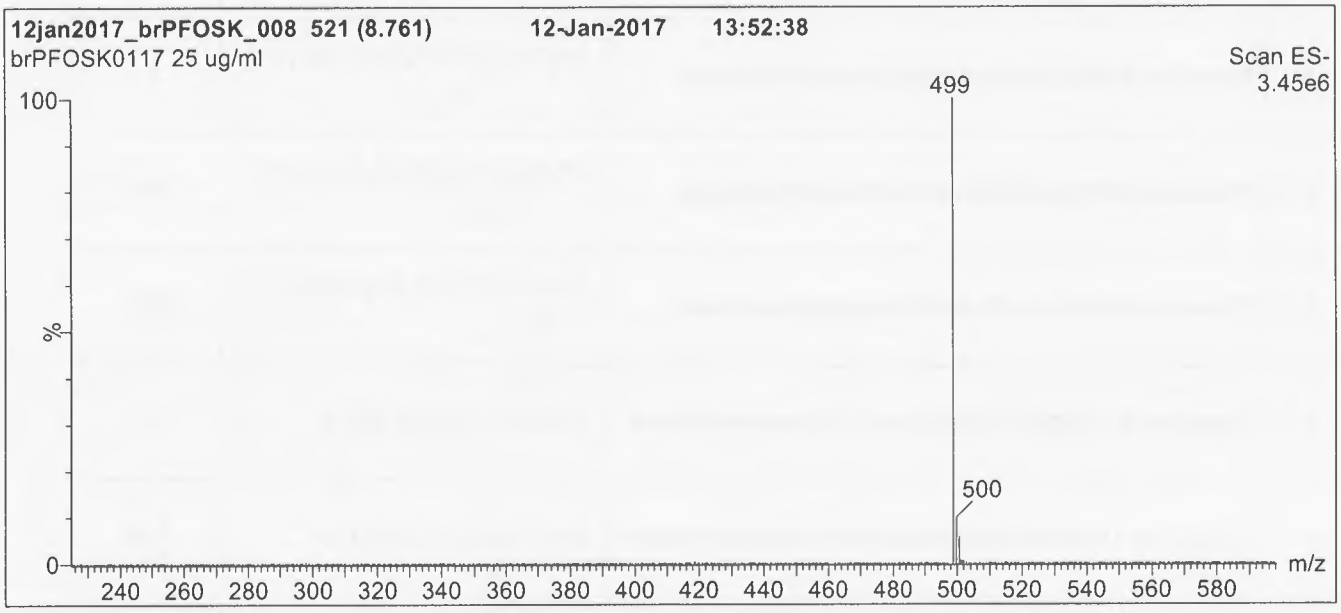
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3C(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF_2C(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF(CF_3)CF_2SO_3^-K^+$	0.07

* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

Certified By: B.G. Chittim **Date:** 01/20/2017 (mm/dd/yyyy)

Figure 1: **br-PFOSK; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% (80:20 MeOH:ACN) / 55% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 12 min and hold for 2 min.
Return to initial conditions over 0.5 min.
Time: 16 min

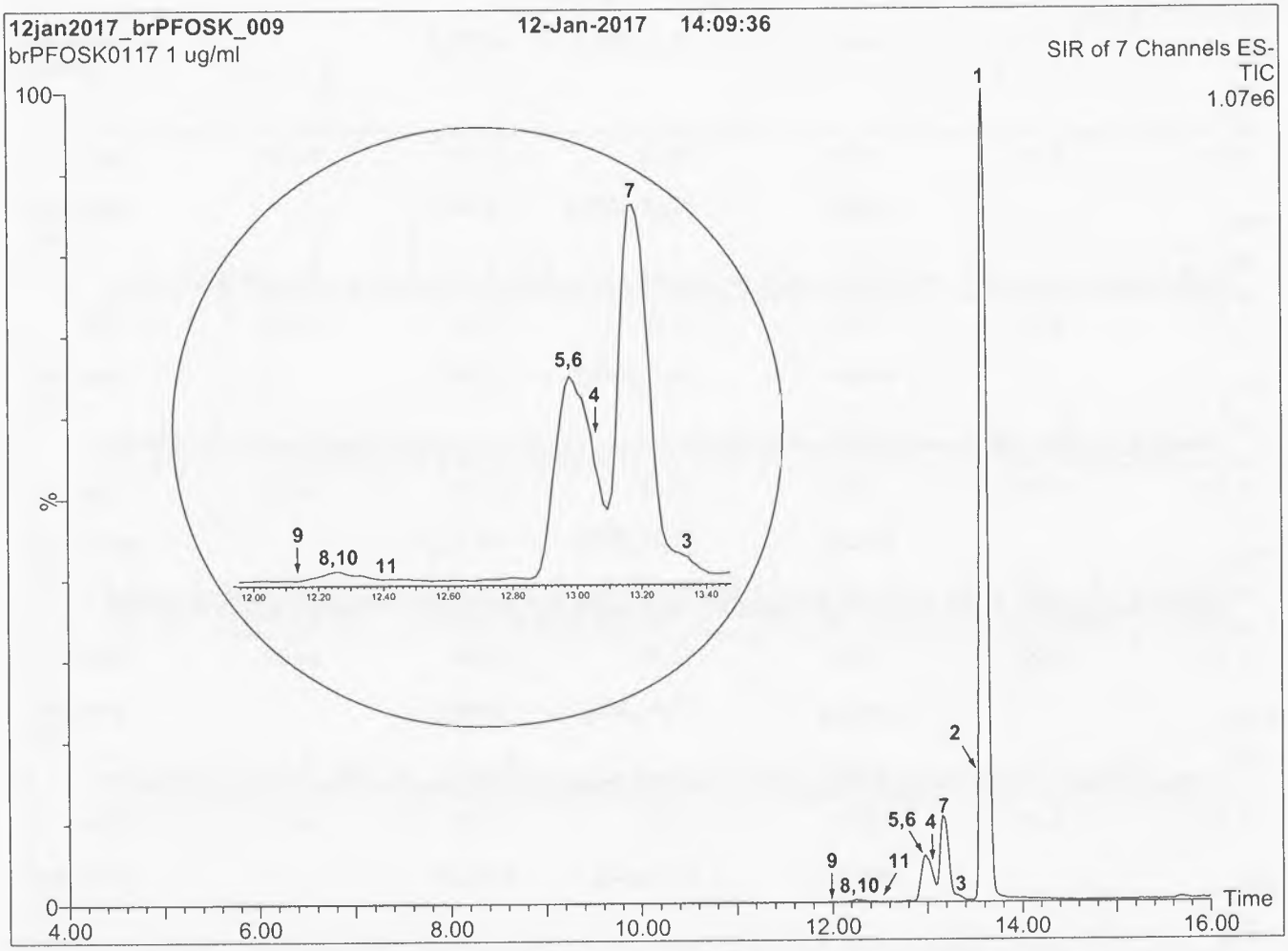
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **br-PFOSK; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

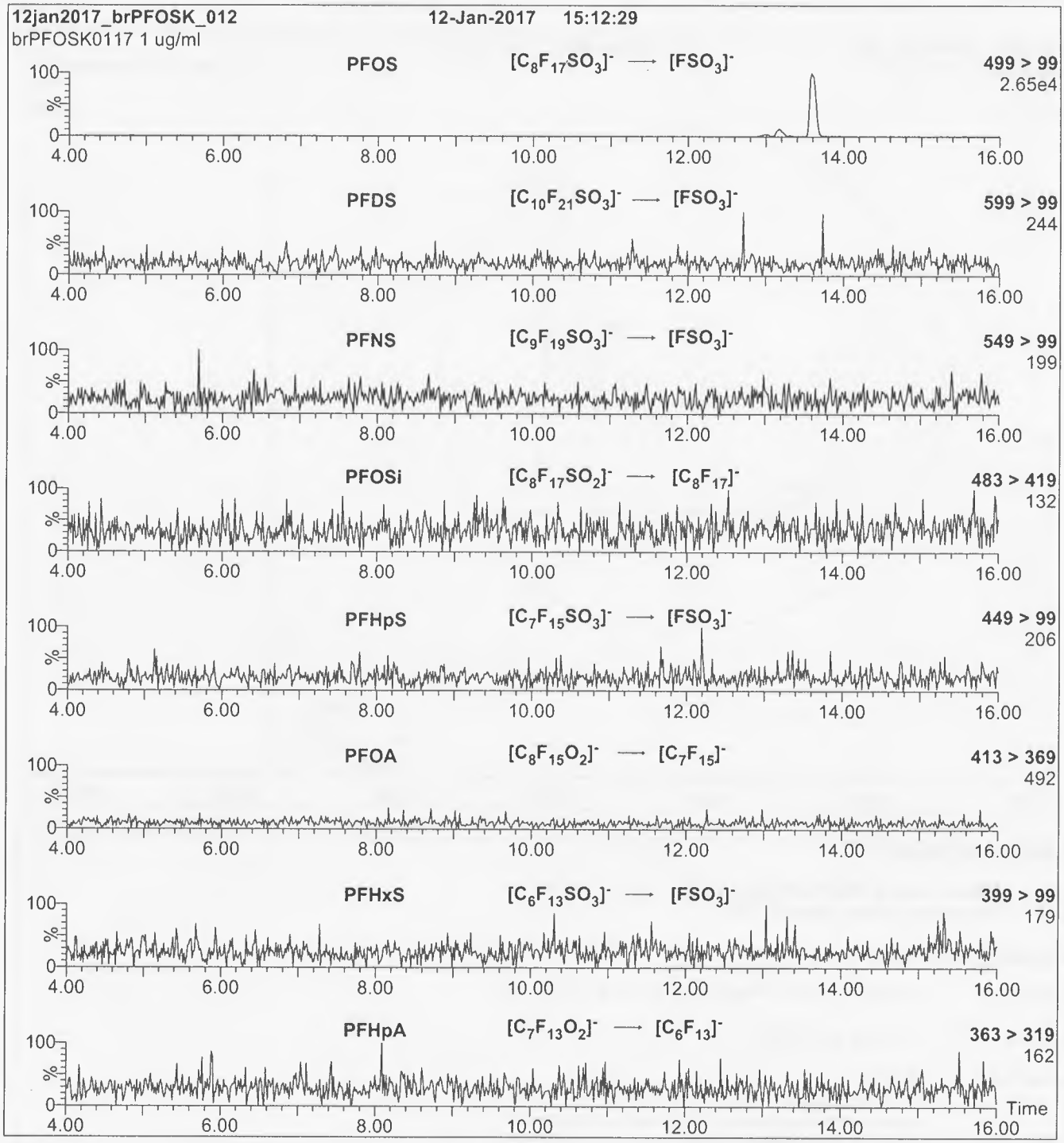
Chromatographic Conditions:

Column:	Acquity UPLC BEH Shield RP_{18} (1.7 µm, 2.1 x 100 mm)
Injection:	1.0 µg/ml of br-PFOSK
Mobile Phase:	Gradient 45% (80:20 MeOH:ACN) / 55% H_2O (both with 10 mM NH_4OAc buffer) Ramp to 90% organic over 15 min and hold for 3 min. Return to initial conditions over 1 min. Time: 20 min
Flow:	300 µl/min

MS Conditions:

SIR (ES-)
Source = 110 °C
Desolvation = 325 °C
Cone Voltage = 60V

Figure 3: **br-PFOSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 11-50 (variable)

CERTIFIED WEIGHT REPORT

180705-02

Part Number: 99207
Lot Number: 061918
Description: PFOA - DOD
24 components
Expiration Date: 061923
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 1.0
NIST Test ID#: 2684186

Solvent(s):	Lot#	
Methanol (1 mM KOH)	061918	(98%)
2-Propanol	23214	(2%)

5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 50.0 0.007 Flask Uncertainty

Formulated By:	Mario Luis	061918 DATE
Reviewed By:	Pedro L. Rentas	061918 DATE

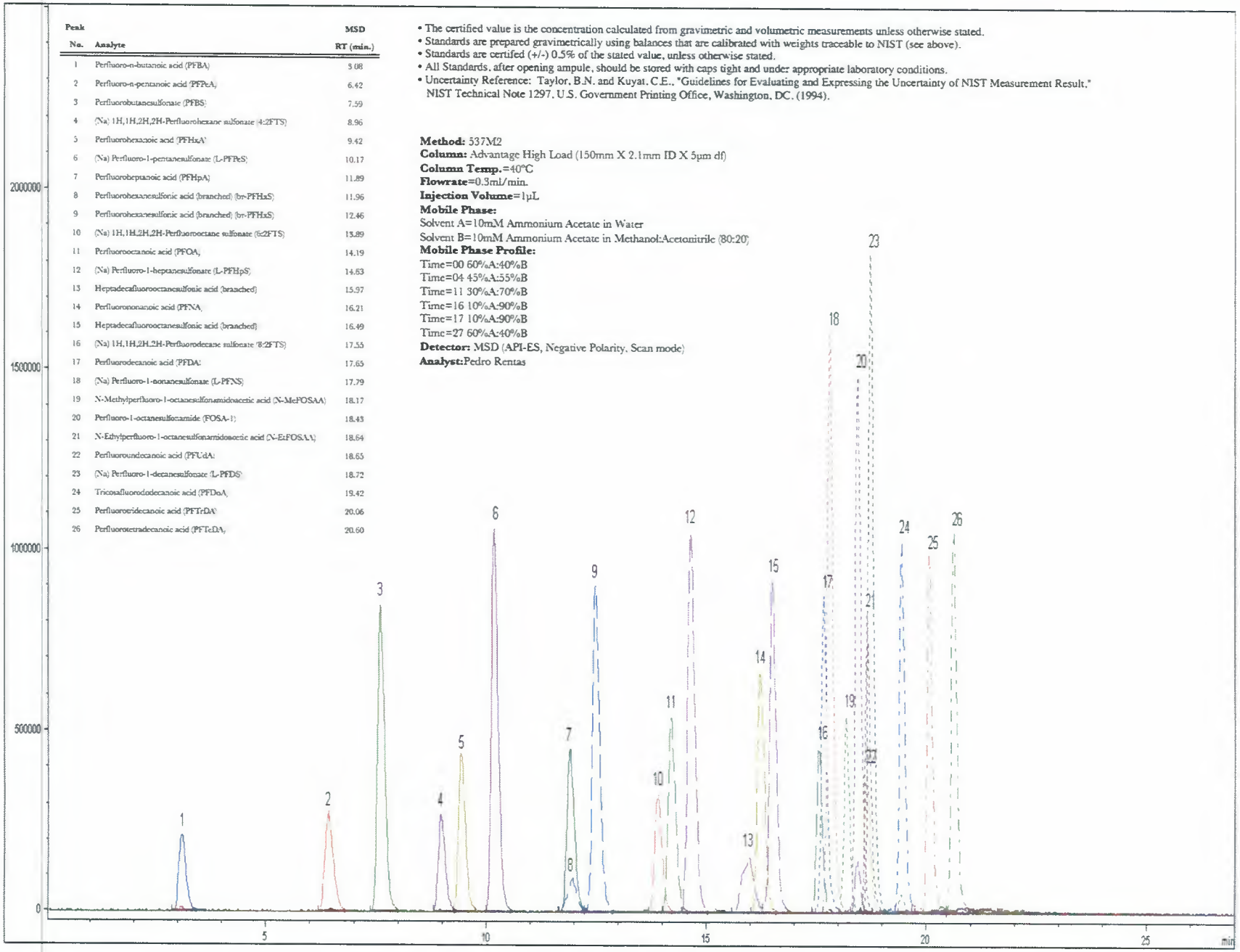
Note: All assigned values are anion concentrations.

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Perfluoro-n-butanoic acid (linear)	99542	110317	0.02	1.00	0.004	50.2	1.00	0.01	375-22-4	N/A	N/A
2.	Perfluoro-n-pentanoic acid	99543	110317	0.02	1.00	0.004	50.7	1.01	0.01	2706-90-3	N/A	N/A
3.	Perfluorohexanoic acid	99199	030617	0.02	1.00	0.004	50.3	1.01	0.01	307-24-4	N/A	N/A
4.	Perfluoroheptanoic acid	99197	030517	0.02	1.00	0.004	50.1	1.00	0.01	375-85-9	N/A	N/A
5.	Perfluorooctanoic acid	99202	030617	0.02	1.00	0.004	50.2	1.00	0.01	335-67-1	N/A	ipr-rat 189mg/kg
6.	Perfluorononanoic acid	99200	030617	0.02	1.00	0.004	50.1	1.00	0.01	375-95-1	N/A	N/A
7.	Perfluorodecanoic acid	99195	030617	0.02	1.00	0.004	50.1	1.00	0.01	335-76-2	N/A	orl-rat 57mg/kg
8.	Perfluoroundecanoic acid	99205	030617	0.02	1.00	0.004	50.1	1.00	0.01	2058-94-8	N/A	N/A
9.	Tricosafluorododecanoic acid	99196	030617	0.02	1.00	0.004	50.1	1.00	0.01	307-55-1	N/A	N/A
10.	Perfluorotridecanoic acid	99204	030617	0.02	1.00	0.004	50.1	1.00	0.01	72629-94-8	N/A	N/A
11.	Perfluorotetradecanoic acid	99203	030617	0.02	1.00	0.004	50.1	1.00	0.01	376-06-7	N/A	N/A
12.	Perfluoro-1-octanesulfonamide	3677	FOSA0817I	0.02	1.00	0.004	50.0	1.00	0.01	754-91-6	N/A	N/A
13.	N-Methylperfluoro-1-octanesulfonamidoacetic acid	3667	NMeFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2355-31-9	N/A	N/A
14.	N-Ethylperfluoro-1-octanesulfonamidoacetic acid	3664	NEtFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2991-50-6	N/A	N/A
15.	Perfluorobutanesulfonic acid	99194	031017	0.02	1.00	0.004	50.7	1.01	0.01	375-73-5	N/A	N/A
16.	Perfluoro-1-pentanesulfonate	99544	111017	0.02	0.98	0.004	51.3	1.00	0.01	630402-22-1	N/A	N/A
17.	Perfluorohexanesulfonic acid (branched)	99198	030617	0.02	1.00	0.004	50.6	1.01	0.01	3871-99-6	N/A	N/A
18.	Perfluoro-1-heptanesulfonic acid	3672	LPFHpS0817	0.021	1.05	0.004	47.6	1.00	0.01	375-92-8	N/A	N/A
19.	Heptadecafluorooctanesulfonic acid (branched)	99201	030617	0.02	1.00	0.004	50.2	1.00	0.01	1763-23-1	N/A	N/A
20.	Perfluoro-1-nonanesulfonic acid	3957	LPFNS0917	0.021	1.05	0.004	48.0	1.01	0.01	98789-57-2	N/A	N/A
21.	Perfluoro-1-decanesulfonic acid	3671	LPFDS0217	0.021	1.05	0.004	48.2	1.01	0.01	2806-15-7	N/A	N/A
22.	1H,1H,2H,2H-Perfluorohexane sulfonic acid	3955	42FTS1216	0.0214	1.07	0.004	46.7	1.00	0.01	00-00-0	N/A	N/A
23.	1H,1H,2H,2H-Perfluorooctane sulfonic acid	3661	62FTS0616	0.021	1.05	0.004	47.4	1.00	0.01	27619-97-2	N/A	N/A
24.	1H,1H,2H,2H-Perfluorodecane sulfonic acid	3662	82FTS1216	0.021	1.05	0.004	47.9	1.01	0.01	39108-34-4	N/A	N/A

Peak No.	Analyte	MSD RT (min.)
1	Perfluoro-n-butanoic acid (PFBA)	5.08
2	Perfluoro-n-pentanoic acid (PFPeA)	6.42
3	Perfluorobutanesulfonate (PFBS)	7.59
4	(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate (4:2FTS)	8.96
5	Perfluorohexanoic acid (PFHxA)	9.42
6	(Na) Perfluoro-1-pentanesulfonate (L-PFPeS)	10.17
7	Perfluoroheptanoic acid (PFHpA)	11.89
8	Perfluorohexanesulfonic acid (branched) (br-PFHxS)	11.96
9	Perfluorohexanesulfonic acid (branched) (br-PFHxS)	12.46
10	(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate (6:2FTS)	13.89
11	Perfluorooctanoic acid (PFOA)	14.19
12	(Na) Perfluoro-1-heptanesulfonate (L-PFHpS)	14.63
13	Heptadecafluorooctanesulfonic acid (branched)	15.97
14	Perfluorononanoic acid (PFNA)	16.21
15	Heptadecafluorooctanesulfonic acid (branched)	16.49
16	(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2FTS)	17.55
17	Perfluorodecanoic acid (PFDA)	17.65
18	(Na) Perfluoro-1-nonanesulfonate (L-PFNS)	17.79
19	N-Methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	18.17
20	Perfluoro-1-octanesulfonamide (FOSA-1)	18.43
21	N-Ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	18.64
22	Perfluoroundecanoic acid (PFUdA)	18.65
23	(Na) Perfluoro-1-decanesulfonate (L-PFDS)	18.72
24	Tricosafluorododecanoic acid (PFDoA)	19.42
25	Perfluorotridecanoic acid (PFTrDA)	20.06
26	Perfluorotetradecanoic acid (PFTeDA)	20.60

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Method: 537M2
Column: Advantage High Load (150mm X 2.1mm ID X 5µm df)
Column Temp.=40°C
Flowrate=0.3mL/min.
Injection Volume=1µL
Mobile Phase:
Solvent A=10mM Ammonium Acetate in Water
Solvent B=10mM Ammonium Acetate in Methanol:Acetonitrile (80:20)
Mobile Phase Profile:
Time=00 60%A:40%B
Time=04 45%A:55%B
Time=11 30%A:70%B
Time=16 10%A:90%B
Time=17 10%A:90%B
Time=27 60%A:40%B
Detector: MSD (API-ES, Negative Polarity, Scan mode)
Analyst: Pedro Rentas



BATTELLE

It can be done

BDO Id: 180726-04

Reagent Receipt Report

Approved: ☑ Authorized ☐

Name:	Mass-labelled PFAS injection standar	**Received:**	7/26/2018
Vendor:	Wellington Laboratories	**Custodian:**	Thorn, Jonathan
Catalogue No:	MPFAC-C-IS	**Expires:**	5/2/2022
Type:	Solution	**Consumed:**	
Lot No:	MPFACCIS0516	**Stored In:**	LC Laboratory - R0107
Quantity:	2 ea 1.2 mL **% Moisture:** 0		
Description:	Mass-labelled PFAS injection standards		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
13C2-PFDA	BDO-2110	2.0000	100.00	--	--	☐			
13C2-PFOA	BDO-2107	2.0000	100.00	--	--	☐			
13C3-PFBA	BDO-2231	2.0000	100.00	--	--	☐			
13C4-PFOS	BDO-2121	1.9140	100.00	--	--	☐			

Total Analytes: 4

Notes:

Approved by:	Lizotte Jr, Robert	**Approved on:**	7/27/2018 11:10:00 AM
Authorized by:		**Authorized on:**	

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

MPFAC-C-IS

Mass-Labelled Perfluorinated Compound Injection Standards Solution

PRODUCT CODE:	MPFAC-C-IS
LOT NUMBER:	MPFACCIS0516
SOLVENT(S):	Methanol / Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	05/24/2016
LAST TESTED: (mm/dd/yyyy)	05/02/2017
EXPIRY DATE: (mm/dd/yyyy)	05/02/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

MPFAC-C-IS is a solution/mixture of mass-labelled (^{13}C) perfluoroalkylcarboxylic acids and a mass-labelled (^{13}C) perfluoroalkylsulfonate. The components and their concentrations are given in Table A.

MPFAC-C-IS was designed for, and prepared to be used with, PFC-CVS-C.

The individual mass-labelled perfluoroalkylcarboxylic acids and mass-labelled perfluoroalkylsulfonate all have chemical purities of >98% and isotopic purities of ≥99%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The mass-labelled perfluoroalkylsulfonate compound concentration is reported as the salt.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

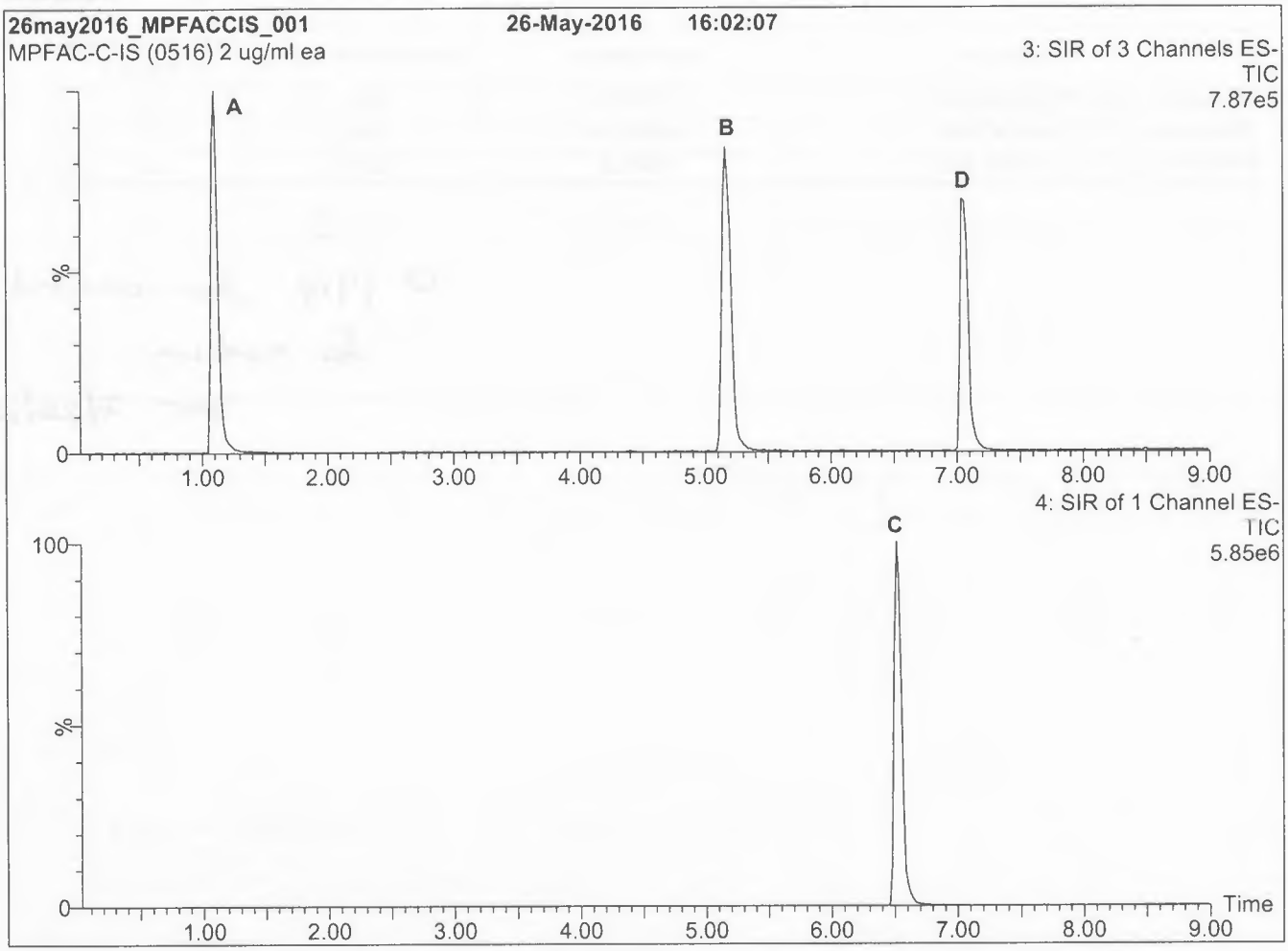
Table A: **MPFAC-C-IS; Components and Concentrations (ng/ml; ± 5% in Methanol / Water (<1%))**

Compound	Abbreviation	Concentration (ng/ml)	Peak Assignment in Figure 1
Perfluoro-n-[2,3,4-$^{13}C_3$]butanoic acid	M3PFBA	2000	A
Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid	M2PFOA	2000	B
Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid	MPFDA	2000	D
Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate	MPFOS	2000 ①	C

① 1914 when corrected for sodium
JMS 7/26/2017

Certified By: _____ **Date:** 05/04/2017
(mm/dd/yyyy)
B.G. Chittim, General Manager

Figure 1: **MPFAC-C-IS; LC/MS Data (Total Ion Current Chromatogram; SIR)**



Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min
and hold for 2 min before returning
to initial conditions in 1 min.
Time: 12 min

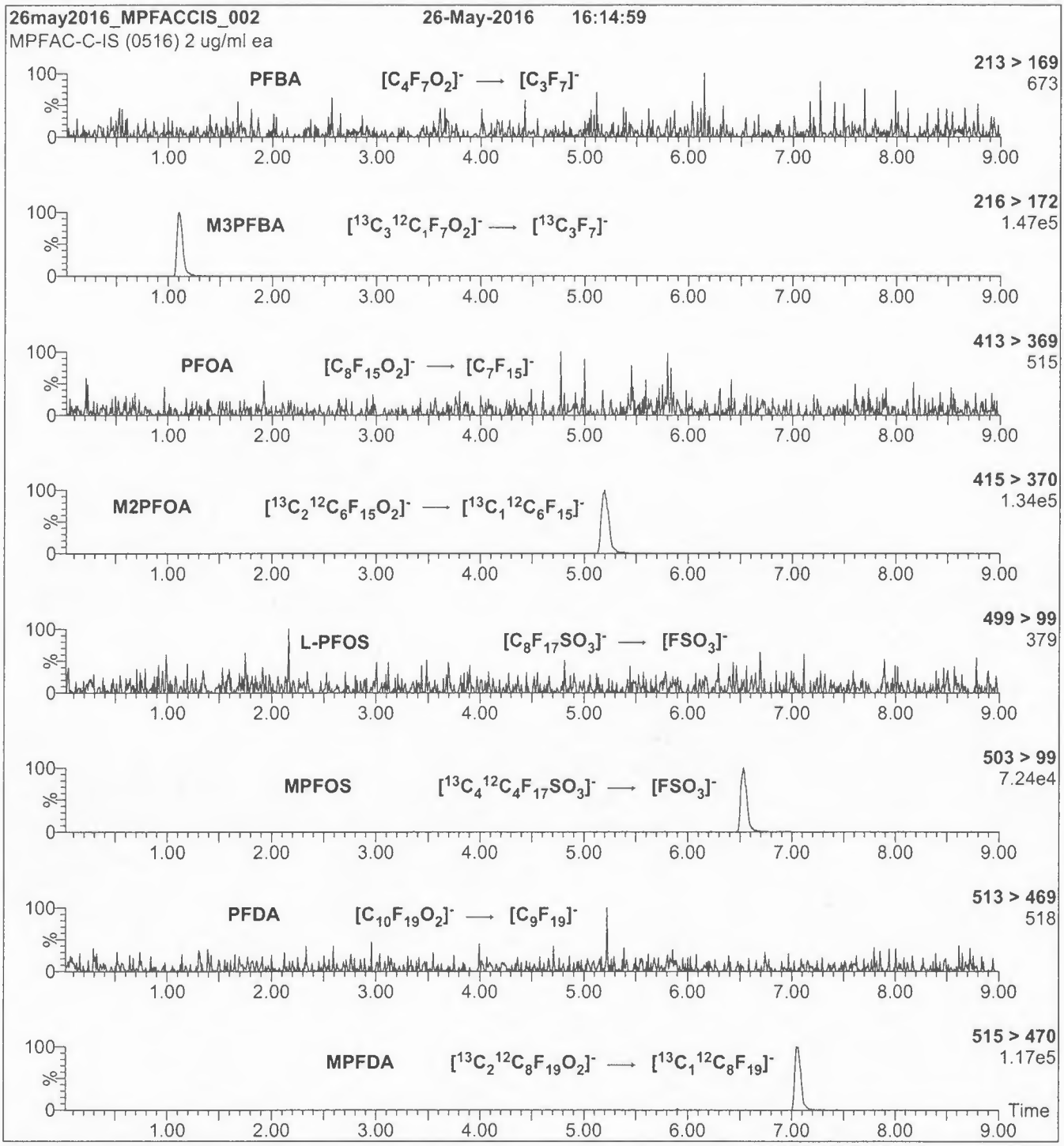
Flow: 300 µl/min

MS Parameters

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = variable (10-80)
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **MPFAC-C-IS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFAC-C-IS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3

Collision Energy (eV) = 8-50 (variable)

BATTELLE

It can be done

BDO Id: 180726-05

Reagent Receipt Report

Approved: ☑ Authorized ☐

Name:	Mass-labelled PFAS Extraction Stand	**Received:**	7/26/2018
Vendor:	Wellington Laboratories	**Custodian:**	Thorn, Jonathan
Catalogue No:	MPFAC-24ES	**Expires:**	2/7/2023
Type:	Solution	**Consumed:**	
Lot No:	MPFAC24ES0218	**Stored In:**	LC Laboratory - R0107
Quantity:	2 ea 1.2 mL **% Moisture:** 0		
Description:	Mass-labelled PFAS Extraction Standard Solution		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
13C2-4:2FTS	BDO-2229	0.9350	100.00	--	--	☐			
13C2-6:2FTS	BDO-2230	0.9490	100.00	--	--	☐			
13C2-8:2FTS	BDO-2220	0.9580	100.00	--	--	☐			
13C2-PFDoA	BDO-2112	1.0000	100.00	--	--	☐			
13C2-PFTeDA	BDO-2224	1.0000	100.00	--	--	☐			
13C3-PFBS	BDO-2226	0.9290	100.00	--	--	☐			
13C3-PFHxS	BDO-2227	0.9460	100.00	--	--	☐			
13C4-PFBA	BDO-2105	1.0000	100.00	--	--	☐			
13C4-PFHpA	BDO-2218	1.0000	100.00	--	--	☐			
13C5-PFHxA	BDO-2217	1.0000	100.00	--	--	☐			
13C5-PFPeA	BDO-2216	1.0000	100.00	--	--	☐			
13C6-PFDA	BDO-2222	1.0000	100.00	--	--	☐			
13C7-PFUnA	BDO-2223	1.0000	100.00	--	--	☐			
13C8-FOSA	BDO-2225	1.0000	100.00	--	--	☐			
13C8-PFOA	BDO-2219	1.0000	100.00	--	--	☐			
13C8-PFOS	BDO-2228	0.9570	100.00	--	--	☐			
13C9-PFNA	BDO-2221	1.0000	100.00	--	--	☐			
d3-MeFOSAA	BDO-1838	1.0000	100.00	--	--	☐			
d5-EtFOSAA	BDO-1839	1.0000	100.00	--	--	☐			

Total Analytes: 19

Notes:

Approved by:	Lizotte Jr, Robert	**Approved on:**	7/27/2018 11:10:00 AM
Authorized by:		**Authorized on:**	

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

MPFAC-24ES

Mass-Labelled Per- and Poly-fluoroalkyl Substance Extraction Standard Solution

PRODUCT CODE:	MPFAC-24ES
LOT NUMBER:	MPFAC24ES0218
SOLVENT(S):	Methanol / Isopropanol (2%) / Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	02/07/2018
LAST TESTED: (mm/dd/yyyy)	02/07/2018
EXPIRY DATE: (mm/dd/yyyy)	02/07/2023
RECOMMENDED STORAGE:	Refrigerate ampoule

DESCRIPTION:

MPFAC-24ES is a solution/mixture of ten mass-labelled (^{13}C) perfluoroalkylcarboxylic acids (C_4-C_{12} and C_{14}), three mass-labelled (^{13}C) perfluoroalkylsulfonates (C_4, C_6, and C_8), three mass-labelled (^{13}C) telomer sulfonates (4:2, 6:2, and 8:2), two mass-labelled (^{2}H) perfluorooctanesulfonamidoacetic acids, and perfluoro-1-[$^{13}C_8$]octanesulfonamide. The components and their concentrations are given in Table A.

The individual mass-labelled perfluoroalkylcarboxylic acids, mass-labelled perfluoroalkylsulfonates, mass-labelled telomer sulfonates, and perfluoro-1-[$^{13}C_8$]octanesulfonamide all have chemical purities of >98% and isotopic purities of ≥99%. The individual mass-labelled perfluorooctanesulfonamidoacetic acids all have chemical purities of >98% and isotopic purities of ≥98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
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 acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED 9017034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

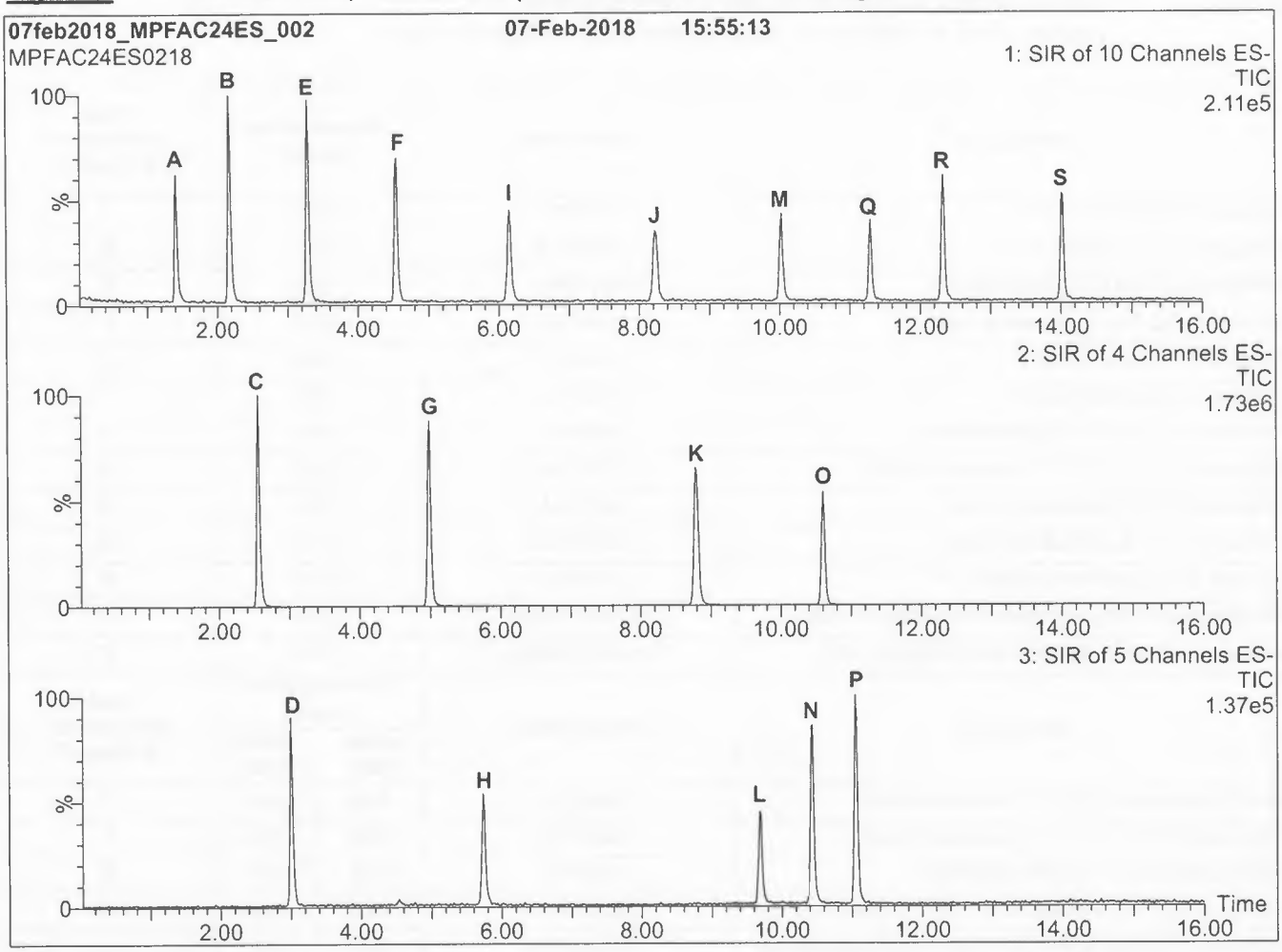
Table A: **MPFAC-24ES; Components and Concentrations (ng/ml, ± 5% in Methanol / Isopropanol (2%) / Water (<1%))**

Compound	Abbreviation	Concentration (ng/ml)		Peak Assignment in Figure 1
Perfluoro-n-[$^{13}C_4$]butanoic acid	MPFBA	1000		A
Perfluoro-n-[$^{13}C_5$]pentanoic acid	M5PFPeA	1000		B
Perfluoro-n-[1,2,3,4,6-$^{13}C_5$]hexanoic acid	M5PFHxA	1000		E
Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid	M4PFHpA	1000		F
Perfluoro-n-[$^{13}C_8$]octanoic acid	M8PFOA	1000		I
Perfluoro-n-[$^{13}C_9$]nonanoic acid	M9PFNA	1000		J
Perfluoro-n-[1,2,3,4,5,6-$^{13}C_6$]decanoic acid	M6PFDA	1000		M
Perfluoro-n-[1,2,3,4,5,6,7-$^{13}C_7$]undecanoic acid	M7PFUdA	1000		Q
Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid	MPFDoA	1000		R
Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid	M2PFTeDA	1000		S
Perfluoro-1-[$^{13}C_8$]octanesulfonamide	M8FOSA	1000		O
N-methyl-d_3-perfluoro-1-octanesulfonamidoacetic acid	d3-N-MeFOSAA	1000		N
N-ethyl-d_5-perfluoro-1-octanesulfonamidoacetic acid	d5-N-EtFOSAA	1000		P
Compound	**Abbreviation**	**Concentration (ng/ml)**		**Peak Assignment in Figure 1**
		as the salt	**as the anion**	
Sodium perfluoro-1-[2,3,4-$^{13}C_3$]butanesulfonate	M3PFBS	1000	929	C
Sodium perfluoro-1-[1,2,3-$^{13}C_3$]hexanesulfonate	M3PFHxS	1000	946	G
Sodium perfluoro-1-[$^{13}C_8$]octanesulfonate	M8PFOS	1000	957	K
Sodium 1H,1H,2H,2H-perfluoro-1-[1,2-$^{13}C_2$]hexanesulfonate	M2-4:2FTS	1000	935	D
Sodium 1H,1H,2H,2H-perfluoro-1-[1,2-$^{13}C_2$]octanesulfonate	M2-6:2FTS	1000	949	H
Sodium 1H,1H,2H,2H-perfluoro-1-[1,2-$^{13}C_2$]decanesulfonate	M2-8:2FTS	1000	958	L

Certified By: _____ **Date:** 02/09/2018 (mm/dd/yyyy)

B.G. Chittim, General Manager

Figure 1: **MPFAC-24ES; LC/MS Data (Total Ion Current Chromatogram; SIR)**



Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 55% organic over 3.5 min.
Ramp to 70% organic over 6.5 min.
Ramp to 85% organic over 5 min and hold for
1 min before returning to initial conditions in 0.5 min.
Time: 17 min

Flow: 300 µl/min

MS Parameters

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = variable (10-60)
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)**

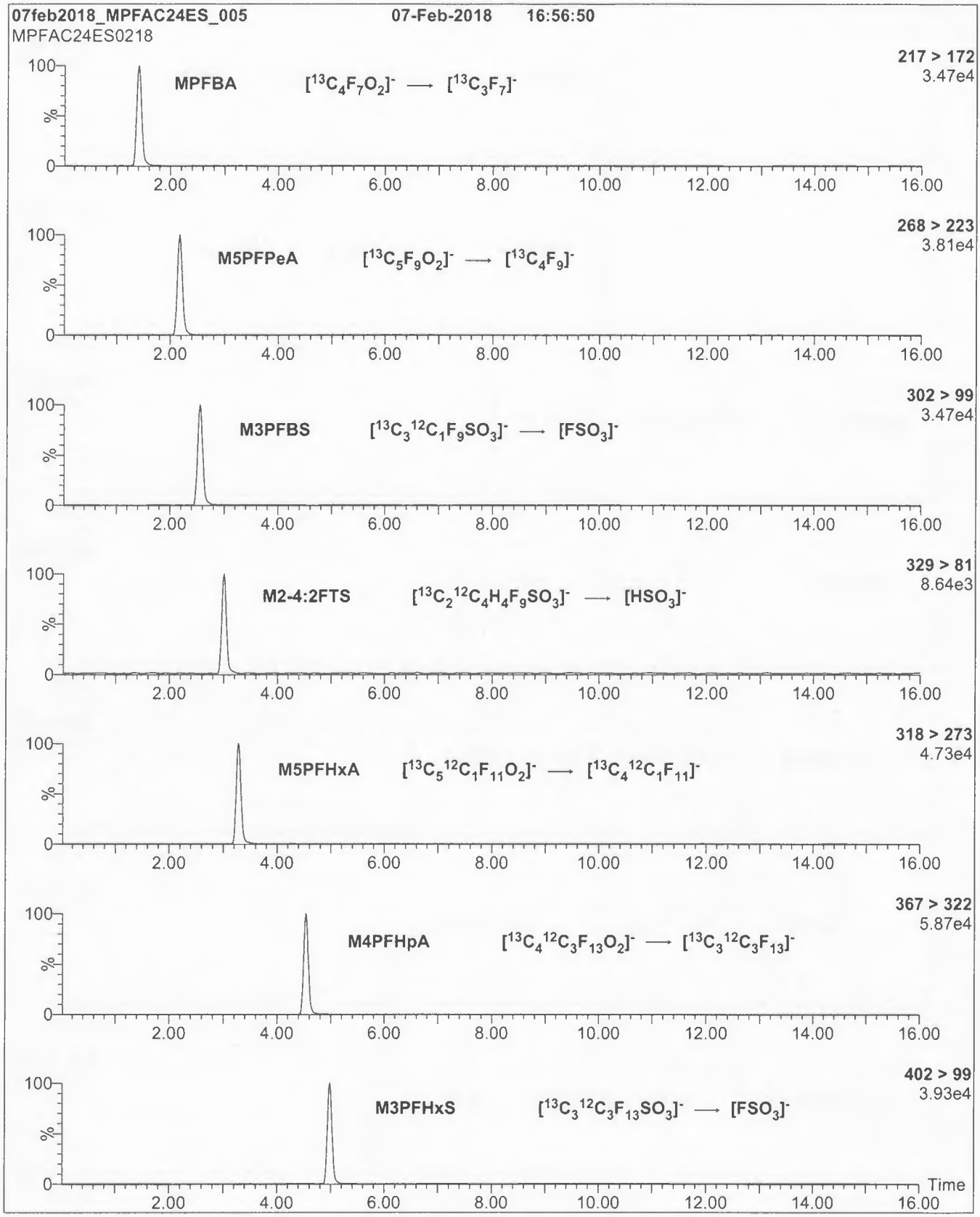


Figure 2: **MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)**

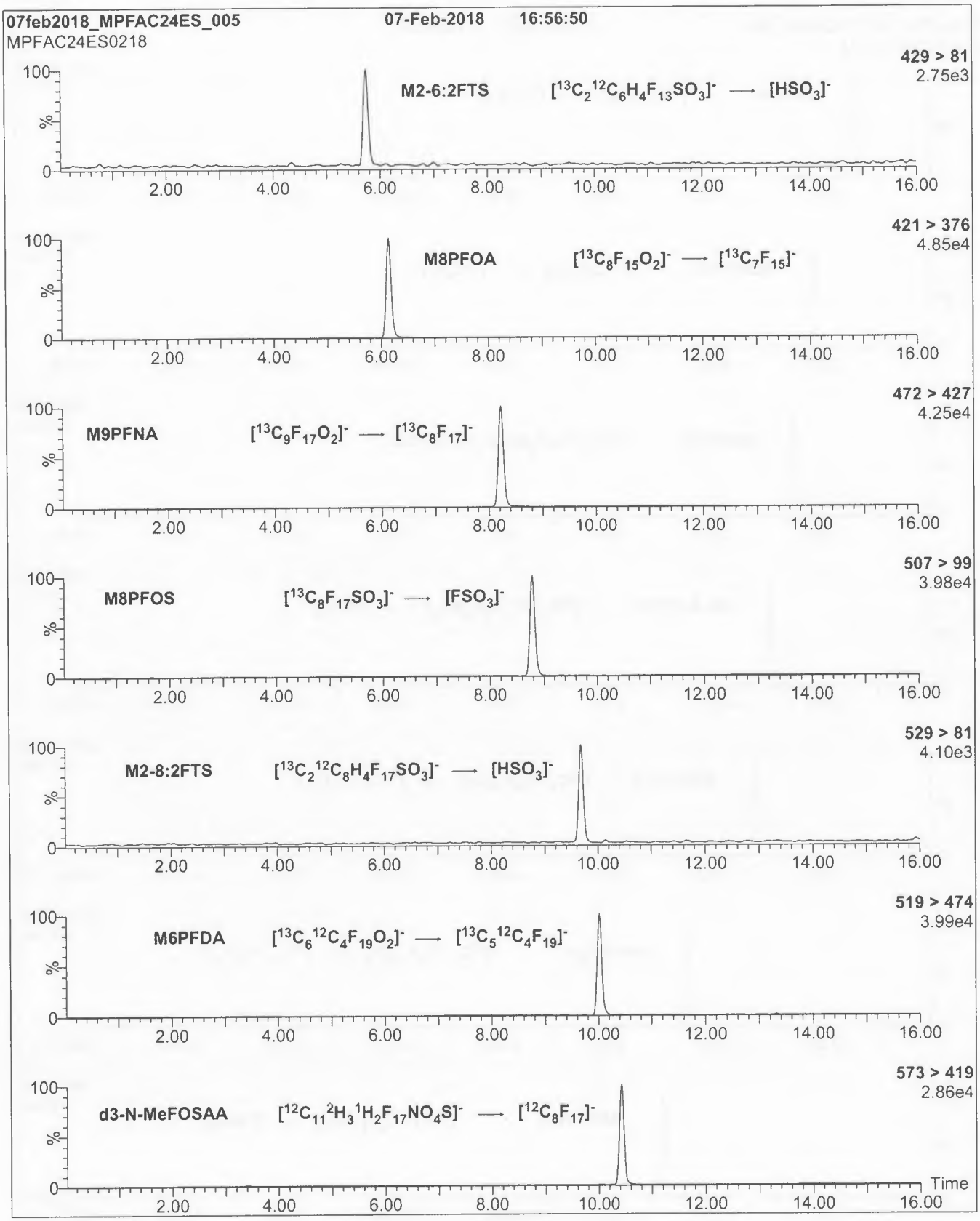
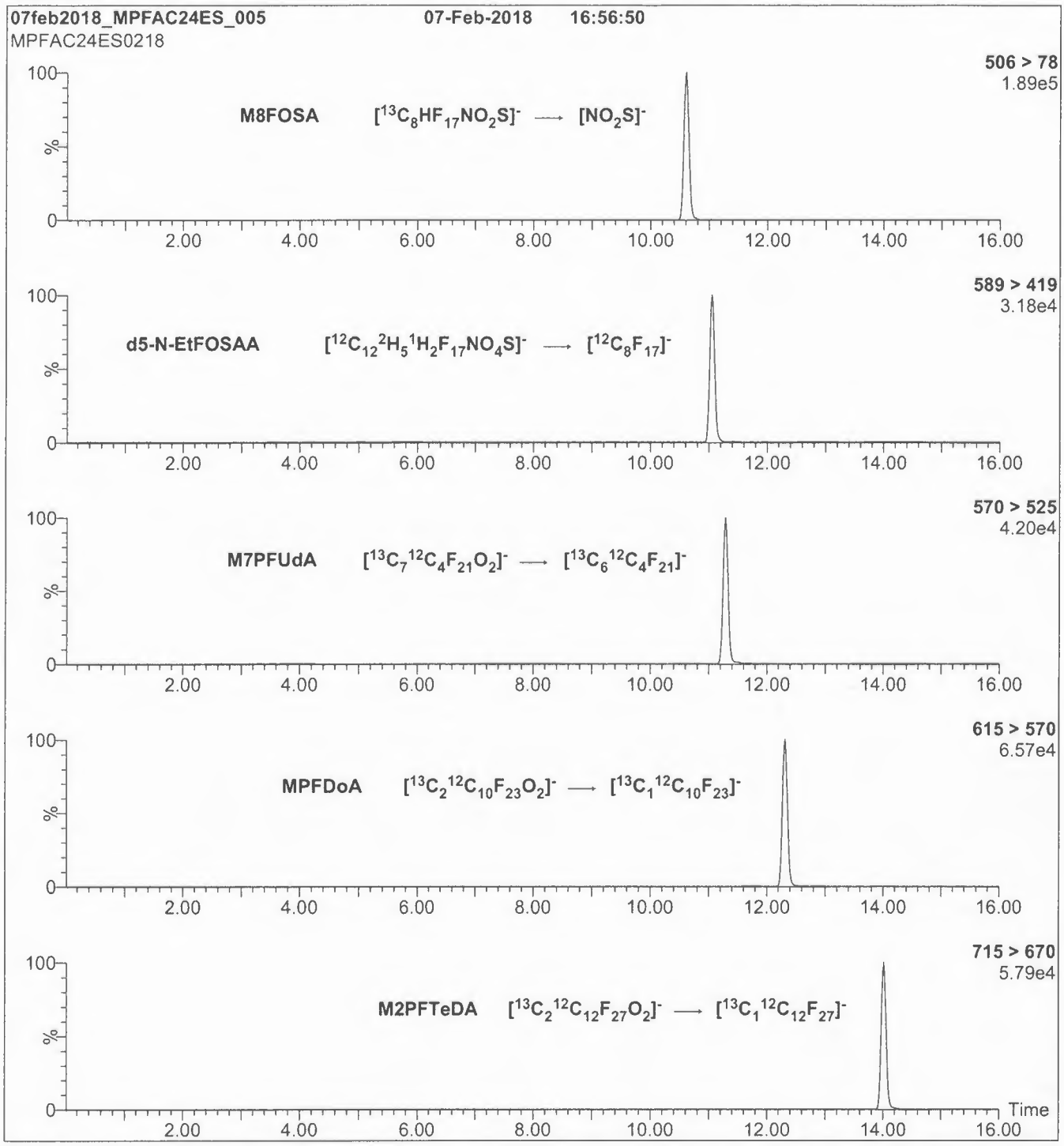


Figure 2: **MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFAC-24ES)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3

Collision Energy (eV) = 8-40 (variable)

BATTELLE
It can be done

BDO Id: 181001-01

Reagent Receipt Report

Approved: ☐ **Authorized** ☐

Name: PFOA - 2nd source
Vendor: ABSOLUTE STANDARDS
Catalogue No: 99207
Type: Solution
Lot No: 092018
Quantity: 2 ea mL **% Moisture:**
Description: PFOA - 2nd source

Received: 10/1/2018
Custodian: Schumitz, Matt
Expires: 9/20/2023
Consumed:
Stored In: Sample Preparation - F0035

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
(Na) 1H,1H,2H,2H-Perfluorodecane	39108-34-4	1.0100	100.00	--	--	☐			
(Na) 1H,1H,2H,2H-Perfluorohexane	414911-30-1	1.0000	100.00	--	--	☐			
(Na) 1H,1H,2H,2H-Perfluorooctane s	27619-97-2	1.0000	100.00	--	--	☐			
(Na) Perfluoro-1-decanesulfonate	2806-15-7	1.0100	100.00	--	--	☐			
(NA) Perfluoro-1-heptanesulfonate	375-92-8	1.0000	100.00	--	--	☐			
(Na) Perfluoro-1-nonanesulfonate	98789-57-2	1.0100	100.00	--	--	☐			
N-ethylperfluoro-octanesulfonamidoa	2991-50-6	1.0000	100.00	--	--	☐			
N-methylperfluoro-1-octanesulfonami	2355-31-9	1.0000	100.00	--	--	☐			
Perfluoro-1-butanesulfonate	375-73-5	1.0100	100.00	--	--	☐			
Perfluoro-1-hexanesulfonate	355-46-4	1.0100	100.00	--	--	☐			1
Perfluoro-1-octanesulfonamide	754-91-6	1.0000	100.00	--	--	☐			
Perfluoro-1-octanesulfonate	1763-23-1	1.0000	100.00	--	--	☐			
Perfluoro-n-butanoic Acid	375-22-4	1.0000	100.00	--	--	☐			
Perfluoro-n-decanoic Acid	335-76-2	1.0000	100.00	--	--	☐			
Perfluoro-n-dodecanoic acid	307-55-1	1.0000	100.00	--	--	☐			
Perfluoro-n-heptanoic Acid	375-85-9	1.0000	100.00	--	--	☐			
Perfluoro-n-hexanoic acid	307-24-4	1.0100	100.00	--	--	☐			
Perfluoro-n-octanoic Acid	335-67-1	1.0000	100.00	--	--	☐			
Perfluorononanoic Acid	375-95-1	1.0000	100.00	--	--	☐			
Perfluoro-n-pentanoic acid	2706-90-3	1.0100	100.00	--	--	☐			
Perfluoro-n-tetradecanoic acid	376-06-7	1.0000	100.00	--	--	☐			
Perfluoro-n-tridecanoic acid	72629-94-8	1.0000	100.00	--	--	☐			
Perfluoro-n-undecanoic acid	2058-94-8	1.0000	100.00	--	--	☐			
Sodium perfluoro-1-pentanesulfonate	2706-91-4	1.0000	100.00	--	--	☐			2

Total Analytes: 24

Notes:

	Analyte:	Comment:
1	Perfluoro-1-hexanesulfonate	17 on C of A
2	Sodium perfluoro-1-pentanesulfonate	16 on C of A

Approved by: _____ **Approved on:** _____

Authorized by: _____ **Authorized on:** _____

181001-01

2nd Source

CERTIFIED WEIGHT REPORT

Part Number: 99207
Lot Number: 092018
Description: PFOA - DOD
24 components
Expiration Date: 092023
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 1.0
NIST Test ID#: 2684186

Solvent(s):	Lot#	
Methanol (1 mM KOH)	061918	(98%)
2-Propanol	23214	(2%)

5E-05 Balance Uncertainty
0.007 Flask Uncertainty

Volume(s) shown below were combined and diluted to (mL): 50.0

Eli Aliaga 092018
Formulated By: Eli Aliaga DATE

Pedro Rentas 092018
Reviewed By: Pedro L. Rentas DATE

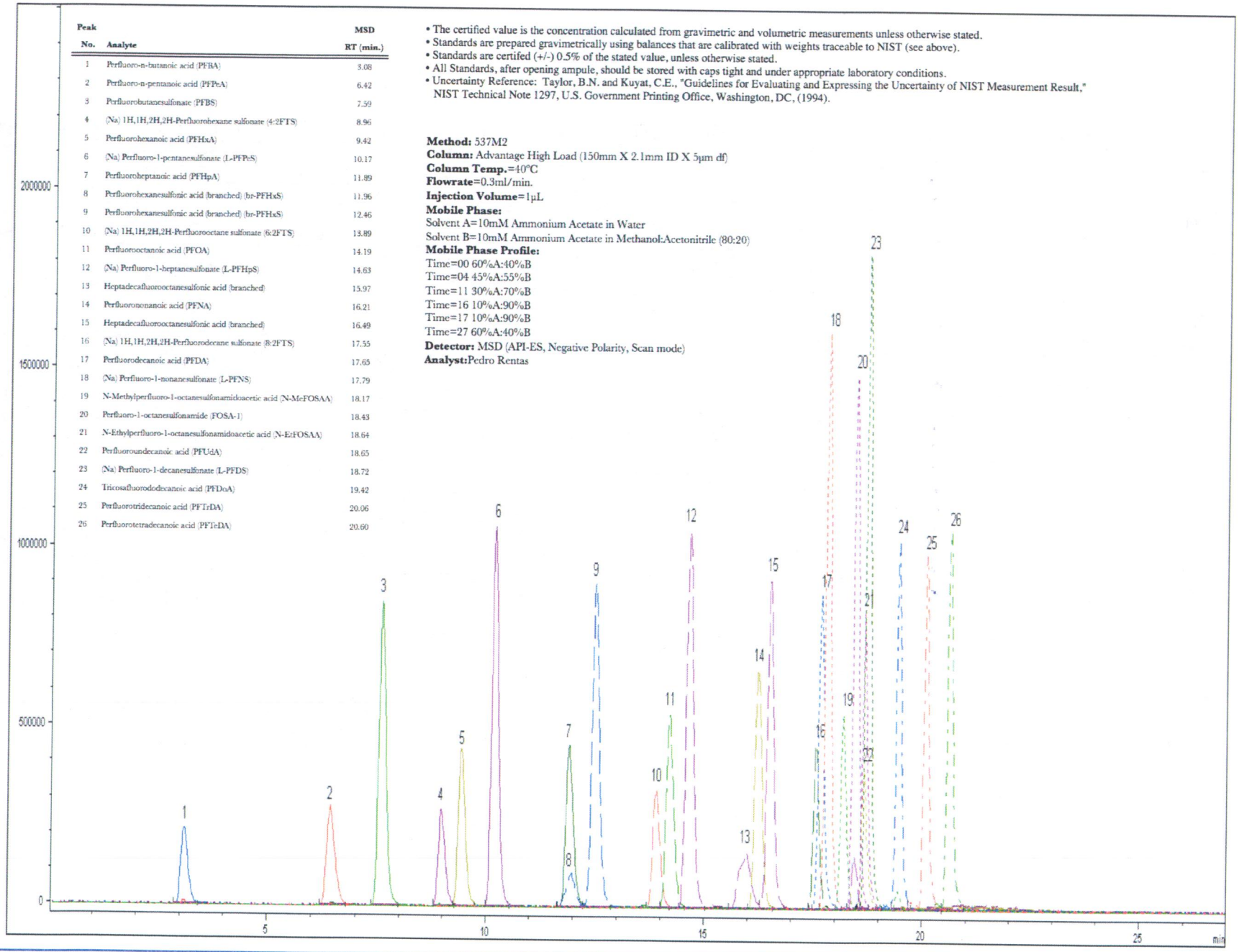
Note: All assigned values are anion concentrations.

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Perfluoro-n-butanoic acid (linear)	99542	110317	0.02	1.00	0.004	50.2	1.00	0.01	375-22-4	N/A	N/A
2.	Perfluoro-n-pentanoic acid	99543	110317	0.02	1.00	0.004	50.7	1.01	0.01	2706-90-3	N/A	N/A
3.	Perfluorohexanoic acid	99199	030617	0.02	1.00	0.004	50.3	1.01	0.01	307-24-4	N/A	N/A
4.	Perfluoroheptanoic acid	99197	030517	0.02	1.00	0.004	50.1	1.00	0.01	375-85-9	N/A	N/A
5.	Perfluorooctanoic acid	99202	030617	0.02	1.00	0.004	50.2	1.00	0.01	335-67-1	N/A	ipr-rat 189mg/kg
6.	Perfluorononanoic acid	99200	030617	0.02	1.00	0.004	50.1	1.00	0.01	375-95-1	N/A	N/A
7.	Perfluorodecanoic acid	99195	030617	0.02	1.00	0.004	50.1	1.00	0.01	335-76-2	N/A	orl-rat 57mg/kg
8.	Perfluoroundecanoic acid	99205	030617	0.02	1.00	0.004	50.1	1.00	0.01	2058-94-8	N/A	N/A
9.	Tricosafluorododecanoic acid	99196	030617	0.02	1.00	0.004	50.1	1.00	0.01	307-55-1	N/A	N/A
10.	Perfluorotridecanoic acid	99204	030617	0.02	1.00	0.004	50.1	1.00	0.01	72629-94-8	N/A	N/A
11.	Perfluorotetradecanoic acid	99203	030617	0.02	1.00	0.004	50.1	1.00	0.01	376-06-7	N/A	N/A
12.	Perfluoro-1-octanesulfonamide	3677	FOSA0618I	0.02	1.00	0.004	50.0	1.00	0.01	754-91-6	N/A	N/A
13.	N-Methylperfluoro-1-octanesulfonamidoacetic acid	3667	NMeFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2355-31-9	N/A	N/A
14.	N-Ethylperfluoro-1-octanesulfonamidoacetic acid	3664	NEtFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2991-50-6	N/A	N/A
15.	Perfluorobutanesulfonic acid	99194	031017	0.02	1.00	0.004	50.7	1.01	0.01	375-73-5	N/A	N/A
•16.	Perfluoro-1-pentanesulfonate	99544	111017	0.02	0.98	0.004	51.3	1.00	0.01	630402-22-1	N/A	N/A
•17.	Perfluorohexanesulfonic acid (branched)	99198	030617	0.02	1.00	0.004	50.6	1.01	0.01	3871-99-6	N/A	N/A
18.	Perfluoro-1-heptanesulfonic acid	3672	LPFHpS0817	0.021	1.05	0.004	47.6	1.00	0.01	375-92-8	N/A	N/A
19.	Heptadecafluorooctanesulfonic acid (branched)	99201	030617	0.02	1.00	0.004	50.2	1.00	0.01	1763-23-1	N/A	N/A
20.	Perfluoro-1-nonanesulfonic acid	3957	LPFNS0718	0.021	1.05	0.004	48.0	1.01	0.01	98789-57-2	N/A	N/A
21.	Perfluoro-1-decanesulfonic acid	3671	LPFDS1117	0.021	1.05	0.004	48.2	1.01	0.01	2806-15-7	N/A	N/A
22.	1H,1H,2H,2H-Perfluorohexane sulfonic acid	3955	42FTS1216	0.0214	1.07	0.004	46.7	1.00	0.01	00-00-0	N/A	N/A
23.	1H,1H,2H,2H-Perfluorooctane sulfonic acid	3661	62FTS0616	0.021	1.05	0.004	47.4	1.00	0.01	27619-97-2	N/A	N/A
24.	1H,1H,2H,2H-Perfluorodecane sulfonic acid	3662	82FTS1216	0.021	1.05	0.004	47.9	1.01	0.01	39108-34-4	N/A	N/A

Peak No.	Analyte	MSD RT (min.)
1	Perfluoro-n-butanoic acid (PFBA)	3.08
2	Perfluoro-n-pentanoic acid (PFPeA)	6.42
3	Perfluorobutanesulfonate (PFBS)	7.59
4	(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate (4:2FTS)	8.96
5	Perfluorohexanoic acid (PFHxA)	9.42
6	(Na) Perfluoro-1-pentanesulfonate (L-PFPeS)	10.17
7	Perfluoroheptanoic acid (PFHpA)	11.89
8	Perfluorohexanesulfonic acid (branched) (br-PFHxS)	11.96
9	Perfluorohexanesulfonic acid (branched) (br-PFHxS)	12.46
10	(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate (6:2FTS)	13.89
11	Perfluorooctanoic acid (PFOA)	14.19
12	(Na) Perfluoro-1-heptanesulfonate (L-PFHpS)	14.63
13	Heptadecafluorooctanesulfonic acid (branched)	15.97
14	Perfluorononanoic acid (PFNA)	16.21
15	Heptadecafluorooctanesulfonic acid (branched)	16.49
16	(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2FTS)	17.55
17	Perfluorodecanoic acid (PFDA)	17.65
18	(Na) Perfluoro-1-nonanesulfonate (L-PFNS)	17.79
19	N-Methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	18.17
20	Perfluoro-1-octanesulfonamide (FOSA-1)	18.43
21	N-Ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	18.64
22	Perfluoroundecanoic acid (PFUdA)	18.65
23	(Na) Perfluoro-1-decanesulfonate (L-PFDS)	18.72
24	Tricosafluorododecanoic acid (PFDoA)	19.42
25	Perfluorotridecanoic acid (PFTrDA)	20.06
26	Perfluorotetradecanoic acid (PFTeDA)	20.60

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Method: 537M2
Column: Advantage High Load (150mm X 2.1mm ID X 5µm df)
Column Temp.=40°C
Flowrate=0.3ml/min.
Injection Volume=1µL
Mobile Phase:
Solvent A=10mM Ammonium Acetate in Water
Solvent B=10mM Ammonium Acetate in Methanol:Acetonitrile (80:20)
Mobile Phase Profile:
Time=00 60%A:40%B
Time=04 45%A:55%B
Time=11 30%A:70%B
Time=16 10%A:90%B
Time=17 10%A:90%B
Time=27 60%A:40%B
Detector: MSD (API-ES, Negative Polarity, Scan mode)
Analyst: Pedro Rentas



Sample Preparation

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE PREPARATION RECORDS

Project Title(s)	**Project No.(s)**
CTO-4164 Naval Base Ventura County, California	100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

SOP Numbers (see workplan for modifications)

ExtractionSOP No. 5-370

This Batch Contains The Following Samples:			
CR890PB-FS	J8370-FS	J8385-FS	J8400-FS
CR891LCS-FS	J8371-FS	J8395-FS	
J8358-FS	J8372-FS	J8396-FS	
J8359-FS	J8382-FS	J8397-FS	
J8368-FS	J8383-FS	J8398-FS	
J8369-FS	J8384-FS	J8399-FS	

Laboratory Preparation Records

COMPLETE AND VALIDATED

Prep Task Leader: Stephanie Schultz

Approved By:	Date	Initials
Denise Schumitz	10/24/2018	DMS

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE IDENTIFICATION PAGE

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Sample ID	Description
CR890PB-FS	Procedural Blank
CR891LCS-FS	Laboratory Control Sample
J8358-FS	VC-PM323-DW01-0918
J8359-FS	VC-PM323-DW03-0918
J8368-FS	VC-SO-FB05-092418
J8369-FS	VC-SO-EB05-092418
J8370-FS	VC-PM324-DW01-0918
J8371-FS	VC-PM324-DW01P-0918
J8372-FS	VC-PM324-DW03-0918
J8382-FS	VC-PM64B-DW01-0918
J8383-FS	VC-PM64B-DW02-0918
J8384-FS	VC-PM64B-DW03-0918
J8385-FS	VC-PM64B-DW03P-0918
J8395-FS	VC-HS09-DW01-0918
J8396-FS	VC-HS09-DW02-0918
J8397-FS	VC-HS09-DW03-0918
J8398-FS	VC-AQ-FB-092518
J8399-FS	VC-AQ-EB-092518
J8400-FS	VC-HS09-DW03P-0918

Samples Assigned By: Jonathan Thorn Date : September 27, 2018

Comments:

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE CUSTODY LOG

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Requested On/By:	10/01/2018 SAS	**Purpose:**	Sample Preparation
Relinquished On/By:	10/01/2018 MDS	**Last Activity:**	Transfer

Accepted On/By:	10/22/2018 SAS	**Returned On/To:**	
Stored In Facility:	Sample Preparation	**Returned To Facility:**	
Stored Until	10/01/2018		
Stored Comment:	Samples inadvertently not requested on day of extraction	**Returned Comment:**	NA

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	J8358	1	--	Intact	NA
2	J8359	1	--	Intact	NA
3	J8368	1	C	Consumed	NA
4	J8369	1	C	Consumed	NA
5	J8370	1	--	Intact	NA
6	J8371	1	--	Intact	NA
7	J8372	1	--	Intact	NA
8	J8382	1	C	Consumed	NA
9	J8383	1	--	Intact	NA
10	J8384	1	--	Intact	NA
11	J8385	1	--	Intact	NA
12	J8395	1	C	Consumed	NA
13	J8396	1	C	Consumed	NA
14	J8397	1	C	Consumed	NA
15	J8398	1	C	Consumed	NA
16	J8399	1	C	Consumed	NA
17	J8400	1	C	Consumed	NA

Total Samples 17 * "C" = Consumed Container

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
LIQUID SAMPLE ID FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Sample ID	Description	Volume (mL)	Bottles	*	Date Initials
CR890PB-FS	Procedural Blank	250.0	NA	--	10/01/18 LMG
CR891LCS-FS	Laboratory Control Sample	250.0	NA	--	10/01/18 LMG
J8358-FS	VC-PM323-DW01-0918	2.0	1	--	10/01/18 SAS
J8359-FS	VC-PM323-DW03-0918	105.0	1	--	10/02/18 LMG
J8368-FS	VC-SO-FB05-092418	275.0	1	C	10/02/18 LMG
J8369-FS	VC-SO-EB05-092418	295.0	1	C	10/02/18 LMG
J8370-FS	VC-PM324-DW01-0918	26.0	1	--	10/02/18 LMG
J8371-FS	VC-PM324-DW01P-0918	26.0	1	--	10/02/18 LMG
J8372-FS	VC-PM324-DW03-0918	105.0	1	--	10/02/18 LMG
J8382-FS	VC-PM64B-DW01-0918	265.0	1	C	10/02/18 LMG
J8383-FS	VC-PM64B-DW02-0918	105.0	1	--	10/02/18 LMG
J8384-FS	VC-PM64B-DW03-0918	105.0	1	--	10/02/18 LMG
J8385-FS	VC-PM64B-DW03P-0918	100.0	1	--	10/02/18 LMG
J8395-FS	VC-HS09-DW01-0918	275.0	1	C	10/02/18 LMG
J8396-FS	VC-HS09-DW02-0918	245.0	1	C	10/02/18 LMG
J8397-FS	VC-HS09-DW03-0918	290.0	1	C	10/02/18 LMG
J8398-FS	VC-AQ-FB-092518	285.0	1	C	10/02/18 LMG
J8399-FS	VC-AQ-EB-092518	285.0	1	C	10/02/18 LMG
J8400-FS	VC-HS09-DW03P-0918	275.0	1	C	10/02/18 LMG

Comments:

Samples Assigned By Jonathan Thorn Date : September 27, 2018

* - "C" = Sample is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SURROGATE SPIKE FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
CR890PB-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
CR891LCS-FS	JZ88	LCS/MS	1	150	10/01/18 SAS	LMG	NA
CR891LCS-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8358-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8359-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8368-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8369-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8370-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8371-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8372-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8382-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8383-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8384-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8385-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8395-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8396-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8397-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8398-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8399-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA
J8400-FS	KB33	SIS	1	50	10/01/18 SAS	LMG	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
JZ88	Pipette	B814657482
KB33	Pipette	B814659662

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE EXTRACTION FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Sample ID	1st Extraction	2nd Extraction	3rd Extraction	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comment
CR890PB-FS	10/01/18 LMG	NA	NA	NA	NA	NA	NA	NA
CR891LCS-FS	10/01/18 LMG	NA	NA	NA	NA	NA	NA	NA
J8358-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8359-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8368-FS	10/01/18 LMG	NA	NA	NA	NA	NA	NA	NA
J8369-FS	10/01/18 LMG	NA	NA	NA	NA	NA	NA	NA
J8370-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8371-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8372-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8382-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8383-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8384-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8385-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8395-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8396-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8397-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA
J8398-FS	10/01/18 LMG	NA	NA	NA	NA	NA	NA	NA
J8399-FS	10/01/18 LMG	NA	NA	NA	NA	NA	NA	NA
J8400-FS	10/01/18 SAS	NA	NA	NA	NA	NA	NA	NA

Solvents/Reagent Preparations:

Name	ID	Expires	Lot No	Procedure	Comments
0.4% NH3 in Methanol	RP-181001-3	10/01/18	SHBJ0412	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	
0.4% NH3 in Methanol	RP-181001-3	10/01/18	182674	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	
Pre-packed SPE Column	RP-181001-4	10/02/18	003537250A/ 0035	Pre-packed SPE Column	

Solvents/Reagents:

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
INTERNAL STANDARD SPIKING FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
CR890PB-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
CR891LCS-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8358-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8358-FS-D(3)	955	45	KC03	50	1	1000	10.000	10/12/18 SAS	KB
J8358-FS-D(5)	952	48	KC03	50	1	1000	25.000	10/12/18 SAS	KB
J8358-FS-D(7)	955	45	KC03	50	1	1000	250.000	10/12/18 SAS	KB
J8359-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8359-FS-D(3)	955	45	KC03	50	1	1000	10.000	10/12/18 SAS	KB
J8359-FS-D(5)	951	49	KC03	50	1	1000	50.000	10/12/18 SAS	KB
J8359-FS-D(7)	960	40	KC03	50	1	1000	250.000	10/15/18 DMS	KB
J8368-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8369-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8369-FS-D(3)	952	48	KC03	50	1	1000	25.000	10/15/18 DMS	KB
J8370-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8370-FS-D(3)	952	48	KC03	50	1	1000	25.000	10/12/18 SAS	KB
J8370-FS-D(5)	975	25	KC03	50	1	1000	50.000	10/12/18 SAS	KB
J8370-FS-D(7)	960	40	KC03	50	1	1000	250.000	10/12/18 SAS	KB
J8371-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8371-FS-D(3)	951	49	KC03	50	1	1000	50.000	10/12/18 SAS	KB

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
INTERNAL STANDARD SPIKING FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
J8371-FS-D(5)	975	25	KC03	50	1	1000	100.000	10/12/18 SAS	KB
J8371-FS-D(7)	975	25	KC03	50	1	1000	200.000	10/12/18 SAS	KB
J8371-FS-D(9)	955	45	KC03	50	1	1000	10.000	10/19/18 SAS	KB
J8372-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8372-FS-D(3)	955	45	KC03	50	1	1000	10.000	10/12/18 SAS	KB
J8372-FS-D(5)	952	48	KC03	50	1	1000	25.000	10/12/18 SAS	KB
J8372-FS-D(7)	970	30	KC03	50	1	1000	62.500	10/12/18 SAS	KB
J8382-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8382-FS-D(3)	953	47	KC03	50	1	1000	16.667	10/12/18 SAS	KB
J8383-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8383-FS-D(3)	955	45	KC03	50	1	1000	10.000	10/12/18 SAS	KB
J8383-FS-D(5)	951	49	KC03	50	1	1000	50.000	10/12/18 SAS	KB
J8383-FS-D(7)	970	30	KC03	50	1	1000	125.000	10/12/18 SAS	KB
J8384-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8384-FS-D(3)	955	45	KC03	50	1	1000	10.000	10/12/18 SAS	KB
J8384-FS-D(5)	952	48	KC03	50	1	1000	25.000	10/12/18 SAS	KB
J8384-FS-D(7)	965	35	KC03	50	1	1000	83.333	10/12/18 SAS	KB
J8384-FS-D(9)	965	35	KC03	50	1	1000	277.778	10/12/18 SAS	KB
J8385-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
INTERNAL STANDARD SPIKING FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
J8385-FS-D(3)	955	45	KC03	50	1	1000	10.000	10/12/18 SAS	KB
J8385-FS-D(5)	952	48	KC03	50	1	1000	25.000	10/12/18 SAS	KB
J8385-FS-D(7)	965	35	KC03	50	1	1000	83.333	10/12/18 SAS	KB
J8385-FS-D(9)	970	30	KC03	50	1	1000	208.333	10/12/18 SAS	KB
J8395-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8395-FS-D(3)	955	45	KC03	50	1	1000	10.000	10/12/18 SAS	KB
J8395-FS-D(5)	960	40	KC03	50	1	1000	50.000	10/15/18 DMS	KB
J8396-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8396-FS-D(3)	955	45	KC03	50	1	1000	10.000	10/12/18 SAS	KB
J8397-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8397-FS-D(3)	955	45	KC03	50	1	1000	10.000	10/12/18 SAS	KB
J8398-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8399-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8400-FS(0)	950	50	KC03	50	1	1000	1.000	10/10/18 SAS	DMS
J8400-FS-D(3)	955	45	KC03	50	1	1000	10.000	10/12/18 SAS	KB
J8400-FS-D(5)	952	48	KC03	50	1	1000	25.000	10/12/18 SAS	KB
J8400-FS-D(7)	952	48	KC03	50	1	1000	625.000	10/15/18 DMS	KB
J8400-FS-D(9)	953	47	KC03	50	1	1000	166.667	10/22/18 SAS	KB

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
INTERNAL STANDARD SPIKING FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KB72	Pipette	B814659662
KC03	Pipette	B814659662
KC19	Pipette	B814659662

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT SPIKE FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Extract Id	DF	Std. ID	Type	Vial No.	Vol. Added (uL)	Conc (ug/mL)	Added (ng)	Date Spiked/ Spiked By	Witn'd By
J8358-FS-D(3)	10	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8358-FS-D(5)	25	KB72	SIS	1	48	0	0	10/12/18 SAS	KB
J8358-FS-D(7)	250	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8359-FS-D(3)	10	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8359-FS-D(5)	50	KB72	SIS	1	49	0	0	10/12/18 SAS	KB
J8359-FS-D(7)	250	KB72	SIS	1	40	0	0	10/12/18 SAS	KB
J8369-FS-D(3)	25	KB72	SIS	1	48	0	0	10/15/18 DMS	KB
J8370-FS-D(3)	25	KB72	SIS	1	48	0	0	10/12/18 SAS	KB
J8370-FS-D(5)	50	KB72	SIS	1	25	0	0	10/12/18 SAS	KB
J8370-FS-D(7)	250	KB72	SIS	1	40	0	0	10/12/18 SAS	KB
J8371-FS-D(3)	50	KB72	SIS	1	49	0	0	10/12/18 SAS	KB
J8371-FS-D(5)	100	KB72	SIS	1	25	0	0	10/12/18 SAS	KB
J8371-FS-D(7)	200	KB72	SIS	1	25	0	0	10/12/18 SAS	KB
J8371-FS-D(9)	10	KC19	SIS	1	45	0	0	10/19/18 SAS	KB
J8372-FS-D(3)	10	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8372-FS-D(5)	25	KB72	SIS	1	48	0	0	10/12/18 SAS	KB
J8372-FS-D(7)	62.5	KB72	SIS	1	30	0	0	10/12/18 SAS	KB
J8382-FS-D(3)	16.667	KB72	SIS	1	47	0	0	10/12/18 SAS	KB
J8383-FS-D(3)	10	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8383-FS-D(5)	50	KB72	SIS	1	49	0	0	10/12/18 SAS	KB
J8383-FS-D(7)	125	KB72	SIS	1	30	0	0	10/12/18 SAS	KB
J8384-FS-D(3)	10	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8384-FS-D(5)	25	KB72	SIS	1	48	0	0	10/12/18 SAS	KB
J8384-FS-D(7)	83.333	KB72	SIS	1	35	0	0	10/12/18 SAS	KB
J8384-FS-D(9)	277.778	KB72	SIS	1	35	0	0	10/12/18 SAS	KB

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT SPIKE FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Extract Id	DF	Std. ID	Type	Vial No.	Vol. Added (uL)	Conc (ug/mL)	Added (ng)	Date Spiked/ Spiked By	Witn'd By
J8385-FS-D(3)	10	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8385-FS-D(5)	25	KB72	SIS	1	48	0	0	10/12/18 SAS	KB
J8385-FS-D(7)	83.333	KB72	SIS	1	35	0	0	10/12/18 SAS	KB
J8385-FS-D(9)	208.333	KB72	SIS	1	30	0	0	10/12/18 SAS	KB
J8395-FS-D(3)	10	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8395-FS-D(5)	50	KB72	SIS	1	40	0	0	10/15/18 SAS	KB
J8396-FS-D(3)	10	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8397-FS-D(3)	10	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8400-FS-D(3)	10	KB72	SIS	1	45	0	0	10/12/18 SAS	KB
J8400-FS-D(5)	25	KB72	SIS	1	48	0	0	10/12/18 SAS	KB
J8400-FS-D(7)	625	KB72	SIS	1	48	0	0	10/15/18 DMS	KB
J8400-FS-D(9)	166.667	KC19	SIS	1	47	0	0	10/19/18 SAS	KB

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KB72	Pipette	B814659662
KC03	Pipette	B814659662
KC19	Pipette	B814659662

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CR890PB-FS	0	--	10/1/2018 2:17:00 PM	NA		NA	NA	1.000	1.000	10/01/18 LMG
CR891LCS-FS	0	--	10/1/2018 2:17:00 PM	NA		NA	NA	1.000	1.000	10/01/18 LMG
J8358-FS	0	C	10/1/2018 4:20:00 PM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8358-FS	2	C	10/11/2018 9:16:00 AM	J8358-FS	0	1000	900	1.111	1.111	10/11/18 SAS
J8358-FS-D	3	--	10/11/2018 9:16:00 AM	J8358-FS	0	1000	100	10.000	10.000	10/11/18 SAS
J8358-FS	4	--	10/11/2018 9:25:00 AM	J8358-FS	2	900	860	1.047	1.163	10/11/18 SAS
J8358-FS-D	5	C	10/11/2018 9:25:00 AM	J8358-FS	2	900	40	22.500	25.000	10/11/18 SAS
J8358-FS-D	6	--	10/11/2018 9:26:00 AM	J8358-FS-D	5	1000	900	1.111	27.778	10/11/18 SAS
J8358-FS-D	7	--	10/11/2018 9:26:00 AM	J8358-FS-D	5	1000	100	10.000	250.000	10/11/18 SAS
J8359-FS	0	C	10/1/2018 2:20:00 AM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8359-FS	2	C	10/11/2018 9:32:00 AM	J8359-FS	0	1000	900	1.111	1.111	10/11/18 SAS
J8359-FS-D	3	--	10/11/2018 9:32:00 AM	J8359-FS	0	1000	100	10.000	10.000	10/11/18 SAS
J8359-FS	4	--	10/11/2018 9:33:00 AM	J8359-FS	2	900	880	1.023	1.136	10/11/18 SAS
J8359-FS-D	5	C	10/11/2018 9:33:00 AM	J8359-FS	2	900	20	45.000	50.000	10/11/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8359-FS-D	6	--	10/11/2018 9:34:00 AM	J8359-FS-D	5	1000	800	1.250	62.500	10/11/18 SAS
J8359-FS-D	7	--	10/11/2018 9:34:00 AM	J8359-FS-D	5	1000	200	5.000	250.000	10/11/18 SAS
J8368-FS	0	--	10/1/2018 2:17:00 PM	NA		NA	NA	1.000	1.000	10/01/18 LMG
J8369-FS	0	C	10/1/2018 2:17:00 PM	NA		NA	NA	1.000	1.000	10/01/18 LMG
J8369-FS	2	--	10/15/2018 3:55:00 PM	J8369-FS	0	1000	960	1.042	1.042	10/15/18 DMS
J8369-FS-D	3	--	10/15/2018 3:55:00 PM	J8369-FS	0	1000	40	25.000	25.000	10/15/18 DMS
J8370-FS	0	C	10/1/2018 2:20:00 AM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8370-FS	2	--	10/11/2018 9:35:00 AM	J8370-FS	0	1000	960	1.042	1.042	10/11/18 SAS
J8370-FS-D	3	C	10/11/2018 9:35:00 AM	J8370-FS	0	1000	40	25.000	25.000	10/11/18 SAS
J8370-FS-D	4	--	10/11/2018 9:41:00 AM	J8370-FS-D	3	1000	500	2.000	50.000	10/11/18 SAS
J8370-FS-D	5	C	10/11/2018 9:41:00 AM	J8370-FS-D	3	1000	500	2.000	50.000	10/11/18 SAS
J8370-FS-D	6	--	10/11/2018 9:42:00 AM	J8370-FS-D	5	1000	800	1.250	62.500	10/11/18 SAS
J8370-FS-D	7	--	10/11/2018 9:42:00 AM	J8370-FS-D	5	1000	200	5.000	250.000	10/11/18 SAS
J8371-FS	0	C	10/1/2018 2:20:00 AM	NA		NA	NA	1.000	1.000	10/01/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8371-FS	2	C	10/11/2018 9:43:00 AM	J8371-FS	0	1000	980	1.020	1.020	10/11/18 SAS
J8371-FS-D	3	C	10/11/2018 9:43:00 AM	J8371-FS	0	1000	20	50.000	50.000	10/11/18 SAS
J8371-FS-D	4	--	10/11/2018 9:45:00 AM	J8371-FS-D	3	1000	500	2.000	100.000	10/11/18 SAS
J8371-FS-D	5	C	10/11/2018 9:45:00 AM	J8371-FS-D	3	1000	500	2.000	100.000	10/11/18 SAS
J8371-FS-D	6	--	10/11/2018 9:46:00 AM	J8371-FS-D	5	1000	500	2.000	200.000	10/11/18 SAS
J8371-FS-D	7	--	10/11/2018 9:46:00 AM	J8371-FS-D	5	1000	500	2.000	200.000	10/11/18 SAS
J8371-FS	8	--	10/19/2018 2:56:00 PM	J8371-FS	2	980	880	1.114	1.136	10/19/18 SAS
J8371-FS-D	9	--	10/19/2018 2:56:00 PM	J8371-FS	2	980	100	9.800	10.000	10/19/18 SAS
J8372-FS	0	C	10/1/2018 2:20:00 AM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8372-FS	2	C	10/11/2018 9:47:00 AM	J8372-FS	0	1000	900	1.111	1.111	10/11/18 SAS
J8372-FS-D	3	--	10/11/2018 9:47:00 AM	J8372-FS	0	1000	100	10.000	10.000	10/11/18 SAS
J8372-FS	4	--	10/11/2018 9:52:00 AM	J8372-FS	2	900	860	1.047	1.163	10/11/18 SAS
J8372-FS-D	5	C	10/11/2018 9:52:00 AM	J8372-FS	2	900	40	22.500	25.000	10/11/18 SAS
J8372-FS-D	6	--	10/11/2018 9:56:00 AM	J8372-FS-D	5	1000	600	1.667	41.667	10/11/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8372-FS-D	7	--	10/11/2018 9:56:00 AM	J8372-FS-D	5	1000	400	2.500	62.500	10/11/18 SAS
J8382-FS	0	C	10/1/2018 2:18:00 PM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8382-FS	2	--	10/11/2018 9:57:00 AM	J8382-FS	0	1000	940	1.064	1.064	10/11/18 SAS
J8382-FS-D	3	--	10/11/2018 9:57:00 AM	J8382-FS	0	1000	60	16.667	16.667	10/11/18 SAS
J8383-FS	0	C	10/1/2018 2:20:00 AM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8383-FS	2	C	10/11/2018 10:01:00 AM	J8383-FS	0	1000	900	1.111	1.111	10/11/18 SAS
J8383-FS-D	3	--	10/11/2018 10:01:00 AM	J8383-FS	0	1000	100	10.000	10.000	10/11/18 SAS
J8383-FS	4	--	10/11/2018 10:02:00 AM	J8383-FS	2	900	880	1.023	1.136	10/11/18 SAS
J8383-FS-D	5	C	10/11/2018 10:02:00 AM	J8383-FS	2	900	20	45.000	50.000	10/11/18 SAS
J8383-FS-D	6	--	10/11/2018 10:17:00 AM	J8383-FS-D	5	1000	600	1.667	83.333	10/11/18 SAS
J8383-FS-D	7	--	10/11/2018 10:17:00 AM	J8383-FS-D	5	1000	400	2.500	125.000	10/11/18 SAS
J8384-FS	0	C	10/1/2018 2:20:00 AM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8384-FS	2	C	10/11/2018 10:21:00 AM	J8384-FS	0	1000	900	1.111	1.111	10/11/18 SAS
J8384-FS-D	3	--	10/11/2018 10:21:00 AM	J8384-FS	0	1000	100	10.000	10.000	10/11/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8384-FS	4	--	10/11/2018 10:34:00 AM	J8384-FS	2	900	860	1.047	1.163	10/11/18 SAS
J8384-FS-D	5	C	10/11/2018 10:34:00 AM	J8384-FS	2	900	40	22.500	25.000	10/11/18 SAS
J8384-FS-D	6	--	10/11/2018 10:36:00 AM	J8384-FS-D	5	1000	700	1.429	35.714	10/11/18 SAS
J8384-FS-D	7	C	10/11/2018 10:36:00 AM	J8384-FS-D	5	1000	300	3.333	83.333	10/11/18 SAS
J8384-FS-D	8	--	10/11/2018 10:37:00 AM	J8384-FS-D	7	1000	700	1.429	119.048	10/11/18 SAS
J8384-FS-D	9	--	10/11/2018 10:37:00 AM	J8384-FS-D	7	1000	300	3.333	277.778	10/11/18 SAS
J8385-FS	0	C	10/1/2018 2:20:00 AM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8385-FS	2	C	10/11/2018 10:39:00 AM	J8385-FS	0	1000	900	1.111	1.111	10/11/18 SAS
J8385-FS-D	3	--	10/11/2018 10:39:00 AM	J8385-FS	0	1000	100	10.000	10.000	10/11/18 SAS
J8385-FS	4	--	10/11/2018 10:40:00 AM	J8385-FS	2	900	860	1.047	1.163	10/11/18 SAS
J8385-FS-D	5	C	10/11/2018 10:40:00 AM	J8385-FS	2	900	40	22.500	25.000	10/11/18 SAS
J8385-FS-D	6	--	10/11/2018 10:41:00 AM	J8385-FS-D	5	1000	700	1.429	35.714	10/11/18 SAS
J8385-FS-D	7	C	10/11/2018 10:41:00 AM	J8385-FS-D	5	1000	300	3.333	83.333	10/11/18 SAS
J8385-FS-D	8	--	10/11/2018 10:42:00 AM	J8385-FS-D	7	1000	600	1.667	138.889	10/11/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8385-FS-D	9	--	10/11/2018 10:42:00 AM	J8385-FS-D	7	1000	400	2.500	208.333	10/11/18 SAS
J8395-FS	0	C	10/1/2018 2:18:00 PM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8395-FS	2	--	10/11/2018 10:43:00 AM	J8395-FS	0	1000	900	1.111	1.111	10/11/18 SAS
J8395-FS-D	3	C	10/11/2018 10:43:00 AM	J8395-FS	0	1000	100	10.000	10.000	10/11/18 SAS
J8395-FS-D	4	--	10/15/2018 3:56:00 PM	J8395-FS-D	3	1000	800	1.250	12.500	10/15/18 DMS
J8395-FS-D	5	--	10/15/2018 3:56:00 PM	J8395-FS-D	3	1000	200	5.000	50.000	10/15/18 DMS
J8396-FS	0	C	10/1/2018 2:18:00 PM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8396-FS	2	--	10/11/2018 10:43:00 AM	J8396-FS	0	1000	900	1.111	1.111	10/11/18 SAS
J8396-FS-D	3	--	10/11/2018 10:43:00 AM	J8396-FS	0	1000	100	10.000	10.000	10/11/18 SAS
J8397-FS	0	C	10/1/2018 2:18:00 PM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8397-FS	2	--	10/11/2018 10:43:00 AM	J8397-FS	0	1000	900	1.111	1.111	10/11/18 SAS
J8397-FS-D	3	--	10/11/2018 10:43:00 AM	J8397-FS	0	1000	100	10.000	10.000	10/11/18 SAS
J8398-FS	0	--	10/1/2018 2:17:00 PM	NA		NA	NA	1.000	1.000	10/01/18 LMG
J8399-FS	0	--	10/1/2018 2:17:00 PM	NA		NA	NA	1.000	1.000	10/01/18 LMG

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8400-FS	0	C	10/1/2018 2:18:00 PM	NA		NA	NA	1.000	1.000	10/01/18 SAS
J8400-FS	2	C	10/11/2018 10:43:00 AM	J8400-FS	0	1000	900	1.111	1.111	10/11/18 SAS
J8400-FS-D	3	C	10/11/2018 10:43:00 AM	J8400-FS	0	1000	100	10.000	10.000	10/11/18 SAS
J8400-FS	4	--	10/11/2018 10:45:00 AM	J8400-FS	2	900	860	1.047	1.163	10/11/18 SAS
J8400-FS-D	5	C	10/11/2018 10:45:00 AM	J8400-FS	2	900	40	22.500	25.000	10/11/18 SAS
J8400-FS-D	6	--	10/15/2018 3:56:00 PM	J8400-FS-D	5	1000	960	1.042	26.042	10/15/18 DMS
J8400-FS-D	7	--	10/15/2018 3:56:00 PM	J8400-FS-D	5	1000	40	25.000	625.000	10/15/18 DMS
J8400-FS-D	8	--	10/19/2018 3:08:00 PM	J8400-FS-D	3	1000	940	1.064	10.638	10/19/18 SAS
J8400-FS-D	9	--	10/19/2018 3:08:00 PM	J8400-FS-D	3	1000	60	16.667	166.667	10/19/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]
Dilution Factor = [Sample Volume (uL) / Aliqot Volume (uL))] * Prior Dilution Factor
* - "C" = Extract is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Oct 11 2018 5:32PM DMS	**Received On/By:**	Oct 11 2018 5:33PM DMS
Relinquished From:	Sample Preparation: NA	**Received Location:**	LC Laboratory: NA
Relinquish Comment:	NA	**Received Comment:**	NA

No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	CR890PB-FS(0)	1000	1	Intact	NA
2	CR891LCS-FS(0)	1000	1	Intact	NA
3	J8358-FS(0)	1000	1	Intact	NA
4	J8358-FS-D(3)	1000	10	Intact	NA
5	J8358-FS-D(5)	1000	25	Intact	NA
6	J8358-FS-D(7)	1000	250	Intact	NA
7	J8359-FS(0)	1000	1	Intact	NA
8	J8359-FS-D(3)	1000	10	Intact	NA
9	J8359-FS-D(5)	1000	50	Intact	NA
10	J8359-FS-D(7)	1000	250	Intact	NA
11	J8368-FS(0)	1000	1	Intact	NA
12	J8369-FS(0)	1000	1	Intact	NA
13	J8370-FS(0)	1000	1	Intact	NA
14	J8370-FS-D(3)	1000	25	Intact	NA
15	J8370-FS-D(5)	1000	50	Intact	NA
16	J8370-FS-D(7)	1000	250	Intact	NA
17	J8371-FS(0)	1000	1	Intact	NA
18	J8371-FS-D(3)	1000	50	Intact	NA
19	J8371-FS-D(5)	1000	100	Intact	NA
20	J8371-FS-D(7)	1000	200	Intact	NA
21	J8372-FS(0)	1000	1	Intact	NA
22	J8372-FS-D(3)	1000	10	Intact	NA
23	J8372-FS-D(5)	1000	25	Intact	NA
24	J8372-FS-D(7)	1000	62.5	Intact	NA
25	J8382-FS(0)	1000	1	Intact	NA
26	J8382-FS-D(3)	1000	16.667	Intact	NA
27	J8383-FS(0)	1000	1	Intact	NA
28	J8383-FS-D(3)	1000	10	Intact	NA

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

29	J8383-FS-D(5)	1000	50	Intact	NA
30	J8383-FS-D(7)	1000	125	Intact	NA
31	J8384-FS(0)	1000	1	Intact	NA
32	J8384-FS-D(3)	1000	10	Intact	NA
33	J8384-FS-D(5)	1000	25	Intact	NA
34	J8384-FS-D(7)	1000	83.333	Intact	NA
35	J8384-FS-D(9)	1000	277.778	Intact	NA
36	J8385-FS(0)	1000	1	Intact	NA
37	J8385-FS-D(3)	1000	10	Intact	NA
38	J8385-FS-D(5)	1000	25	Intact	NA
39	J8385-FS-D(7)	1000	83.333	Intact	NA
40	J8385-FS-D(9)	1000	208.333	Intact	NA
41	J8395-FS(0)	1000	1	Intact	NA
42	J8395-FS-D(3)	1000	10	Intact	NA
43	J8396-FS(0)	1000	1	Intact	NA
44	J8396-FS-D(3)	1000	10	Intact	NA
45	J8397-FS(0)	1000	1	Intact	NA
46	J8397-FS-D(3)	1000	10	Intact	NA
47	J8398-FS(0)	1000	1	Intact	NA
48	J8399-FS(0)	1000	1	Intact	NA
49	J8400-FS(0)	1000	1	Intact	NA
50	J8400-FS-D(3)	1000	10	Intact	NA
51	J8400-FS-D(5)	1000	25	Intact	NA
Total Extracts:	51				

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Oct 15 2018 4:03PM DMS	**Received On/By:**	Oct 15 2018 4:03PM DMS
Relinquished From:	Sample Preparation: NA	**Received Location:**	LC Laboratory: NA
Relinquish Comment:	NA	**Received Comment:**	NA

No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	J8369-FS-D(3)	1000	25	Intact	NA
2	J8395-FS-D(5)	1000	50	Intact	NA
3	J8400-FS-D(7)	1000	625	Intact	NA

Total Extracts: 3

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Oct 19 2018 5:00PM SAS	**Received On/By:**	Oct 19 2018 5:15PM DMS
Relinquished From:	Sample Preparation: NA	**Received Location:**	LC Laboratory: NA
Relinquish Comment:	NA	**Received Comment:**	NA

No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	J8371-FS-D(9)	1000	10	Intact	NA
2	J8400-FS-D(9)	1000	166.667	Intact	NA

Total Extracts: 2

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE SPECIFIC COMMENTS

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Sample ID:	Comment:	Date/Initials:
CR890PB-FS	Extraction started 2:17pm, extraction block 3, ended at 3:24pm	10/01/18 LMG
CR891LCS-FS	Extraction started 2:17pm, extraction block 3, ended at 3:19pm	10/01/18 LMG
J8358-FS	Extraction started 4:20pm, extraction block 2, ended at 4:24pm	10/01/18 SAS
J8359-FS	Extraction started 2:20pm, extraction block 2, ended at 2:58pm	10/01/18 SAS
J8368-FS	Extraction started 2:17pm, extraction block 3, ended at 3:25pm	10/01/18 LMG
J8369-FS	Extraction started 2:17pm, extraction block 3, ended at 3:30pm	10/01/18 LMG
J8370-FS	Extraction started 2:20pm, extraction block 2, ended at 2:31pm	10/01/18 SAS
J8371-FS	Extraction started 2:20pm, extraction block 2, ended at 2:32pm	10/01/18 SAS
J8372-FS	Extraction started 2:20pm, extraction block 2, ended at 2:53pm	10/01/18 SAS
J8382-FS	Extraction started 2:18pm, extraction block 1, ended at 3:43pm	10/01/18 SAS
J8383-FS	Extraction started 2:20pm, extraction block 2, ended at 2:57pm	10/01/18 SAS
J8384-FS	Extraction started 2:20pm, extraction block 2, ended at 3:04pm	10/01/18 SAS
J8385-FS	Extraction started 2:20pm, extraction block 2, ended at 3:06pm	10/01/18 SAS
J8395-FS	Extraction started 2:18pm, extraction block 1, ended at 3:42pm	10/01/18 SAS
J8396-FS	Extraction started 2:18pm, extraction block 1, ended at 5:35pm. Filter was popped due to it being clogged.	10/01/18 SAS
J8397-FS	Extraction started 2:18pm, extraction block 1, ended at 4:03pm	10/01/18 SAS
J8398-FS	Extraction started 2:17pm, extraction block 3, ended at 3:17pm	10/01/18 LMG
J8399-FS	Extraction started 2:17pm, extraction block 3, ended at 3:21pm	10/01/18 LMG
J8400-FS	Extraction started 2:18pm, extraction block 1, ended at 3:57pm	10/01/18 SAS

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title(s)	**Project No.(s)**
CTO-4164 Naval Base Ventura County, California	100110125-01

18-0583

CTO-4164: Analysis of Non-Potable Waters

AQ, GW

Entered By:	**On:**

Task Leader Approval:	**On:**
SupervisorApproval:	**On:**
PM Approval:	**On:**

Analytical Calibrations

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 23/10/2018 3:08:56 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	MeOH		10/14/2018 12:14:09 PM	5-0369.dam	18-0585_18-0583.wiff
2	KB73	L1	10/14/2018 12:25:01 PM	5-0369.dam	18-0585_18-0583.wiff
3	KB74	L2	10/14/2018 12:35:53 PM	5-0369.dam	18-0585_18-0583.wiff
4	KB75	L3	10/14/2018 12:46:44 PM	5-0369.dam	18-0585_18-0583.wiff
5	KB76	L4	10/14/2018 12:57:36 PM	5-0369.dam	18-0585_18-0583.wiff
6	KB77	L5	10/14/2018 1:08:28 PM	5-0369.dam	18-0585_18-0583.wiff
7	KB78	L6	10/14/2018 1:19:19 PM	5-0369.dam	18-0585_18-0583.wiff
8	KB79	L7	10/14/2018 1:30:11 PM	5-0369.dam	18-0585_18-0583.wiff
9	KB80 IB	Instrument Blank	10/14/2018 1:41:02 PM	5-0369.dam	18-0585_18-0583.wiff
10	KB81 ICC	ICC	10/14/2018 1:51:53 PM	5-0369.dam	18-0585_18-0583.wiff
11	KB89 Branch	Branch Standard	10/14/2018 2:02:45 PM	5-0369.dam	18-0585_18-0583.wiff
12	MeOH		10/14/2018 2:13:37 PM	5-0369.dam	18-0585_18-0583.wiff
~~25~~	~~CR894PB-FS(3)~~	~~Procedural Blank~~	~~10/14/2018 2:24:29 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~26~~	~~CR895LCS-FS(3)~~	~~Laboratory Control Sample~~	~~10/14/2018 2:35:21 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~27~~	~~J8381-FS(3)~~	~~VC-PM64B-SB03-0506~~	~~10/14/2018 2:46:12 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~28~~	~~J8386-FS(3)~~	~~VC-HS09-SB01-0102~~	~~10/14/2018 2:57:04 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~29~~	~~J8387-FS(3)~~	~~VC-HS09-SB01-0506~~	~~10/14/2018 3:07:57 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~30~~	~~J8388-FS(3)~~	~~VC-HS09-SB02-0102~~	~~10/14/2018 3:18:49 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~31~~	~~J8389-FS(3)~~	~~VC-HS09-SB02-0506~~	~~10/14/2018 3:29:41 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~32~~	~~J8390-FS(3)~~	~~VC-HS09-SS03-000H~~	~~10/14/2018 3:40:32 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~33~~	~~J8391-FS(3)~~	~~VC-HS09-SB03-0102~~	~~10/14/2018 3:51:23 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~34~~	~~J8392-FS(3)~~	~~VC-HS09-SB03-0506~~	~~10/14/2018 4:02:14 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~35~~	~~KB76-CCV~~	~~CCV~~	~~10/14/2018 4:13:06 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~36~~	~~MeOH~~		~~10/14/2018 4:23:56 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~37~~	~~J8393MS-FS(3)~~	~~VC-HS09-SB03-0506-MS~~	~~10/14/2018 4:34:46 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~38~~	~~J8394MSD-FS(3)~~	~~VC-HS09-SB03-0506-MSD~~	~~10/14/2018 4:45:38 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~39~~	~~J8401-FS(3)~~	~~VC-HS09-SS01-000H~~	~~10/14/2018 4:56:30~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~

1

1-samples from another batch not reported with this one. DMS 10/23/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 23/10/2018 3:08:56 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
			PM		
~~40~~	~~J8402-FS(3)~~	~~VC-HS09-SS02-000H~~	~~10/14/2018 5:07:22 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~41~~	~~J8403-FS(3)~~	~~VC-AOC16-SS01-000H~~	~~10/14/2018 5:18:14 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~42~~	~~J8403-FS-D(5)~~	~~VC-AOC16-SS01-000H~~	~~10/14/2018 5:29:05 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~43~~	~~J8404-FS(3)~~	~~VC-AOC16-SB01-0102~~	~~10/14/2018 5:39:57 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~44~~	~~J8404-FS-D(5)~~	~~VC-AOC16-SB01-0102~~	~~10/14/2018 5:50:48 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~45~~	~~J8404-FS-D(7)~~	~~VC-AOC16-SB01-0102~~	~~10/14/2018 6:01:40 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~46~~	~~KB77 CCV~~	~~CCV~~	~~10/14/2018 6:12:31 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~47~~	~~MeOH~~		~~10/14/2018 6:23:22 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~48~~	~~J8405-FS(3)~~	~~VC-AOC16-SB01-0506~~	~~10/14/2018 6:34:14 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~49~~	~~J8406-FS(3)~~	~~VC-AOC16-SS02-000H~~	~~10/14/2018 6:45:06 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~50~~	~~J8406-FS-D(5)~~	~~VC-AOC16-SS02-000H~~	~~10/14/2018 6:55:58 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~51~~	~~J8407-FS(3)~~	~~VC-AOC16-SB02-0102~~	~~10/14/2018 7:06:50 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~52~~	~~J8407-FS-D(5)~~	~~VC-AOC16-SB02-0102~~	~~10/14/2018 7:17:41 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~53~~	~~J8407-FS-D(7)~~	~~VC-AOC16-SB02-0102~~	~~10/14/2018 7:28:31 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~54~~	~~J8408-FS(3)~~	~~VC-AOC16-SB02-0506~~	~~10/14/2018 7:39:22 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~1~~	~~J8409-FS(3)~~	~~VC-AOC16-SS03-000H~~	~~10/14/2018 7:50:12 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~2~~	~~J8409-FS-D(5)~~	~~VC-AOC16-SS03-000H~~	~~10/14/2018 8:01:06 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~3~~	~~KB76 CCV~~	~~CCV~~	~~10/14/2018 8:11:59 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~4~~	~~MeOH~~		~~10/14/2018 8:22:53 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~5~~	~~J8410-FS(3)~~	~~VC-AOC16-SB03-0102~~	~~10/14/2018 8:33:46 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~6~~	~~J8410-FS-D(5)~~	~~VC-AOC16-SB03-0102~~	~~10/14/2018 8:44:38 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
~~7~~	~~J8411-FS(3)~~	~~VC-AOC16-SB03-0506~~	~~10/14/2018 8:55:31 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
8	KB77 CCV	CCV	10/14/2018 9:06:24 PM	5-0369.dam	18-0585_18-0583.wiff
9	MeOH		10/14/2018 9:17:16 PM	5-0369.dam	18-0585_18-0583.wiff
10	CR890PB-FS(0)	Procedural Blank	10/14/2018 9:28:09 PM	5-0369.dam	18-0585_18-0583.wiff
11	CR891LCS-FS(0)	Laboratory Control Sample	10/14/2018 9:39:03 PM	5-0369.dam	18-0585_18-0583.wiff

1

1samples from another batch not reported with this one DMS 10/23/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 23/10/2018 3:08:56 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File	
~~12~~	~~J8358-FS(0)~~	~~VC-PM323-DW01-0918~~	~~10/14/2018 9:49:55 PM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~	1
13	J8358-FS-D(3)	VC-PM323-DW01-0918	10/14/2018 10:00:49 PM	5-0369.dam	18-0585_18-0583.wiff	
14	J8358-FS-D(5)	VC-PM323-DW01-0918	10/14/2018 10:11:41 PM	5-0369.dam	18-0585_18-0583.wiff	
15	J8358-FS-D(7)	VC-PM323-DW01-0918	10/14/2018 10:22:34 PM	5-0369.dam	18-0585_18-0583.wiff	
16	J8359-FS(0)	VC-PM323-DW03-0918	10/14/2018 10:33:26 PM	5-0369.dam	18-0585_18-0583.wiff	
17	J8359-FS-D(3)	VC-PM323-DW03-0918	10/14/2018 10:44:17 PM	5-0369.dam	18-0585_18-0583.wiff	
18	J8359-FS-D(5)	VC-PM323-DW03-0918	10/14/2018 10:55:09 PM	5-0369.dam	18-0585_18-0583.wiff	
19	J8359-FS-D(7)	VC-PM323-DW03-0918	10/14/2018 11:06:03 PM	5-0369.dam	18-0585_18-0583.wiff	
20	KB76 CCV	CCV	10/14/2018 11:16:58 PM	5-0369.dam	18-0585_18-0583.wiff	
21	MeOH		10/14/2018 11:27:51 PM	5-0369.dam	18-0585_18-0583.wiff	
22	J8368-FS(0)	VC-SO-FB05-092418	10/14/2018 11:38:44 PM	5-0369.dam	18-0585_18-0583.wiff	
23	J8369-FS(0)	VC-SO-EB05-092418	10/14/2018 11:49:37 PM	5-0369.dam	18-0585_18-0583.wiff	
24	J8370-FS(0)	VC-PM324-DW01-0918	10/15/2018 12:00:30 AM	5-0369.dam	18-0585_18-0583.wiff	
25	J8370-FS-D(3)	VC-PM324-DW01-0918	10/15/2018 12:11:23 AM	5-0369.dam	18-0585_18-0583.wiff	
26	J8370-FS-D(5)	VC-PM324-DW01-0918	10/15/2018 12:22:15 AM	5-0369.dam	18-0585_18-0583.wiff	
~~27~~	~~J8370-FS-D(7)~~	~~VC-PM324-DW01-0918~~	~~10/15/2018 12:33:07 AM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~	2
28	J8371-FS(0)	VC-PM324-DW01P-0918	10/15/2018 12:43:59 AM	5-0369.dam	18-0585_18-0583.wiff	
29	J8371-FS-D(3)	VC-PM324-DW01P-0918	10/15/2018 12:54:52 AM	5-0369.dam	18-0585_18-0583.wiff	
30	J8371-FS-D(5)	VC-PM324-DW01P-0918	10/15/2018 1:05:45 AM	5-0369.dam	18-0585_18-0583.wiff	
31	J8371-FS-D(7)	VC-PM324-DW01P-0918	10/15/2018 1:16:37 AM	5-0369.dam	18-0585_18-0583.wiff	
32	KB77 CCV	CCV	10/15/2018 1:27:30 AM	5-0369.dam	18-0585_18-0583.wiff	
9	MeOH		10/15/2018 1:38:23 AM	5-0369.dam	18-0585_18-0583.wiff	
33	J8372-FS(0)	VC-PM324-DW03-0918	10/15/2018 1:49:16 AM	5-0369.dam	18-0585_18-0583.wiff	
34	J8372-FS-D(3)	VC-PM324-DW03-0918	10/15/2018 2:00:09 AM	5-0369.dam	18-0585_18-0583.wiff	
35	J8372-FS-D(5)	VC-PM324-DW03-0918	10/15/2018 2:11:03 AM	5-0369.dam	18-0585_18-0583.wiff	
36	J8372-FS-D(7)	VC-PM324-DW03-0918	10/15/2018 2:21:55 AM	5-0369.dam	18-0585_18-0583.wiff	
37	J8382-FS(0)	VC-PM64B-DW01-	10/15/2018 2:32:48	5-0369.dam	18-0585_18-0583.wiff	

1 Sample rerun because of bad sample injection DMS 10/23/2018
2 dilution not needed DMS 10/25/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 23/10/2018 3:08:56 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
		0918	AM		
38	J8382-FS-D(3)	VC-PM64B-DW01-0918	10/15/2018 2:43:42 AM	5-0369.dam	18-0585_18-0583.wiff
39	J8383-FS(0)	VC-PM64B-DW02-0918	10/15/2018 2:54:36 AM	5-0369.dam	18-0585_18-0583.wiff
40	J8383-FS-D(3)	VC-PM64B-DW02-0918	10/15/2018 3:05:29 AM	5-0369.dam	18-0585_18-0583.wiff
41	J8383-FS-D(5)	VC-PM64B-DW02-0918	10/15/2018 3:16:22 AM	5-0369.dam	18-0585_18-0583.wiff
42	J8383-FS-D(7)	VC-PM64B-DW02-0918	10/15/2018 3:27:15 AM	5-0369.dam	18-0585_18-0583.wiff
43	KB76 CCV	CCV	10/15/2018 3:38:09 AM	5-0369.dam	18-0585_18-0583.wiff
21	MeOH		10/15/2018 3:49:02 AM	5-0369.dam	18-0585_18-0583.wiff
44	J8384-FS(0)	VC-PM64B-DW03-0918	10/15/2018 3:59:56 AM	5-0369.dam	18-0585_18-0583.wiff
45	J8384-FS-D(3)	VC-PM64B-DW03-0918	10/15/2018 4:10:48 AM	5-0369.dam	18-0585_18-0583.wiff
~~46~~	~~J8384-FS-D(5)~~	~~VC-PM64B-DW03-0918~~	~~10/15/2018 4:21:41 AM~~	~~5-0369.dam~~	~~18-0585_18-0583.wiff~~
47	J8384-FS-D(7)	VC-PM64B-DW03-0918	10/15/2018 4:32:33 AM	5-0369.dam	18-0585_18-0583.wiff
48	J8384-FS-D(9)	VC-PM64B-DW03-0918	10/15/2018 4:43:26 AM	5-0369.dam	18-0585_18-0583.wiff
49	J8385-FS(0)	VC-PM64B-DW03P-0918	10/15/2018 4:54:20 AM	5-0369.dam	18-0585_18-0583.wiff
50	J8385-FS-D(3)	VC-PM64B-DW03P-0918	10/15/2018 5:05:13 AM	5-0369.dam	18-0585_18-0583.wiff
51	J8385-FS-D(5)	VC-PM64B-DW03P-0918	10/15/2018 5:16:05 AM	5-0369.dam	18-0585_18-0583.wiff
52	J8385-FS-D(7)	VC-PM64B-DW03P-0918	10/15/2018 5:26:59 AM	5-0369.dam	18-0585_18-0583.wiff
53	J8385-FS-D(9)	VC-PM64B-DW03P-0918	10/15/2018 5:37:52 AM	5-0369.dam	18-0585_18-0583.wiff
54	KB77 CCV	CCV	10/15/2018 5:48:43 AM	5-0369.dam	18-0585_18-0583.wiff
1	MeOH		10/15/2018 8:33:15 AM	5-0369.dam	18-0585_18-0583.wiff
2	J8395-FS(0)	VC-HS09-DW01-0918	10/15/2018 8:44:08 AM	5-0369.dam	18-0585_18-0583.wiff
3	J8395-FS-D(3)	VC-HS09-DW01-0918	10/15/2018 8:55:00 AM	5-0369.dam	18-0585_18-0583.wiff
4	J8396-FS(0)	VC-HS09-DW02-0918	10/15/2018 9:05:53 AM	5-0369.dam	18-0585_18-0583.wiff
5	J8396-FS-D(3)	VC-HS09-DW02-0918	10/15/2018 9:16:45 AM	5-0369.dam	18-0585_18-0583.wiff
6	J8397-FS(0)	VC-HS09-DW03-0918	10/15/2018 9:27:37 AM	5-0369.dam	18-0585_18-0583.wiff
7	J8397-FS-D(3)	VC-HS09-DW03-0918	10/15/2018 9:38:29 AM	5-0369.dam	18-0585_18-0583.wiff
8	J8398-FS(0)	VC-AQ-FB-092518	10/15/2018 9:49:21 AM	5-0369.dam	18-0585_18-0583.wiff

1

1 Sample rerun because of bad sample injection DMS 10/23/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 23/10/2018 3:08:56 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
9	KB76 CCV	CCV	10/15/2018 10:00:12 AM	5-0369.dam	18-0585_18-0583.wiff
10	MeOH		10/15/2018 10:11:04 AM	5-0369.dam	18-0585_18-0583.wiff
11	J8399-FS(0)	VC-AQ-EB-092518	10/15/2018 10:21:57 AM	5-0369.dam	18-0585_18-0583.wiff
12	J8400-FS(0)	VC-HS09-DW03P-0918	10/15/2018 10:32:49 AM	5-0369.dam	18-0585_18-0583.wiff
13	J8400-FS-D(3)	VC-HS09-DW03P-0918	10/15/2018 10:43:40 AM	5-0369.dam	18-0585_18-0583.wiff
14	J8400-FS-D(5)	VC-HS09-DW03P-0918	10/15/2018 10:54:32 AM	5-0369.dam	18-0585_18-0583.wiff
15	KB77 CCV	CCV	10/15/2018 11:05:24 AM	5-0369.dam	18-0585_18-0583.wiff

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 23/10/2018 3:47:40 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File	
1	MeOH		10/14/2018 12:14:09 PM	5-0369.dam	18-0585_18-0583.wiff	
2	KB73	L1	10/14/2018 12:25:01 PM	5-0369.dam	18-0585_18-0583.wiff	
3	KB74	L2	10/14/2018 12:35:53 PM	5-0369.dam	18-0585_18-0583.wiff	
4	KB75	L3	10/14/2018 12:46:44 PM	5-0369.dam	18-0585_18-0583.wiff	
5	KB76	L4	10/14/2018 12:57:36 PM	5-0369.dam	18-0585_18-0583.wiff	
6	KB77	L5	10/14/2018 1:08:28 PM	5-0369.dam	18-0585_18-0583.wiff	
7	KB78	L6	10/14/2018 1:19:19 PM	5-0369.dam	18-0585_18-0583.wiff	
8	KB79	L7	10/14/2018 1:30:11 PM	5-0369.dam	18-0585_18-0583.wiff	
9	KB80 IB	Instrument Blank	10/14/2018 1:41:02 PM	5-0369.dam	18-0585_18-0583.wiff	
10	KB81 ICC	ICC	10/14/2018 1:51:53 PM	5-0369.dam	18-0585_18-0583.wiff	
11	KB89 Branch	Branch standard	10/14/2018 2:02:45 PM	5-0369.dam	18-0585_18-0583.wiff	
12	MeOH		10/14/2018 2:13:37 PM	5-0369.dam	18-0585_18-0583.wiff	
1	KB75 ISC	Instrument Sensitivity Check	10/15/2018 5:53:40 PM	5-0369.dam	10152018.wiff	
2	KB80 IB	Instrument Blank	10/15/2018 6:04:33 PM	5-0369.dam	10152018.wiff	
3	MeOH		10/15/2018 6:15:26 PM	5-0369.dam	10152018.wiff	
~~4~~	~~J8337-FS-D(11)~~	~~VC-PM324-DW02-0918~~	~~10/15/2018 6:26:19 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	1
5	J8369-FS-D(3)	VC-SO-EB05-092418	10/15/2018 6:37:10 PM	5-0369.dam	10152018.wiff	
6	J8395-FS-D(5)	VC-HS09-DW01-0918	10/15/2018 6:48:02 PM	5-0369.dam	10152018.wiff	
7	J8400-FS-D(7)	VC-HS09-DW03P-0918	10/15/2018 6:58:54 PM	5-0369.dam	10152018.wiff	
~~8~~	~~J8310-FS-D(7)~~	~~VC-PM323-324-SS01-000H~~	~~10/15/2018 7:09:47 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	1
~~9~~	~~J8311-FS-D(7)~~	~~VC-PM323-324-SB01-0102~~	~~10/15/2018 7:20:39 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
~~10~~	~~J8312-FS-D(9)~~	~~VC-PM323-324-SB01-0506~~	~~10/15/2018 7:31:30 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
~~11~~	~~J8313-FS-D(7)~~	~~VC-PM323-324-SS02-000H~~	~~10/15/2018 7:42:21 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
~~12~~	~~J8314-FS-D(7)~~	~~VC-PM323-324-SB02-0102~~	~~10/15/2018 7:53:13 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
13	KB77 CCV	CCV	10/15/2018 8:04:05 PM	5-0369.dam	10152018.wiff	
14	MeOH		10/15/2018 8:14:57 PM	5-0369.dam	10152018.wiff	
~~15~~	~~J8315-FS-D(7)~~	~~VC-PM323-324-SB02-~~	~~10/15/2018 8:25:51~~	~~5-0369.dam~~	~~10152018.wiff~~	1

1-samples from another batch not reported with this one. DMS 10/23/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 23/10/2018 3:47:40 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
		0506	PM		
~~16~~	~~J8316 FS D(7)~~	~~VC PM323 324 SS03 000H~~	~~10/15/2018 8:36:42 PM~~	~~5 0369.dam~~	~~10152018.wiff~~
~~17~~	~~J8317 FS D(7)~~	~~VC PM323 324 SB03 0102~~	~~10/15/2018 8:47:33 PM~~	~~5 0369.dam~~	~~10152018.wiff~~
~~18~~	~~J8318 FS D(9)~~	~~VC PM323 324 SB03 0506~~	~~10/15/2018 8:58:24 PM~~	~~5 0369.dam~~	~~10152018.wiff~~
~~19~~	~~KB76 CCV~~	~~CCV~~	~~10/15/2018 9:09:15 PM~~	~~5 0369.dam~~	~~10152018.wiff~~

1

1-samples from another batch not reported with this one. DMS 10/23/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 23/10/2018 3:46:59 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File	
1	MeOH		10/17/2018 7:36:00 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
2	KB73	L1	10/17/2018 7:46:52 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
3	KB74	L2	10/17/2018 7:57:45 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
4	KB75	L3	10/17/2018 8:08:39 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
5	KB76	L4	10/17/2018 8:19:32 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
6	KB77	L5	10/17/2018 8:30:23 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
7	KB78	L6	10/17/2018 8:41:14 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
8	KB79	L7	10/17/2018 8:52:06 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
9	KB80 IB	Instrument Blank	10/17/2018 9:02:57 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
10	KB81 ICC	ICC	10/17/2018 9:13:49 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
11	KB89 Branch	Branch Standard	10/17/2018 9:24:41 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
1	MeOH		10/17/2018 9:35:33 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff	
1	KB75 ISC	Instrument Sensitivity Check	10/19/2018 6:16:51 PM	5-0369.dam	10192018.wiff	
2	KB80 IB	Instrument Blank	10/19/2018 6:27:43 PM	5-0369.dam	10192018.wiff	
3	MeOH		10/19/2018 6:38:37 PM	5-0369.dam	10192018.wiff	
~~4~~	~~KC52 CKC 1~~	~~Standard Check~~	~~10/19/2018 6:49:30 PM~~	~~5-0369.dam~~	~~10192018.wiff~~	1
~~5~~	~~KC52 CHK2~~	~~Standard Check~~	~~10/19/2018 7:00:22 PM~~	~~5-0369.dam~~	~~10192018.wiff~~	
~~6~~	~~CR904PB FS(3)~~	~~Procedural Blank~~	~~10/19/2018 7:11:14 PM~~	~~5-0369.dam~~	~~10192018.wiff~~	
~~7~~	~~CR890PB FS(0)~~	~~Prodedural Blank~~	~~10/19/2018 7:22:06 PM~~	~~5-0369.dam~~	~~10192018.wiff~~	2
8	J8384-FS-D(5)	VC-PM64B-DW03-0918	10/19/2018 7:32:58 PM	5-0369.dam	10192018.wiff	
9	J8358-FS(0)	VC-PM323-DW01-0918	10/19/2018 7:43:49 PM	5-0369.dam	10192018.wiff	
1	MeOH		10/19/2018 7:54:40 PM	5-0369.dam	10192018.wiff	
10	J8400-FS-D(9)	VC-HS09-DW03P-0918	10/19/2018 8:05:33 PM	5-0369.dam	10192018.wiff	
11	J8371-FS-D(9)	VC-PM324-DW01P-0918	10/19/2018 8:16:26 PM	5-0369.dam	10192018.wiff	
12	~~J8464MSD FS D(7)~~	~~VC-MS09-DW05-0918-MSD~~	~~10/19/2018 8:27:19 PM~~	~~5-0369.dam~~	~~10192018.wiff~~	1
13	KB76 CCV	CCV	10/19/2018 8:38:12 PM	5-0369.dam	10192018.wiff	
1	MeOH		10/19/2018 8:49:05	5-0369.dam	10192018.wiff	

1-samples from another batch not reported with this one. DMS 10/23/2018

2-sample run for confirmation only, raw data can be found in unused data section of data package DMS 10/23/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 23/10/2018 3:46:59 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
			PM		
14	J8462-FS-D(7)	VC-CS12-SB02-0102	10/19/2018 8:59:57 PM	5-0369.dam	10192018.wiff
15	J8477-FS-D(7)	VC-CS10-SS03-000H	10/19/2018 9:10:49 PM	5-0369.dam	10192018.wiff
16	J8478-FS-D(7)	VC-CS10-SB03-0102	10/19/2018 9:21:41 PM	5-0369.dam	10192018.wiff
17	J8479-FS-D(7)	VC-CS10-SB03-0506	10/19/2018 9:32:32 PM	5-0369.dam	10192018.wiff
18	J8480-FS-D(7)	VC-CS10-SS04-000H	10/19/2018 9:43:23 PM	5-0369.dam	10192018.wiff
19	J8481-FS-D(7)	VC-CS10-SB04-0102	10/19/2018 9:54:14 PM	5-0369.dam	10192018.wiff
20	J8460-FS-D(7)	VC-CS12-SB01-0506	10/19/2018 10:05:06 PM	5-0369.dam	10192018.wiff
21	J8461-FS-D(7)	VC-CS12-SS02-000H	10/19/2018 10:15:59 PM	5-0369.dam	10192018.wiff
22	KB77-CCV	CCV	10/19/2018 10:26:52 PM	5-0369.dam	10192018.wiff
1	MeOH		10/19/2018 10:37:43 PM	5-0369.dam	10192018.wiff
23	J8440-FS-D(7)	VC-MS09-SB01-0506	10/19/2018 10:48:35 PM	5-0369.dam	10192018.wiff
24	J8443-FS-D(9)	VC-MS09-SB02-0506	10/19/2018 10:59:28 PM	5-0369.dam	10192018.wiff
25	J8445-FS-D(11)	VC-MS09-SB03-0102	10/19/2018 11:10:20 PM	5-0369.dam	10192018.wiff
26	J8446-FS-D(7)	VC-MS09-SB03-0506	10/19/2018 11:21:12 PM	5-0369.dam	10192018.wiff
27	J8450-FS-D(7)	VC-MS09-SS05-000H	10/19/2018 11:32:04 PM	5-0369.dam	10192018.wiff
28	J8444-FS-D(17)	VC-MS09-SS03-000H	10/19/2018 11:42:56 PM	5-0369.dam	10192018.wiff
29	KB76-CCV	CCV	10/19/2018 11:53:48 PM	5-0369.dam	10192018.wiff

1

1-samples from another batch not reported with this one. DMS 10/23/2018

BATTELLE

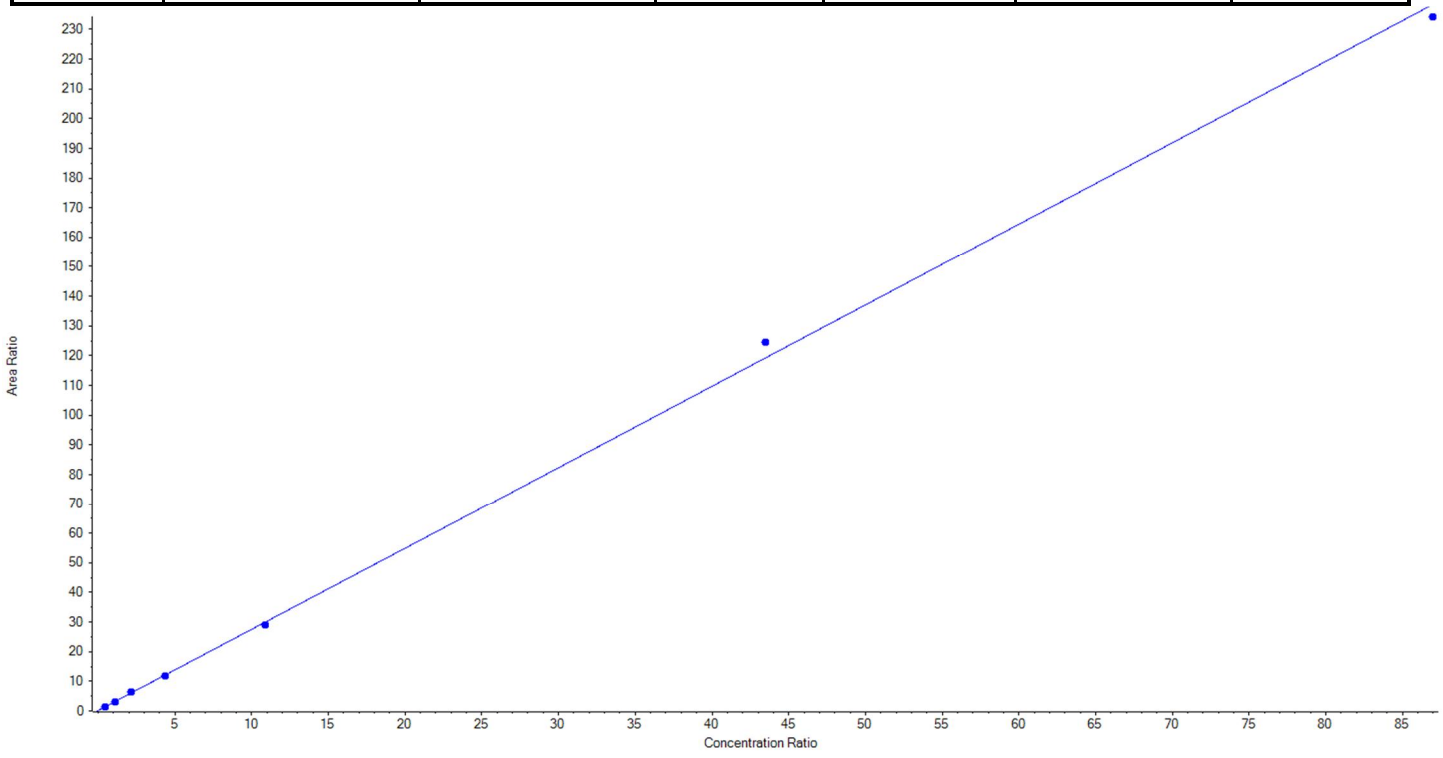
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFBS_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	298.9 / 80.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 2.73849 x + 0.15261 (r = 0.99950) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	100.508541	99.5
3	KB74	L2	True	252.50	250.634359	99.3
4	KB75	L3	True	505.00	532.234965	105.4
5	KB76	L4	True	1010.00	975.854331	96.6
6	KB77	L5	True	2525.00	2436.537610	96.5
7	KB78	L6	True	10100.00	10551.026841	104.5
8	KB79	L7	True	20200.00	19846.703354	98.3



BATTELLE

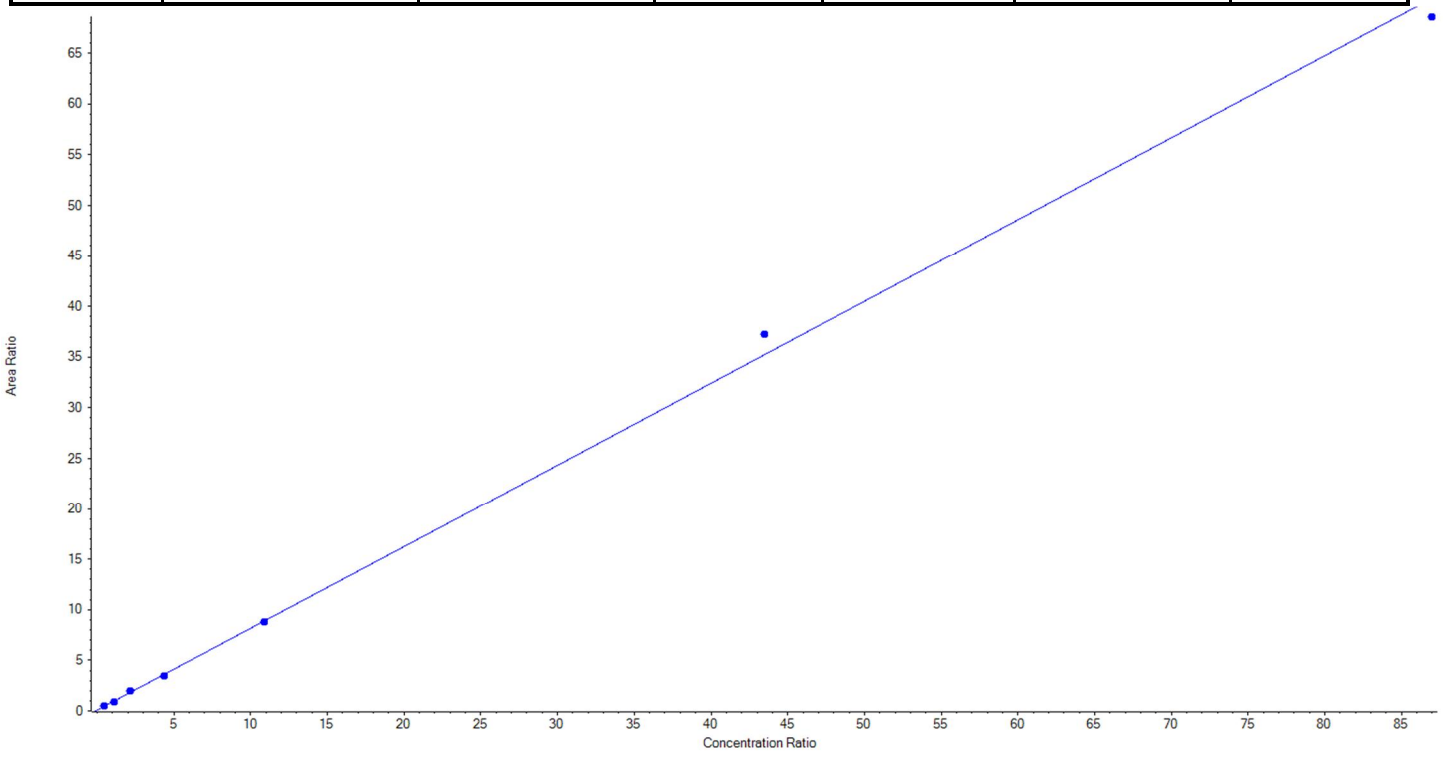
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFBS_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	298.9 / 99.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.80840 x + 0.08064 (r = 0.99920) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	104.973014	103.9
3	KB74	L2	True	252.50	232.586481	92.1
4	KB75	L3	True	505.00	533.800722	105.7
5	KB76	L4	True	1010.00	968.926964	95.9
6	KB77	L5	True	2525.00	2506.399166	99.3
7	KB78	L6	True	10100.00	10669.903540	105.6
8	KB79	L7	True	20200.00	19676.910112	97.4



BATTELLE

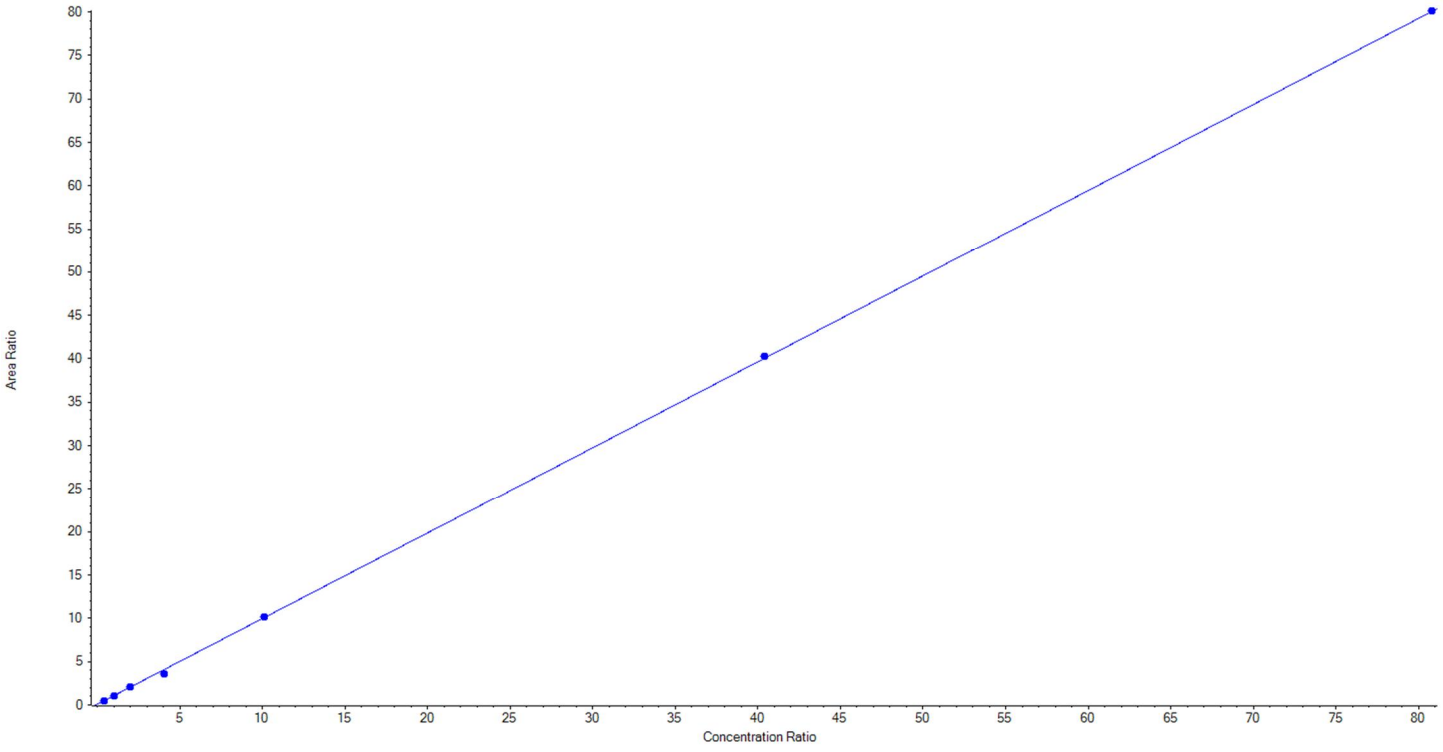
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFHxA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	313.0 / 269.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.98971 x + 0.07031 (r = 0.99978) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	108.810616	107.7
3	KB74	L2	True	252.50	255.441826	101.2
4	KB75	L3	True	505.00	507.490422	100.5
5	KB76	L4	True	1010.00	897.348485	88.9
6	KB77	L5	True	2525.00	2554.105922	101.2
7	KB78	L6	True	10100.00	10152.794039	100.5
8	KB79	L7	True	20200.00	20217.508690	100.1



BATTELLE

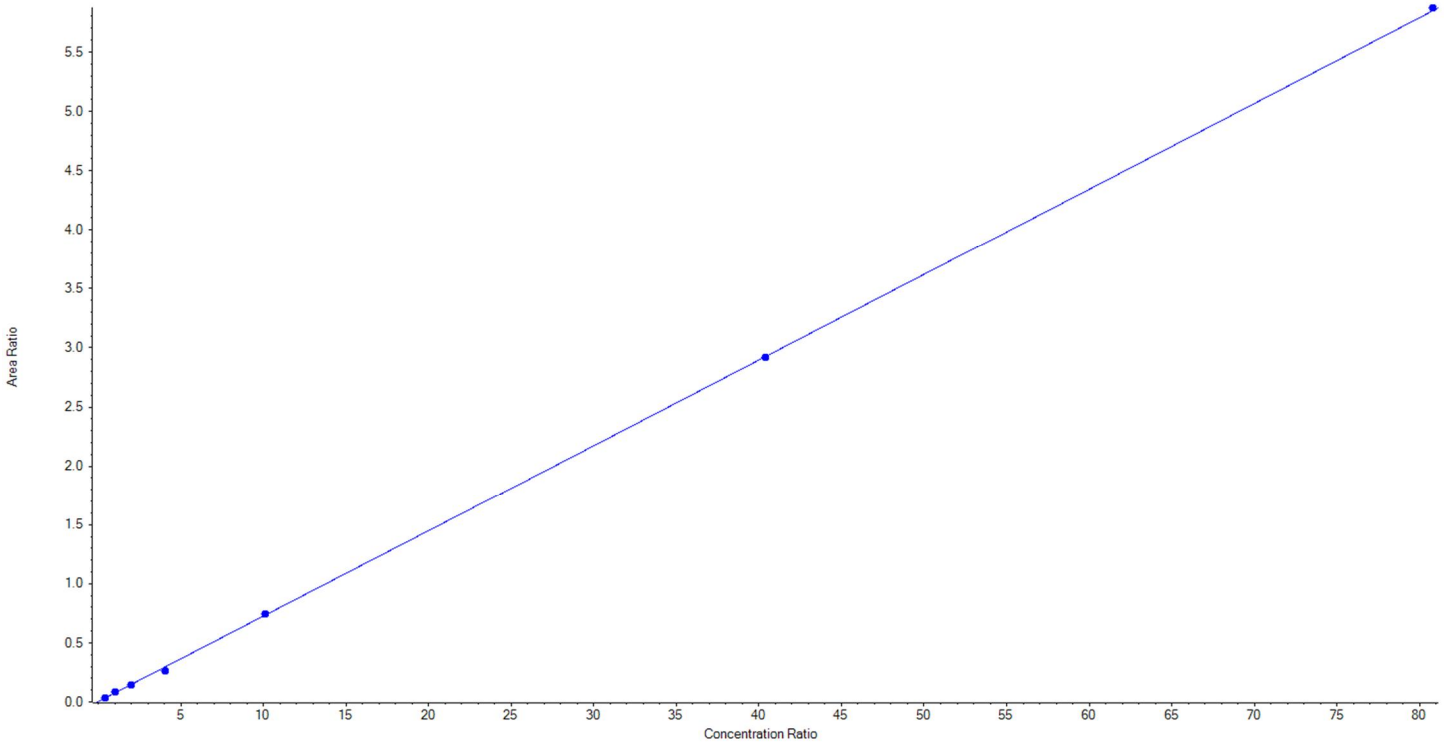
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFHxA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	313.0 / 119.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.07233 x + 0.00290 (r = 0.99972) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	96.626394	95.7
3	KB74	L2	True	252.50	291.668576	115.5
4	KB75	L3	True	505.00	493.442238	97.7
5	KB76	L4	True	1010.00	907.899027	89.9
6	KB77	L5	True	2525.00	2553.633299	101.1
7	KB78	L6	True	10100.00	10066.268167	99.7
8	KB79	L7	True	20200.00	20283.962299	100.4



BATTELLE

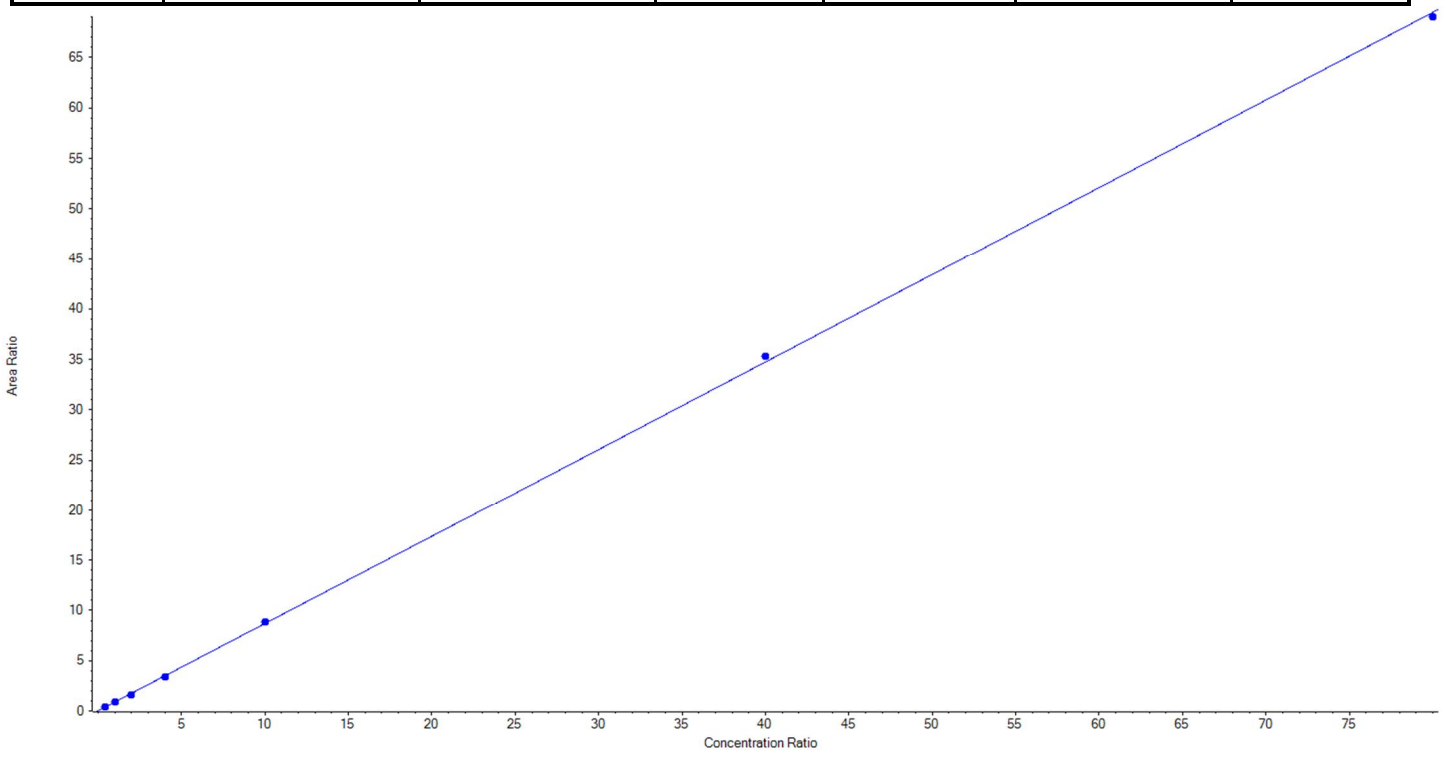
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFHpA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	363.0 / 319.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C4-PFHpA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.86820 x + 0.01818 (r = 0.99985) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	109.378901	109.4
3	KB74	L2	True	250.00	250.531214	100.2
4	KB75	L3	True	500.00	454.742181	91.0
5	KB76	L4	True	1000.00	971.695242	97.2
6	KB77	L5	True	2500.00	2533.494870	101.3
7	KB78	L6	True	10000.00	10160.014145	101.6
8	KB79	L7	True	20000.00	19870.143448	99.4



BATTELLE

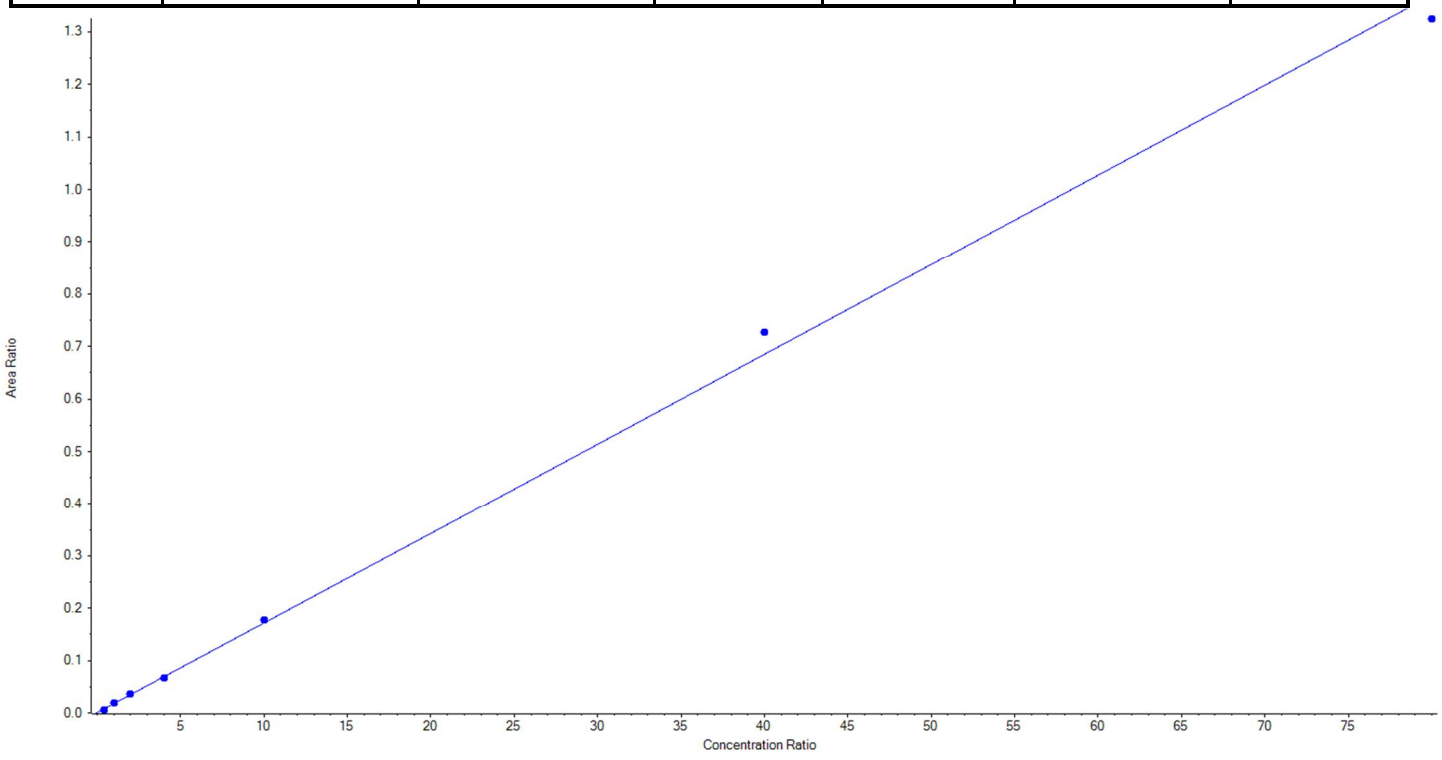
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFHpA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	363.0 / 169.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C4-PFHpA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.01711 x + 5.70890e-4 (r = 0.99894) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	87.419215	87.4
3	KB74	L2	True	250.00	272.137525	108.9
4	KB75	L3	True	500.00	512.271480	102.5
5	KB76	L4	True	1000.00	956.361339	95.6
6	KB77	L5	True	2500.00	2570.713799	102.8
7	KB78	L6	True	10000.00	10610.262033	106.1
8	KB79	L7	True	20000.00	19340.834609	96.7



BATTELLE

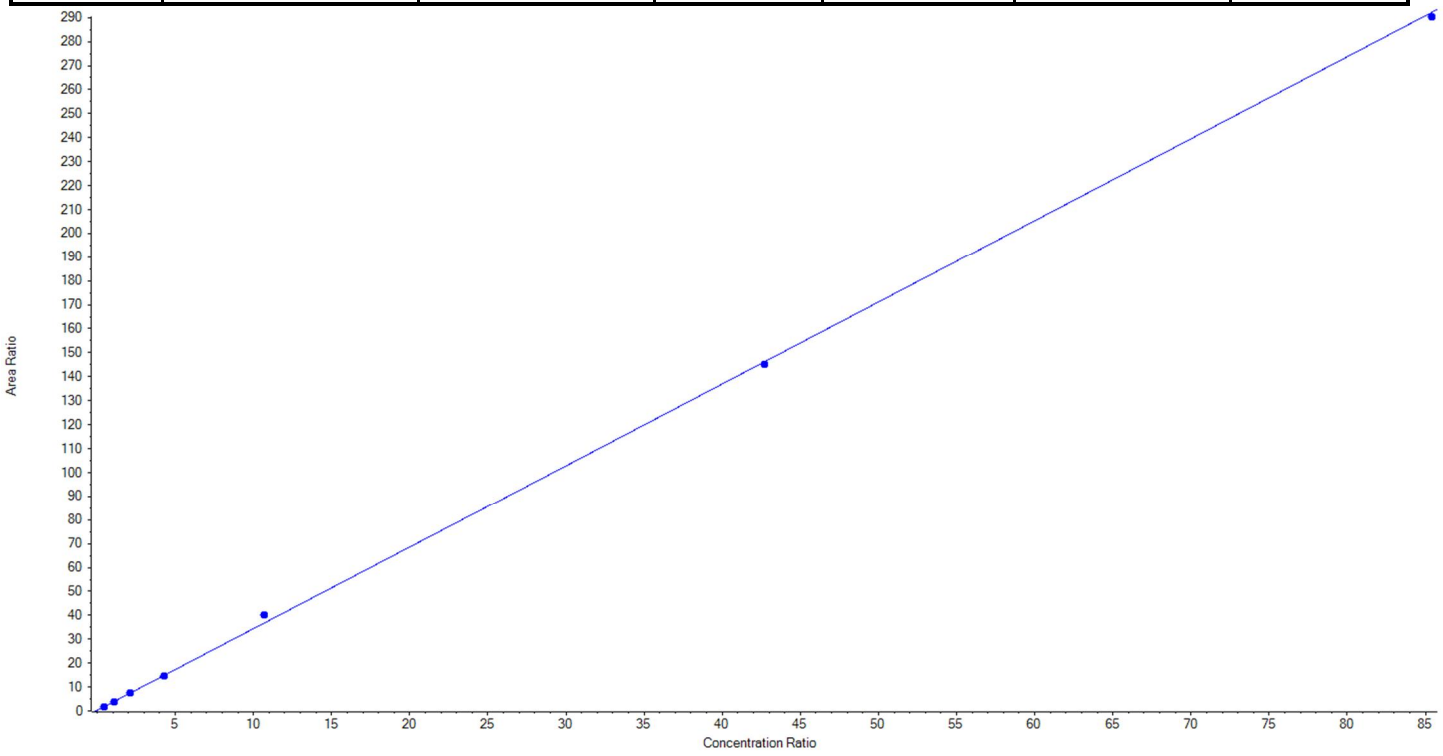
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFHxS_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	399.0 / 80.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 3.41837 x + 0.22767 (r = 0.99962) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	98.667560	97.7
3	KB74	L2	True	252.50	237.672593	94.1
4	KB75	L3	True	505.00	517.374784	102.5
5	KB76	L4	True	1010.00	989.008162	97.9
6	KB77	L5	True	2525.00	2757.432516	109.2
7	KB78	L6	True	10100.00	10024.721431	99.3
8	KB79	L7	True	20200.00	20068.622953	99.4



BATTELLE

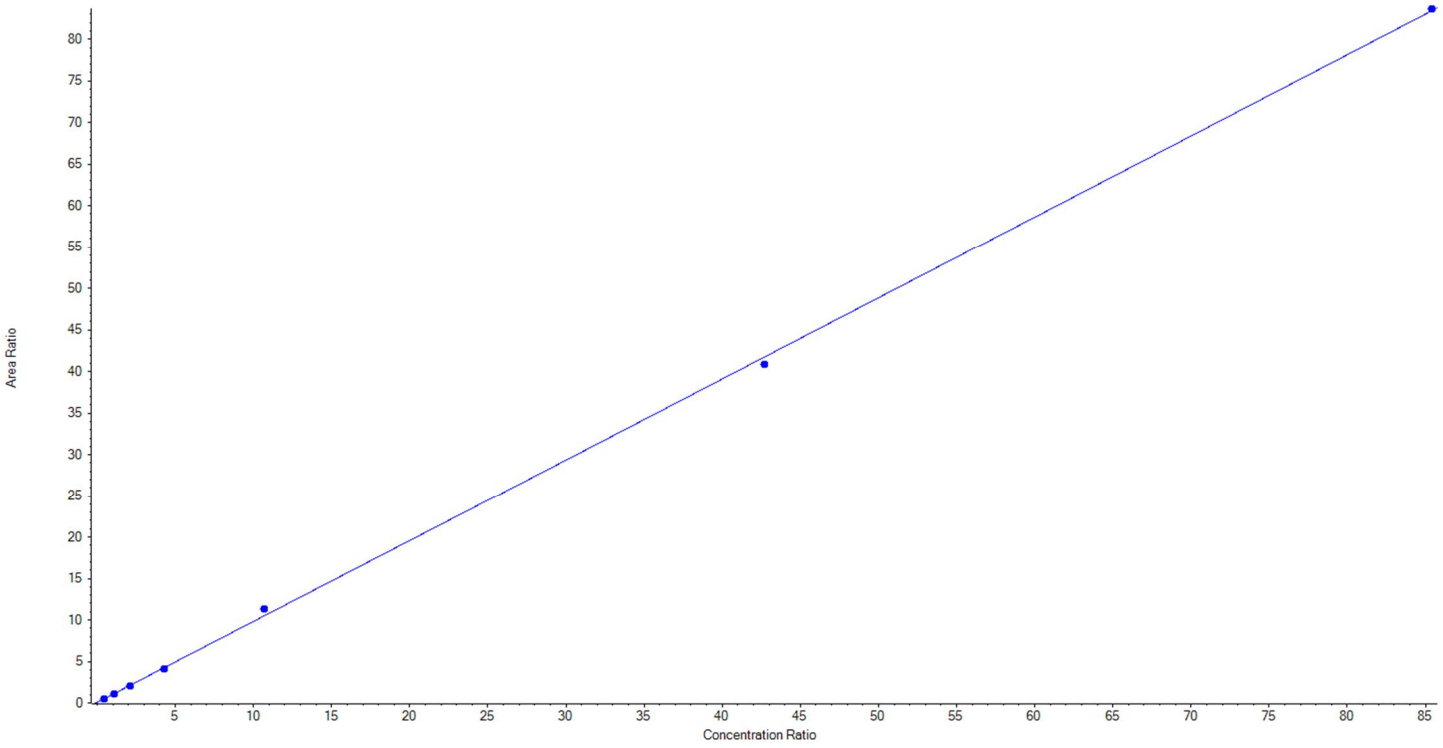
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFHxS_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	399.0 / 99.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.97595 x + 0.06484 (r = 0.99965) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	103.341956	102.3
3	KB74	L2	True	252.50	247.818105	98.2
4	KB75	L3	True	505.00	486.568925	96.4
5	KB76	L4	True	1010.00	978.578682	96.9
6	KB77	L5	True	2525.00	2728.607961	108.1
7	KB78	L6	True	10100.00	9894.381625	98.0
8	KB79	L7	True	20200.00	20254.202745	100.3



BATTELLE

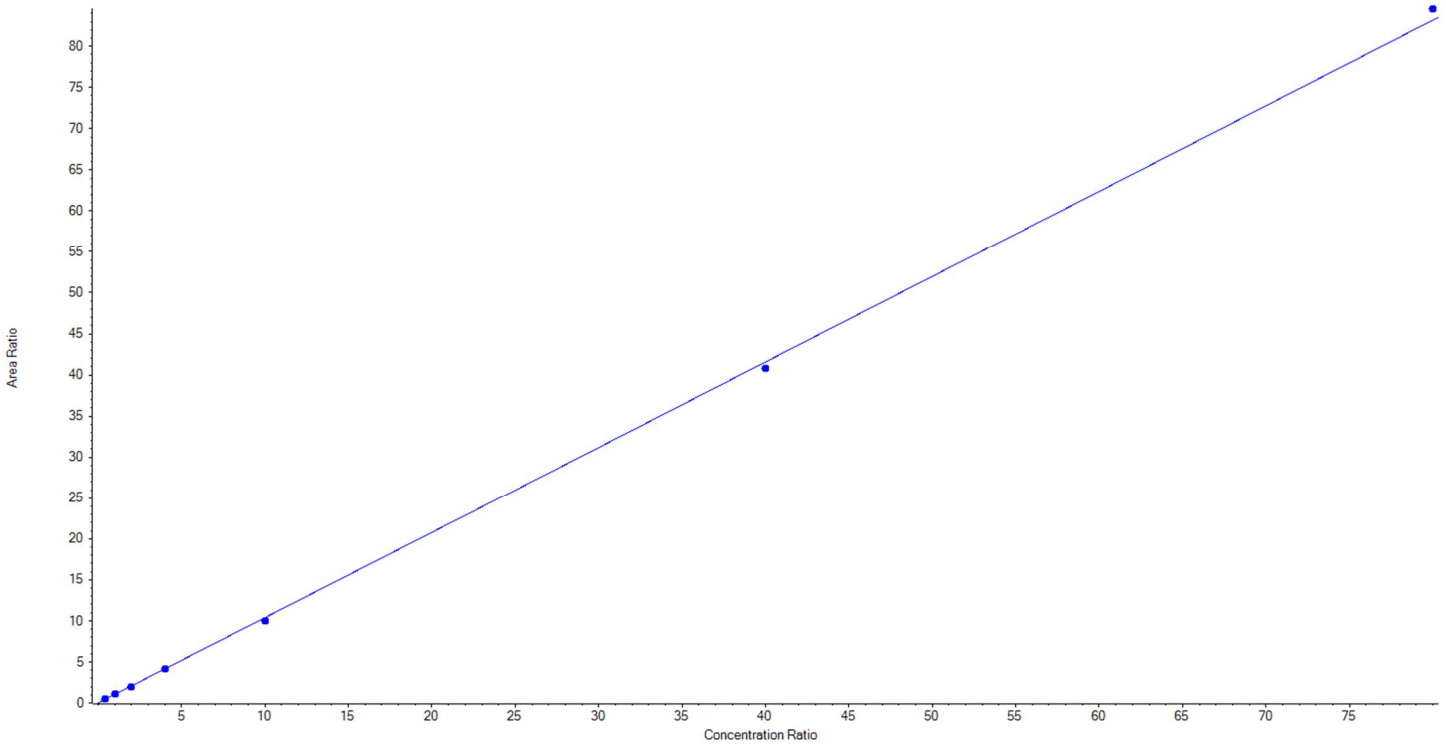
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFOA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	413.0 / 369.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03971 x + -0.00348 (r = 0.99971) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	108.562585	108.6
3	KB74	L2	True	250.00	261.629716	104.7
4	KB75	L3	True	500.00	458.025313	91.6
5	KB76	L4	True	1000.00	995.677222	99.6
6	KB77	L5	True	2500.00	2399.417317	96.0
7	KB78	L6	True	10000.00	9800.522459	98.0
8	KB79	L7	True	20000.00	20326.165390	101.6



BATTELLE

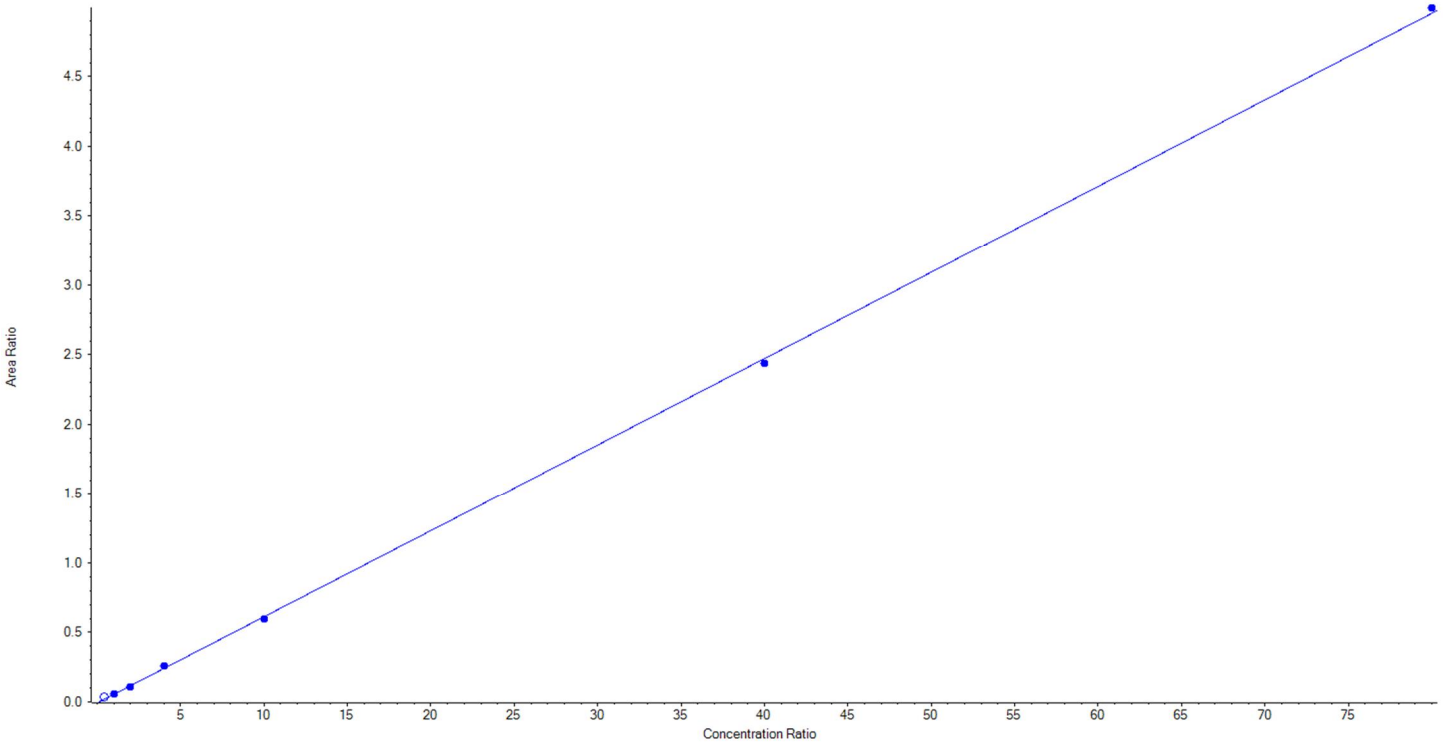
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFOA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	413.0 / 169.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06201 x + -0.00742 (r = 0.99980) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	False	100.00	186.082953	186.1
3	KB74	L2	True	250.00	254.066051	101.6
4	KB75	L3	True	500.00	470.534982	94.1
5	KB76	L4	True	1000.00	1072.350826	107.2
6	KB77	L5	True	2500.00	2442.924402	97.7
7	KB78	L6	True	10000.00	9852.781134	98.5
8	KB79	L7	True	20000.00	20157.342605	100.8



BATTELLE

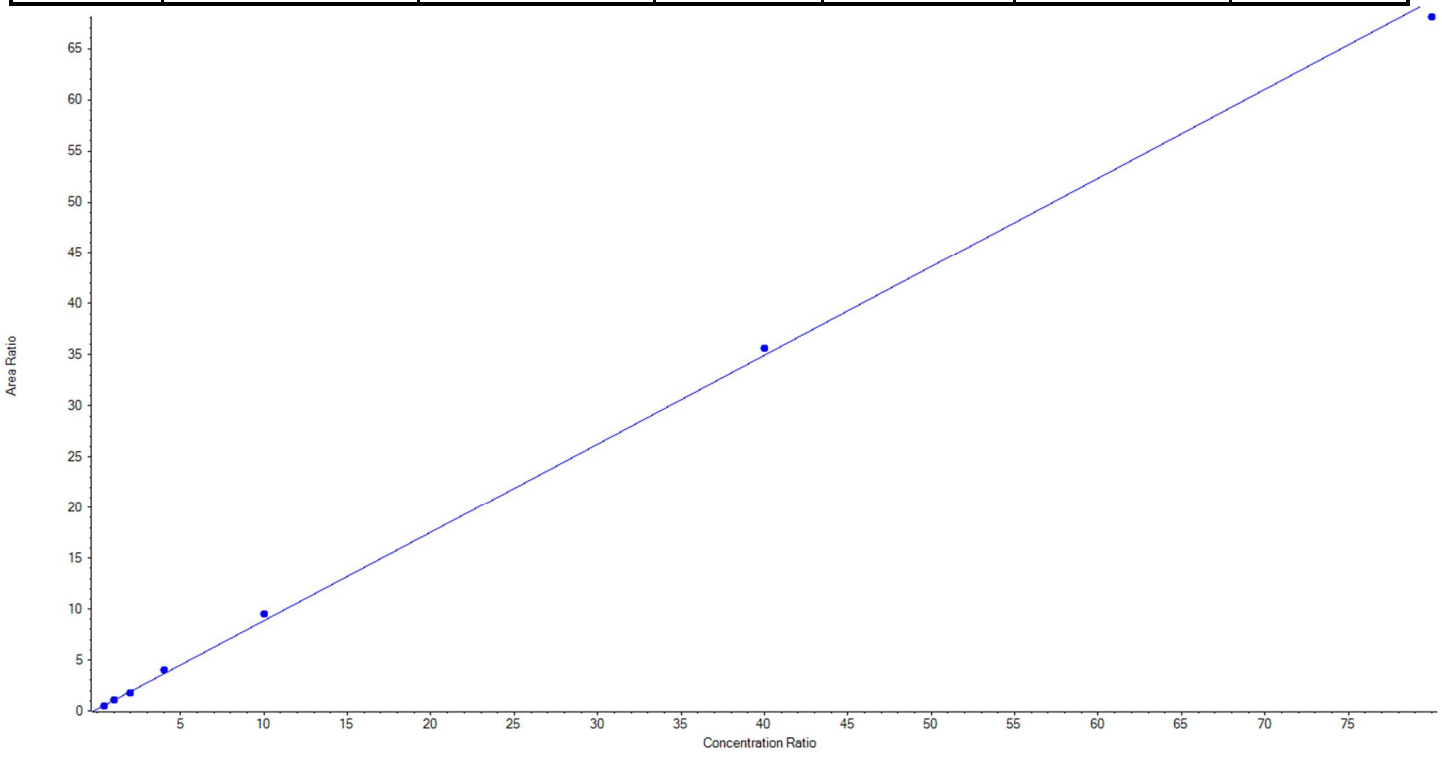
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFNA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	463.0 / 419.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.86941 x + 0.16705 (r = 0.99919) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	84.547360	84.6
3	KB74	L2	True	250.00	267.106975	106.8
4	KB75	L3	True	500.00	449.487978	89.9
5	KB76	L4	True	1000.00	1111.820340	111.2
6	KB77	L5	True	2500.00	2694.794754	107.8
7	KB78	L6	True	10000.00	10205.443379	102.1
8	KB79	L7	True	20000.00	19536.799214	97.7



BATTELLE

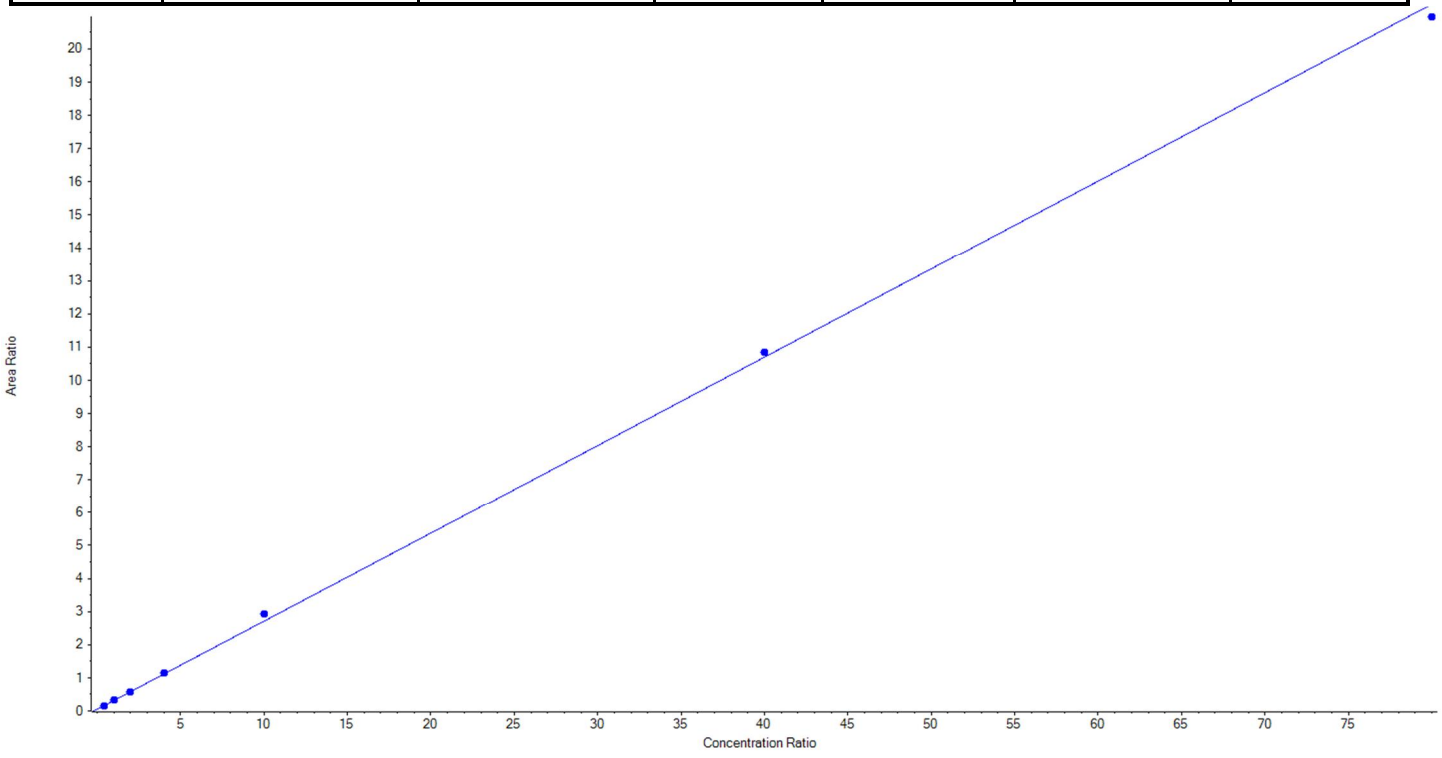
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFNA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	463.0 / 219.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.26619 x + 0.04983 (r = 0.99956) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	90.726226	90.7
3	KB74	L2	True	250.00	256.353586	102.5
4	KB75	L3	True	500.00	482.614568	96.5
5	KB76	L4	True	1000.00	1022.068861	102.2
6	KB77	L5	True	2500.00	2707.468474	108.3
7	KB78	L6	True	10000.00	10149.991831	101.5
8	KB79	L7	True	20000.00	19640.776454	98.2



BATTELLE

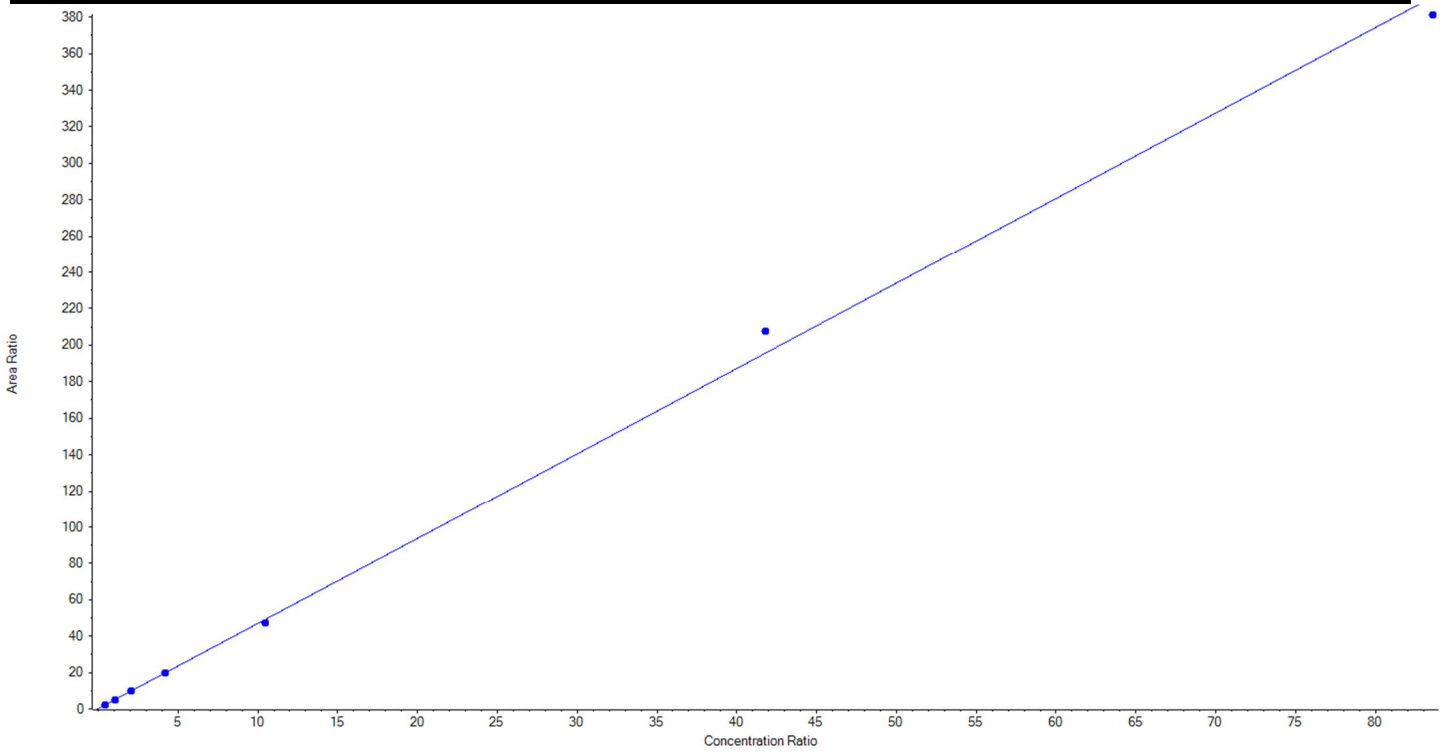
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFOS_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	499.0 / 80.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 4.67467 x + 0.21930 (r = 0.99915) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	107.416508	107.4
3	KB74	L2	True	250.00	238.845452	95.5
4	KB75	L3	True	500.00	486.328897	97.3
5	KB76	L4	True	1000.00	994.580618	99.5
6	KB77	L5	True	2500.00	2419.142735	96.8
7	KB78	L6	True	10000.00	10607.466324	106.1
8	KB79	L7	True	20000.00	19496.219465	97.5



BATTELLE

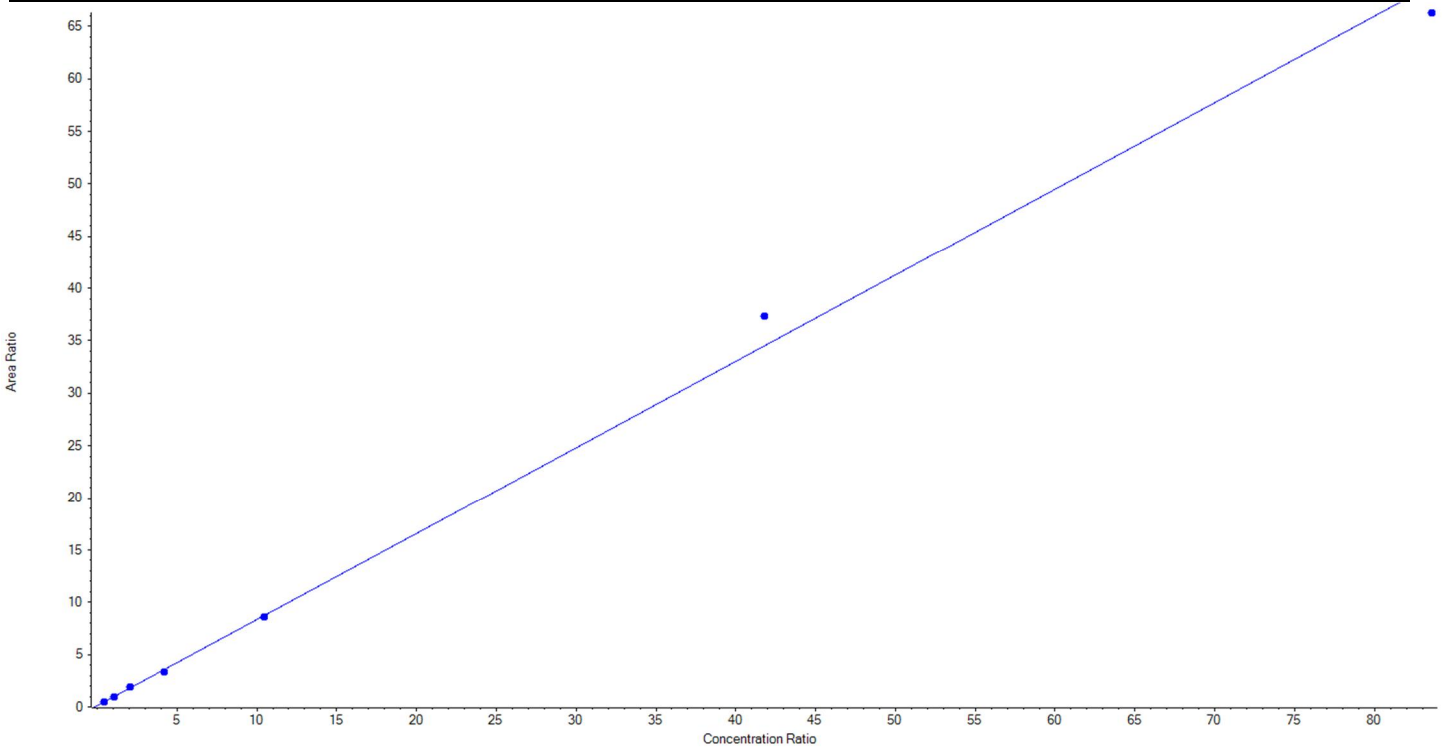
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFOS_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	499.0 / 99.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.82311 x + 0.11123 (r = 0.99837) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	99.944163	99.9
3	KB74	L2	True	250.00	239.211228	95.7
4	KB75	L3	True	500.00	530.318821	106.1
5	KB76	L4	True	1000.00	947.792019	94.8
6	KB77	L5	True	2500.00	2478.331212	99.1
7	KB78	L6	True	10000.00	10824.623723	108.3
8	KB79	L7	True	20000.00	19229.778835	96.2



BATTELLE

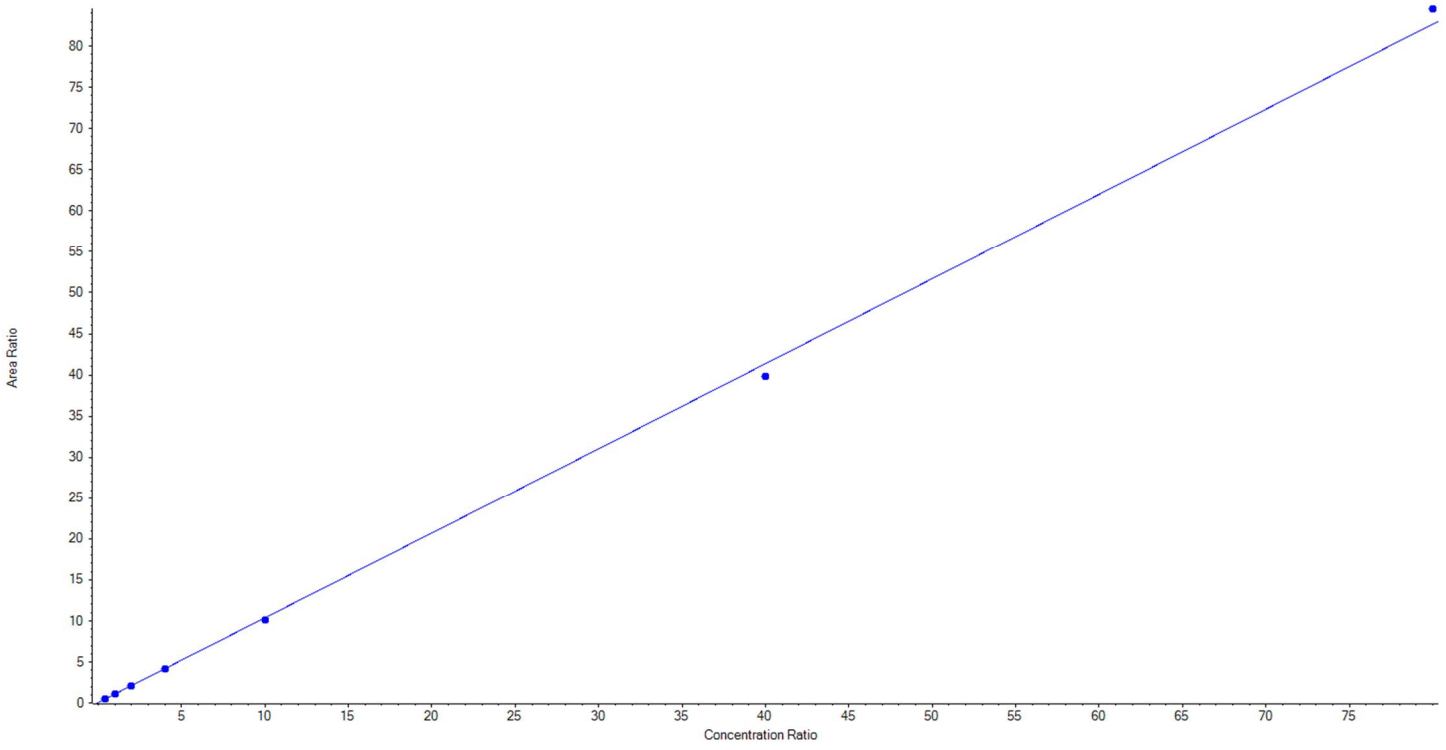
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFDA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	513.0 / 469.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03307 x + 0.04360 (r = 0.99958) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	103.005915	103.0
3	KB74	L2	True	250.00	264.156573	105.7
4	KB75	L3	True	500.00	483.725734	96.8
5	KB76	L4	True	1000.00	984.480424	98.5
6	KB77	L5	True	2500.00	2440.339152	97.6
7	KB78	L6	True	10000.00	9630.647919	96.3
8	KB79	L7	True	20000.00	20443.644282	102.2



BATTELLE

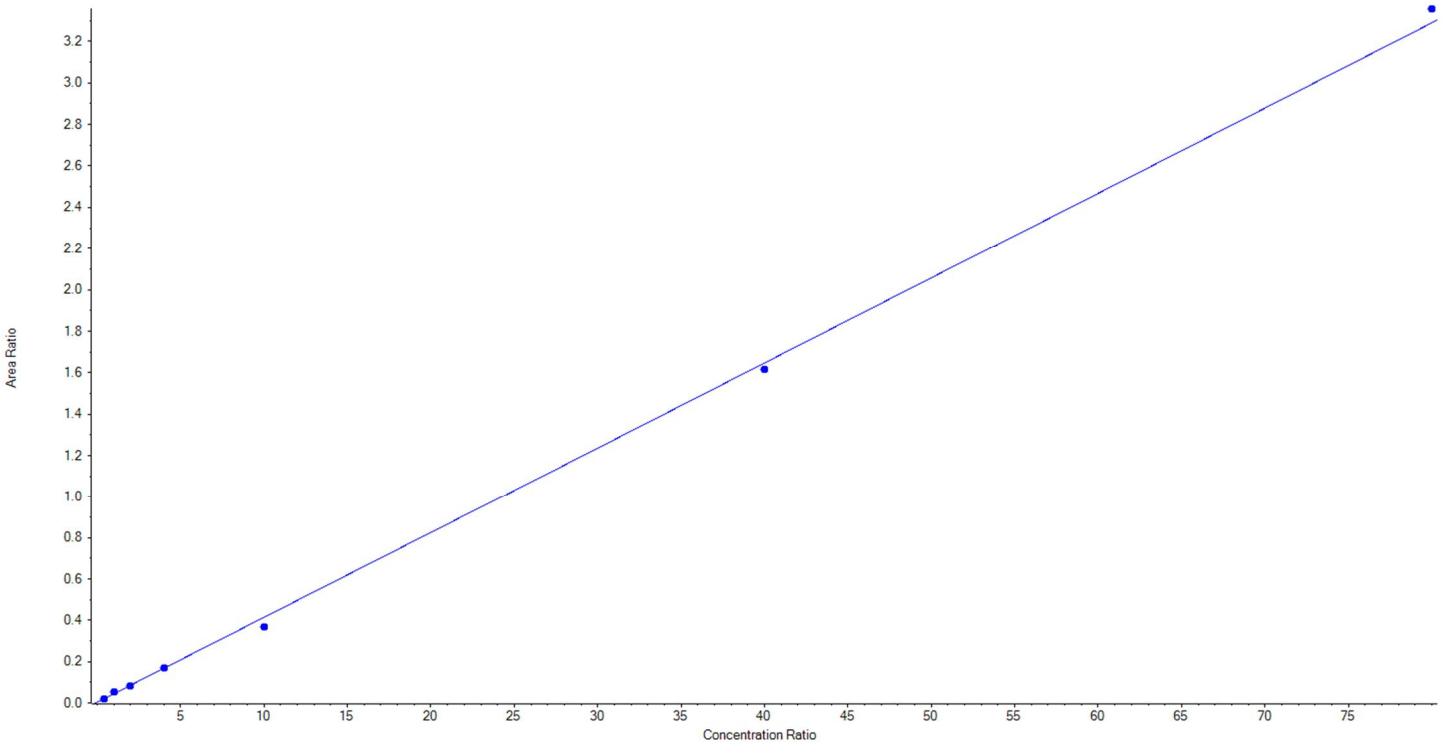
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFDA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	513.0 / 219.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.04108 x + 0.00328 (r = 0.99909) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	87.993271	88.0
3	KB74	L2	True	250.00	311.243515	124.5
4	KB75	L3	True	500.00	490.024516	98.0
5	KB76	L4	True	1000.00	1000.887262	100.1
6	KB77	L5	True	2500.00	2228.683671	89.2
7	KB78	L6	True	10000.00	9822.501680	98.2
8	KB79	L7	True	20000.00	20408.666086	102.0



BATTELLE

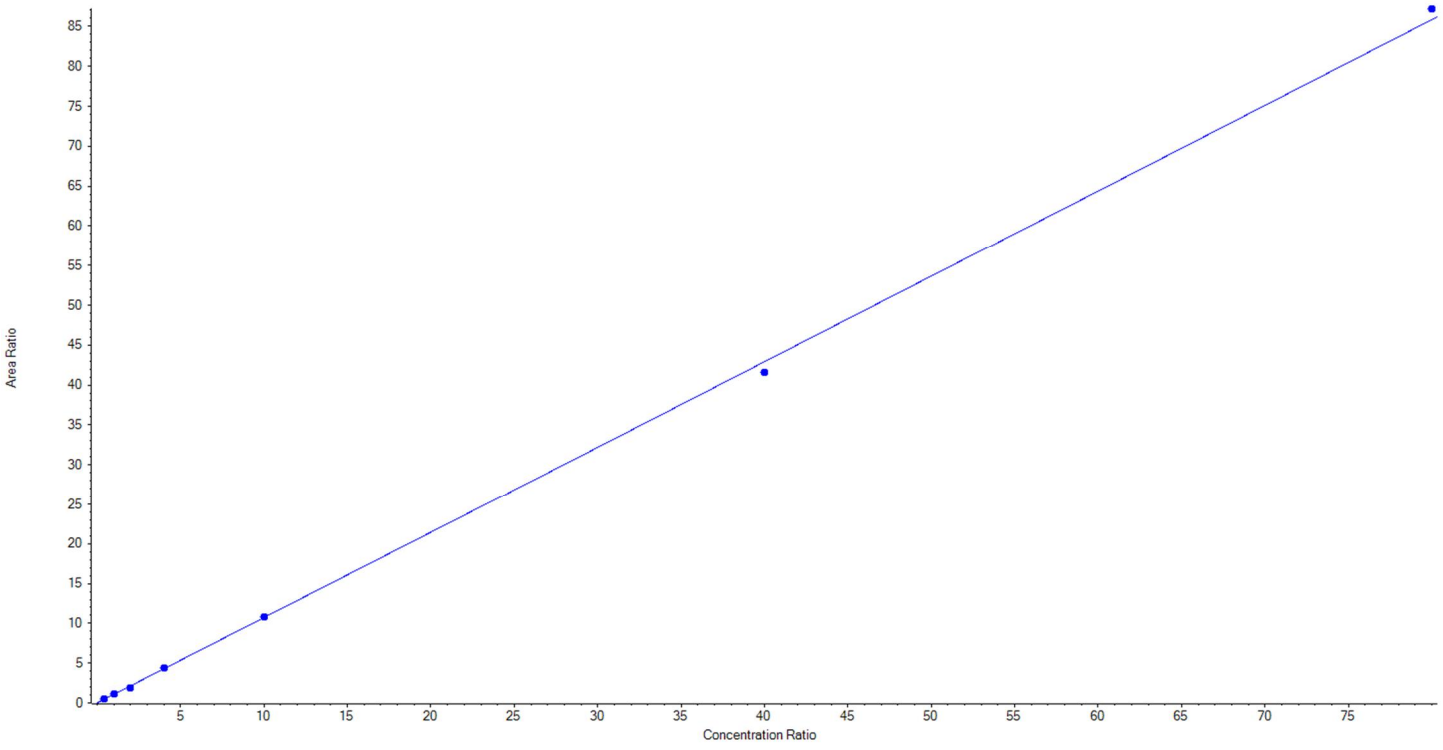
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFUnA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	563.0 / 519.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.07295 x + -0.00185 (r = 0.99967) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	107.476986	107.5
3	KB74	L2	True	250.00	251.685215	100.7
4	KB75	L3	True	500.00	453.977887	90.8
5	KB76	L4	True	1000.00	1014.616700	101.5
6	KB77	L5	True	2500.00	2531.168763	101.3
7	KB78	L6	True	10000.00	9677.911533	96.8
8	KB79	L7	True	20000.00	20313.162915	101.6



BATTELLE

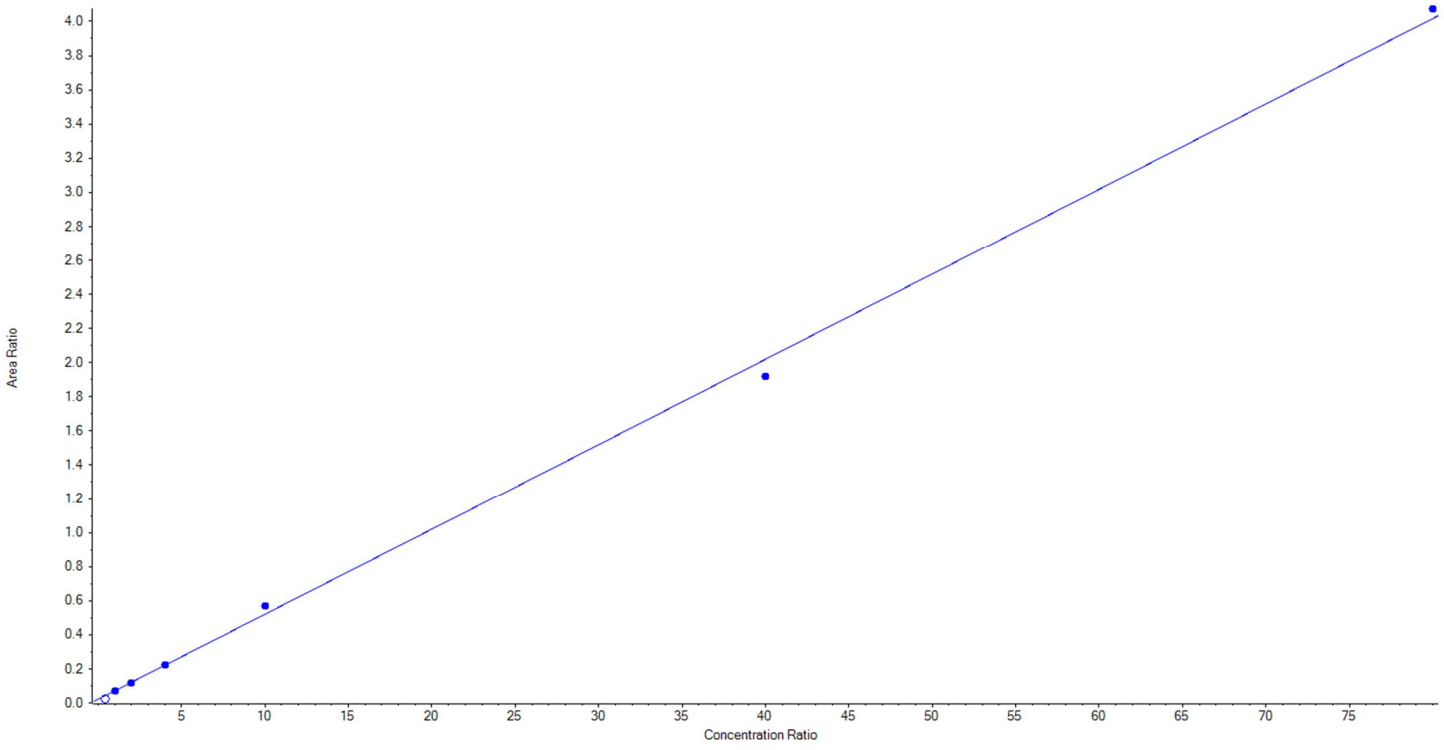
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFUnA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	563.0 / 269.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.04995 x + 0.02132 (r = 0.99904) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	False	100.00	18.012950	18.0
3	KB74	L2	True	250.00	242.887117	97.2
4	KB75	L3	True	500.00	481.959008	96.4
5	KB76	L4	True	1000.00	999.644410	100.0
6	KB77	L5	True	2500.00	2754.364561	110.2
7	KB78	L6	True	10000.00	9491.720703	94.9
8	KB79	L7	True	20000.00	20279.424201	101.4



BATTELLE

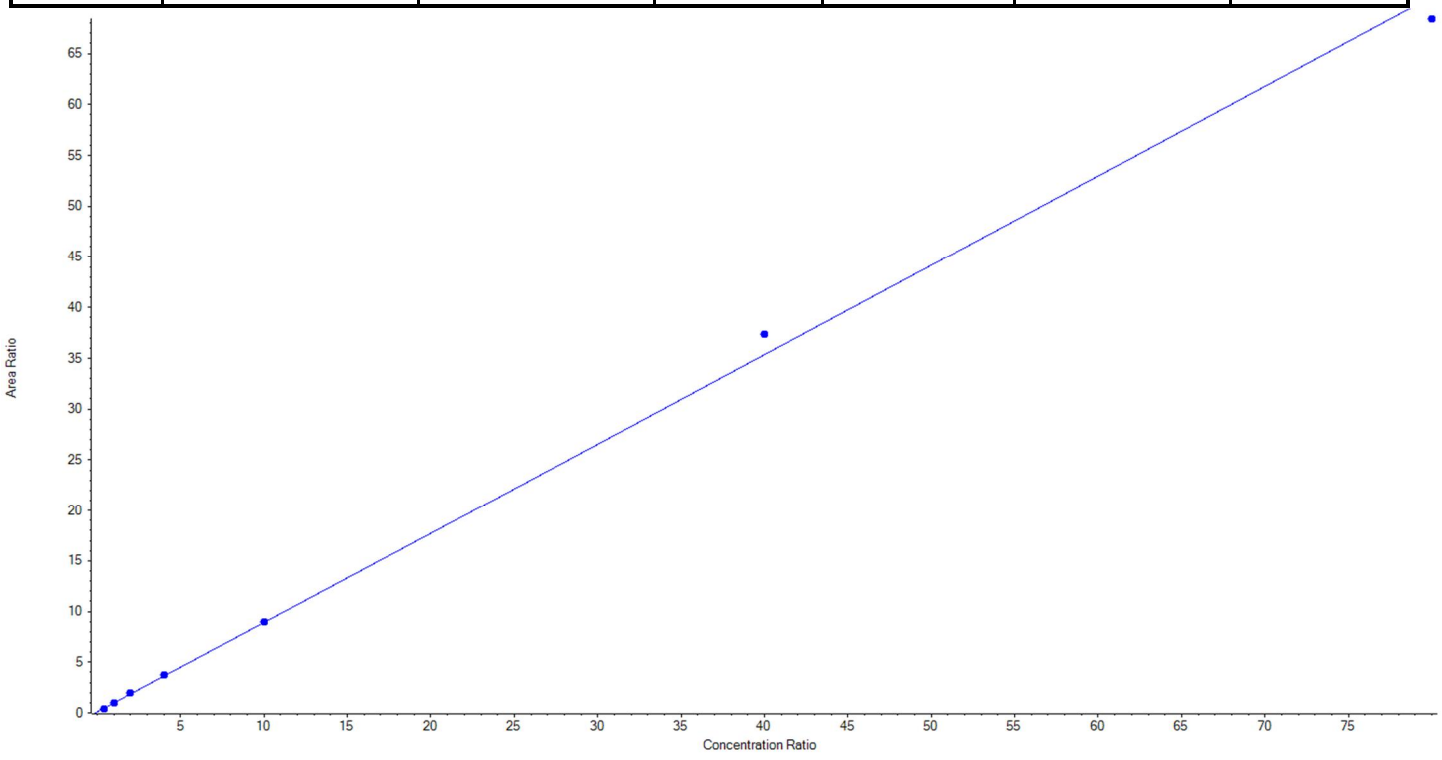
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFDoA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	613.0 / 569.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.88122 x + 0.09959 (r = 0.99913) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	89.096034	89.1
3	KB74	L2	True	250.00	249.033090	99.6
4	KB75	L3	True	500.00	526.324928	105.3
5	KB76	L4	True	1000.00	1029.973188	103.0
6	KB77	L5	True	2500.00	2512.104680	100.5
7	KB78	L6	True	10000.00	10565.379593	105.7
8	KB79	L7	True	20000.00	19378.088488	96.9



BATTELLE

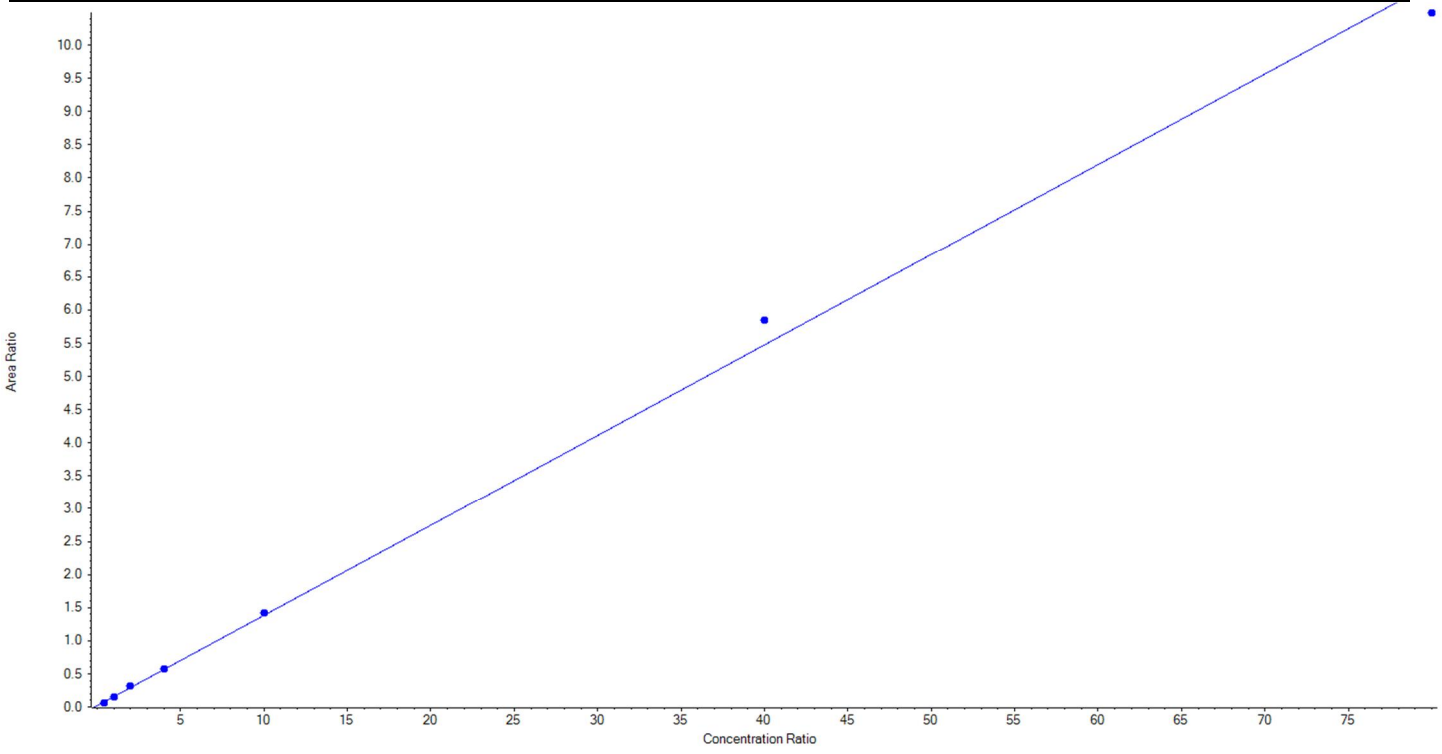
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFDoA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	613.0 / 319.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.13637 x + 0.01984 (r = 0.99854) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	83.834610	83.8
3	KB74	L2	True	250.00	242.468633	97.0
4	KB75	L3	True	500.00	554.769739	111.0
5	KB76	L4	True	1000.00	1028.359731	102.8
6	KB77	L5	True	2500.00	2563.459258	102.5
7	KB78	L6	True	10000.00	10692.821021	106.9
8	KB79	L7	True	20000.00	19184.287007	95.9



BATTELLE

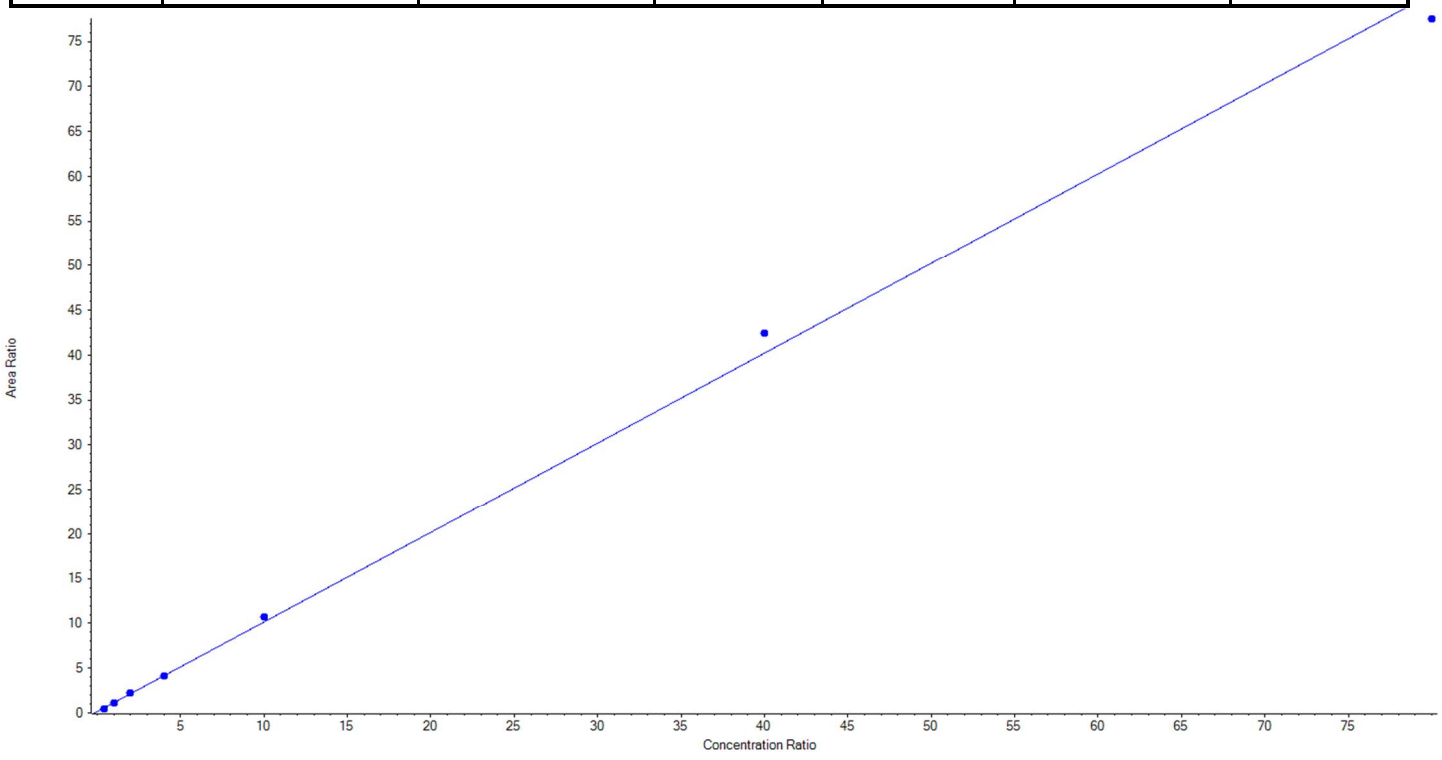
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFTrDA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	663.0 / 619.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.00249 x + 0.13669 (r = 0.99898) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	88.381710	88.4
3	KB74	L2	True	250.00	251.136552	100.5
4	KB75	L3	True	500.00	516.237138	103.3
5	KB76	L4	True	1000.00	1002.427883	100.2
6	KB77	L5	True	2500.00	2642.100132	105.7
7	KB78	L6	True	10000.00	10548.173082	105.5
8	KB79	L7	True	20000.00	19301.543504	96.5



BATTELLE

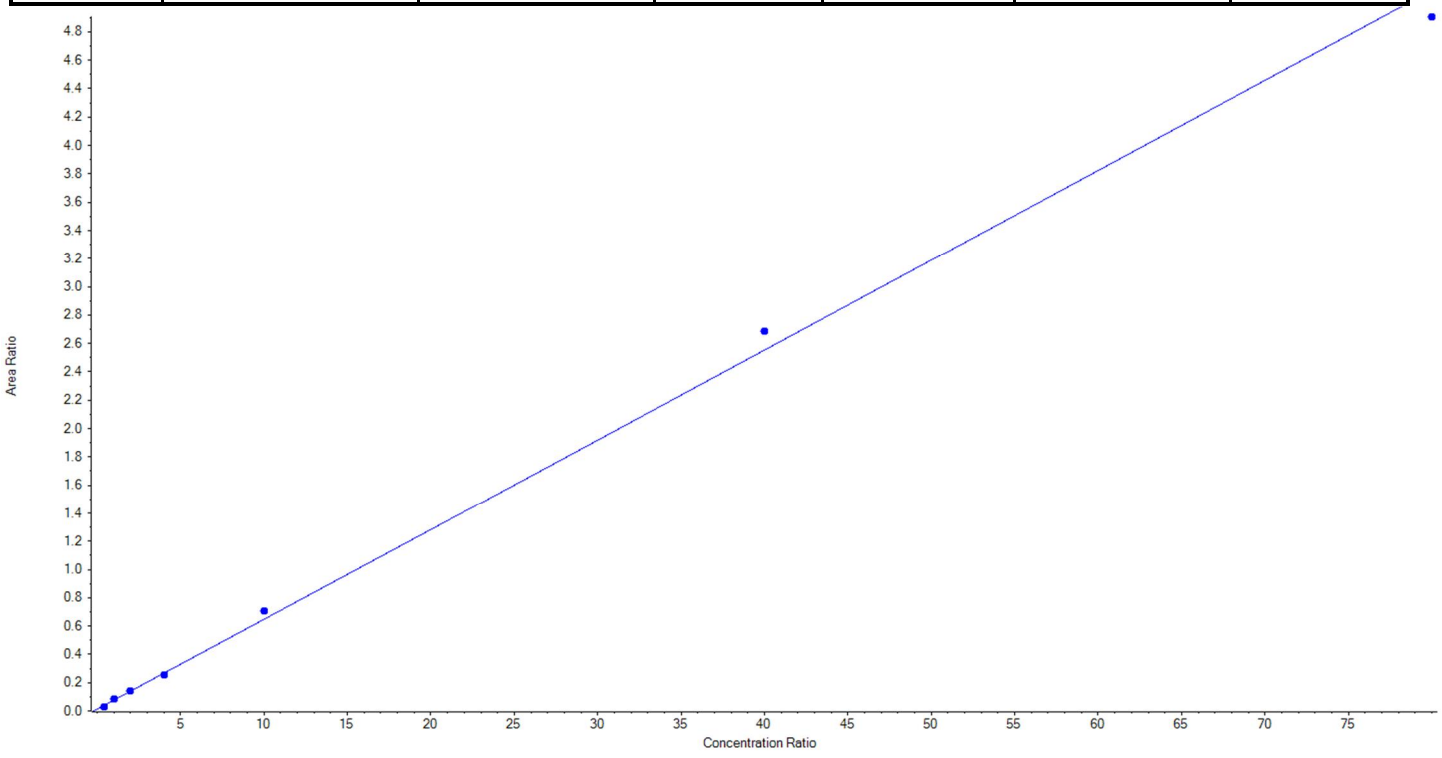
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFTrDA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	663.0 / 169.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06351 x + 0.01272 (r = 0.99853) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	74.946847	75.0
3	KB74	L2	True	250.00	294.577243	117.8
4	KB75	L3	True	500.00	498.914182	99.8
5	KB76	L4	True	1000.00	963.859948	96.4
6	KB77	L5	True	2500.00	2738.938649	109.6
7	KB78	L6	True	10000.00	10520.412689	105.2
8	KB79	L7	True	20000.00	19258.350443	96.3



BATTELLE

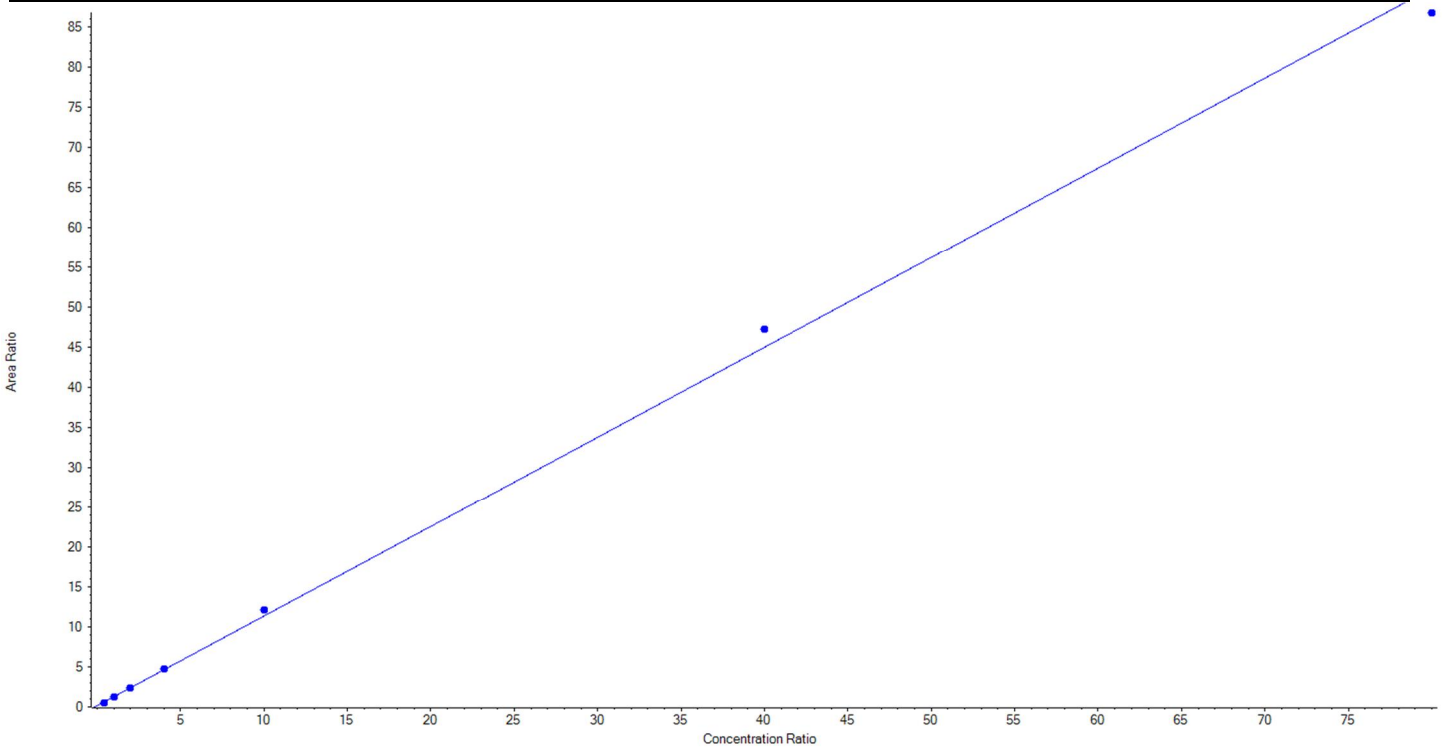
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFTeDA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	713.0 / 669.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.12184 x + 0.15528 (r = 0.99901) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	85.190698	85.2
3	KB74	L2	True	250.00	257.037481	102.8
4	KB75	L3	True	500.00	504.798334	101.0
5	KB76	L4	True	1000.00	1031.897501	103.2
6	KB77	L5	True	2500.00	2656.331591	106.3
7	KB78	L6	True	10000.00	10503.581439	105.0
8	KB79	L7	True	20000.00	19311.162956	96.6



BATTELLE

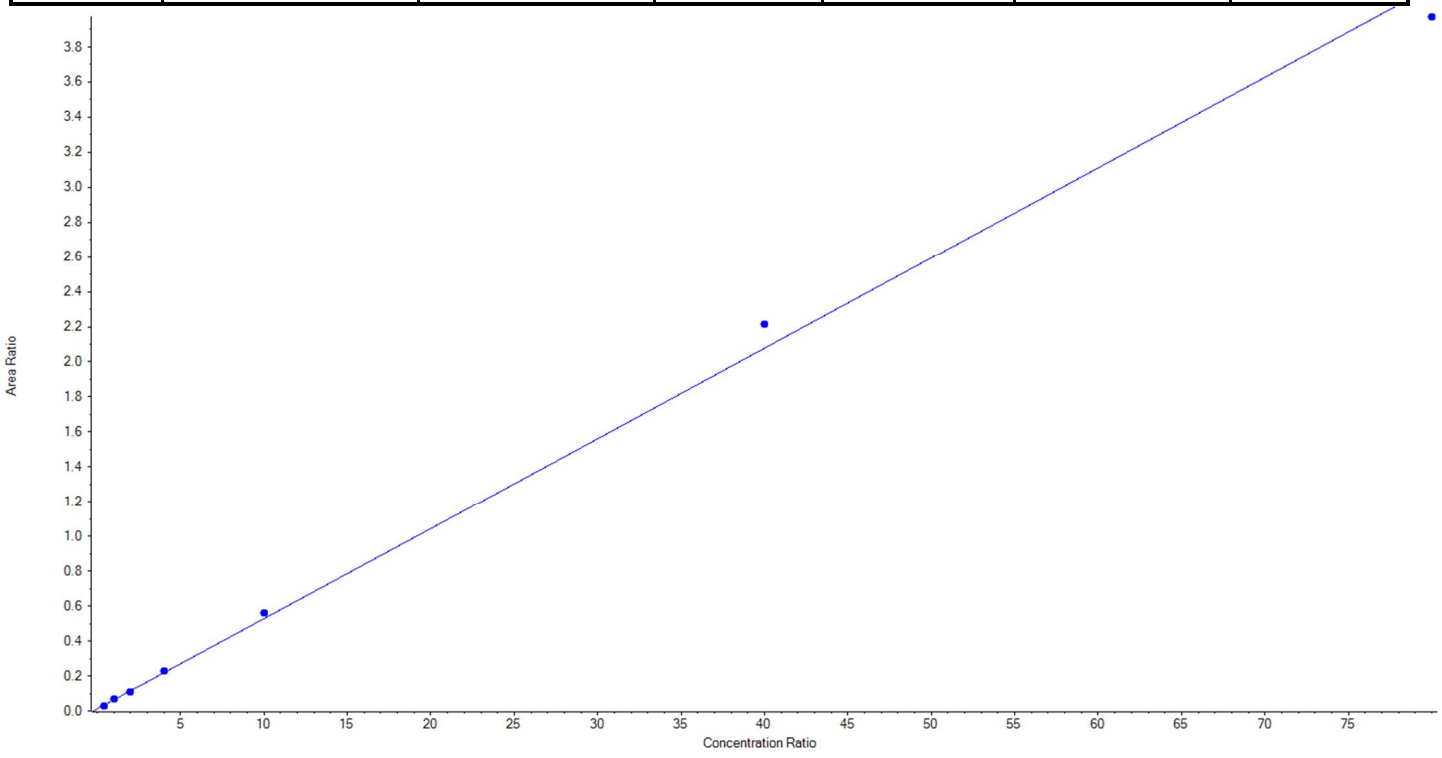
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	PFTeDA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	713.0 / 169.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05165 x + 0.01164 (r = 0.99852) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	84.195949	84.2
3	KB74	L2	True	250.00	266.758889	106.7
4	KB75	L3	True	500.00	480.306995	96.1
5	KB76	L4	True	1000.00	1042.648241	104.3
6	KB77	L5	True	2500.00	2661.401828	106.5
7	KB78	L6	True	10000.00	10648.951861	106.5
8	KB79	L7	True	20000.00	19165.736237	95.8



BATTELLE

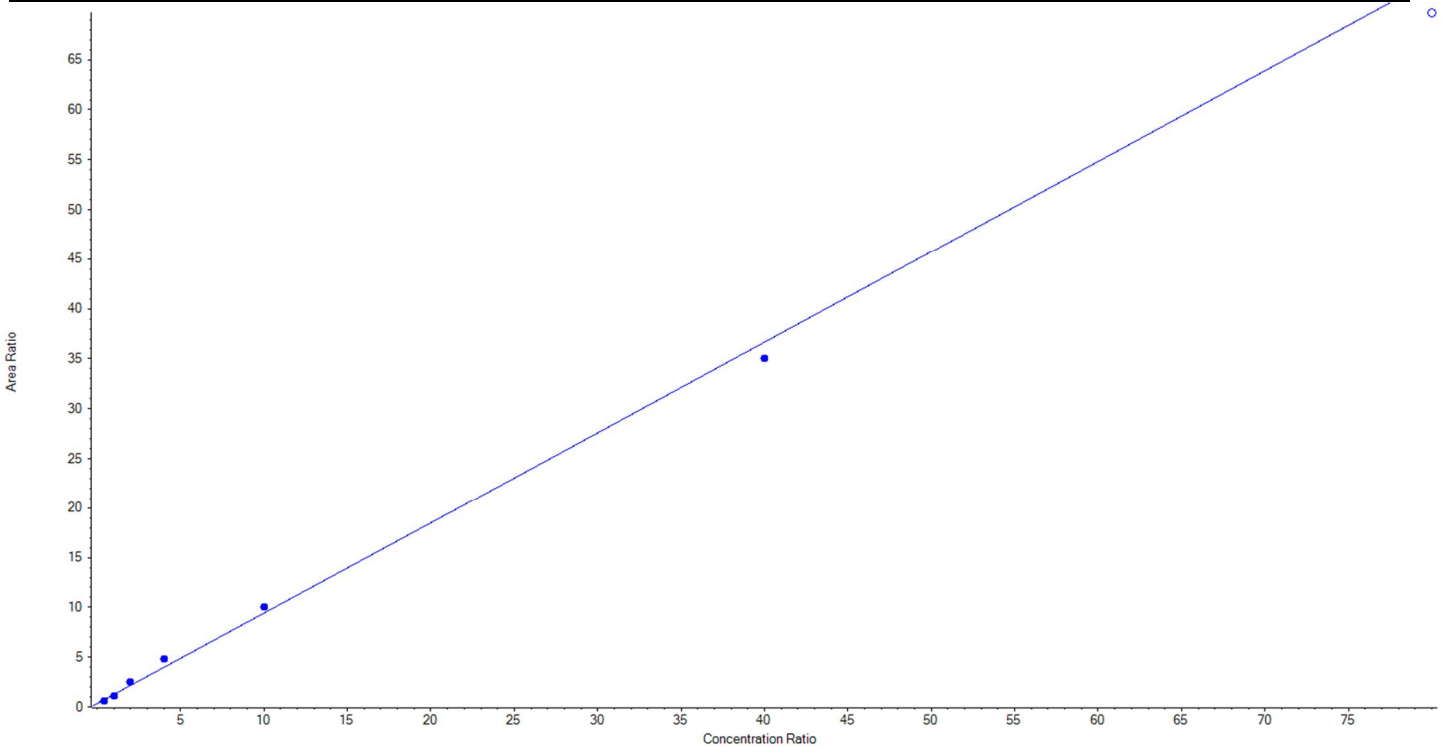
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	NMeFOSAA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	570.0 / 419.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.90804 x + 0.34259 (r = 0.99523) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	71.469191	71.5
3	KB74	L2	True	250.00	208.839498	83.5
4	KB75	L3	True	500.00	595.249399	119.1
5	KB76	L4	True	1000.00	1233.267050	123.3
6	KB77	L5	True	2500.00	2673.555867	106.9
7	KB78	L6	True	10000.00	9567.618995	95.7
8	KB79	L7	False	20000.00	19092.468812	95.5



BATTELLE

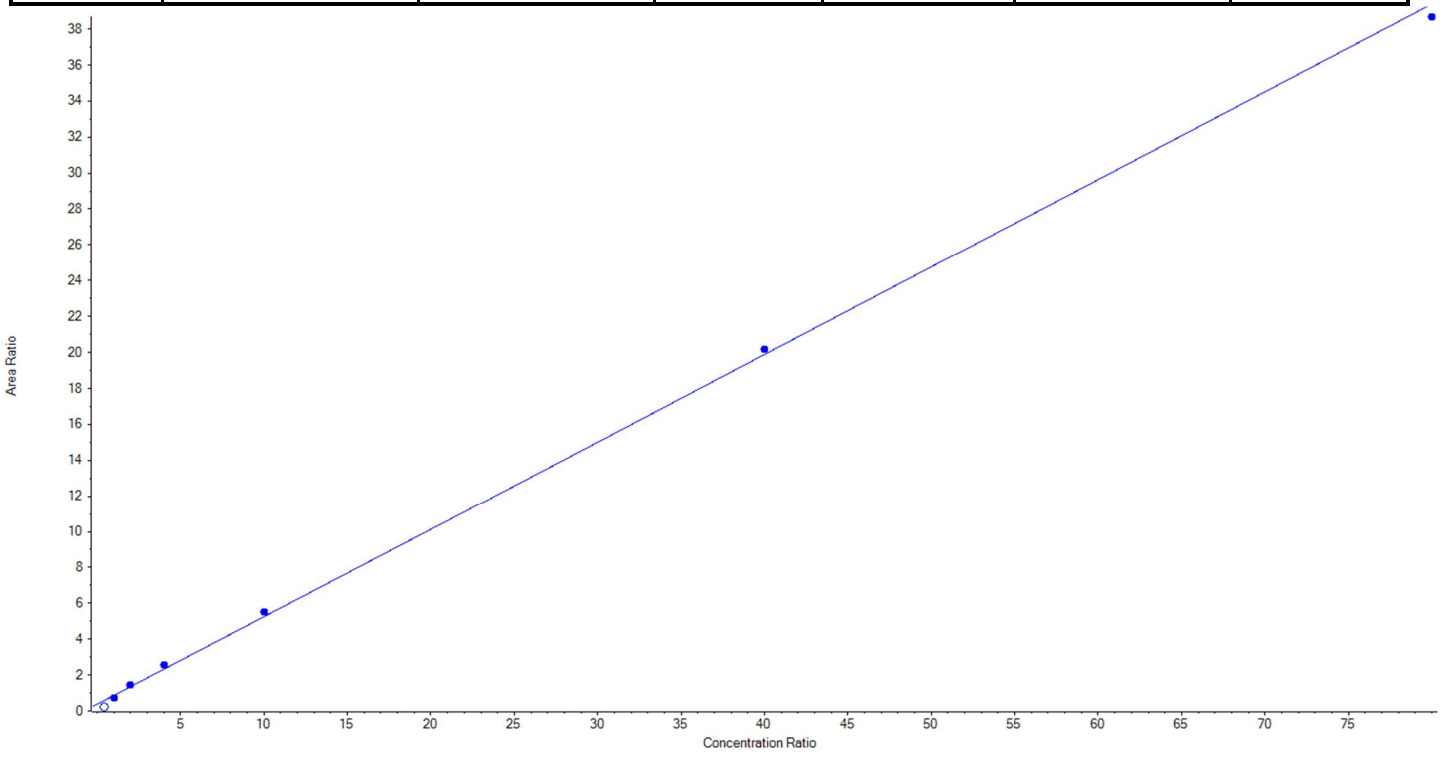
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	NMeFOSAA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	570.0 / 512.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.48762 x + 0.37640 (r = 0.99909) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	False	100.00	< 0	N/A
3	KB74	L2	True	250.00	181.382642	72.6
4	KB75	L3	True	500.00	556.562411	111.3
5	KB76	L4	True	1000.00	1116.273104	111.6
6	KB77	L5	True	2500.00	2623.733926	105.0
7	KB78	L6	True	10000.00	10139.510763	101.4
8	KB79	L7	True	20000.00	19632.537155	98.2



BATTELLE

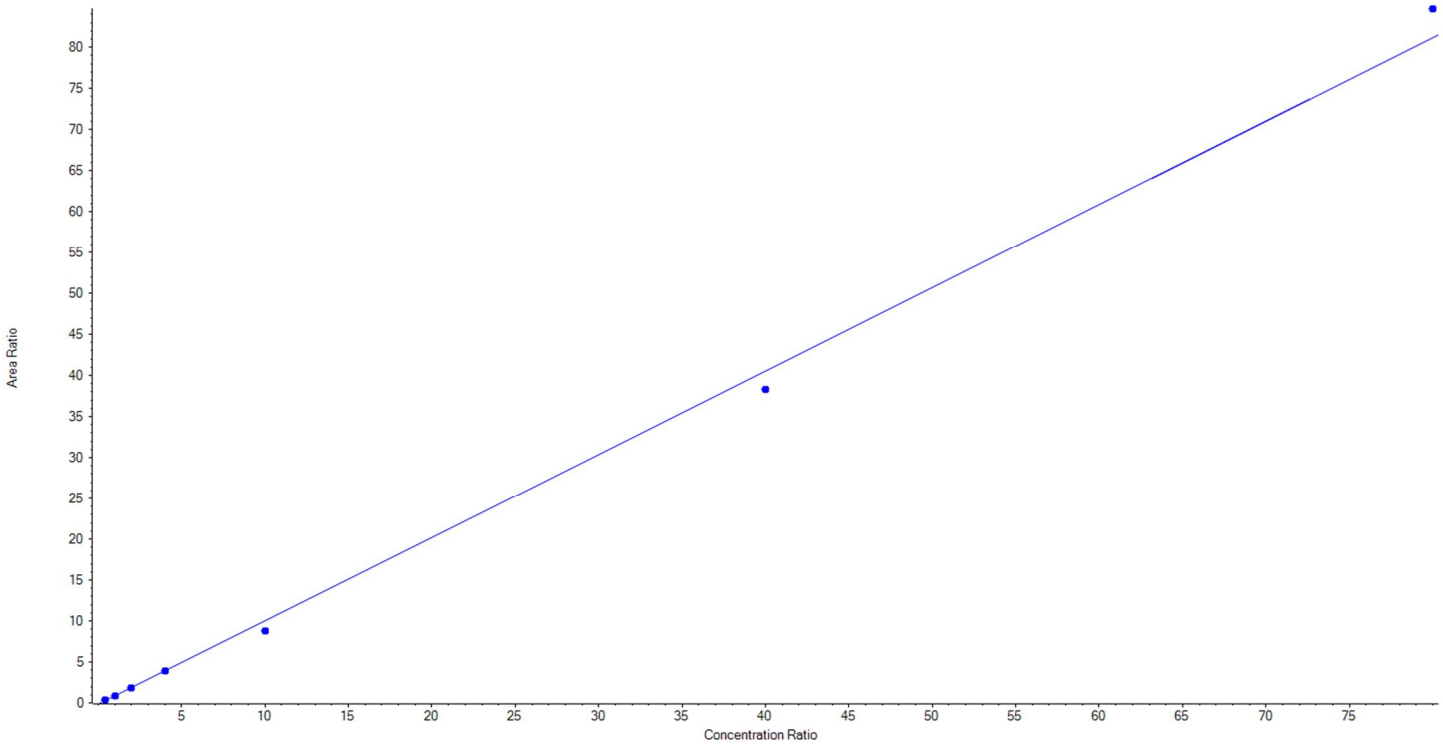
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	NEtFOSAA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	584.0 / 419.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.01615 x + -0.12499 (r = 0.99829) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	115.264032	115.3
3	KB74	L2	True	250.00	253.235603	101.3
4	KB75	L3	True	500.00	482.878951	96.6
5	KB76	L4	True	1000.00	1003.840402	100.4
6	KB77	L5	True	2500.00	2193.919219	87.8
7	KB78	L6	True	10000.00	9444.163786	94.4
8	KB79	L7	True	20000.00	20856.698006	104.3



BATTELLE

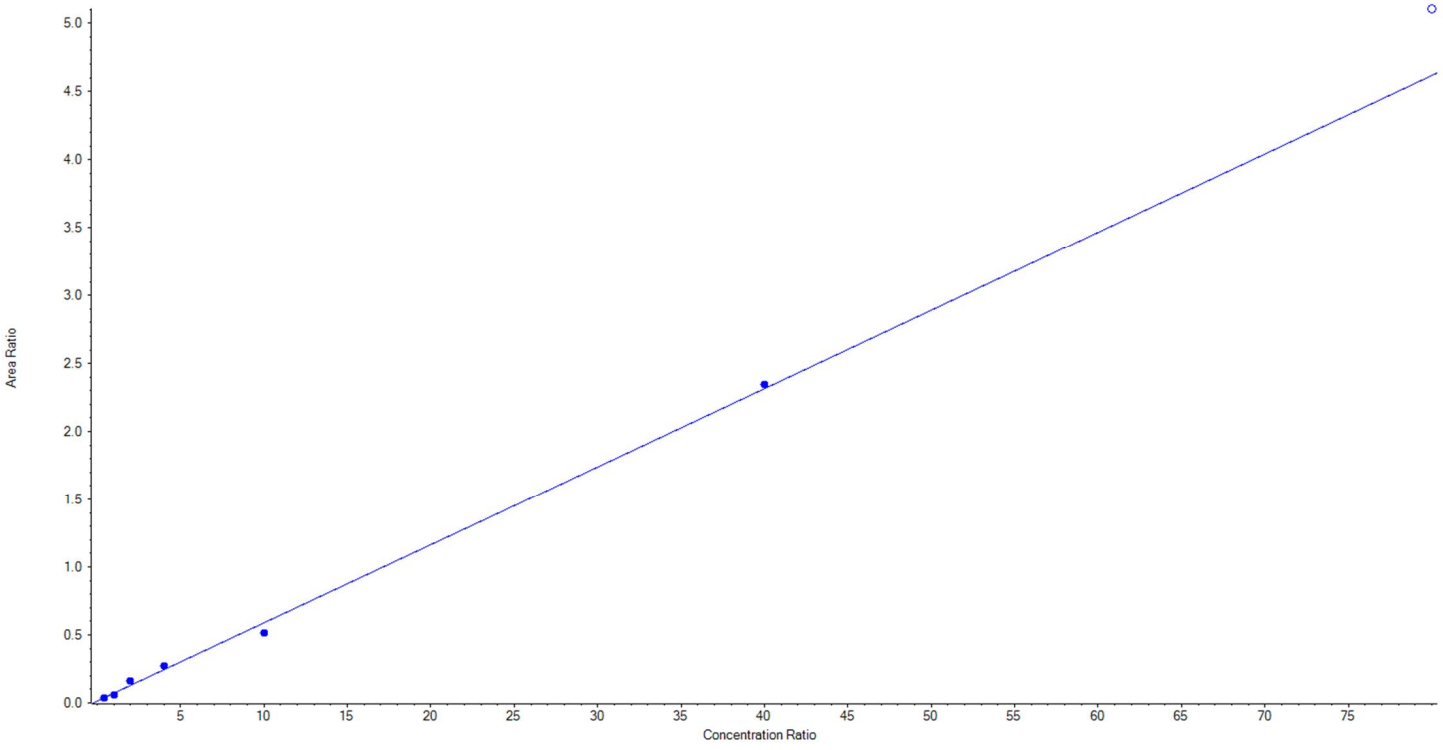
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:11 PM

Analyte Name	NEtFOSAA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	584.0 / 483.0	**Result Table**	18-0585_18-0583_BASE
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:25:01 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05754 x + 0.01392 (r = 0.99543) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	92.096020	92.1
3	KB74	L2	True	250.00	197.427076	79.0
4	KB75	L3	True	500.00	649.935419	130.0
5	KB76	L4	True	1000.00	1107.750721	110.8
6	KB77	L5	True	2500.00	2171.436204	86.9
7	KB78	L6	True	10000.00	10131.354561	101.3
8	KB79	L7	False	20000.00	22119.823543	110.6



BATTELLE

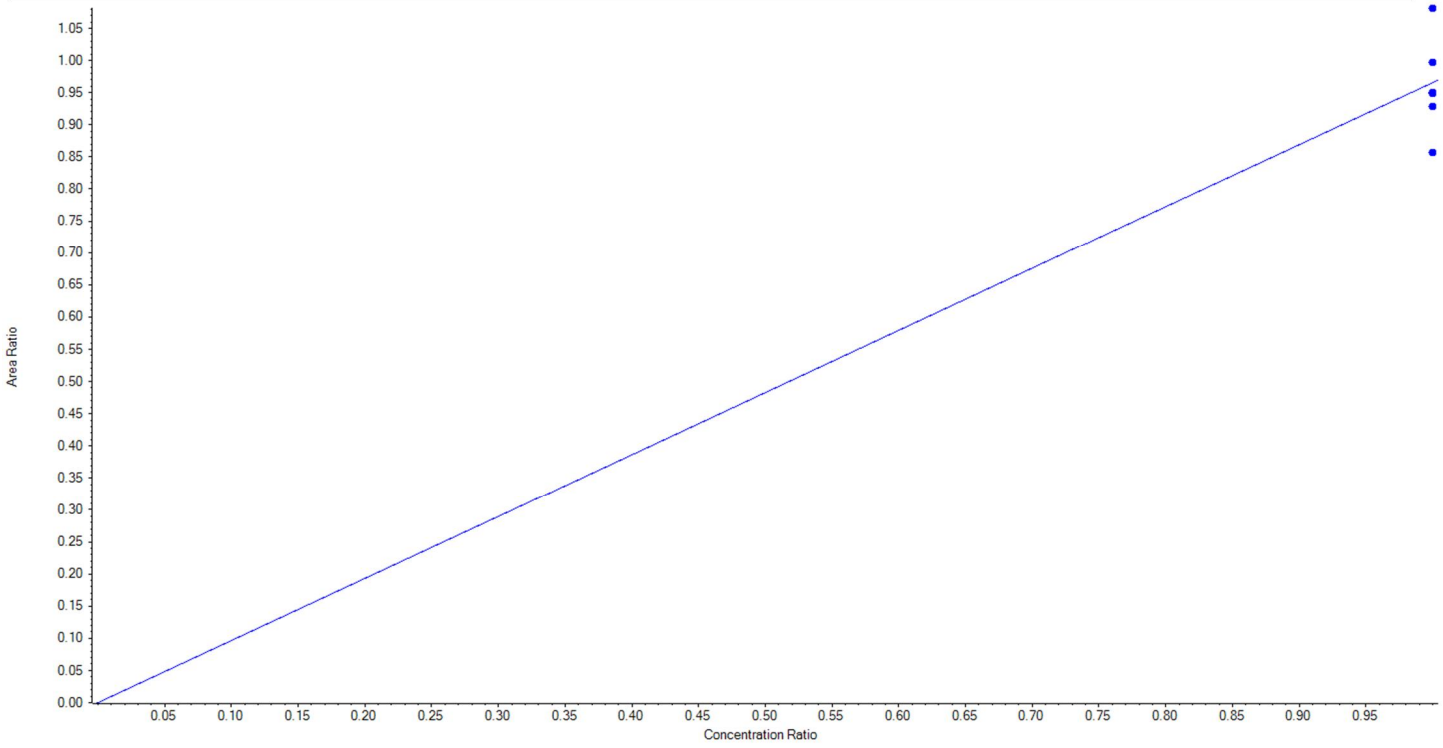
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C2-PFDoA	**Data File**	18-0585_18-0583.wiff
MRM Transition	615.0 / 570.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.96558 x (std. dev. = 0.06982) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	258.078699	103.2
3	KB74	L2	True	250.00	258.307131	103.3
4	KB75	L3	True	250.00	221.653879	88.7
5	KB76	L4	True	250.00	240.469815	96.2
6	KB77	L5	True	250.00	245.586916	98.2
7	KB78	L6	True	250.00	245.967877	98.4
8	KB79	L7	True	250.00	279.935683	112.0



BATTELLE

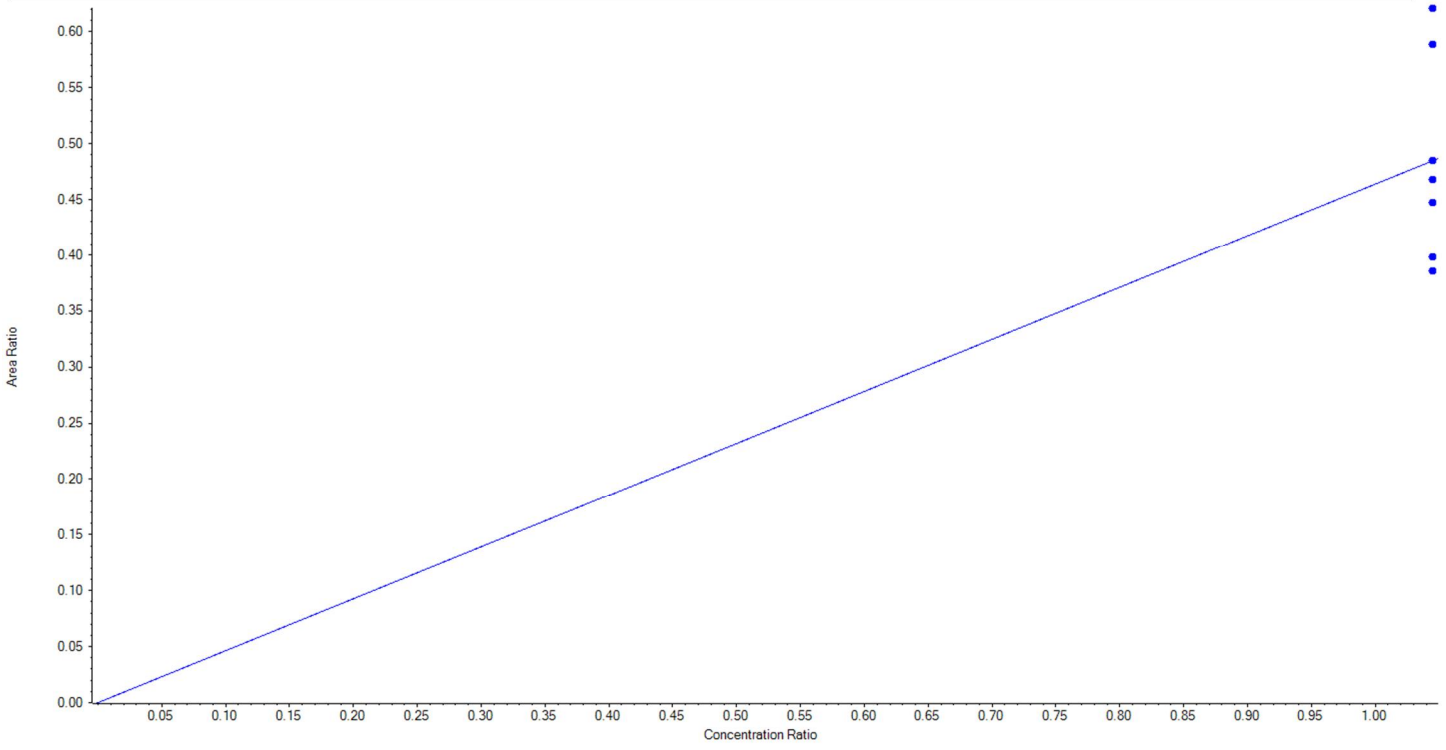
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	d3-MeFOSAA	**Data File**	18-0585_18-0583.wiff
MRM Transition	573.0 / 419.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.46391 x (std. dev. = 0.08601) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	250.221707	100.1
3	KB74	L2	True	250.00	205.301118	82.1
4	KB75	L3	True	250.00	198.766210	79.5
5	KB76	L4	True	250.00	241.154226	96.5
6	KB77	L5	True	250.00	230.650075	92.3
7	KB78	L6	True	250.00	303.640786	121.5
8	KB79	L7	True	250.00	320.265877	128.1



BATTELLE

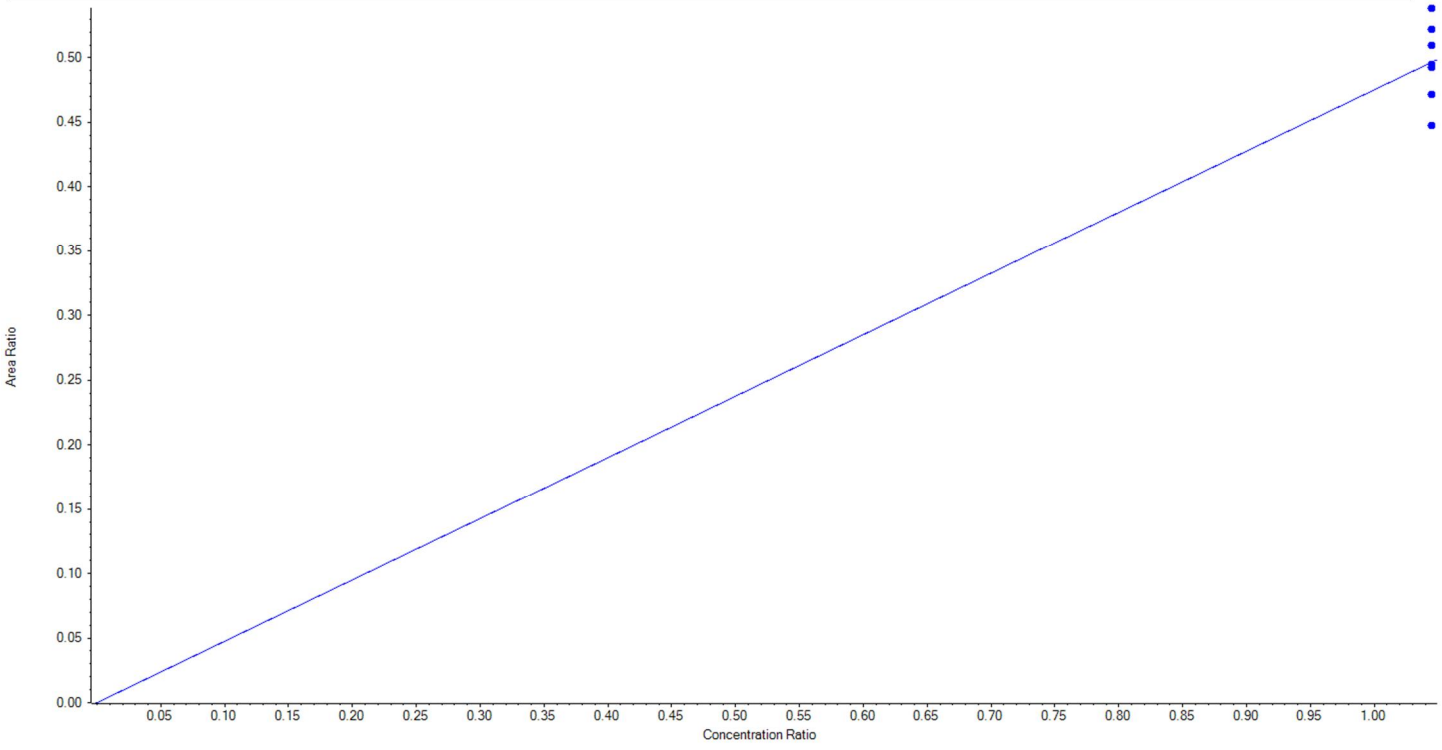
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	d5-EtFOSAA	**Data File**	18-0585_18-0583.wiff
MRM Transition	589.0 / 419.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.47521 x (std. dev. = 0.02922) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	262.671199	105.1
3	KB74	L2	True	250.00	237.307222	94.9
4	KB75	L3	True	250.00	271.025032	108.4
5	KB76	L4	True	250.00	256.474822	102.6
6	KB77	L5	True	250.00	249.106946	99.6
7	KB78	L6	True	250.00	248.070447	99.2
8	KB79	L7	True	250.00	225.344333	90.1



BATTELLE

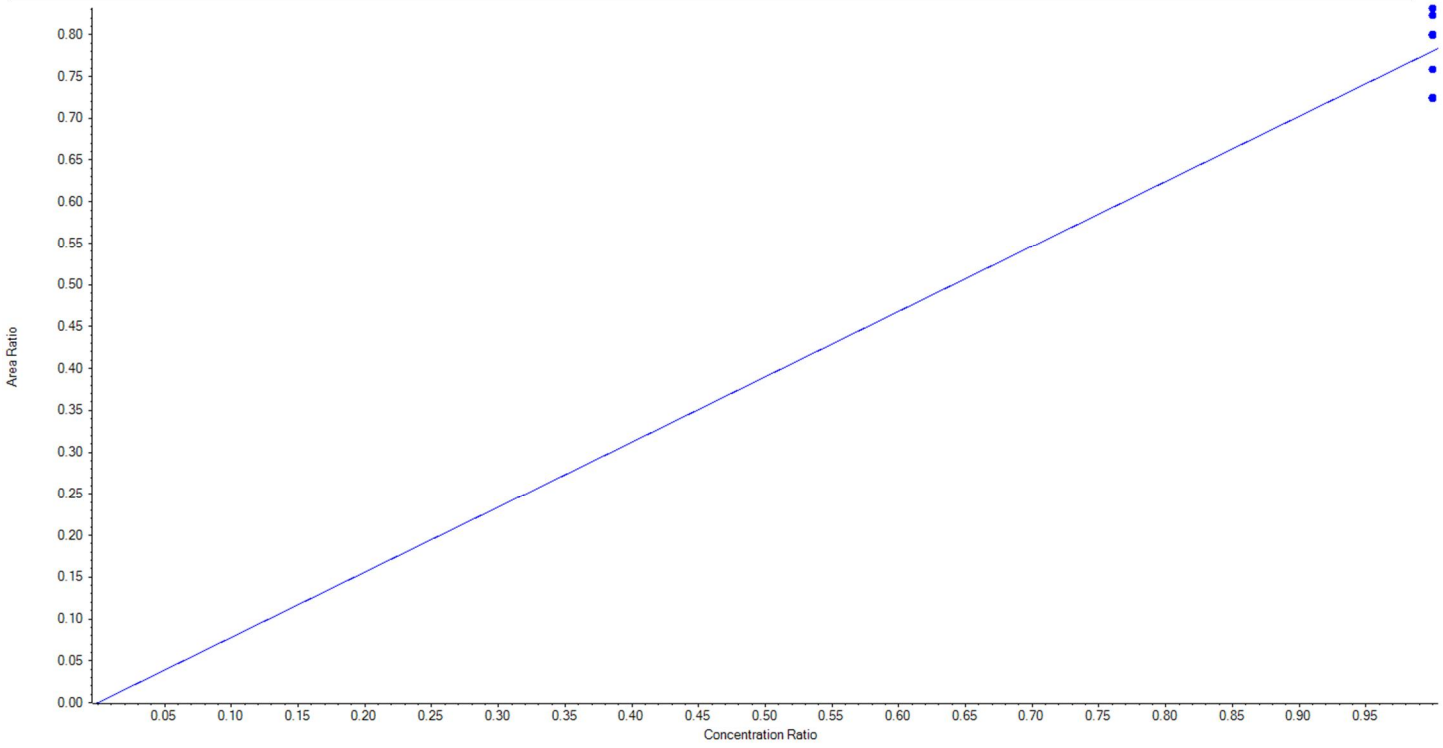
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C5-PFHxA	**Data File**	18-0585_18-0583.wiff
MRM Transition	318.0 / 273.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.78028 x (std. dev. = 0.04458) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	243.049455	97.2
3	KB74	L2	True	250.00	256.364104	102.6
4	KB75	L3	True	250.00	232.024639	92.8
5	KB76	L4	True	250.00	263.859828	105.5
6	KB77	L5	True	250.00	232.257516	92.9
7	KB78	L6	True	250.00	266.379146	106.6
8	KB79	L7	True	250.00	256.065312	102.4



BATTELLE

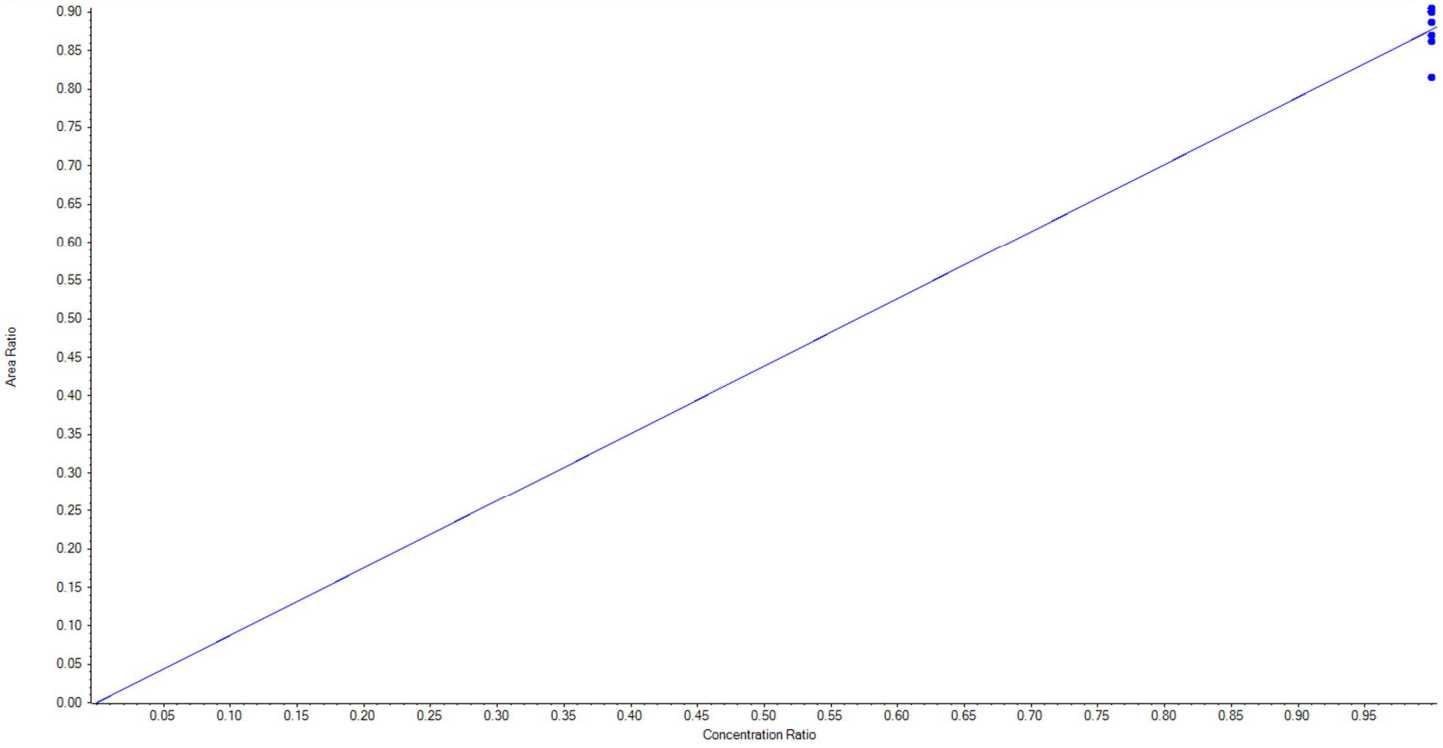
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C4-PFHpA	**Data File**	18-0585_18-0583.wiff
MRM Transition	367.0 / 322.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.87708 x (std. dev. = 0.03180) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	252.883573	101.2
3	KB74	L2	True	250.00	245.667987	98.3
4	KB75	L3	True	250.00	256.806395	102.7
5	KB76	L4	True	250.00	257.959593	103.2
6	KB77	L5	True	250.00	232.320508	92.9
7	KB78	L6	True	250.00	256.309897	102.5
8	KB79	L7	True	250.00	248.052047	99.2



BATTELLE

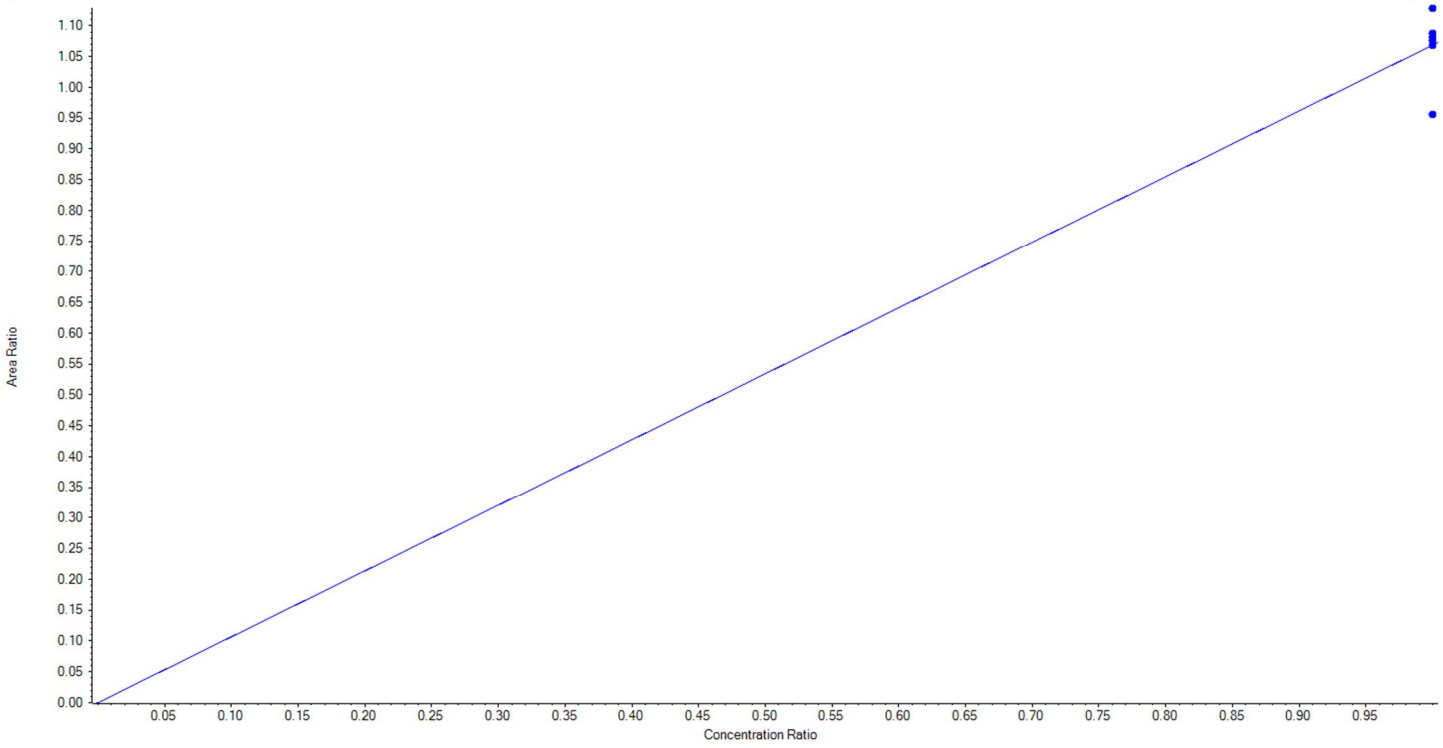
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C8-PFOA	**Data File**	18-0585_18-0583.wiff
MRM Transition	421.0 / 376.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.06861 x (std. dev. = 0.05317) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	251.823599	100.7
3	KB74	L2	True	250.00	253.123736	101.3
4	KB75	L3	True	250.00	263.971874	105.6
5	KB76	L4	True	250.00	254.573472	101.8
6	KB77	L5	True	250.00	249.849396	99.9
7	KB78	L6	True	250.00	252.933954	101.2
8	KB79	L7	True	250.00	223.723969	89.5



BATTELLE

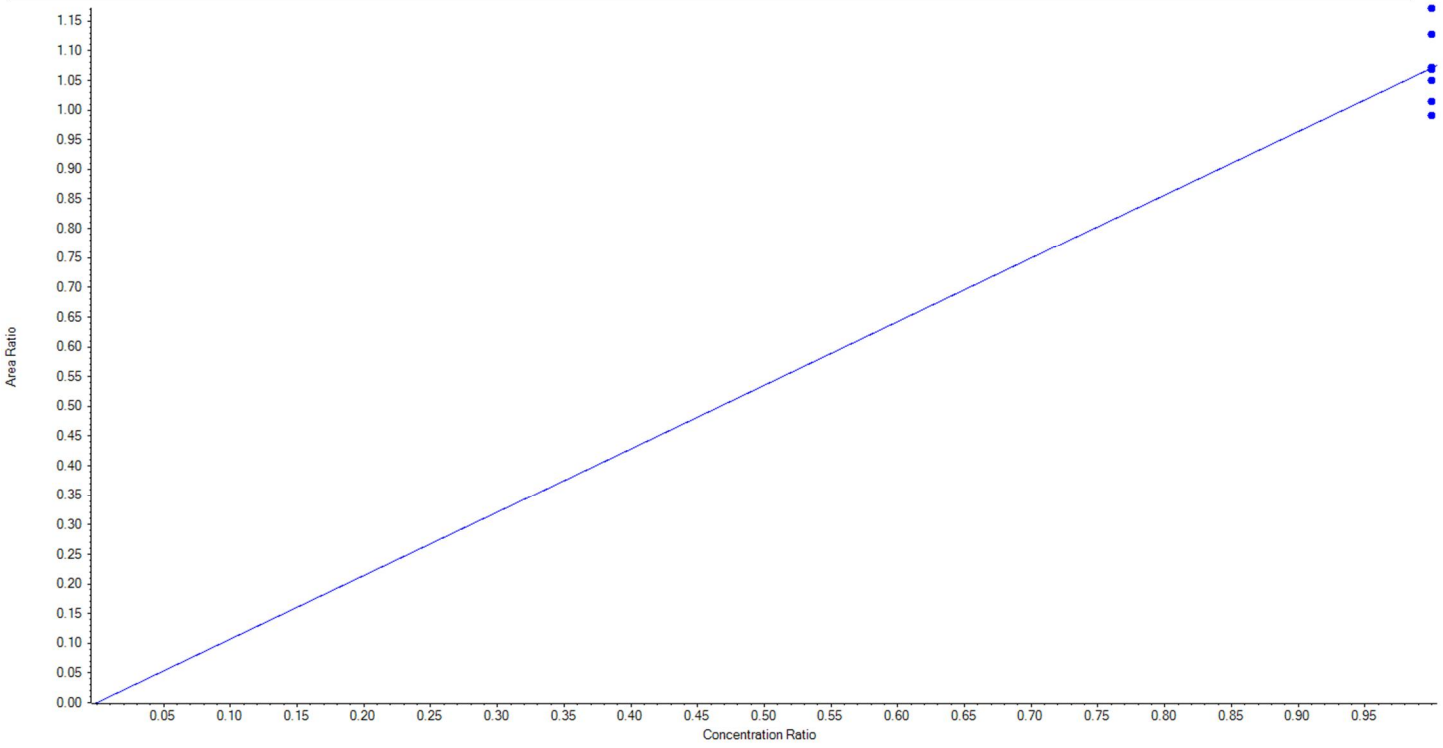
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C9-PFNA	**Data File**	18-0585_18-0583.wiff
MRM Transition	472.0 / 427.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.07066 x (std. dev. = 0.06241) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	231.215140	92.5
3	KB74	L2	True	250.00	250.329357	100.1
4	KB75	L3	True	250.00	245.163086	98.1
5	KB76	L4	True	250.00	249.441918	99.8
6	KB77	L5	True	250.00	237.044809	94.8
7	KB78	L6	True	250.00	273.523216	109.4
8	KB79	L7	True	250.00	263.282474	105.3



BATTELLE

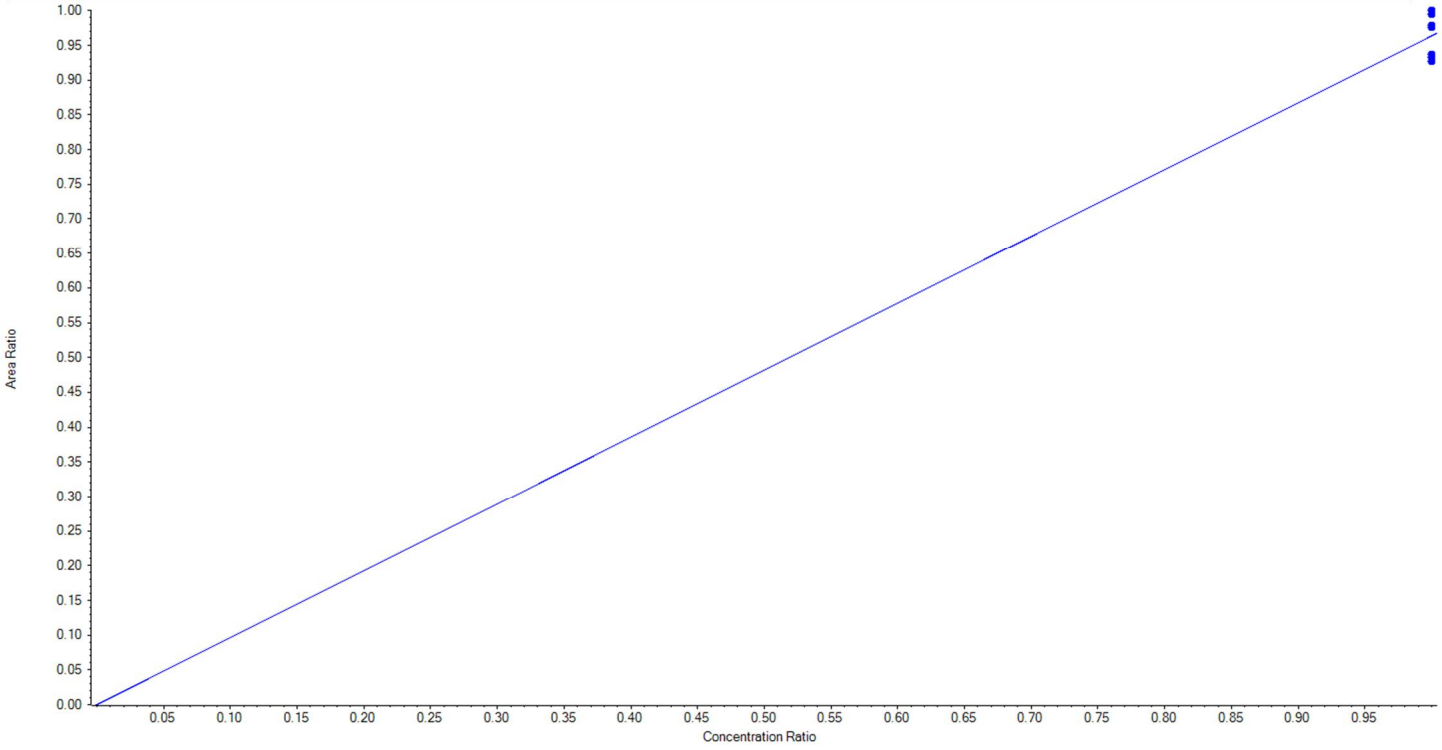
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C6-PFDA	**Data File**	18-0585_18-0583.wiff
MRM Transition	519.0 / 474.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.96379 x (std. dev. = 0.03115) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	259.534461	103.8
3	KB74	L2	True	250.00	253.835780	101.5
4	KB75	L3	True	250.00	241.825547	96.7
5	KB76	L4	True	250.00	253.336528	101.3
6	KB77	L5	True	250.00	258.120569	103.3
7	KB78	L6	True	250.00	243.017669	97.2
8	KB79	L7	True	250.00	240.329447	96.1



BATTELLE

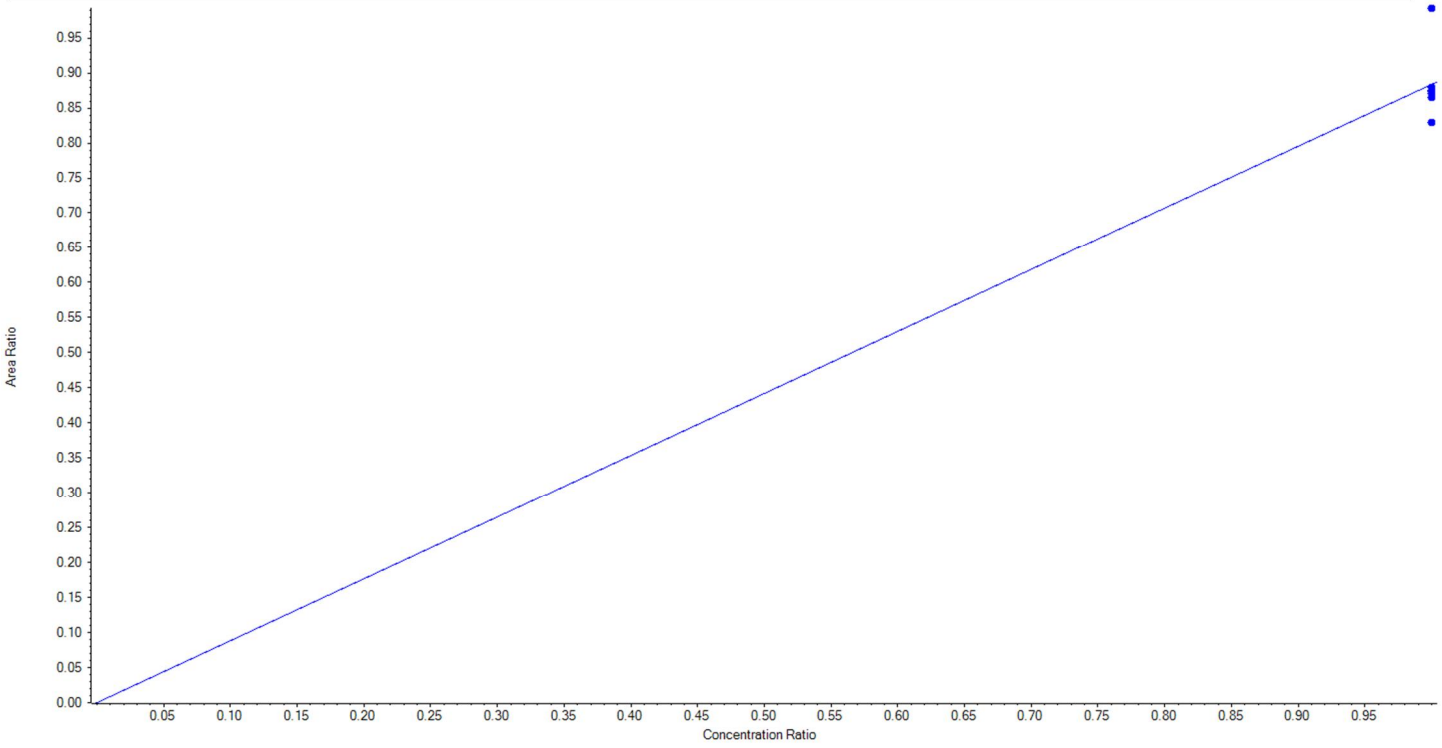
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C7-PFUnA	**Data File**	18-0585_18-0583.wiff
MRM Transition	570.0 / 525.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.88383 x (std. dev. = 0.05087) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	244.672187	97.9
3	KB74	L2	True	250.00	280.719213	112.3
4	KB75	L3	True	250.00	247.689949	99.1
5	KB76	L4	True	250.00	234.419788	93.8
6	KB77	L5	True	250.00	246.398664	98.6
7	KB78	L6	True	250.00	247.157644	98.9
8	KB79	L7	True	250.00	248.942556	99.6



BATTELLE

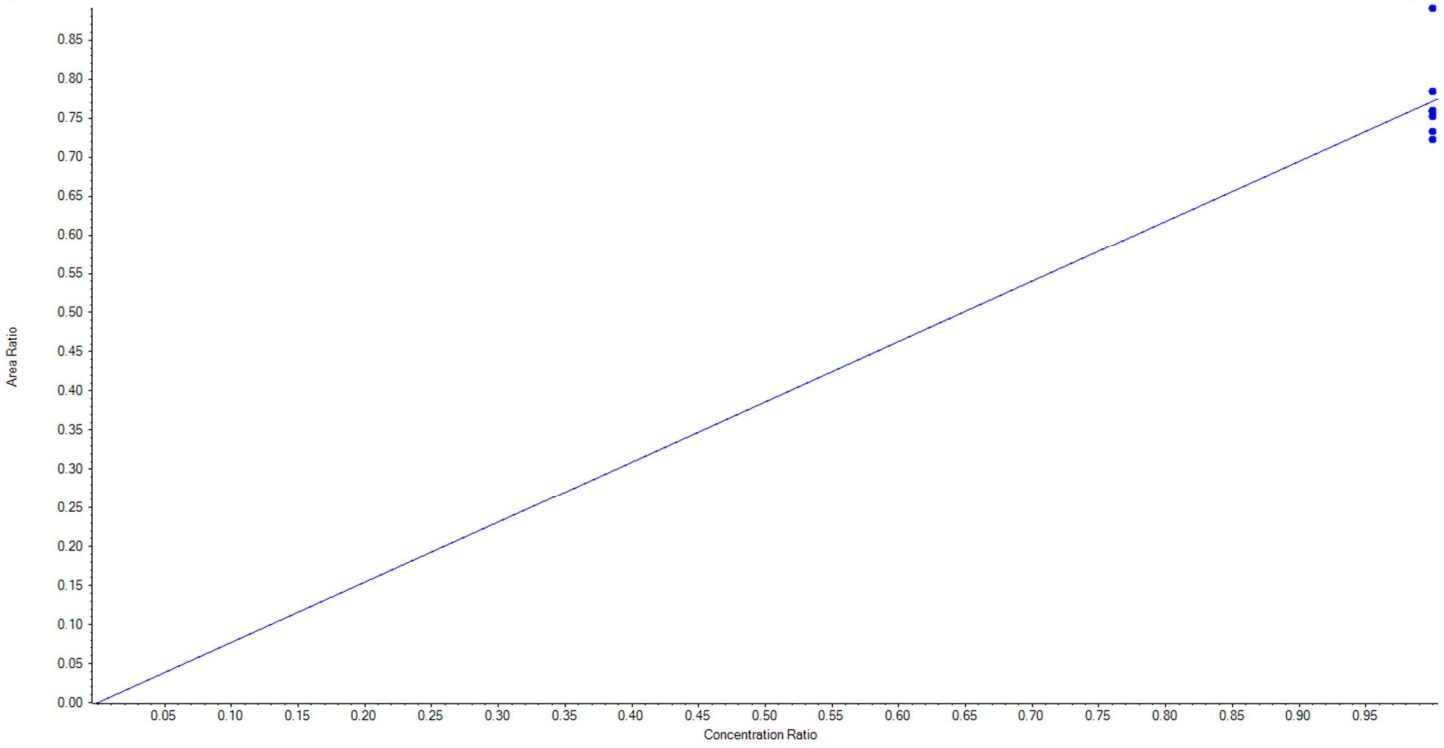
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C2-PFTeDA	**Data File**	18-0585_18-0583.wiff
MRM Transition	715.0 / 670.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.77183 x (std. dev. = 0.05603) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	245.534303	98.2
3	KB74	L2	True	250.00	253.984041	101.6
4	KB75	L3	True	250.00	234.263449	93.7
5	KB76	L4	True	250.00	246.247279	98.5
6	KB77	L5	True	250.00	237.610301	95.0
7	KB78	L6	True	250.00	243.798491	97.5
8	KB79	L7	True	250.00	288.562136	115.4



BATTELLE

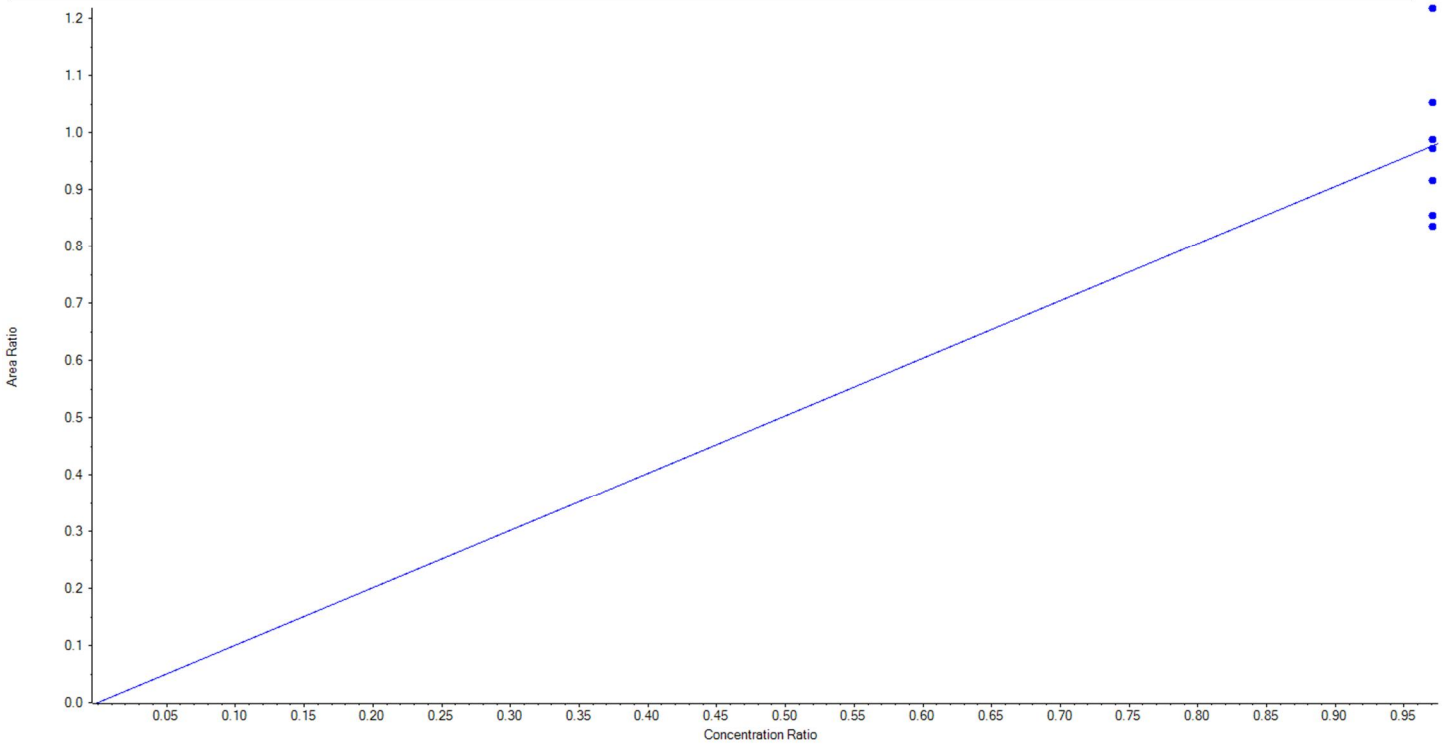
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C3-PFBS	**Data File**	18-0585_18-0583.wiff
MRM Transition	302.0 / 99.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.00665 x (std. dev. = 0.13468) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	232.25	231.116682	99.5
3	KB74	L2	True	232.25	198.718979	85.6
4	KB75	L3	True	232.25	203.165718	87.5
5	KB76	L4	True	232.25	235.012505	101.2
6	KB77	L5	True	232.25	217.904512	93.8
7	KB78	L6	True	232.25	250.286360	107.8
8	KB79	L7	True	232.25	289.545243	124.7



BATTELLE

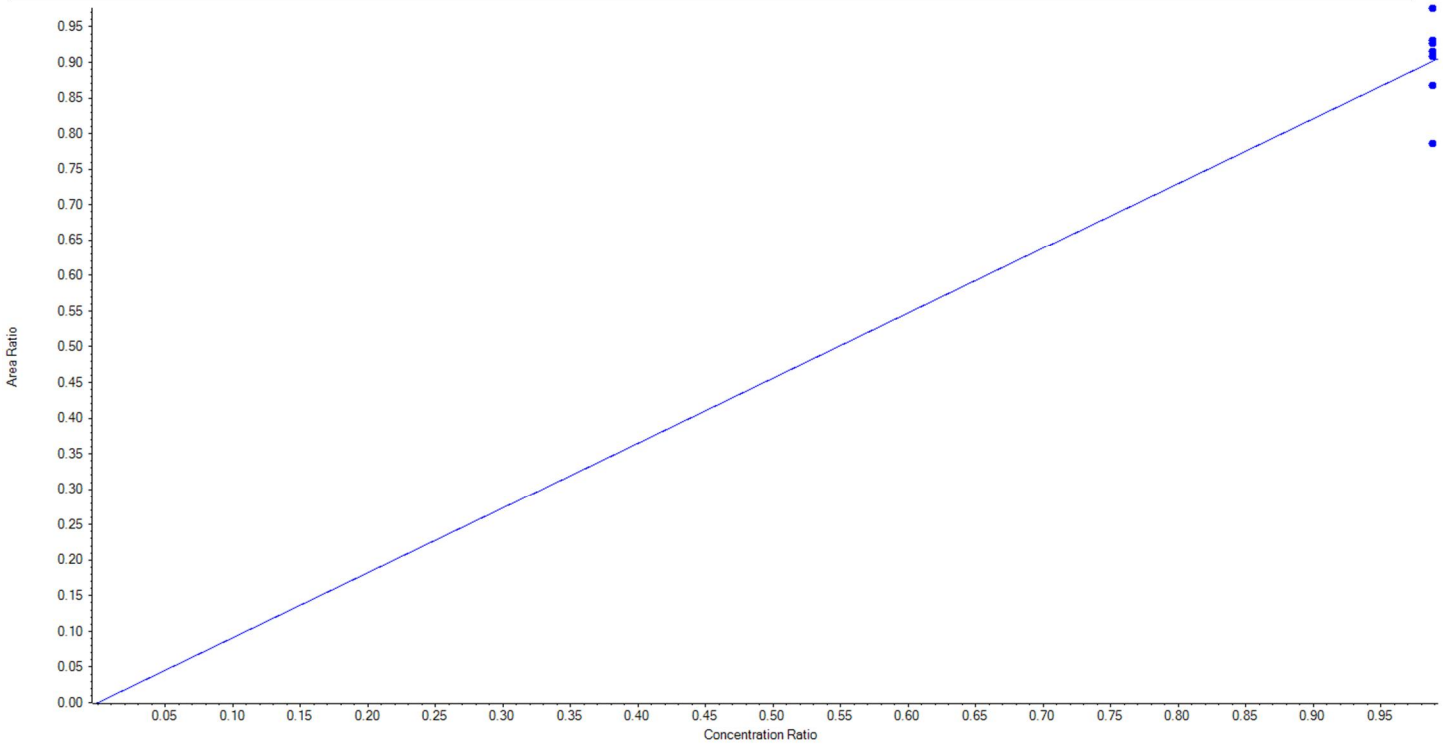
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C3-PFHxS	**Data File**	18-0585_18-0583.wiff
MRM Transition	402.0 / 99.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.91206 x (std. dev. = 0.06076) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	236.50	256.001632	108.3
3	KB74	L2	True	236.50	238.472453	100.8
4	KB75	L3	True	236.50	227.443232	96.2
5	KB76	L4	True	236.50	243.058192	102.8
6	KB77	L5	True	236.50	206.336677	87.3
7	KB78	L6	True	236.50	240.129280	101.5
8	KB79	L7	True	236.50	244.058536	103.2



BATTELLE

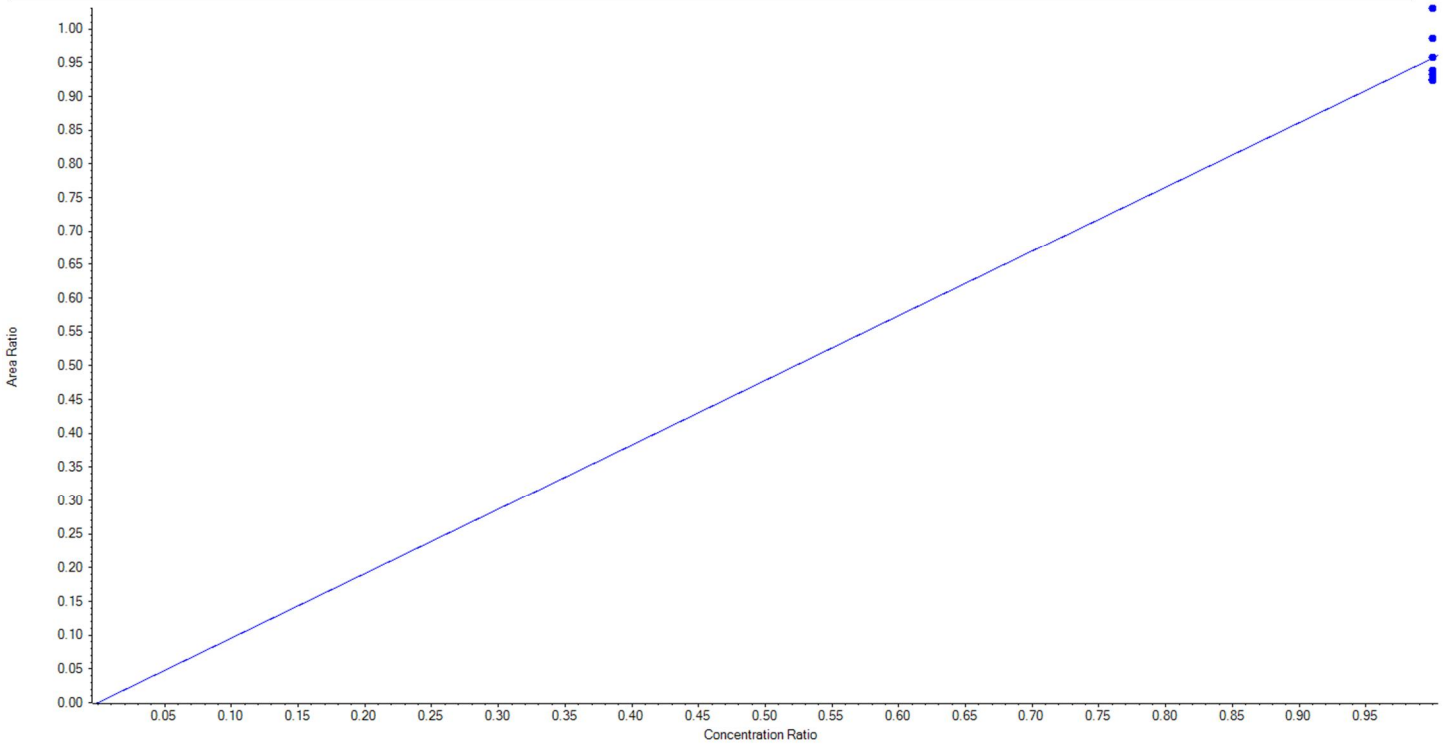
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:12:22 PM

Analyte Name	13C8-PFOS	**Data File**	18-0585_18-0583.wiff
MRM Transition	507.0 / 99.0	**Result Table**	18-0585_18-0583_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.95667 x (std. dev. = 0.03926) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	239.25	239.624764	100.2
3	KB74	L2	True	239.25	231.522846	96.8
4	KB75	L3	True	239.25	234.883127	98.2
5	KB76	L4	True	239.25	246.671377	103.1
6	KB77	L5	True	239.25	233.143125	97.5
7	KB78	L6	True	239.25	231.168064	96.6
8	KB79	L7	True	239.25	257.736698	107.7



BATTELLE

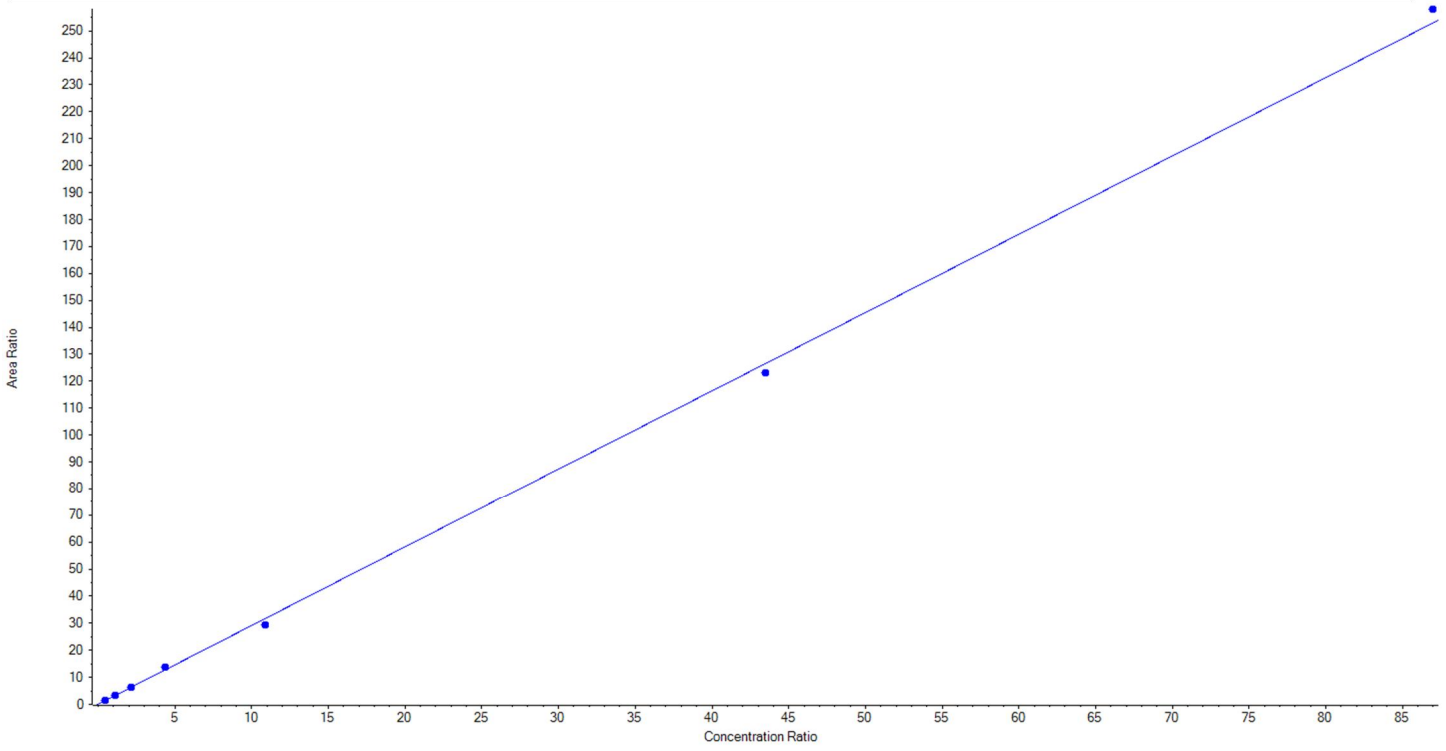
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFBS_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	298.9 / 80.0	**Result Table**	18222018_D
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 2.90746 x + 0.06970 (r = 0.99940) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	104.635578	103.6
3	KB74	L2	True	252.50	249.370464	98.8
4	KB75	L3	True	505.00	495.098560	98.0
5	KB76	L4	True	1010.00	1091.288759	108.1
6	KB77	L5	True	2525.00	2332.691625	92.4
7	KB78	L6	True	10100.00	9811.581725	97.1
8	KB79	L7	True	20200.00	20608.833290	102.0



BATTELLE

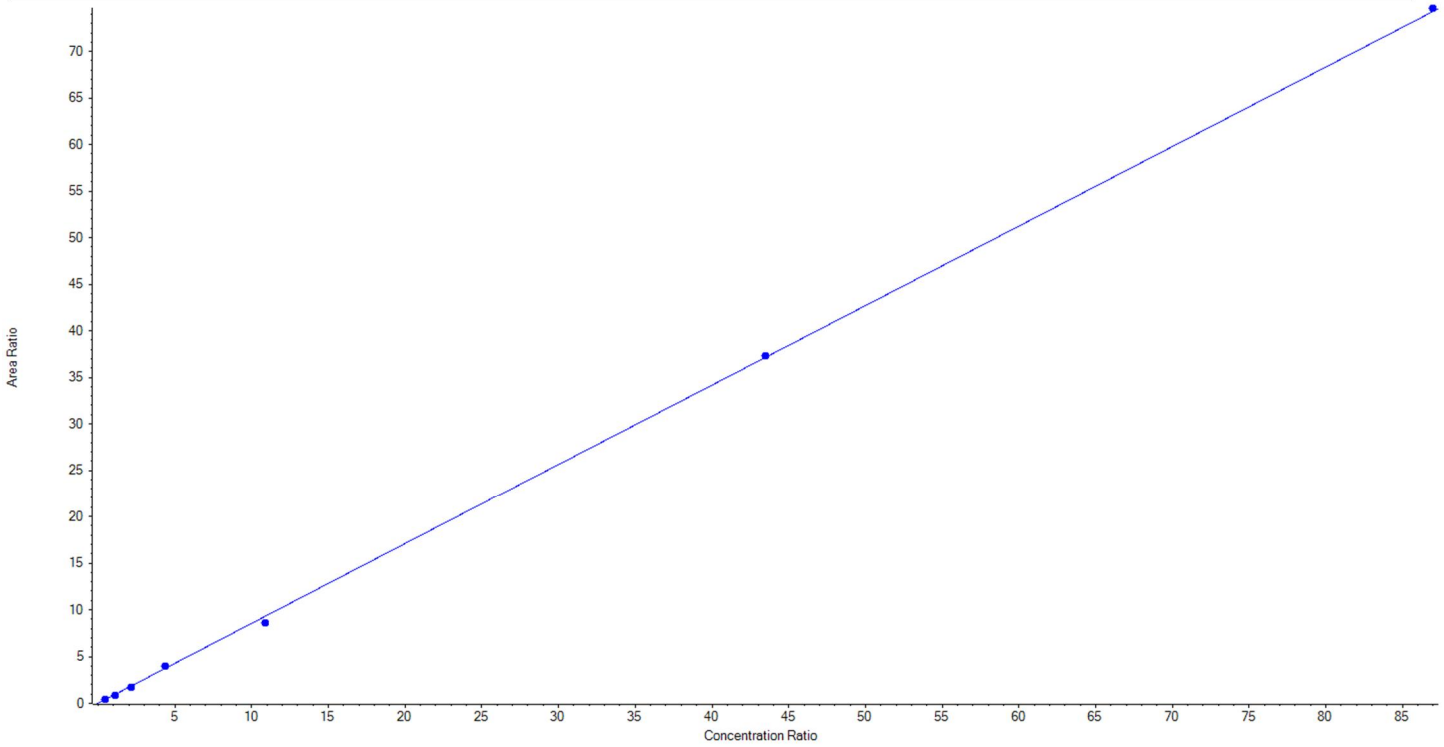
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFBS_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	298.9 / 99.0	**Result Table**	18222018_D
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.85386 x + 0.01367 (r = 0.99964) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	109.976962	108.9
3	KB74	L2	True	252.50	242.180085	95.9
4	KB75	L3	True	505.00	475.121472	94.1
5	KB76	L4	True	1010.00	1086.381545	107.6
6	KB77	L5	True	2525.00	2339.199841	92.6
7	KB78	L6	True	10100.00	10143.472130	100.4
8	KB79	L7	True	20200.00	20297.167965	100.5



BATTELLE

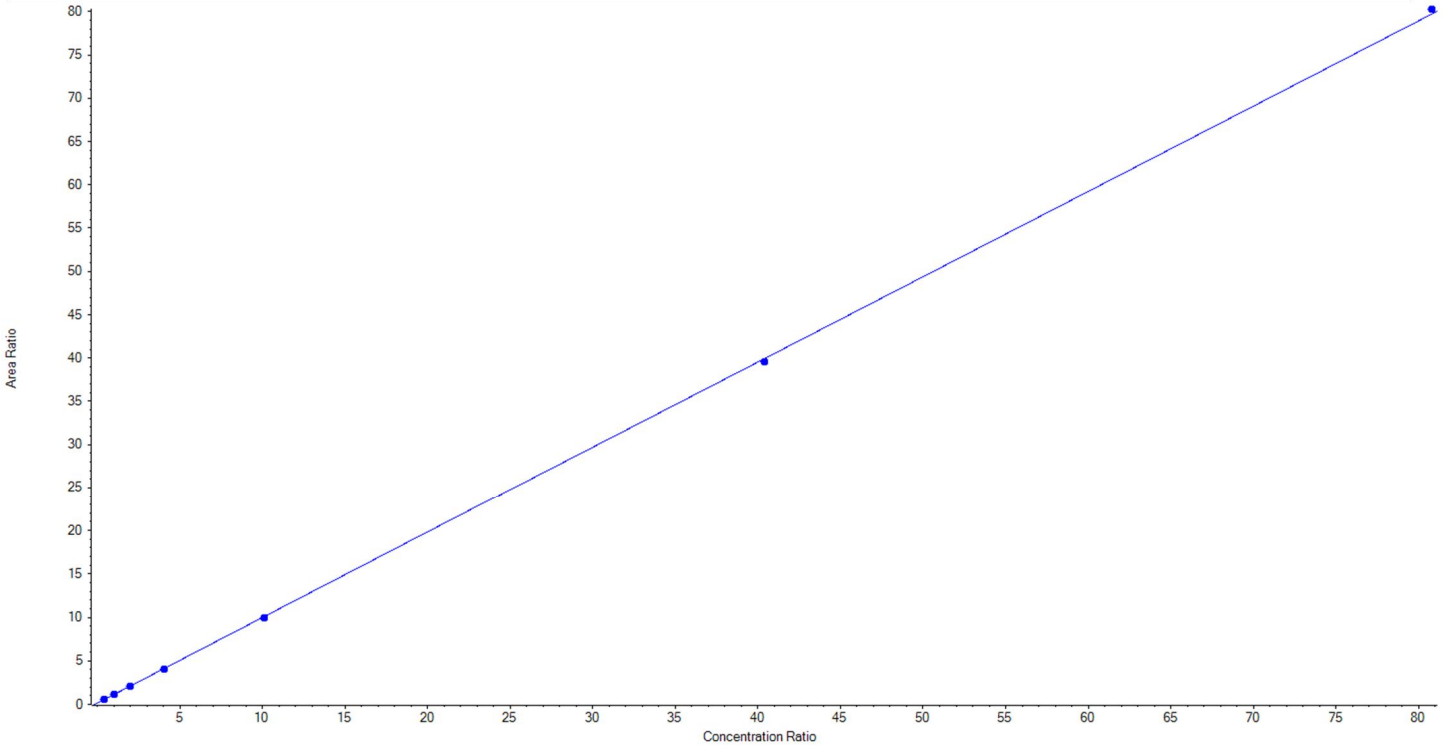
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFHxA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	313.0 / 269.0	**Result Table**	18222018_D
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.98501 x + 0.13333 (r = 0.99994) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	98.968181	98.0
3	KB74	L2	True	252.50	269.910942	106.9
4	KB75	L3	True	505.00	490.752146	97.2
5	KB76	L4	True	1010.00	1004.472242	99.5
6	KB77	L5	True	2525.00	2495.865956	98.9
7	KB78	L6	True	10100.00	9993.499522	99.0
8	KB79	L7	True	20200.00	20340.031011	100.7



BATTELLE

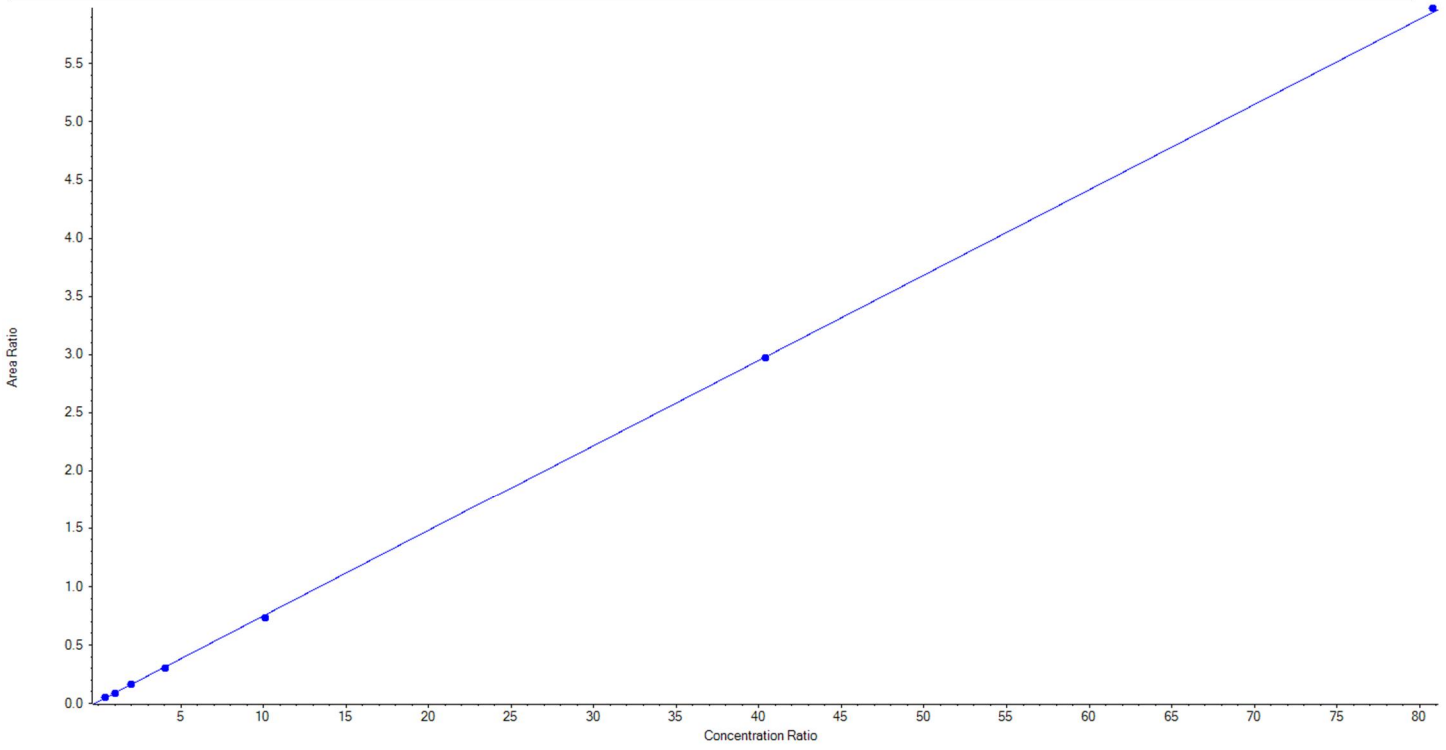
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFHxA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	313.0 / 119.0	**Result Table**	18222018_D
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.07336 x + 0.01493 (r = 0.99989) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	113.183087	112.1
3	KB74	L2	True	252.50	230.645561	91.3
4	KB75	L3	True	505.00	514.901118	102.0
5	KB76	L4	True	1010.00	980.952621	97.1
6	KB77	L5	True	2525.00	2451.366061	97.1
7	KB78	L6	True	10100.00	10083.260482	99.8
8	KB79	L7	True	20200.00	20319.191070	100.6



BATTELLE

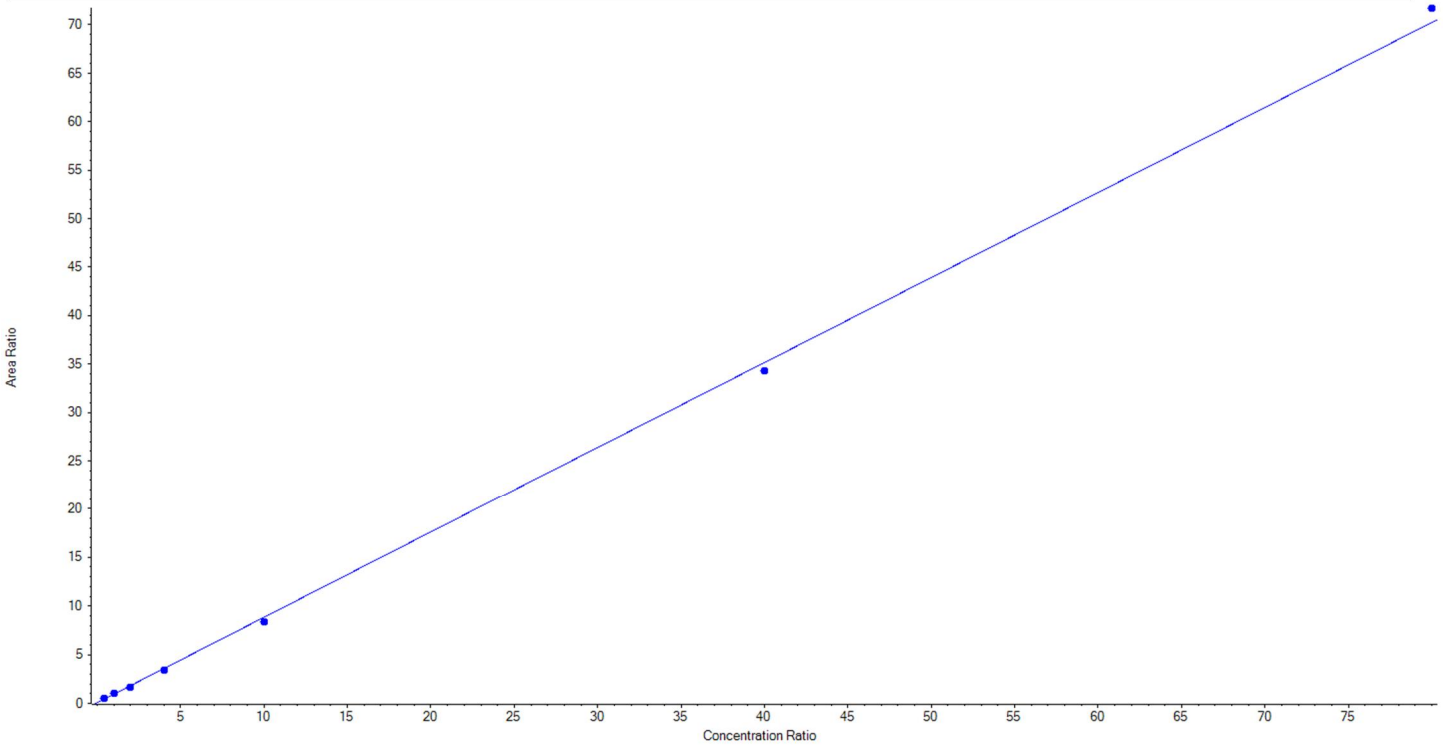
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFHpA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	363.0 / 319.0	**Result Table**	18222018_D
Internal Standard	13C4-PFHpA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.87722 x + 0.06760 (r = 0.99955) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	113.465532	113.5
3	KB74	L2	True	250.00	261.922885	104.8
4	KB75	L3	True	500.00	452.888167	90.6
5	KB76	L4	True	1000.00	963.772233	96.4
6	KB77	L5	True	2500.00	2376.996854	95.1
7	KB78	L6	True	10000.00	9765.162244	97.7
8	KB79	L7	True	20000.00	20415.792084	102.1



BATTELLE

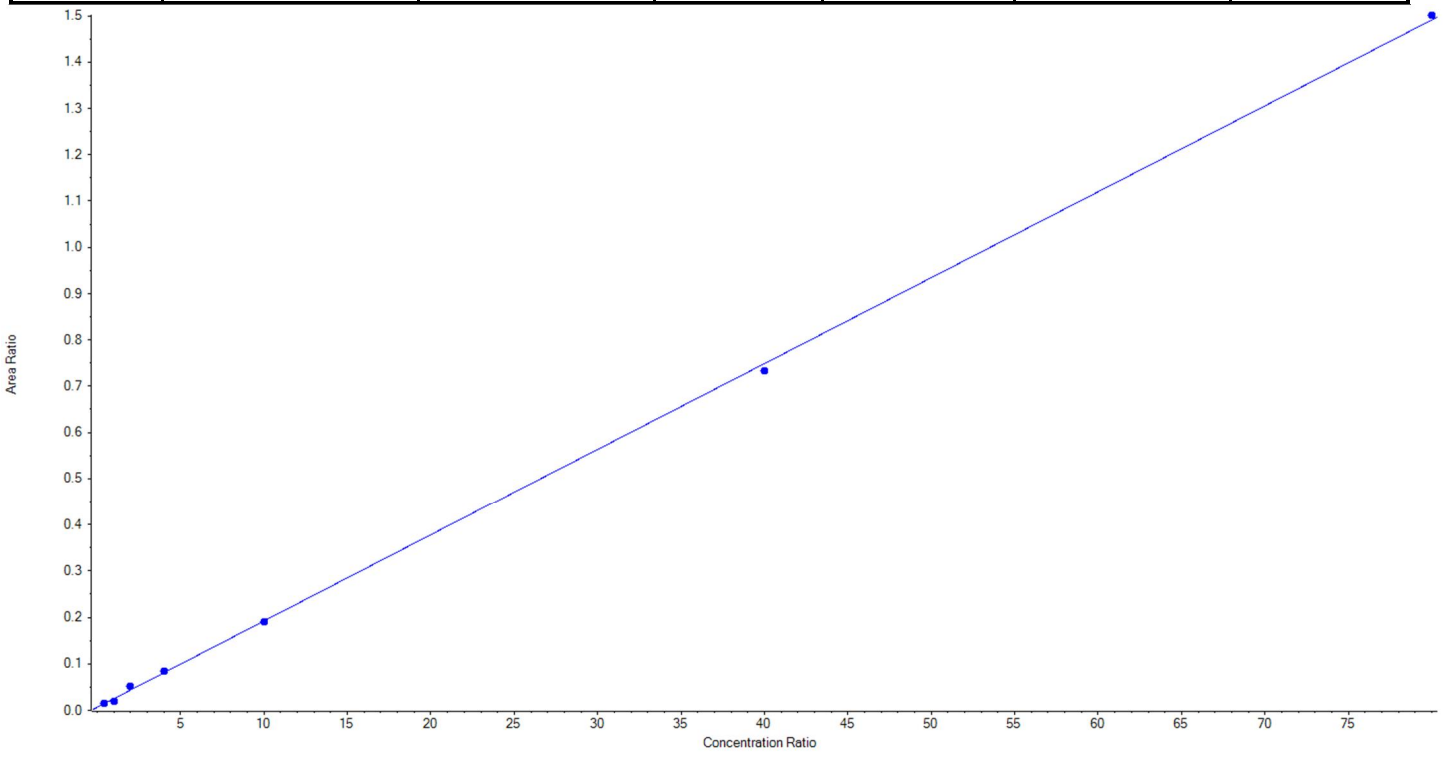
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFHpA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	363.0 / 169.0	**Result Table**	18222018_D
Internal Standard	13C4-PFHpA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.01856 x + 0.00664 (r = 0.99907) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	103.311634	103.3
3	KB74	L2	True	250.00	175.823351	70.3
4	KB75	L3	True	500.00	618.850678	123.8
5	KB76	L4	True	1000.00	1051.701356	105.2
6	KB77	L5	True	2500.00	2469.602759	98.8
7	KB78	L6	True	10000.00	9796.218447	98.0
8	KB79	L7	True	20000.00	20134.491774	100.7



BATTELLE

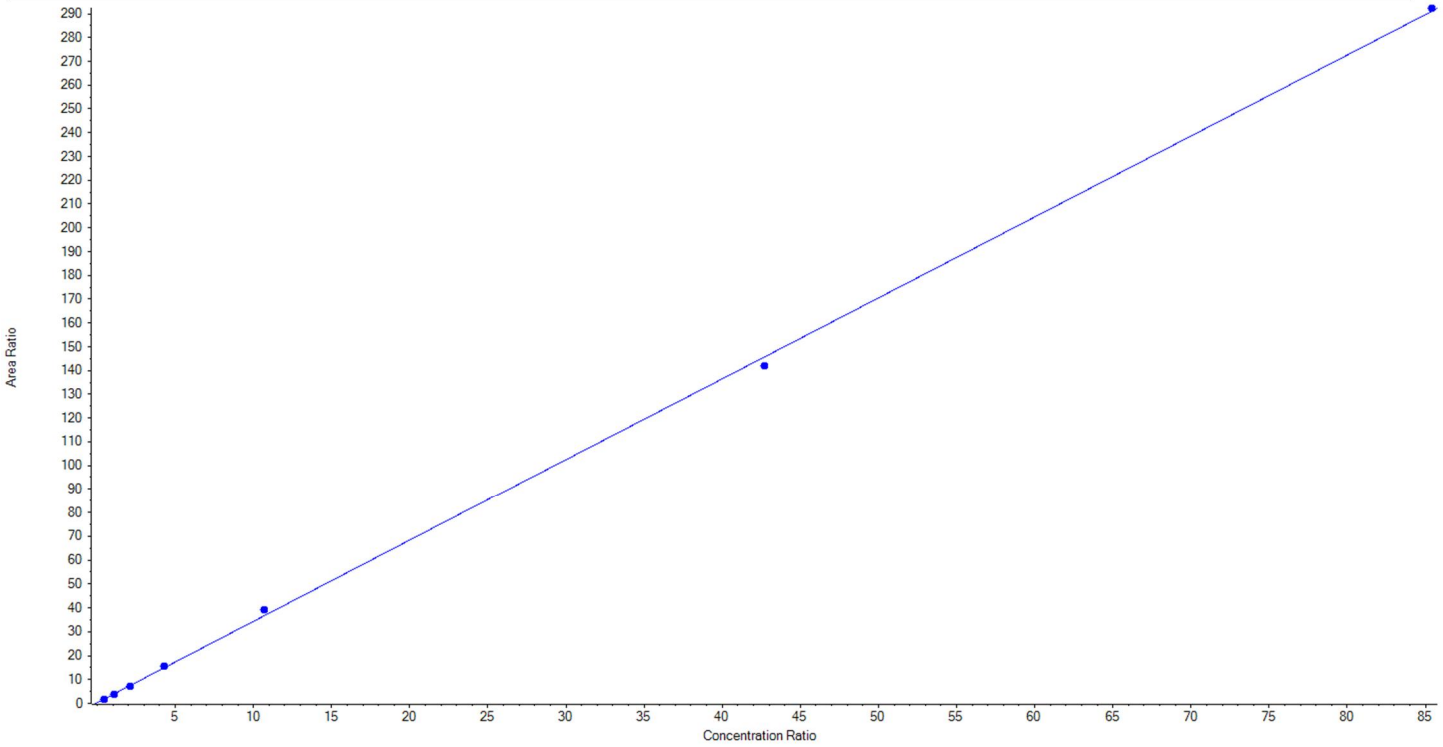
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFHxS_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	399.0 / 80.0	**Result Table**	18222018_D
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 3.40443 x + 0.28942 (r = 0.99956) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	105.225987	104.2
3	KB74	L2	True	252.50	232.865372	92.2
4	KB75	L3	True	505.00	467.824000	92.6
5	KB76	L4	True	1010.00	1074.776448	106.4
6	KB77	L5	True	2525.00	2696.493262	106.8
7	KB78	L6	True	10100.00	9828.822898	97.3
8	KB79	L7	True	20200.00	20287.492034	100.4



BATTELLE

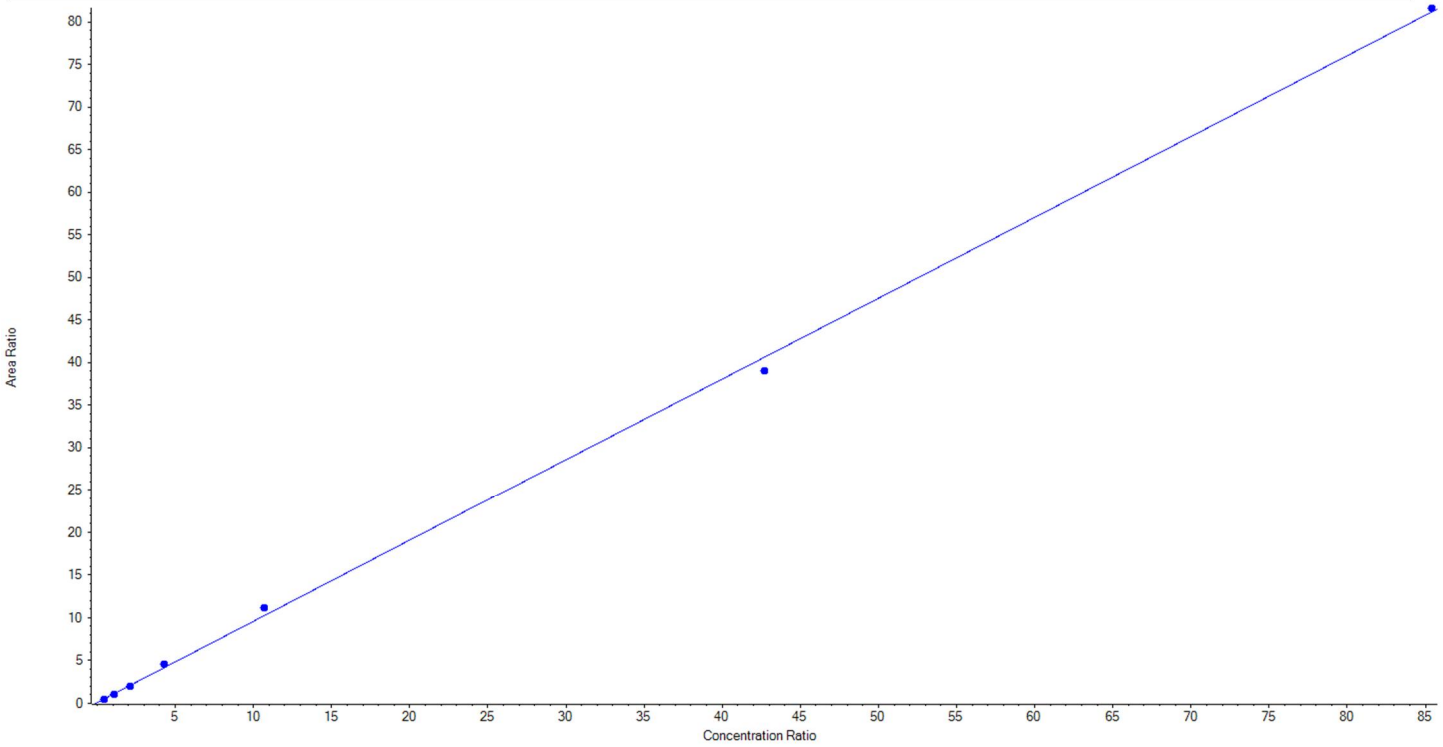
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFHxS_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	399.0 / 99.0	**Result Table**	18222018_D
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.94916 x + 0.10161 (r = 0.99926) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	98.139274	97.2
3	KB74	L2	True	252.50	231.314187	91.6
4	KB75	L3	True	505.00	484.563583	96.0
5	KB76	L4	True	1010.00	1107.476178	109.7
6	KB77	L5	True	2525.00	2749.725828	108.9
7	KB78	L6	True	10100.00	9714.855919	96.2
8	KB79	L7	True	20200.00	20307.425032	100.5



BATTELLE

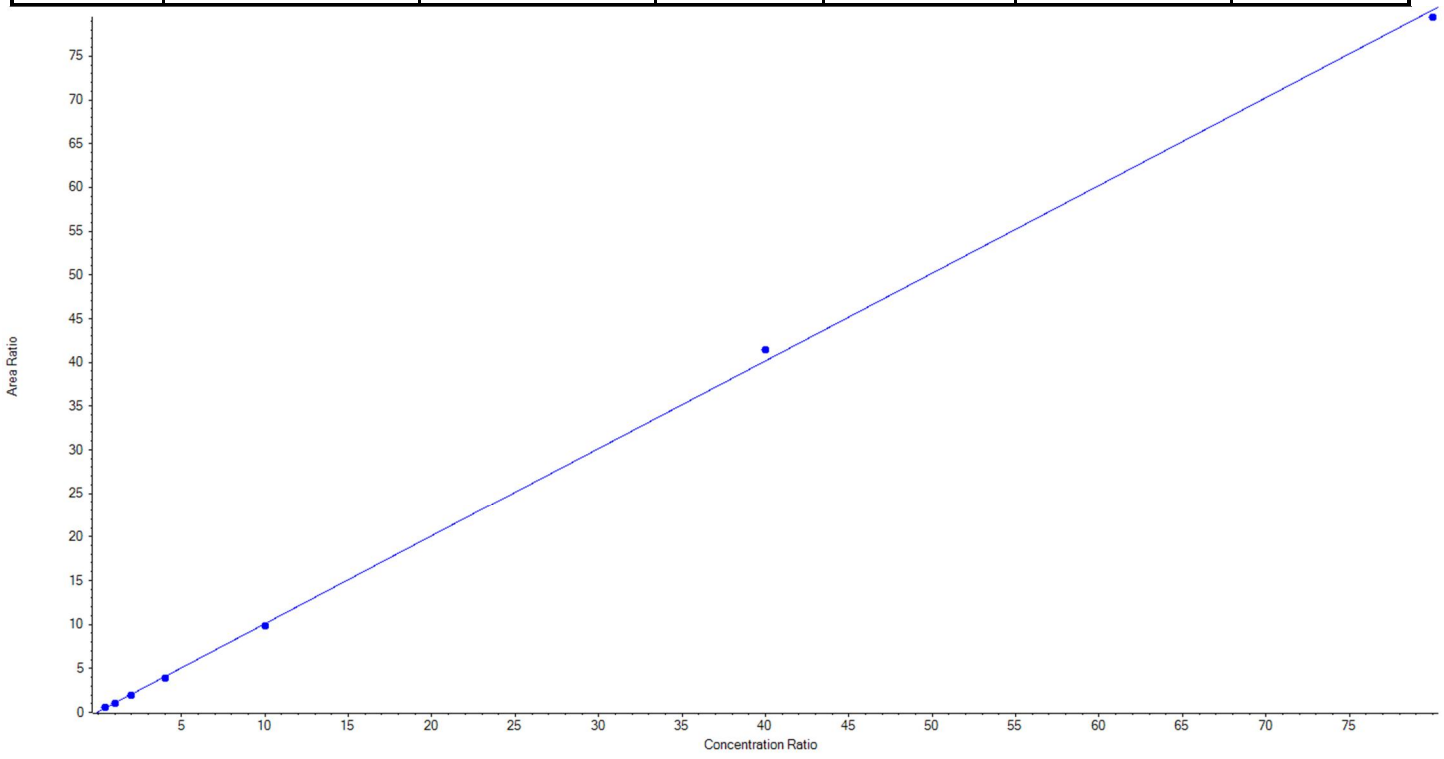
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFOA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	413.0 / 369.0	**Result Table**	18222018_D
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.00279 x + 0.06080 (r = 0.99969) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	113.608497	113.6
3	KB74	L2	True	250.00	242.259718	96.9
4	KB75	L3	True	500.00	467.456638	93.5
5	KB76	L4	True	1000.00	956.844142	95.7
6	KB77	L5	True	2500.00	2452.232813	98.1
7	KB78	L6	True	10000.00	10326.914009	103.3
8	KB79	L7	True	20000.00	19790.684183	99.0



BATTELLE

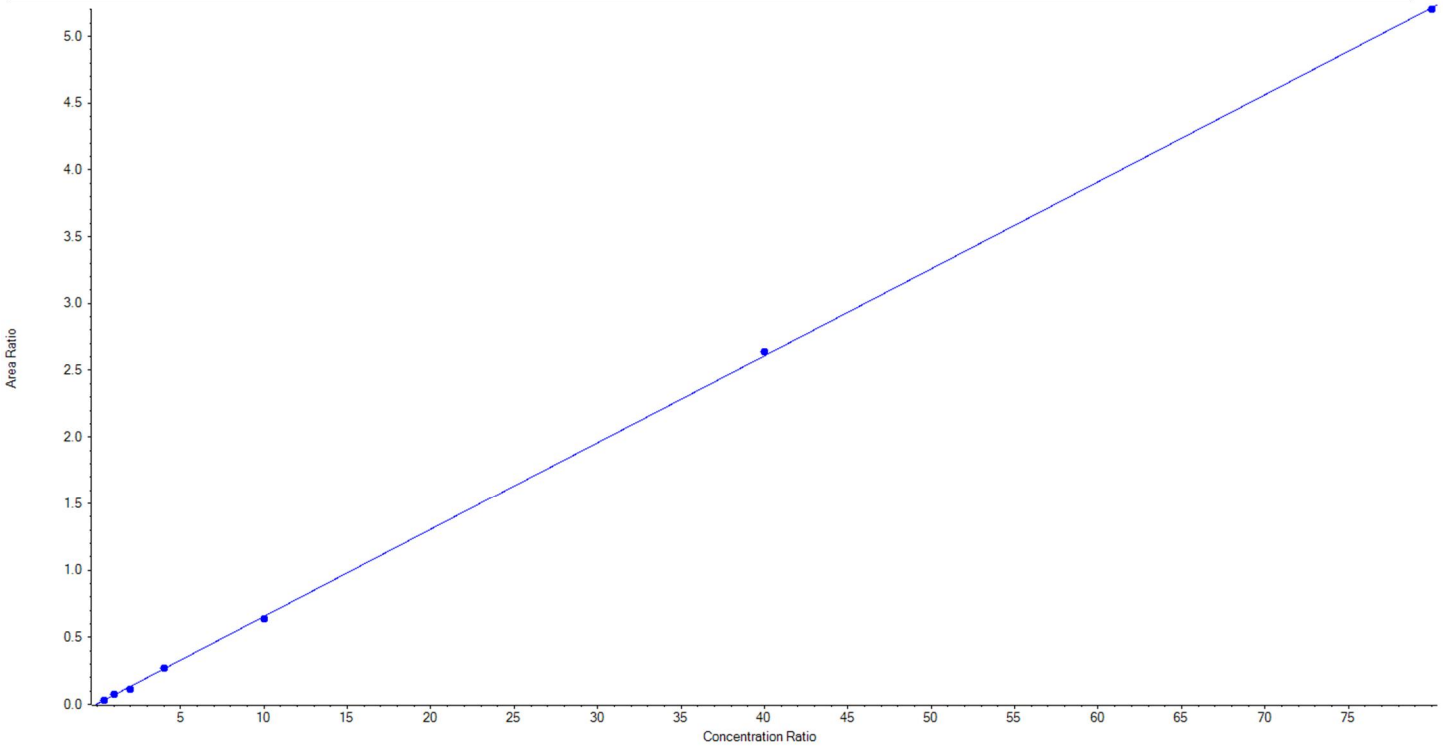
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFOA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	413.0 / 169.0	**Result Table**	18222018_D
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06512 x + 0.00376 (r = 0.99971) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	104.849376	104.9
3	KB74	L2	True	250.00	273.238913	109.3
4	KB75	L3	True	500.00	421.303706	84.3
5	KB76	L4	True	1000.00	1028.034772	102.8
6	KB77	L5	True	2500.00	2444.883328	97.8
7	KB78	L6	True	10000.00	10121.411629	101.2
8	KB79	L7	True	20000.00	19956.278277	99.8



BATTELLE

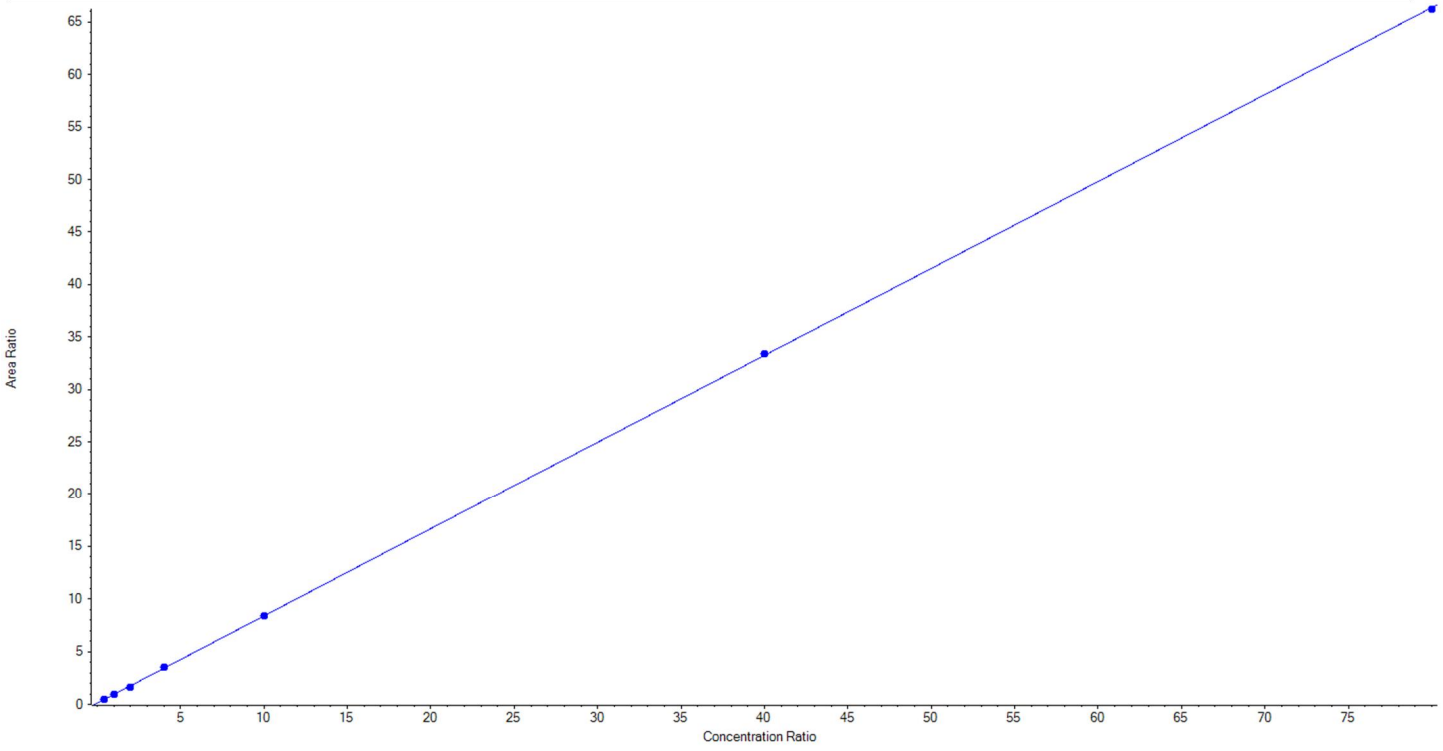
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFNA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	463.0 / 419.0	**Result Table**	18222018_D
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.82839 x + 0.10849 (r = 0.99987) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	100.132667	100.1
3	KB74	L2	True	250.00	263.216231	105.3
4	KB75	L3	True	500.00	450.336433	90.1
5	KB76	L4	True	1000.00	1046.243999	104.6
6	KB77	L5	True	2500.00	2491.510736	99.7
7	KB78	L6	True	10000.00	10047.185055	100.5
8	KB79	L7	True	20000.00	19951.374879	99.8



BATTELLE

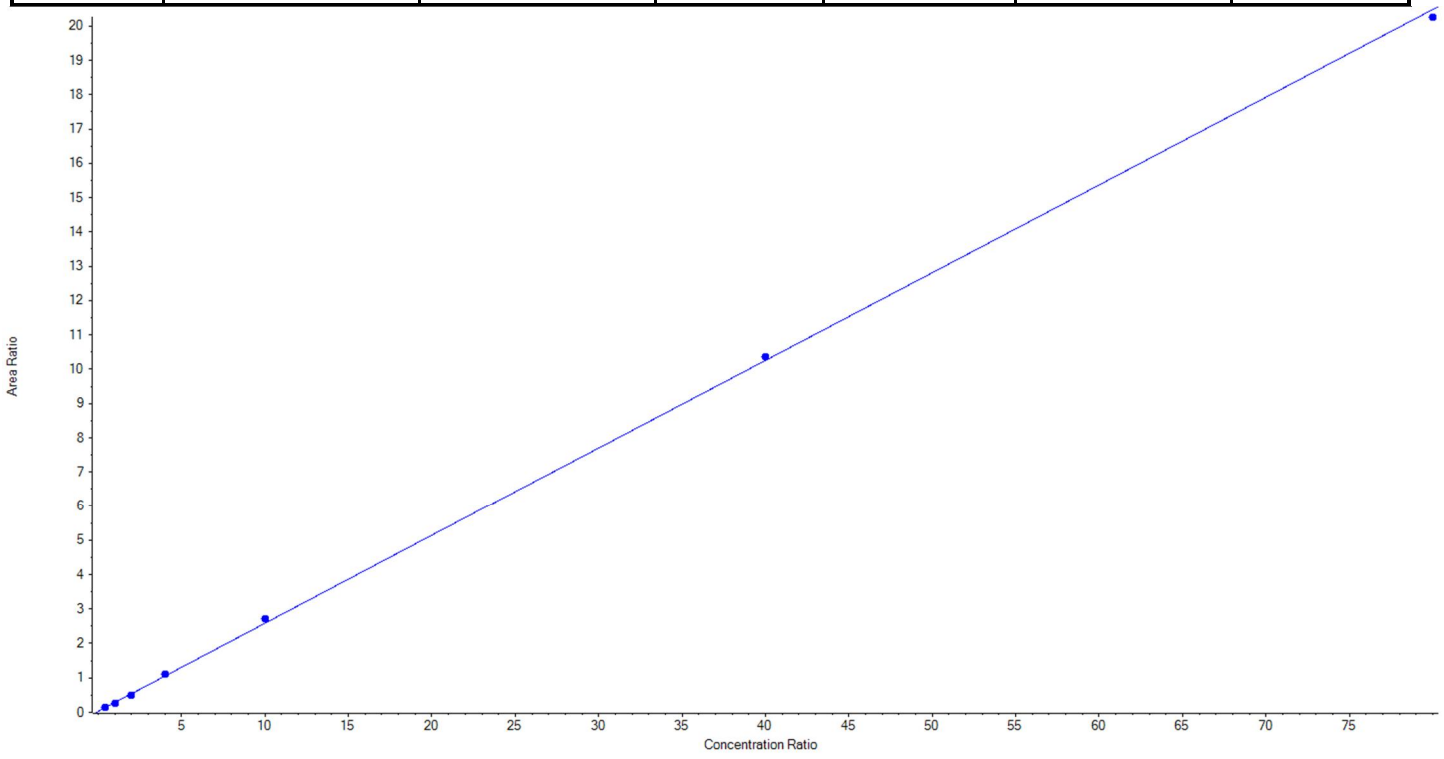
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFNA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	463.0 / 219.0	**Result Table**	18222018_D
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.25566 x + 0.02957 (r = 0.99963) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	111.702594	111.7
3	KB74	L2	True	250.00	220.916460	88.4
4	KB75	L3	True	500.00	448.287193	89.7
5	KB76	L4	True	1000.00	1050.052047	105.0
6	KB77	L5	True	2500.00	2632.290752	105.3
7	KB78	L6	True	10000.00	10108.558837	101.1
8	KB79	L7	True	20000.00	19778.192118	98.9



BATTELLE

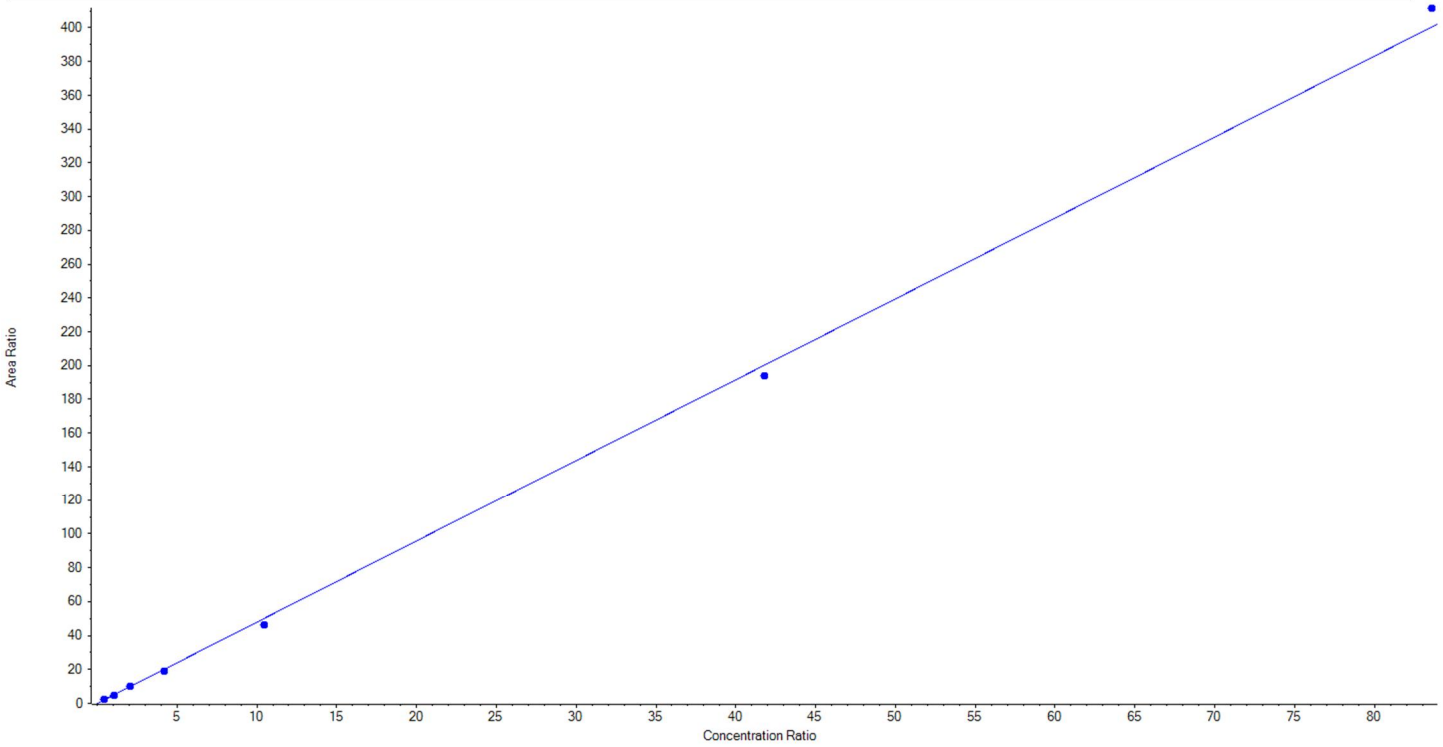
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFOS_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	499.0 / 80.0	**Result Table**	18222018_D
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 4.79098 x + -0.03583 (r = 0.99927) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	112.998705	113.0
3	KB74	L2	True	250.00	245.807613	98.3
4	KB75	L3	True	500.00	508.954098	101.8
5	KB76	L4	True	1000.00	953.422687	95.3
6	KB77	L5	True	2500.00	2300.880982	92.0
7	KB78	L6	True	10000.00	9674.048541	96.7
8	KB79	L7	True	20000.00	20553.887374	102.8



BATTELLE

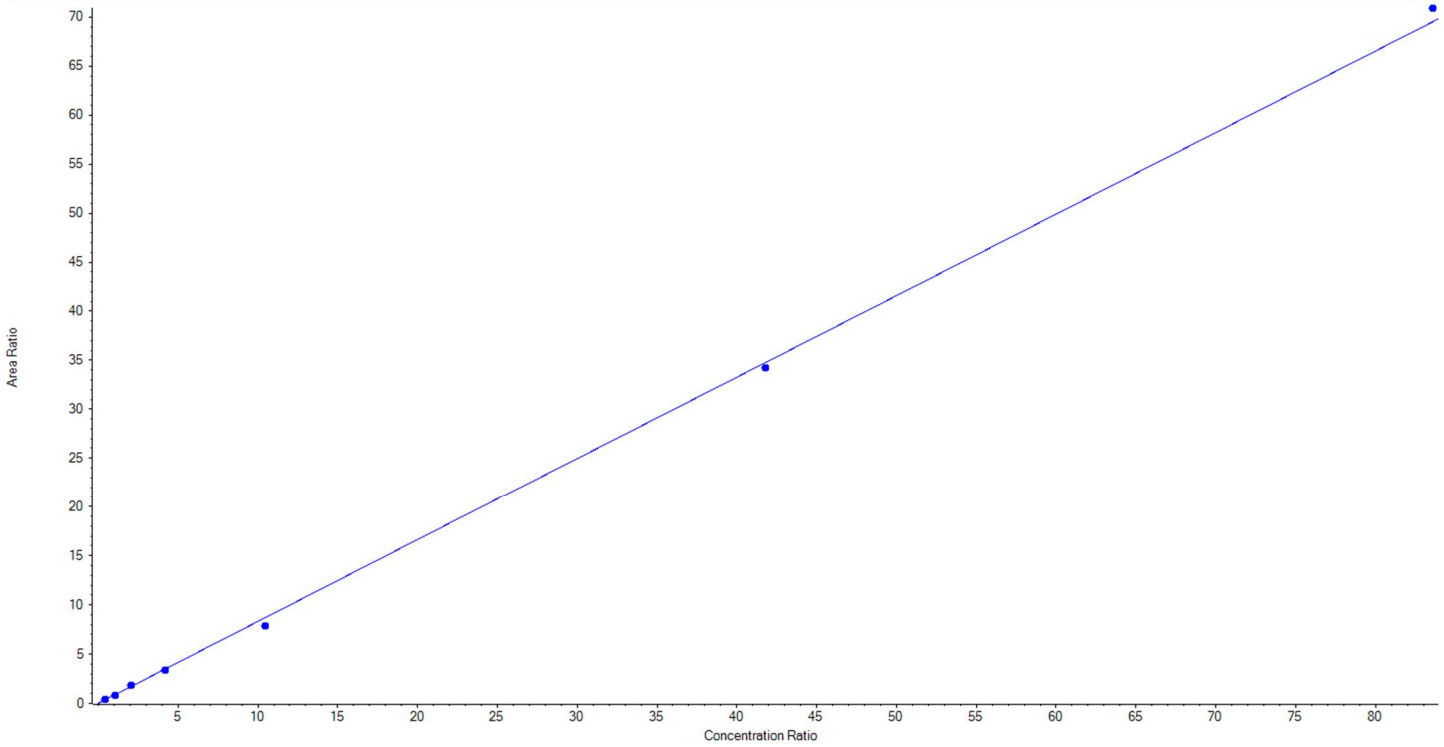
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFOS_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	499.0 / 99.0	**Result Table**	18222018_D
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.83172 x + -0.00135 (r = 0.99945) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	110.962710	111.0
3	KB74	L2	True	250.00	244.538081	97.8
4	KB75	L3	True	500.00	520.238814	104.1
5	KB76	L4	True	1000.00	958.547975	95.9
6	KB77	L5	True	2500.00	2271.299000	90.9
7	KB78	L6	True	10000.00	9849.093945	98.5
8	KB79	L7	True	20000.00	20395.319474	102.0



BATTELLE

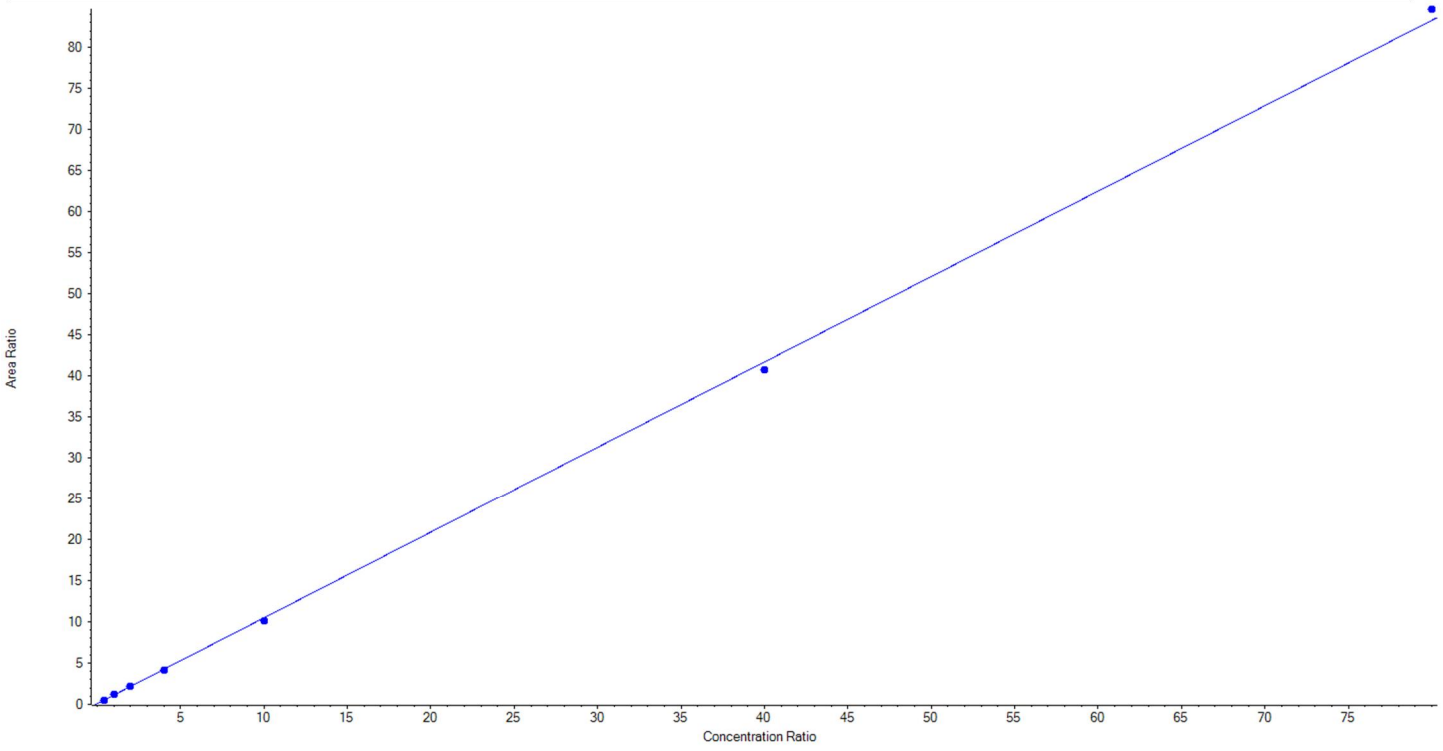
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFDA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	513.0 / 469.0	**Result Table**	18222018_D
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03992 x + 0.08967 (r = 0.99977) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	100.375074	100.4
3	KB74	L2	True	250.00	264.467518	105.8
4	KB75	L3	True	500.00	495.556524	99.1
5	KB76	L4	True	1000.00	987.592944	98.8
6	KB77	L5	True	2500.00	2418.646707	96.8
7	KB78	L6	True	10000.00	9760.929085	97.6
8	KB79	L7	True	20000.00	20322.432148	101.6



BATTELLE

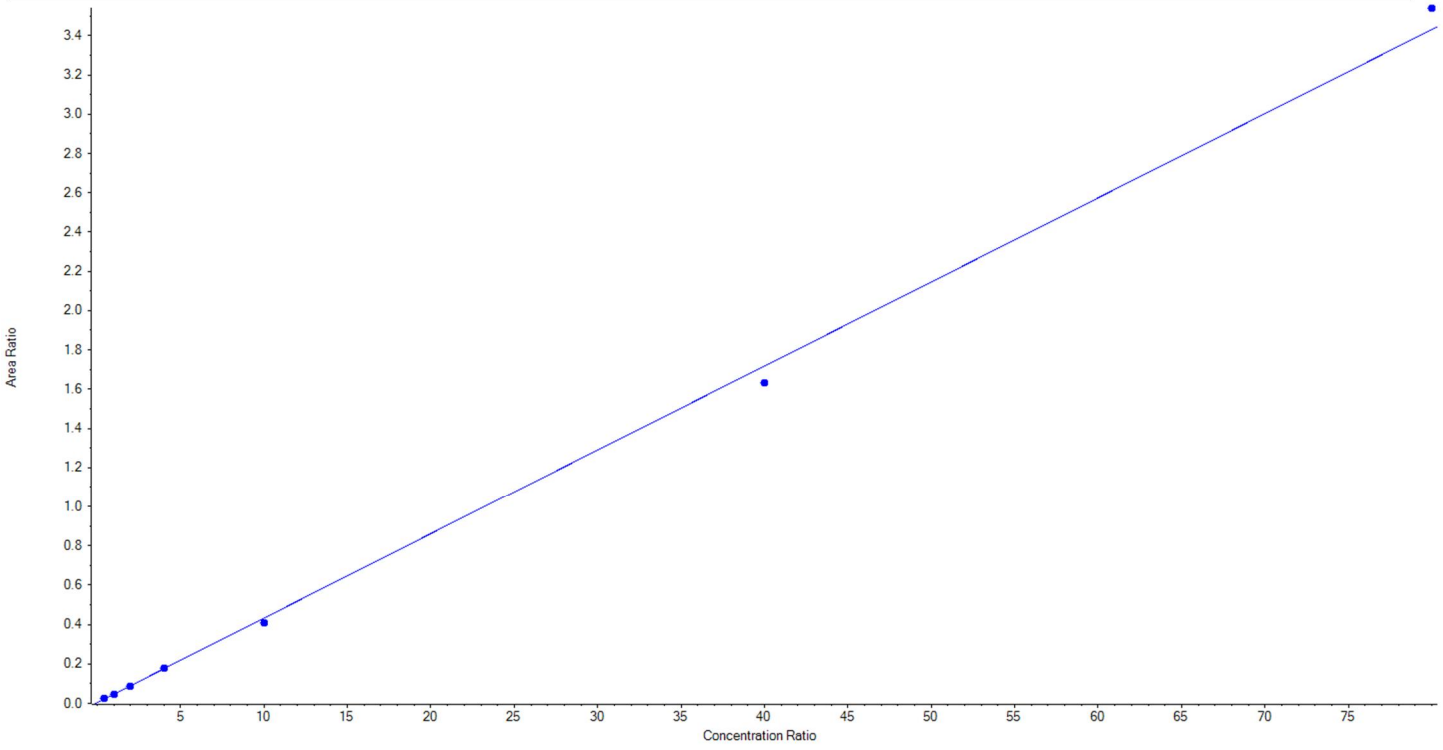
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFDA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	513.0 / 219.0	**Result Table**	18222018_D
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.04284 x + 0.00408 (r = 0.99914) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	112.406023	112.4
3	KB74	L2	True	250.00	245.500787	98.2
4	KB75	L3	True	500.00	479.073328	95.8
5	KB76	L4	True	1000.00	1010.924950	101.1
6	KB77	L5	True	2500.00	2354.317167	94.2
7	KB78	L6	True	10000.00	9514.985150	95.2
8	KB79	L7	True	20000.00	20632.792594	103.2



BATTELLE

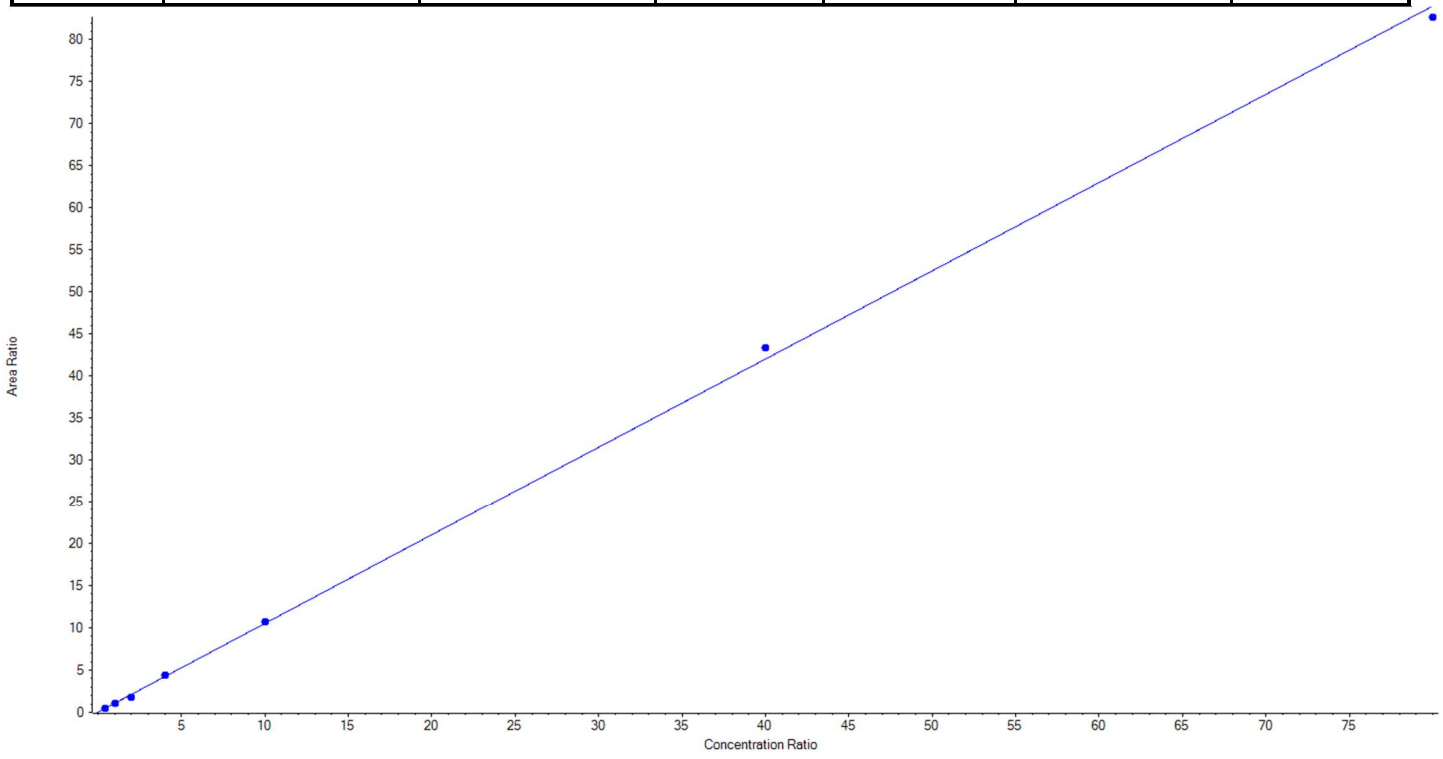
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFUnA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	563.0 / 519.0	**Result Table**	18222018_D
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.04939 x + 0.04151 (r = 0.99953) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	111.527231	111.5
3	KB74	L2	True	250.00	244.824605	97.9
4	KB75	L3	True	500.00	423.690587	84.7
5	KB76	L4	True	1000.00	1026.343861	102.6
6	KB77	L5	True	2500.00	2538.187940	101.5
7	KB78	L6	True	10000.00	10323.155375	103.2
8	KB79	L7	True	20000.00	19682.270401	98.4



BATTELLE

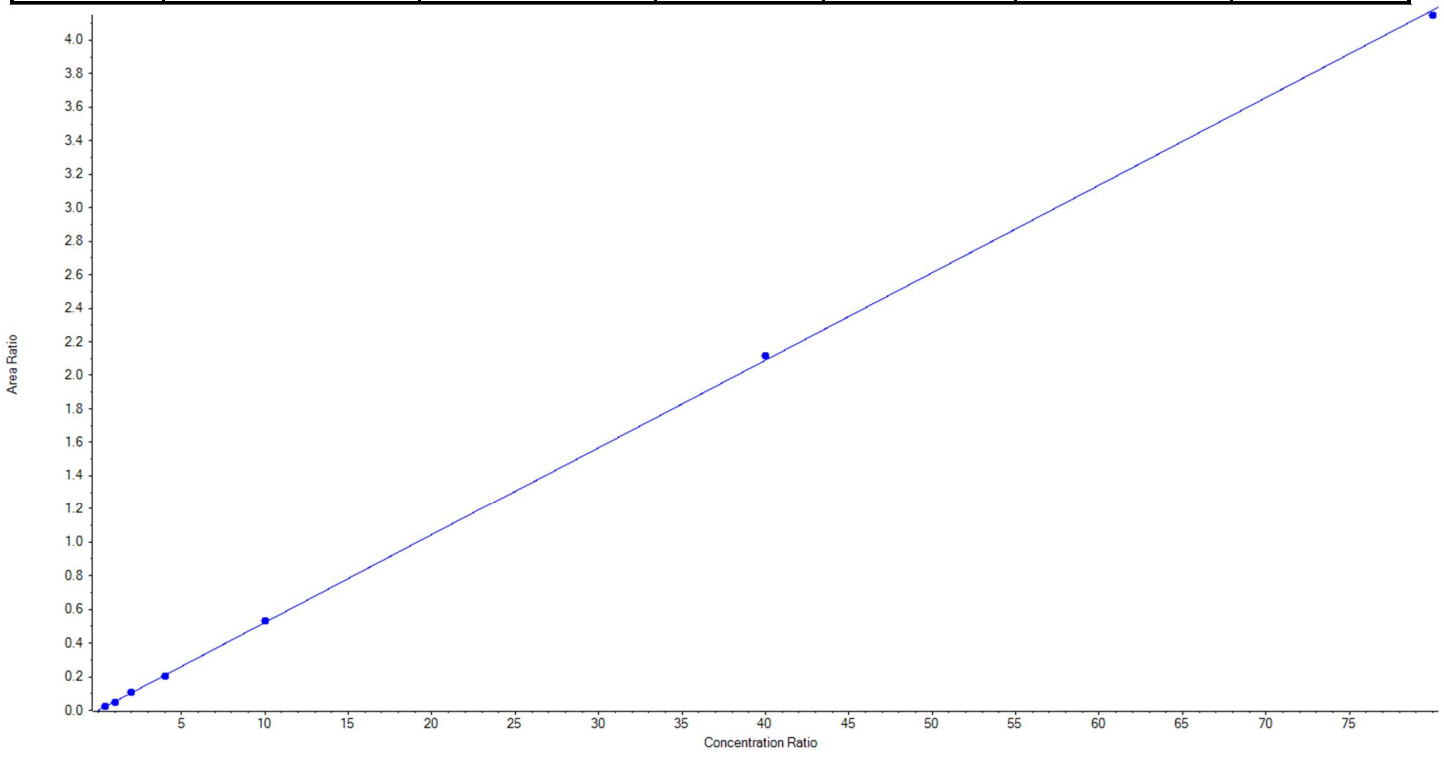
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFUnA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	563.0 / 269.0	**Result Table**	18222018_D
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05225 x + -5.79528e-5 (r = 0.99994) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	102.220892	102.2
3	KB74	L2	True	250.00	242.442598	97.0
4	KB75	L3	True	500.00	501.608235	100.3
5	KB76	L4	True	1000.00	981.918474	98.2
6	KB77	L5	True	2500.00	2544.385755	101.8
7	KB78	L6	True	10000.00	10125.204796	101.3
8	KB79	L7	True	20000.00	19852.219250	99.3



BATTELLE

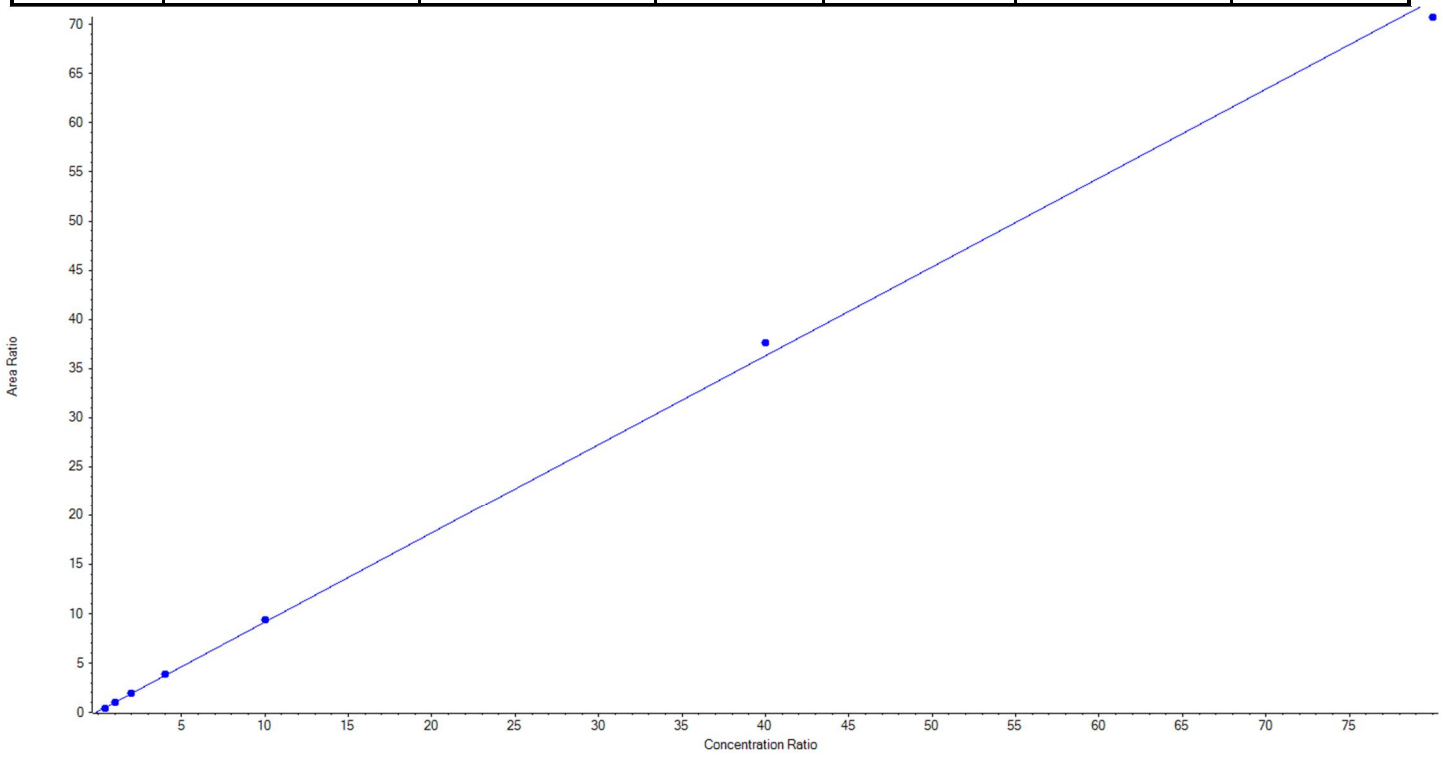
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFDoA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	613.0 / 569.0	**Result Table**	18222018_D
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.90471 x + 0.10550 (r = 0.99952) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	90.939755	90.9
3	KB74	L2	True	250.00	247.072023	98.8
4	KB75	L3	True	500.00	506.360909	101.3
5	KB76	L4	True	1000.00	1050.478389	105.1
6	KB77	L5	True	2500.00	2565.539851	102.6
7	KB78	L6	True	10000.00	10368.355085	103.7
8	KB79	L7	True	20000.00	19521.253987	97.6



BATTELLE

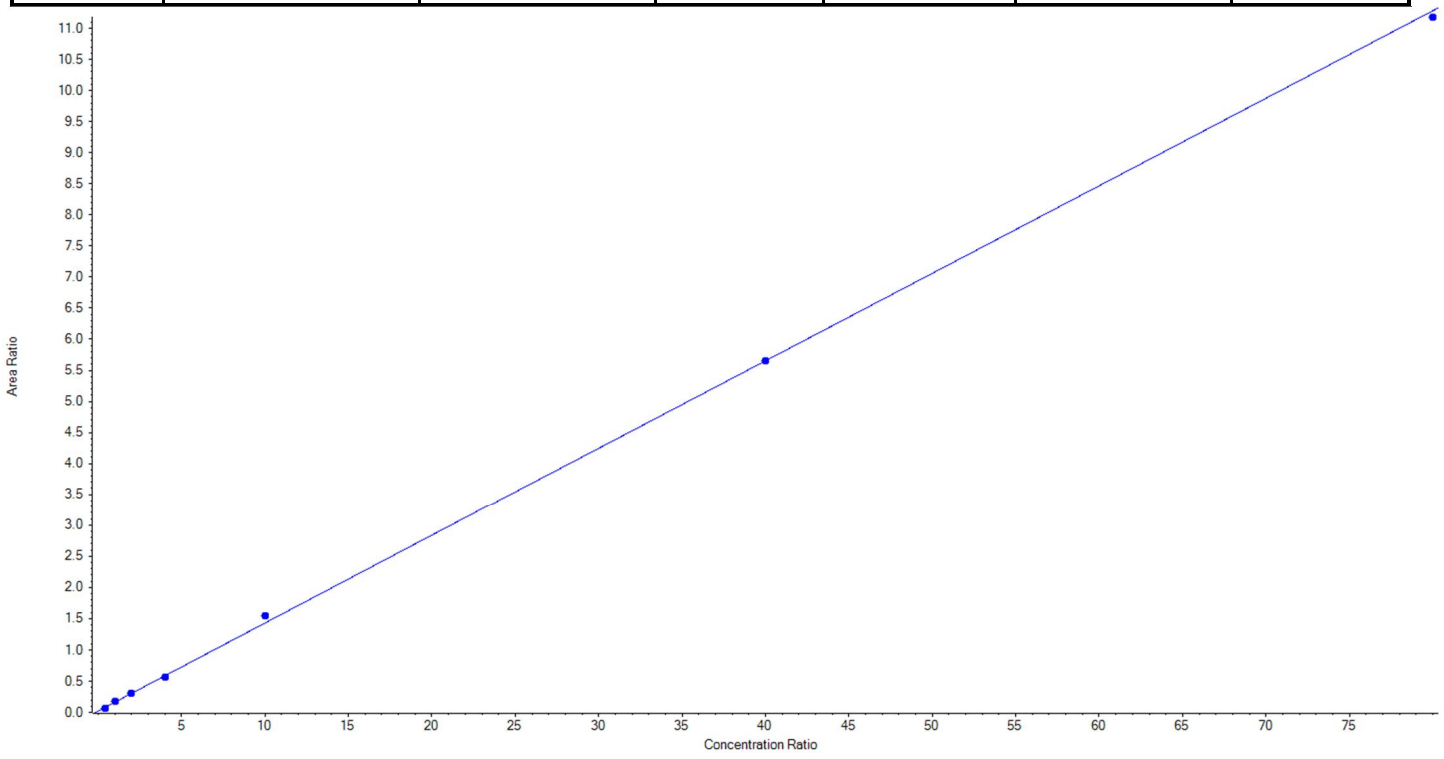
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFDoA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	613.0 / 319.0	**Result Table**	18222018_D
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.14074 x + 0.02292 (r = 0.99961) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	86.545687	86.6
3	KB74	L2	True	250.00	274.615048	109.9
4	KB75	L3	True	500.00	494.661881	98.9
5	KB76	L4	True	1000.00	971.395687	97.1
6	KB77	L5	True	2500.00	2712.576260	108.5
7	KB78	L6	True	10000.00	9996.454238	100.0
8	KB79	L7	True	20000.00	19813.751199	99.1



BATTELLE

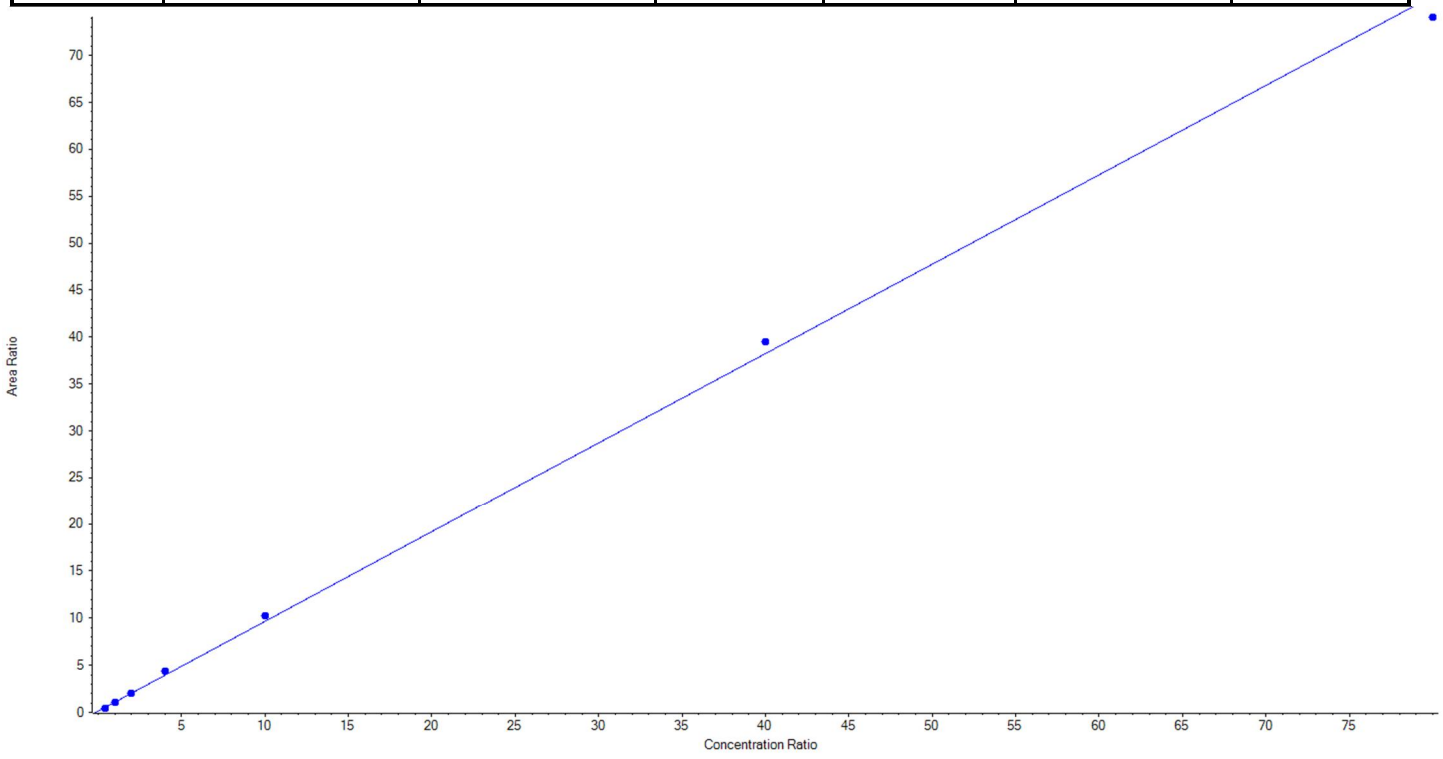
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFTrDA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	663.0 / 619.0	**Result Table**	18222018_D
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.95260 x + 0.12887 (r = 0.99908) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	85.967911	86.0
3	KB74	L2	True	250.00	241.563939	96.6
4	KB75	L3	True	500.00	488.700899	97.7
5	KB76	L4	True	1000.00	1126.764608	112.7
6	KB77	L5	True	2500.00	2664.921530	106.6
7	KB78	L6	True	10000.00	10336.521146	103.4
8	KB79	L7	True	20000.00	19405.559967	97.0



BATTELLE

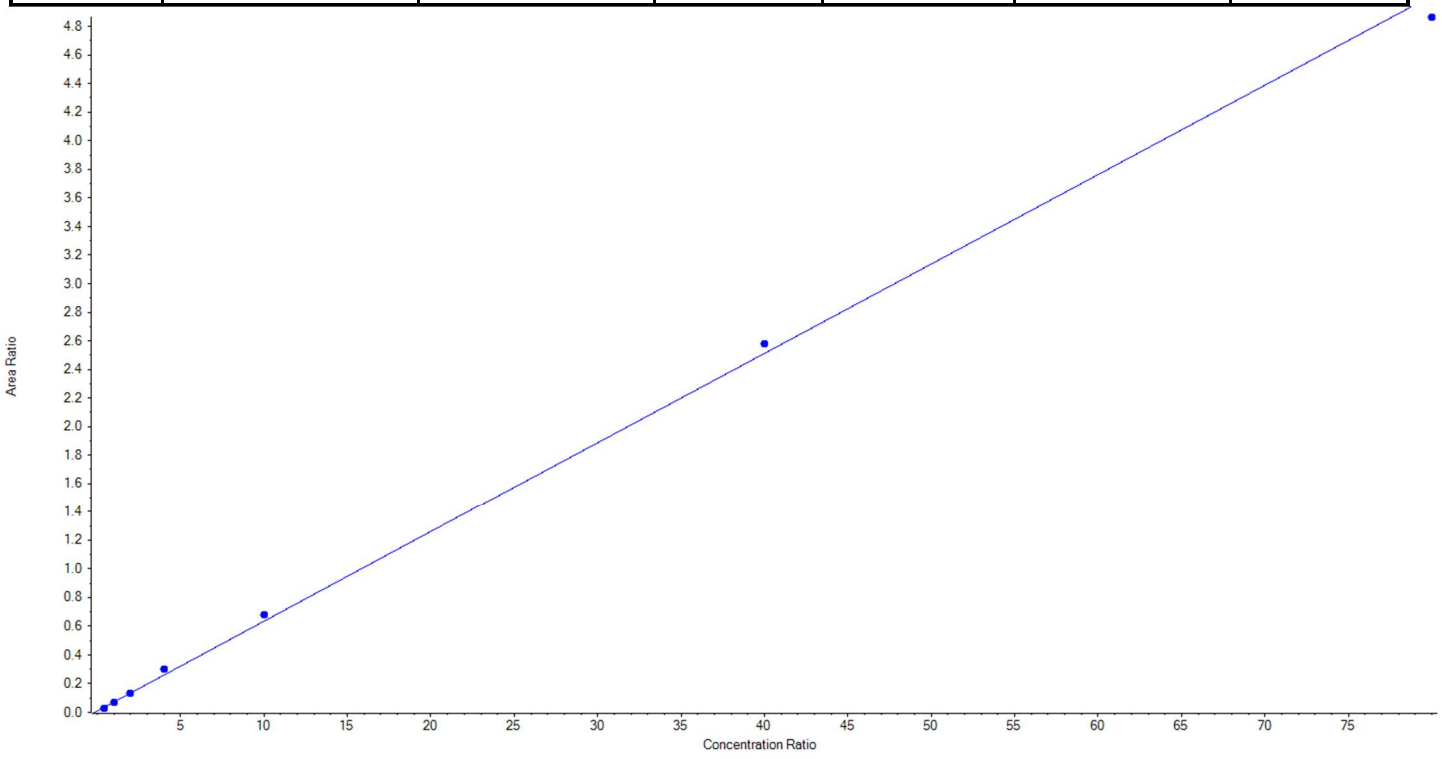
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFTrDA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	663.0 / 169.0	**Result Table**	18222018_D
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06256 x + 0.00941 (r = 0.99887) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	78.198175	78.2
3	KB74	L2	True	250.00	247.986856	99.2
4	KB75	L3	True	500.00	495.036348	99.0
5	KB76	L4	True	1000.00	1164.067670	116.4
6	KB77	L5	True	2500.00	2684.712399	107.4
7	KB78	L6	True	10000.00	10280.911529	102.8
8	KB79	L7	True	20000.00	19399.087023	97.0



BATTELLE

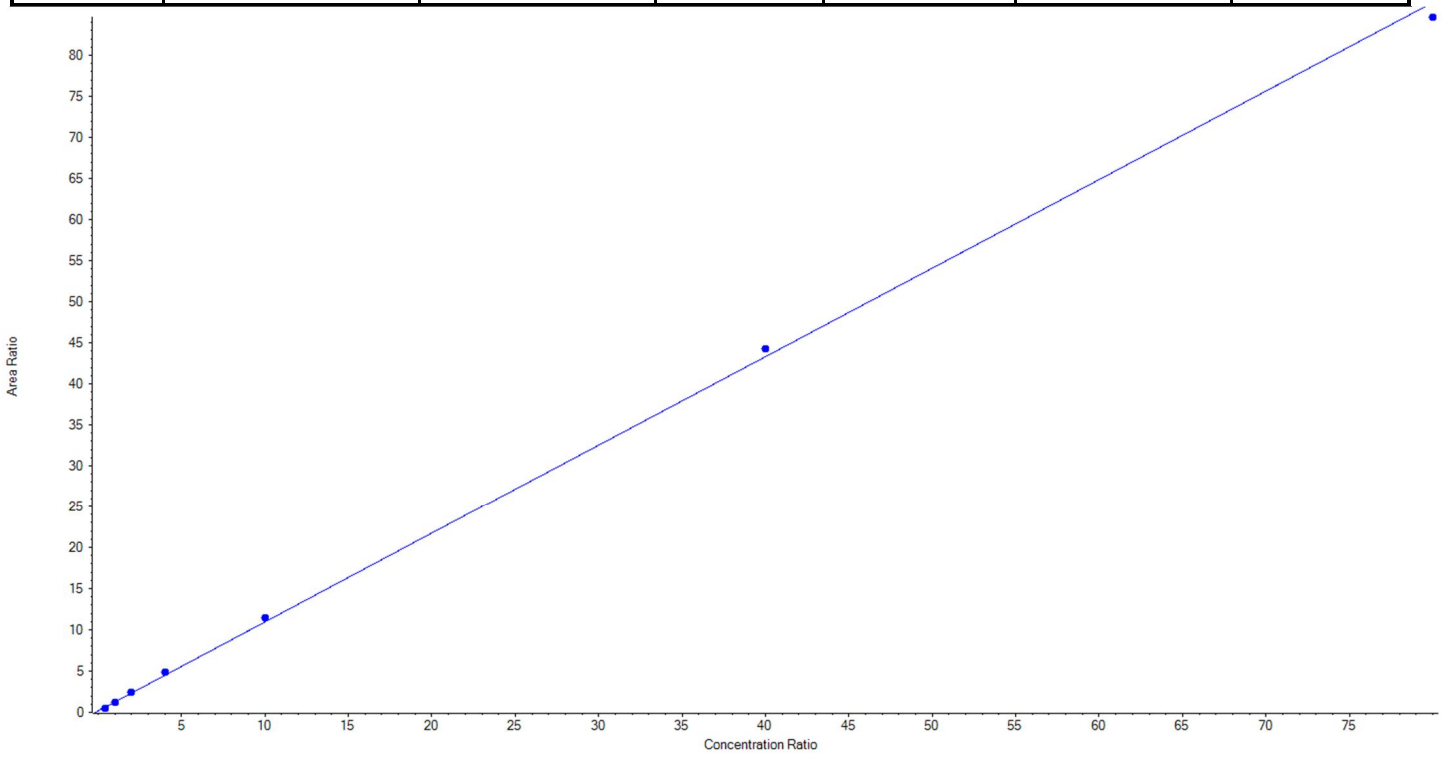
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFTeDA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	713.0 / 669.0	**Result Table**	18222018_D
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.07817 x + 0.18334 (r = 0.99951) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	81.728327	81.7
3	KB74	L2	True	250.00	253.645310	101.5
4	KB75	L3	True	500.00	515.154084	103.0
5	KB76	L4	True	1000.00	1095.645152	109.6
6	KB77	L5	True	2500.00	2603.218162	104.1
7	KB78	L6	True	10000.00	10217.289136	102.2
8	KB79	L7	True	20000.00	19583.319829	97.9



BATTELLE

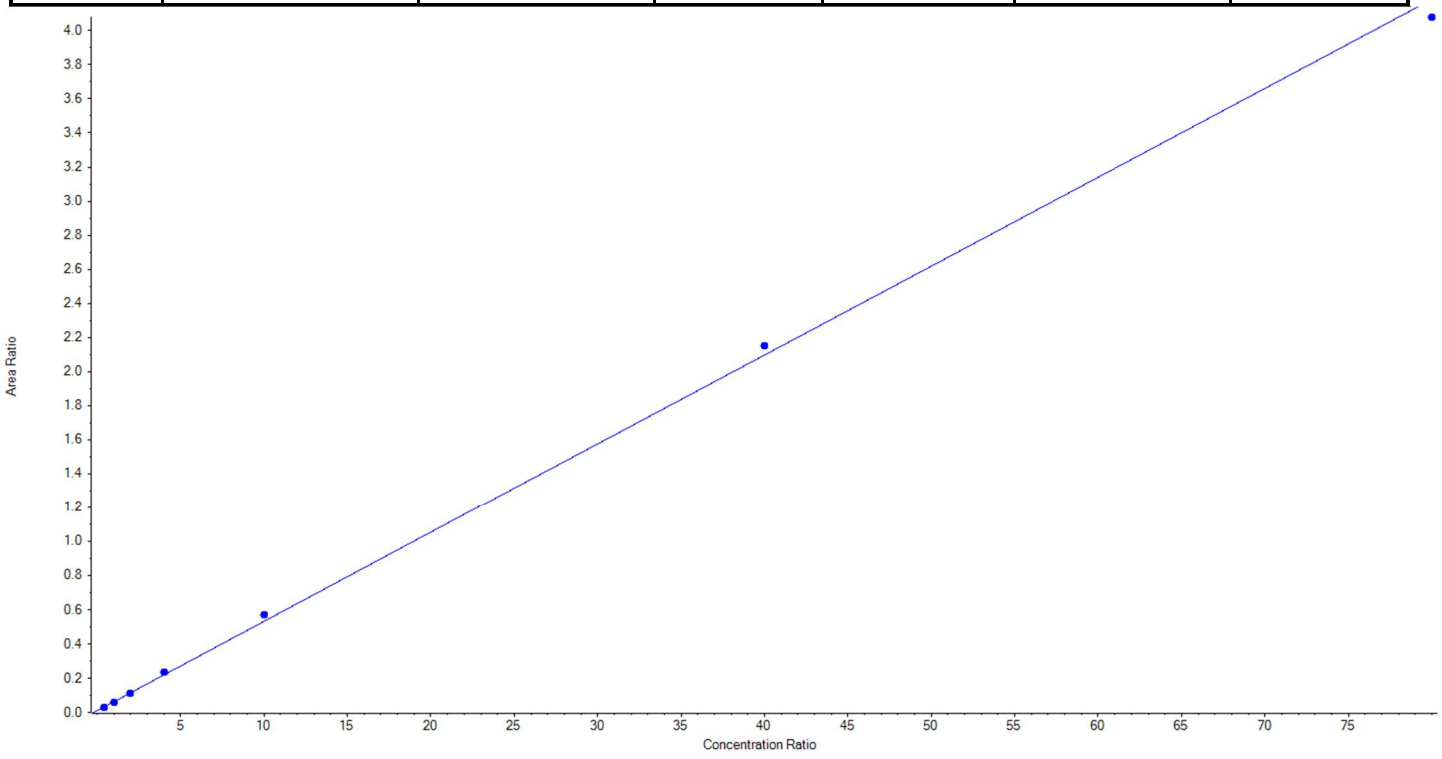
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	PFTeDA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	713.0 / 169.0	**Result Table**	18222018_D
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05216 x + 0.01003 (r = 0.99933) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	89.886117	89.9
3	KB74	L2	True	250.00	238.937138	95.6
4	KB75	L3	True	500.00	490.005825	98.0
5	KB76	L4	True	1000.00	1092.239213	109.2
6	KB77	L5	True	2500.00	2680.771848	107.2
7	KB78	L6	True	10000.00	10258.453725	102.6
8	KB79	L7	True	20000.00	19499.706134	97.5



BATTELLE

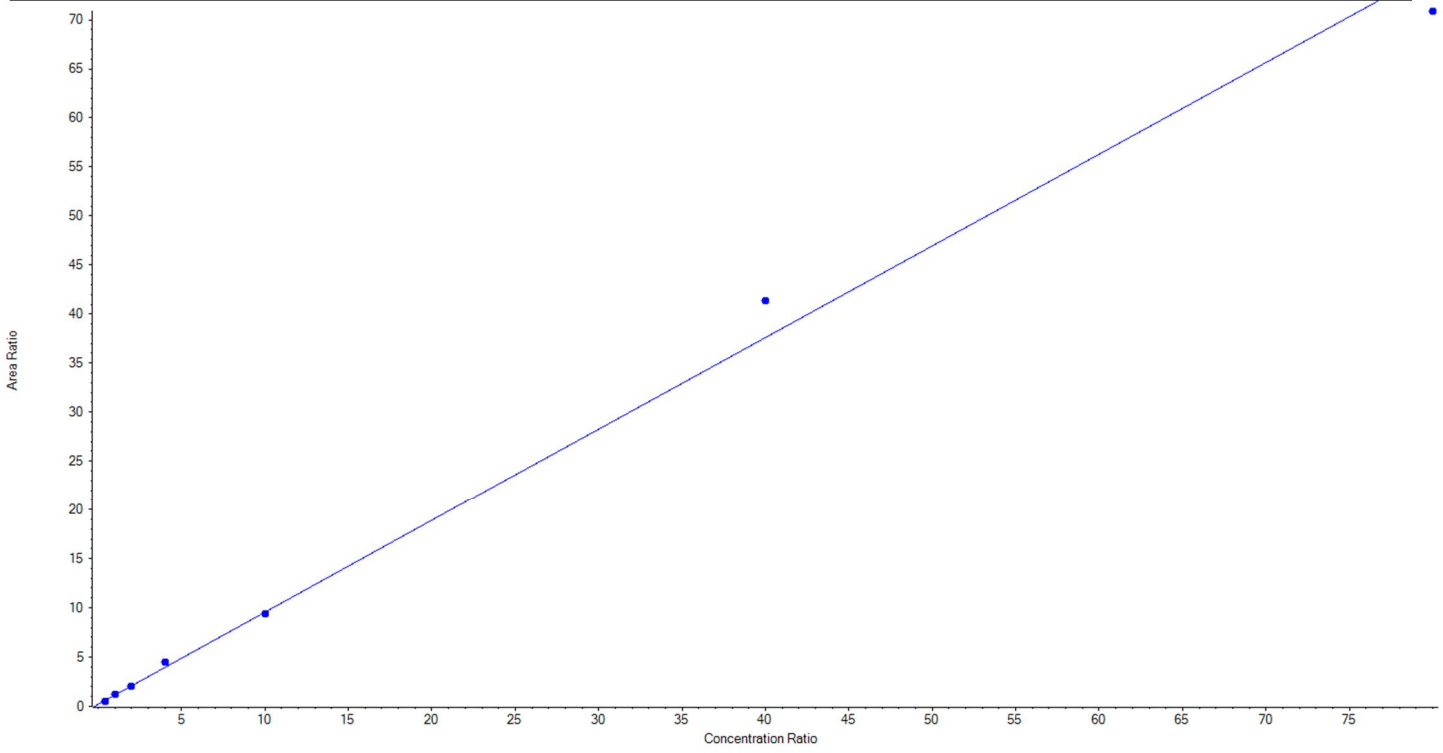
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	NMeFOSAA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	570.0 / 419.0	**Result Table**	18222018_D
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.93472 x + 0.21431 (r = 0.99704) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	75.824991	75.8
3	KB74	L2	True	250.00	268.876365	107.6
4	KB75	L3	True	500.00	500.524214	100.1
5	KB76	L4	True	1000.00	1133.404189	113.3
6	KB77	L5	True	2500.00	2465.257046	98.6
7	KB78	L6	True	10000.00	11007.670601	110.1
8	KB79	L7	True	20000.00	18898.442593	94.5



BATTELLE

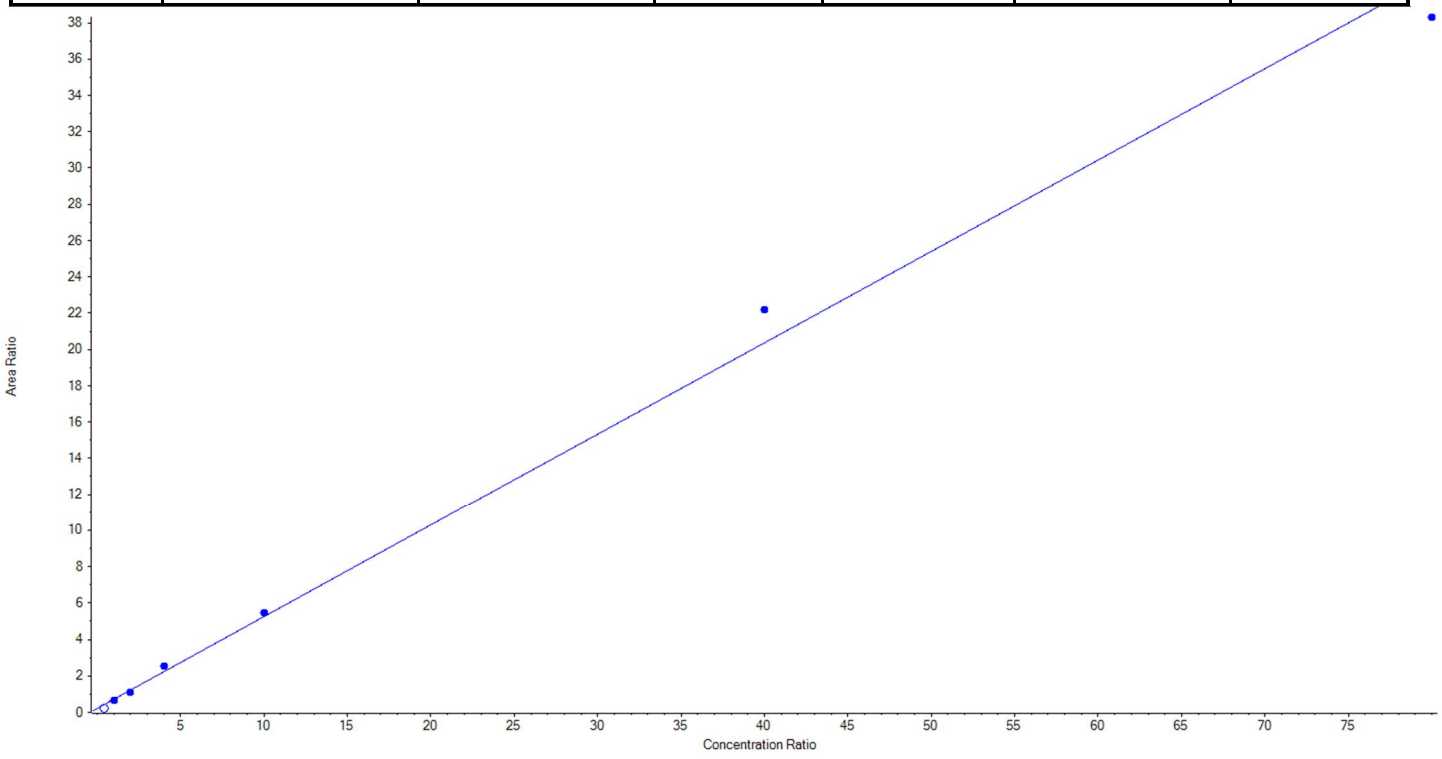
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	NMeFOSAA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	570.0 / 512.0	**Result Table**	18222018_D
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.50367 x + 0.21759 (r = 0.99687) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	False	100.00	3.453918	3.5
3	KB74	L2	True	250.00	218.419800	87.4
4	KB75	L3	True	500.00	439.990383	88.0
5	KB76	L4	True	1000.00	1163.925478	116.4
6	KB77	L5	True	2500.00	2616.439396	104.7
7	KB78	L6	True	10000.00	10905.550987	109.1
8	KB79	L7	True	20000.00	18905.673956	94.5



BATTELLE

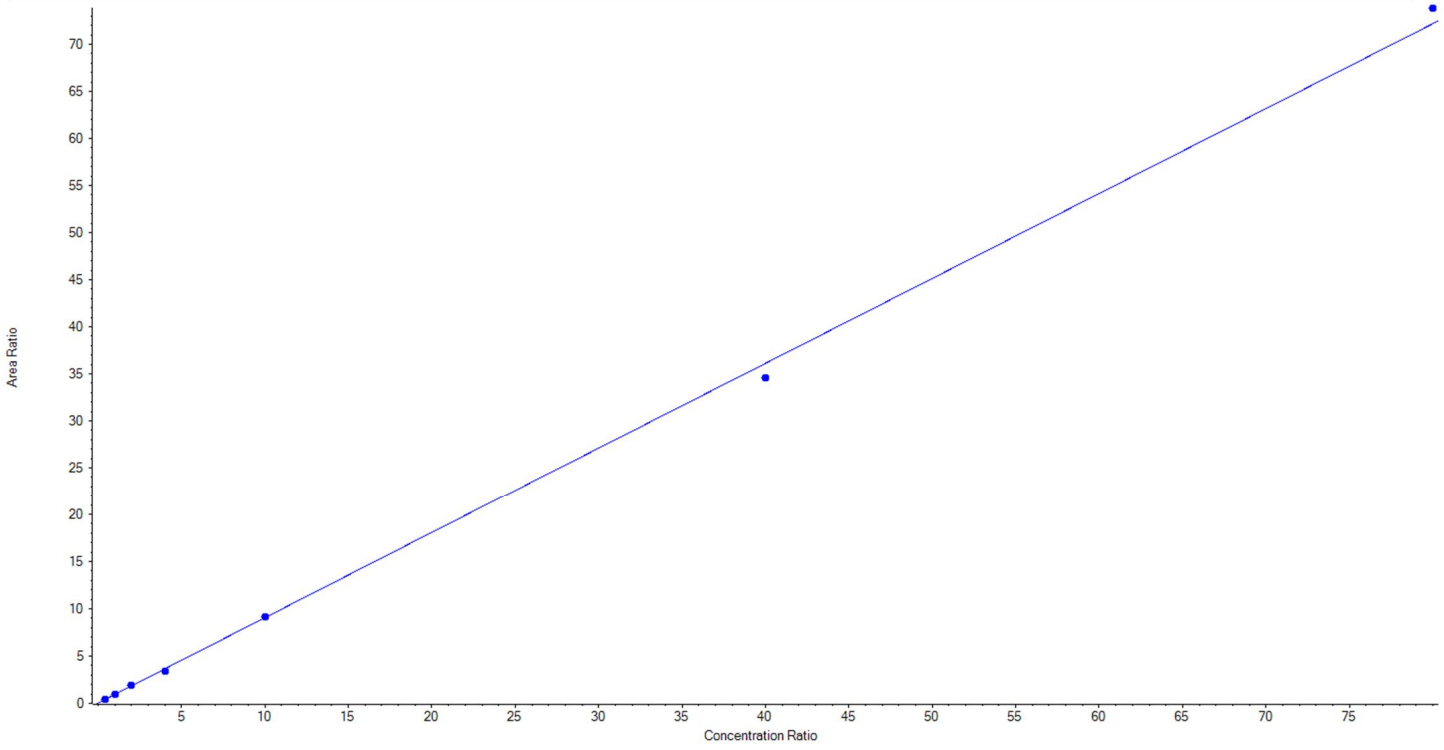
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	NEtFOSAA_1	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	584.0 / 419.0	**Result Table**	18222018_D
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.90168 x + 0.04836 (r = 0.99948) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	104.771450	104.8
3	KB74	L2	True	250.00	251.018896	100.4
4	KB75	L3	True	500.00	508.056535	101.6
5	KB76	L4	True	1000.00	943.782521	94.4
6	KB77	L5	True	2500.00	2522.760733	100.9
7	KB78	L6	True	10000.00	9564.590700	95.7
8	KB79	L7	True	20000.00	20455.019164	102.3



BATTELLE

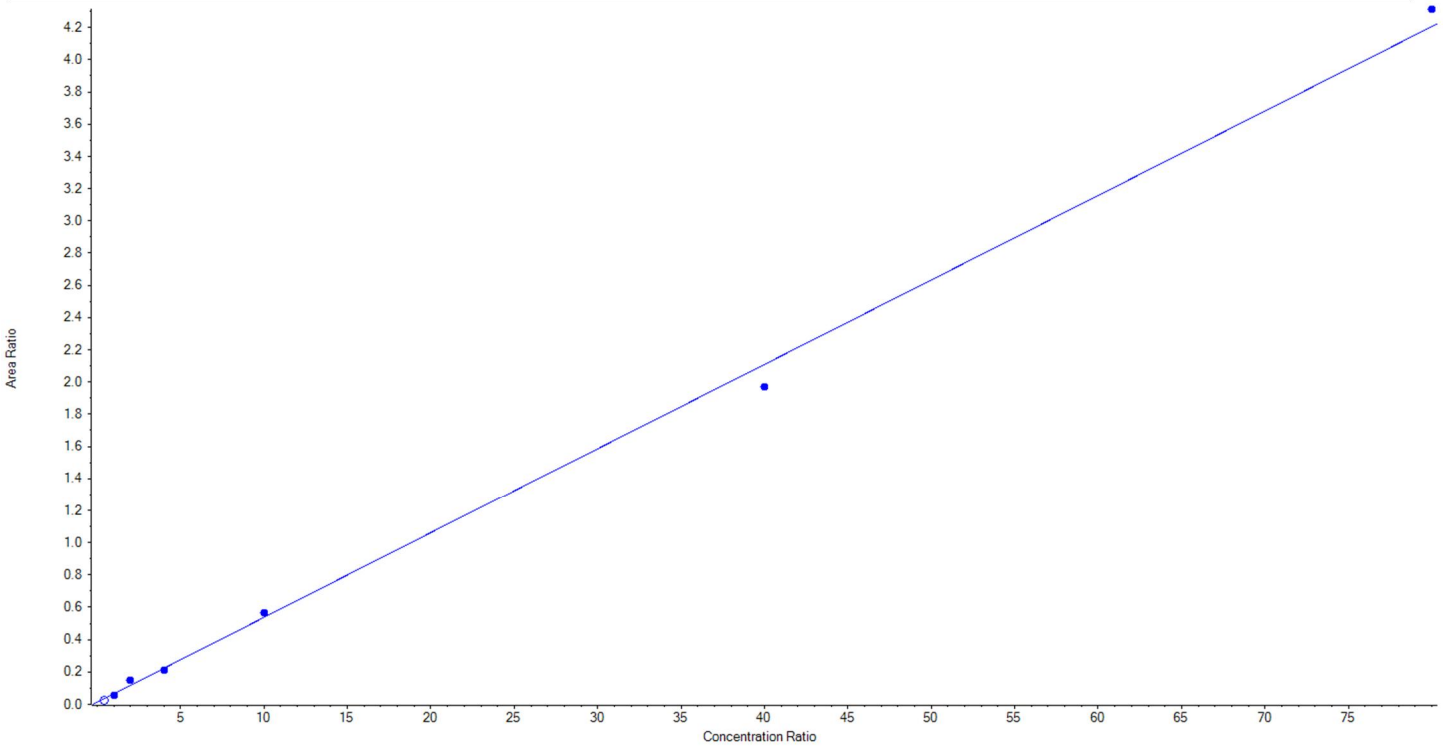
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:07:38 PM

Analyte Name	NEtFOSAA_2	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	584.0 / 483.0	**Result Table**	18222018_D
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05241 x + 0.01326 (r = 0.99796) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	False	100.00	41.412646	41.4
3	KB74	L2	True	250.00	191.667209	76.7
4	KB75	L3	True	500.00	637.470069	127.5
5	KB76	L4	True	1000.00	945.207707	94.5
6	KB77	L5	True	2500.00	2637.389496	105.5
7	KB78	L6	True	10000.00	9326.284871	93.3
8	KB79	L7	True	20000.00	20511.980648	102.6



BATTELLE

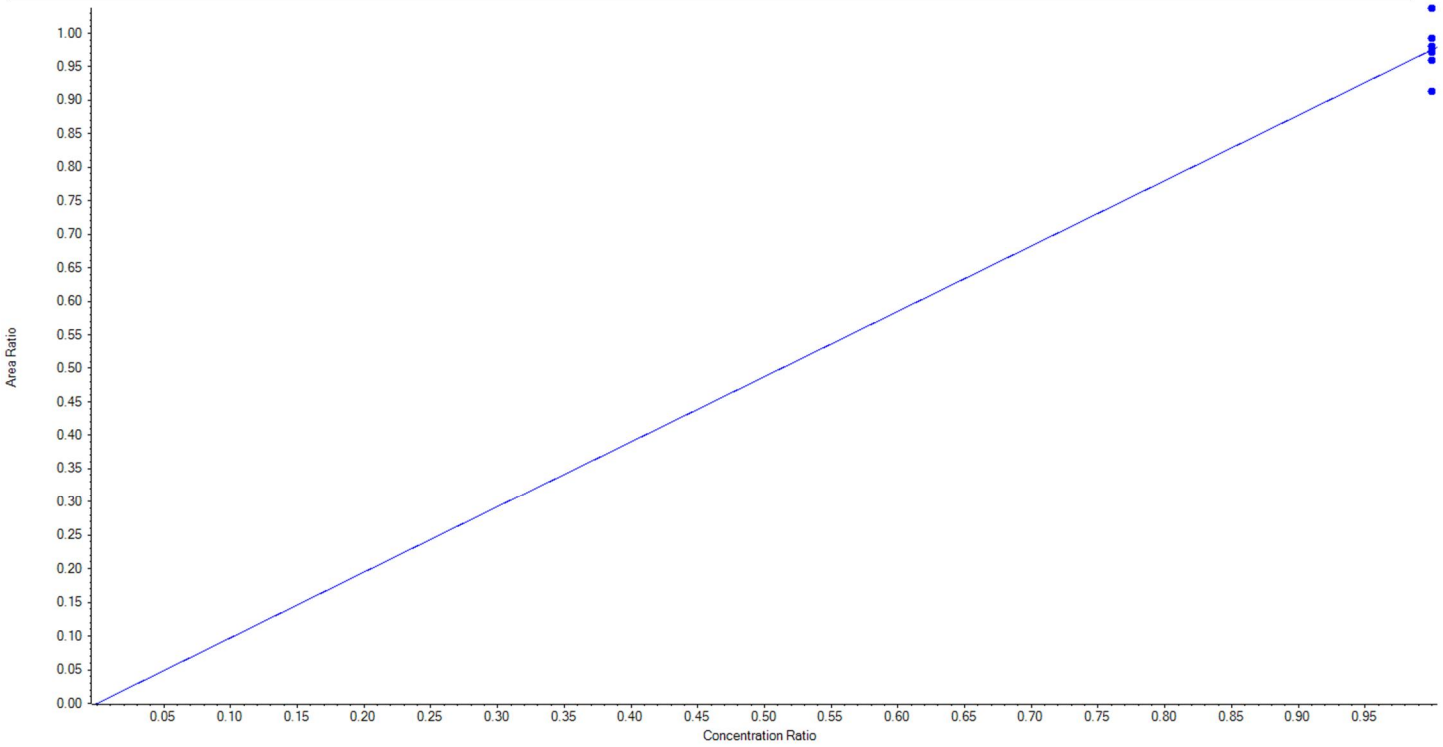
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C2-PFDoA	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	615.0 / 570.0	**Result Table**	18222018_SIS_D
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.97505 x (std. dev. = 0.03727) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	234.027671	93.6
3	KB74	L2	True	250.00	265.932266	106.4
4	KB75	L3	True	250.00	249.447374	99.8
5	KB76	L4	True	250.00	245.945631	98.4
6	KB77	L5	True	250.00	248.975274	99.6
7	KB78	L6	True	250.00	251.235272	100.5
8	KB79	L7	True	250.00	254.436513	101.8



BATTELLE

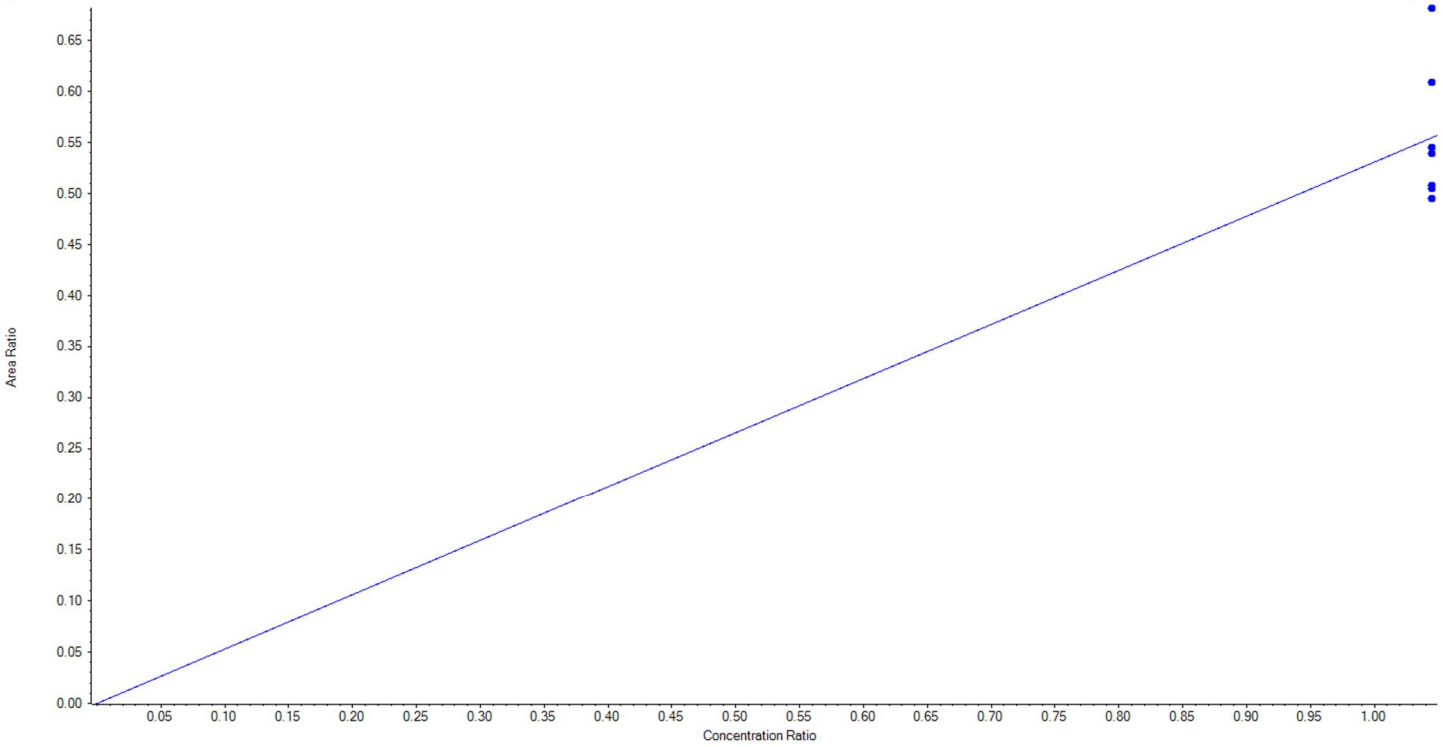
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	d3-MeFOSAA	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	573.0 / 419.0	**Result Table**	18222018_SIS_D
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.53102 x (std. dev. = 0.06498) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	243.102584	97.2
3	KB74	L2	True	250.00	228.792666	91.5
4	KB75	L3	True	250.00	245.689732	98.3
5	KB76	L4	True	250.00	223.328296	89.3
6	KB77	L5	True	250.00	227.365315	91.0
7	KB78	L6	True	250.00	274.494088	109.8
8	KB79	L7	True	250.00	307.227320	122.9



BATTELLE

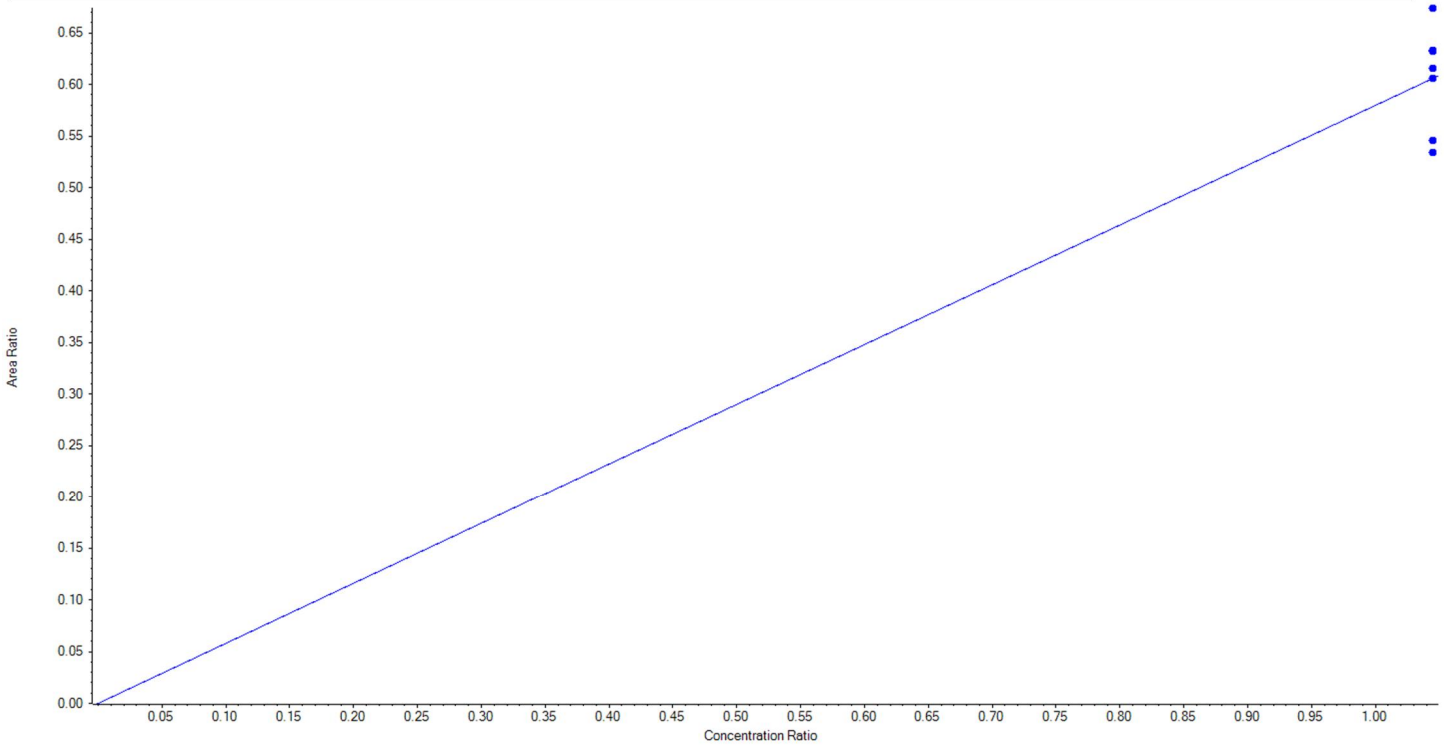
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	d5-EtFOSAA	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	589.0 / 419.0	**Result Table**	18222018_SIS_D
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.57975 x (std. dev. = 0.04771) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	261.116785	104.5
3	KB74	L2	True	250.00	260.842878	104.3
4	KB75	L3	True	250.00	225.192349	90.1
5	KB76	L4	True	250.00	254.251713	101.7
6	KB77	L5	True	250.00	220.425706	88.2
7	KB78	L6	True	250.00	278.106701	111.2
8	KB79	L7	True	250.00	250.063868	100.0



BATTELLE

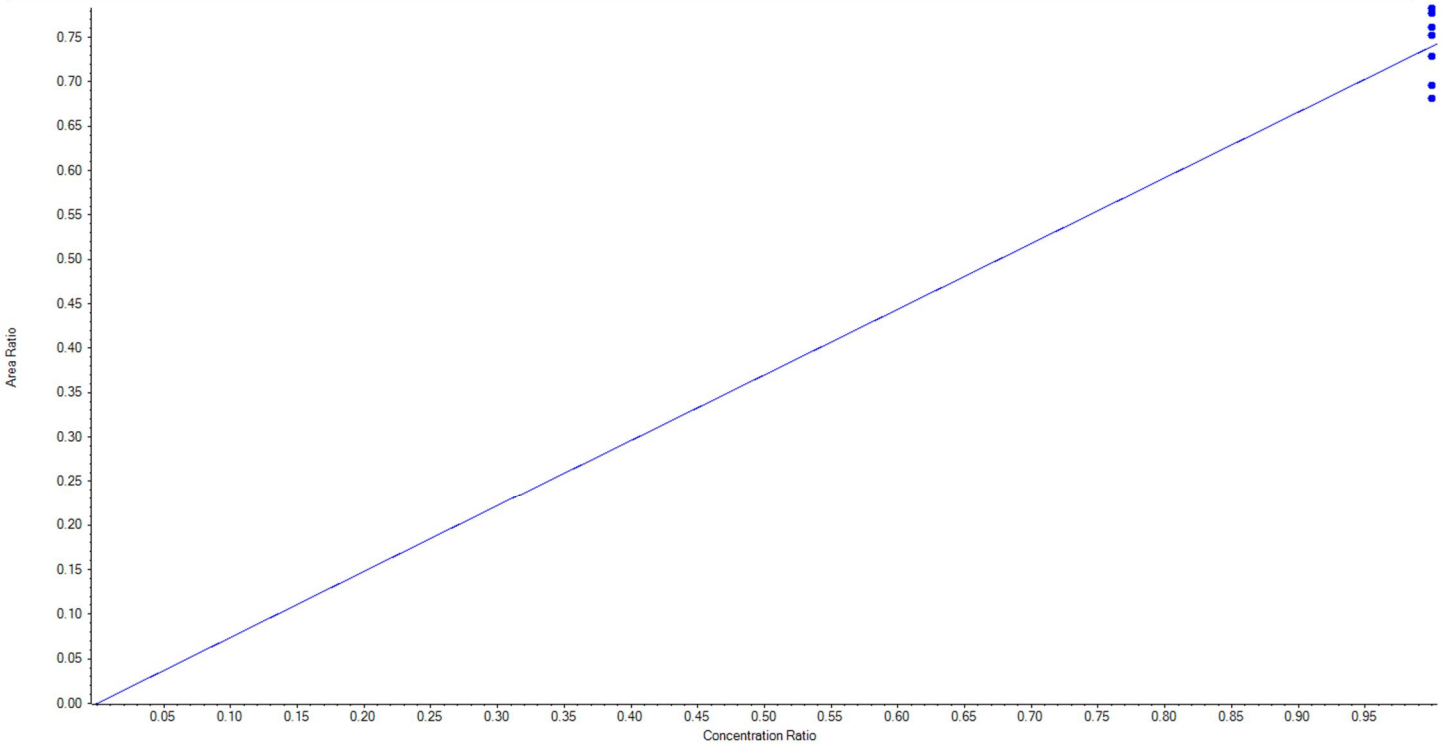
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C5-PFHxA	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	318.0 / 273.0	**Result Table**	18222018_SIS_D
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.73994 x (std. dev. = 0.03937) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	262.567314	105.0
3	KB74	L2	True	250.00	254.187234	101.7
4	KB75	L3	True	250.00	230.325952	92.1
5	KB76	L4	True	250.00	235.058052	94.0
6	KB77	L5	True	250.00	257.145365	102.9
7	KB78	L6	True	250.00	264.503275	105.8
8	KB79	L7	True	250.00	246.212808	98.5



BATTELLE

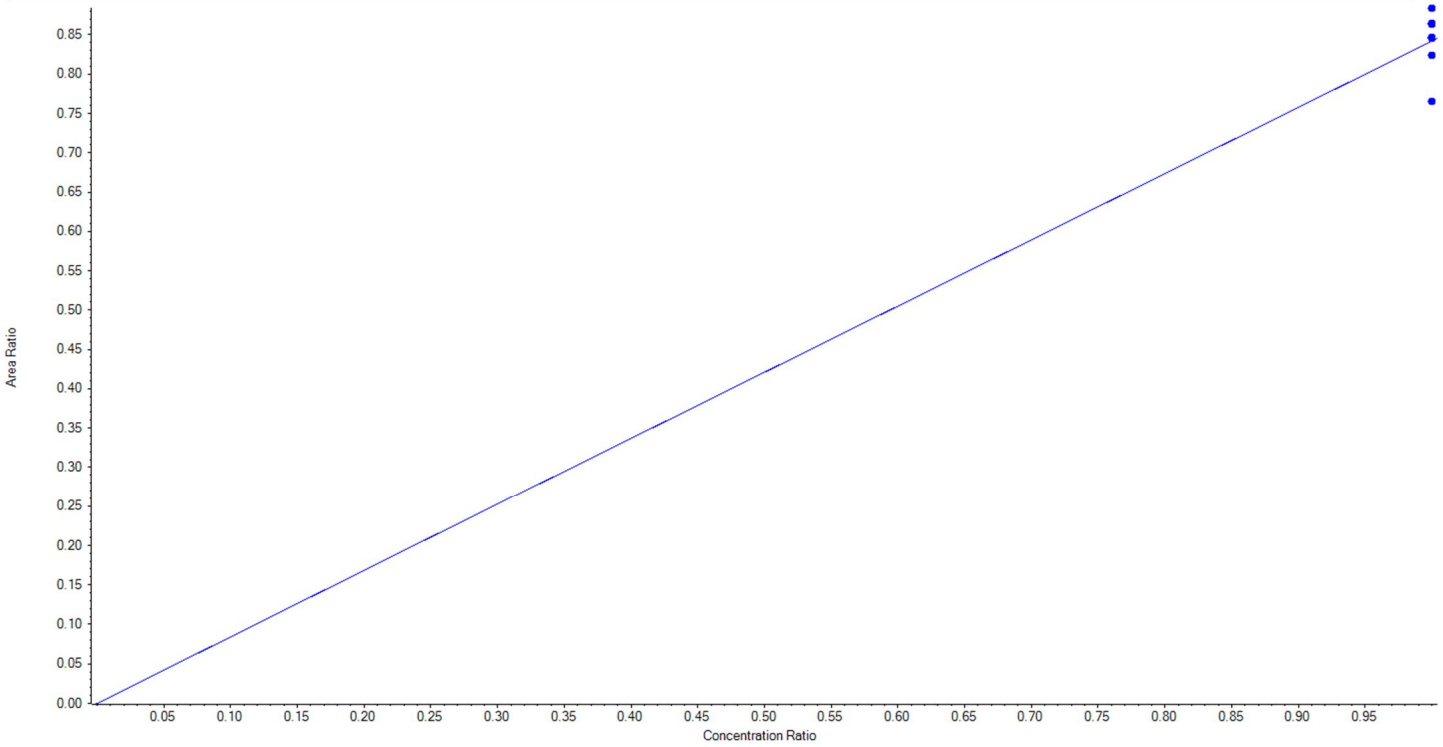
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C4-PFHpA	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	367.0 / 322.0	**Result Table**	18222018_SIS_D
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.84182 x (std. dev. = 0.03866) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	262.427043	105.0
3	KB74	L2	True	250.00	251.075240	100.4
4	KB75	L3	True	250.00	244.763156	97.9
5	KB76	L4	True	250.00	256.507439	102.6
6	KB77	L5	True	250.00	256.669677	102.7
7	KB78	L6	True	250.00	251.342992	100.5
8	KB79	L7	True	250.00	227.214453	90.9



BATTELLE

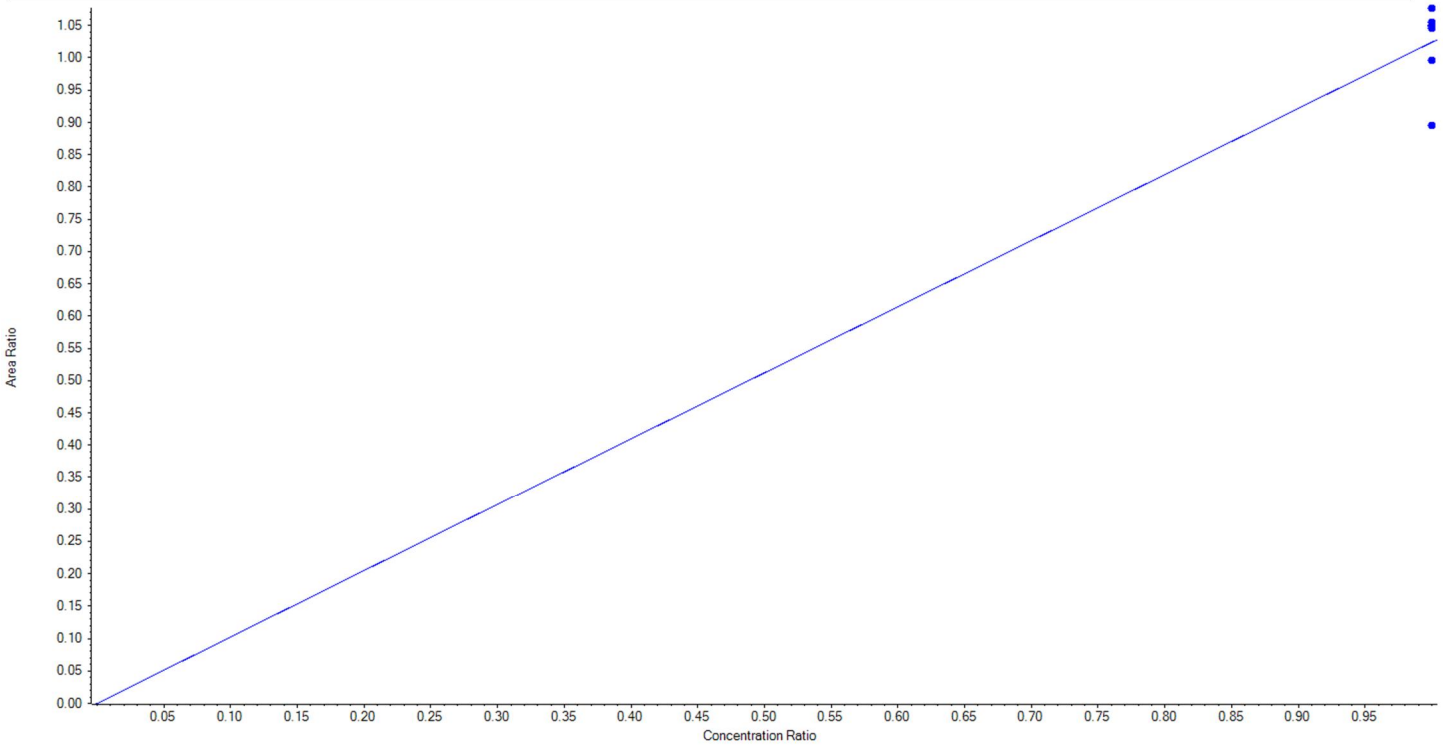
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C8-PFOA	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	421.0 / 376.0	**Result Table**	18222018_SIS_D
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.02405 x (std. dev. = 0.06175) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	255.212785	102.1
3	KB74	L2	True	250.00	262.875155	105.2
4	KB75	L3	True	250.00	256.482263	102.6
5	KB76	L4	True	250.00	257.662297	103.1
6	KB77	L5	True	250.00	256.019871	102.4
7	KB78	L6	True	250.00	243.157749	97.3
8	KB79	L7	True	250.00	218.589880	87.4



BATTELLE

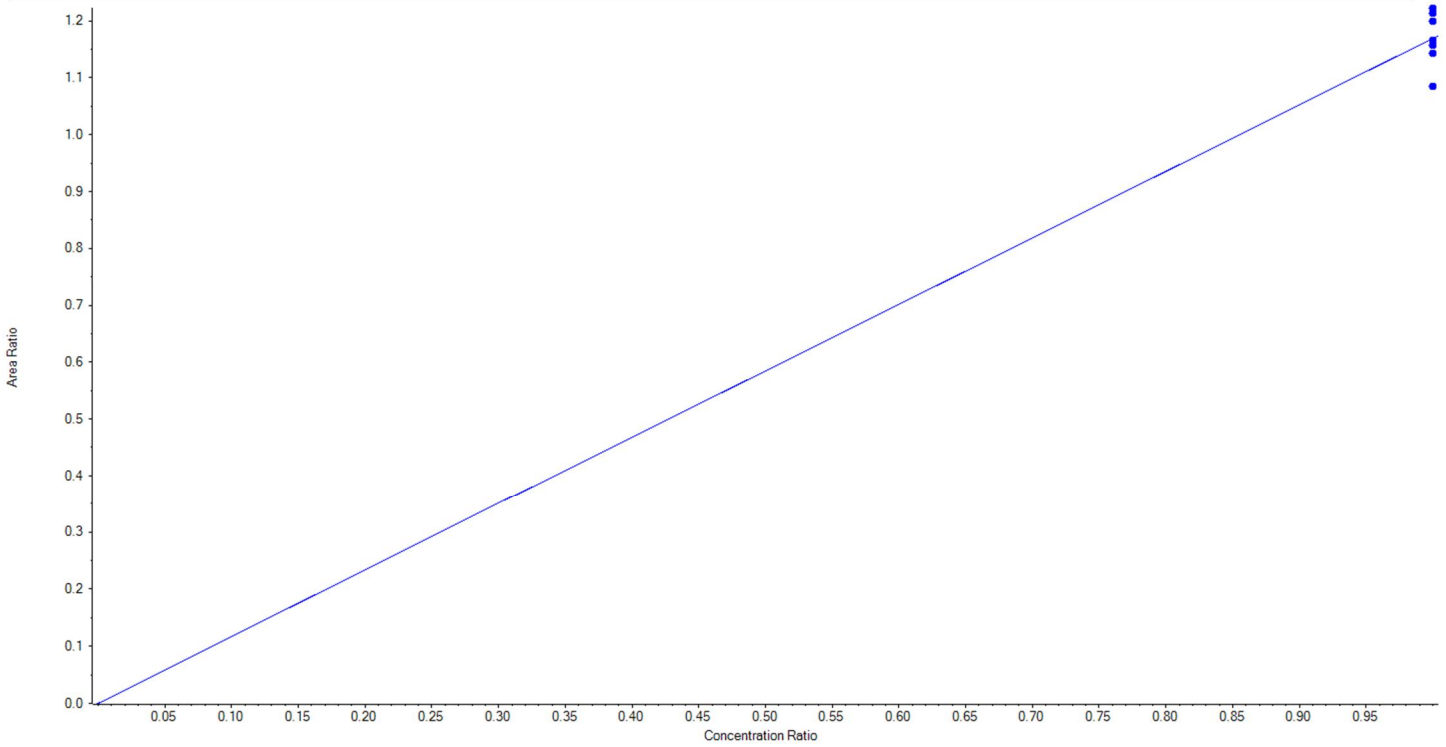
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C9-PFNA	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	472.0 / 427.0	**Result Table**	18222018_SIS_D
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.16930 x (std. dev. = 0.04759) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	247.430463	99.0
3	KB74	L2	True	250.00	261.328420	104.5
4	KB75	L3	True	250.00	259.384215	103.8
5	KB76	L4	True	250.00	244.372857	97.8
6	KB77	L5	True	250.00	249.179395	99.7
7	KB78	L6	True	250.00	256.344825	102.5
8	KB79	L7	True	250.00	231.959824	92.8



BATTELLE

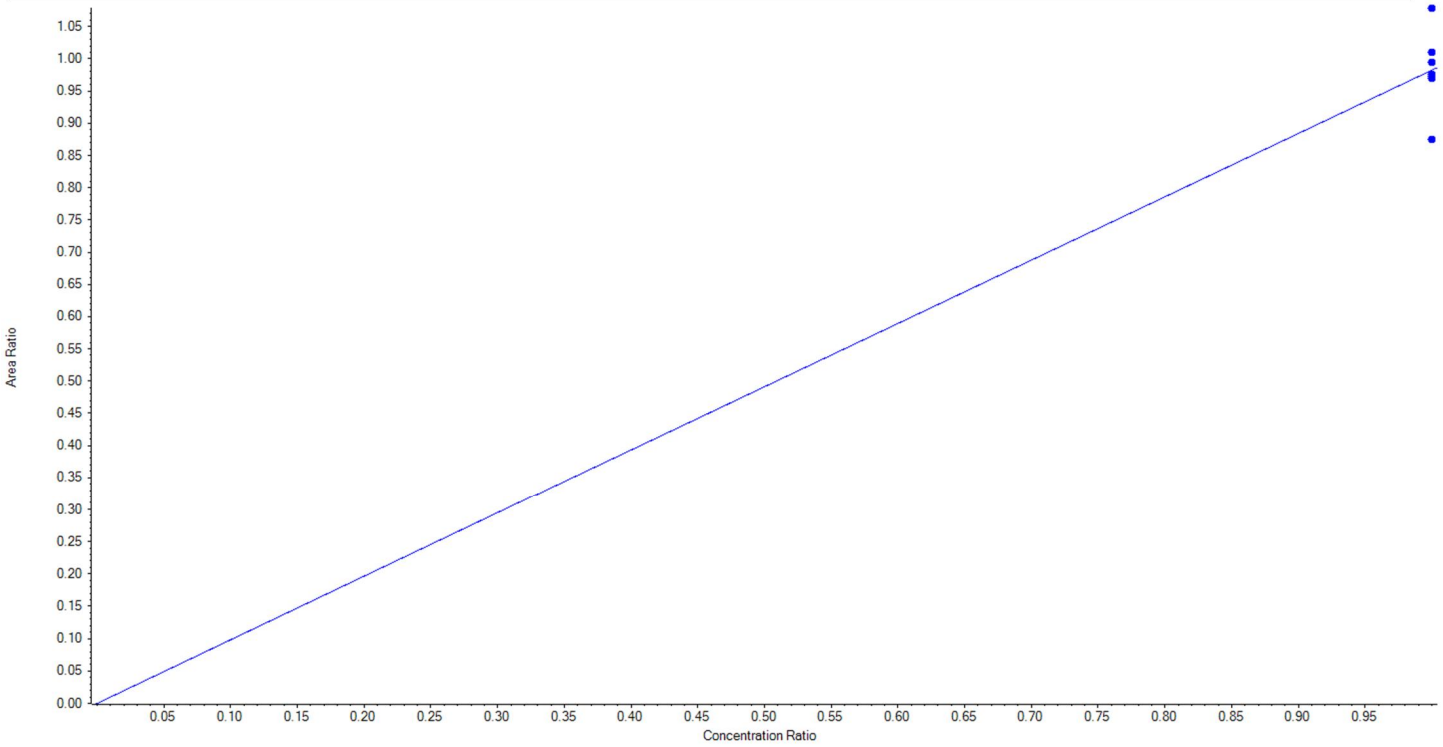
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C6-PFDA	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	519.0 / 474.0	**Result Table**	18222018_SIS_D
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.98235 x (std. dev. = 0.06079) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	246.733475	98.7
3	KB74	L2	True	250.00	253.248818	101.3
4	KB75	L3	True	250.00	257.192135	102.9
5	KB76	L4	True	250.00	248.450649	99.4
6	KB77	L5	True	250.00	274.445566	109.8
7	KB78	L6	True	250.00	247.435316	99.0
8	KB79	L7	True	250.00	222.494042	89.0



BATTELLE

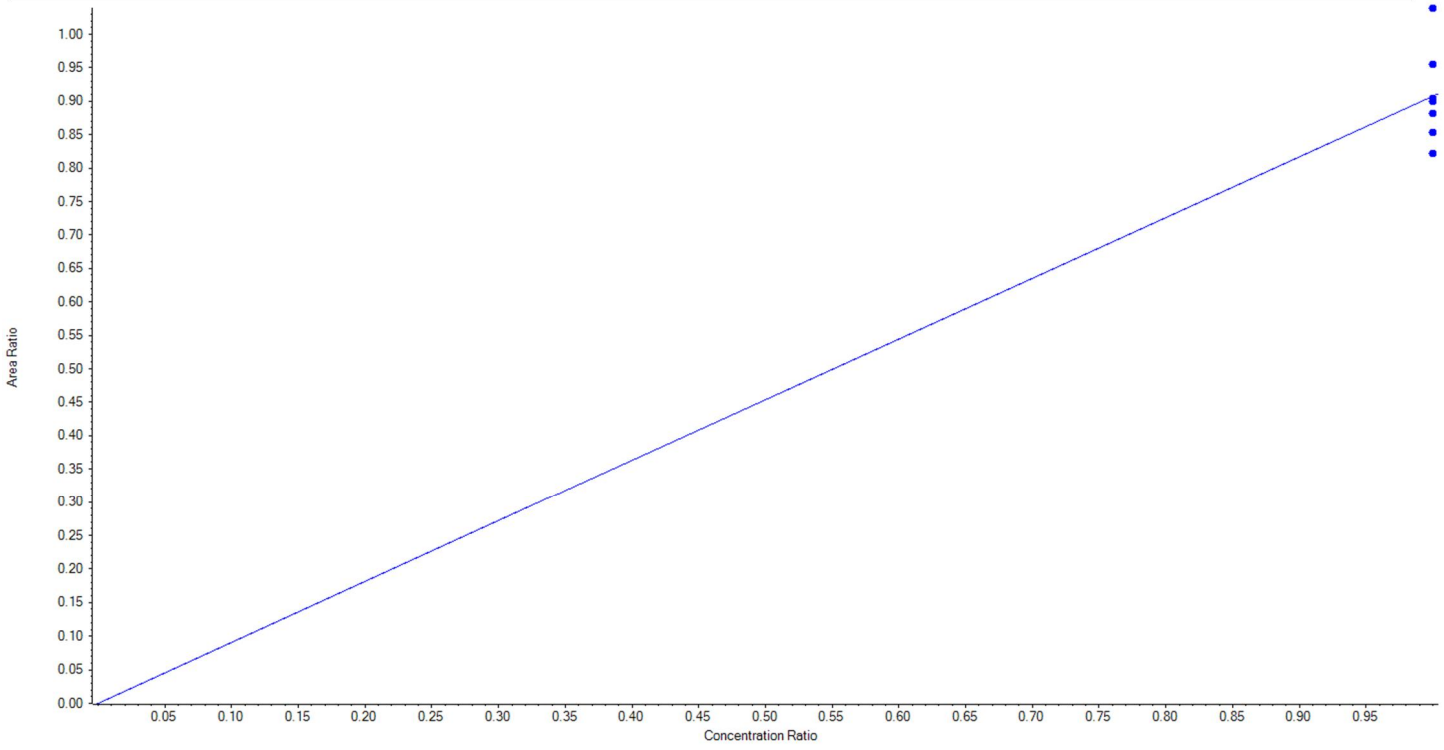
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C7-PFUnA	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	570.0 / 525.0	**Result Table**	18222018_SIS_D
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.90743 x (std. dev. = 0.07148) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	247.760751	99.1
3	KB74	L2	True	250.00	262.960755	105.2
4	KB75	L3	True	250.00	286.201660	114.5
5	KB76	L4	True	250.00	234.954208	94.0
6	KB77	L5	True	250.00	249.135582	99.7
7	KB78	L6	True	250.00	242.726450	97.1
8	KB79	L7	True	250.00	226.260594	90.5



BATTELLE

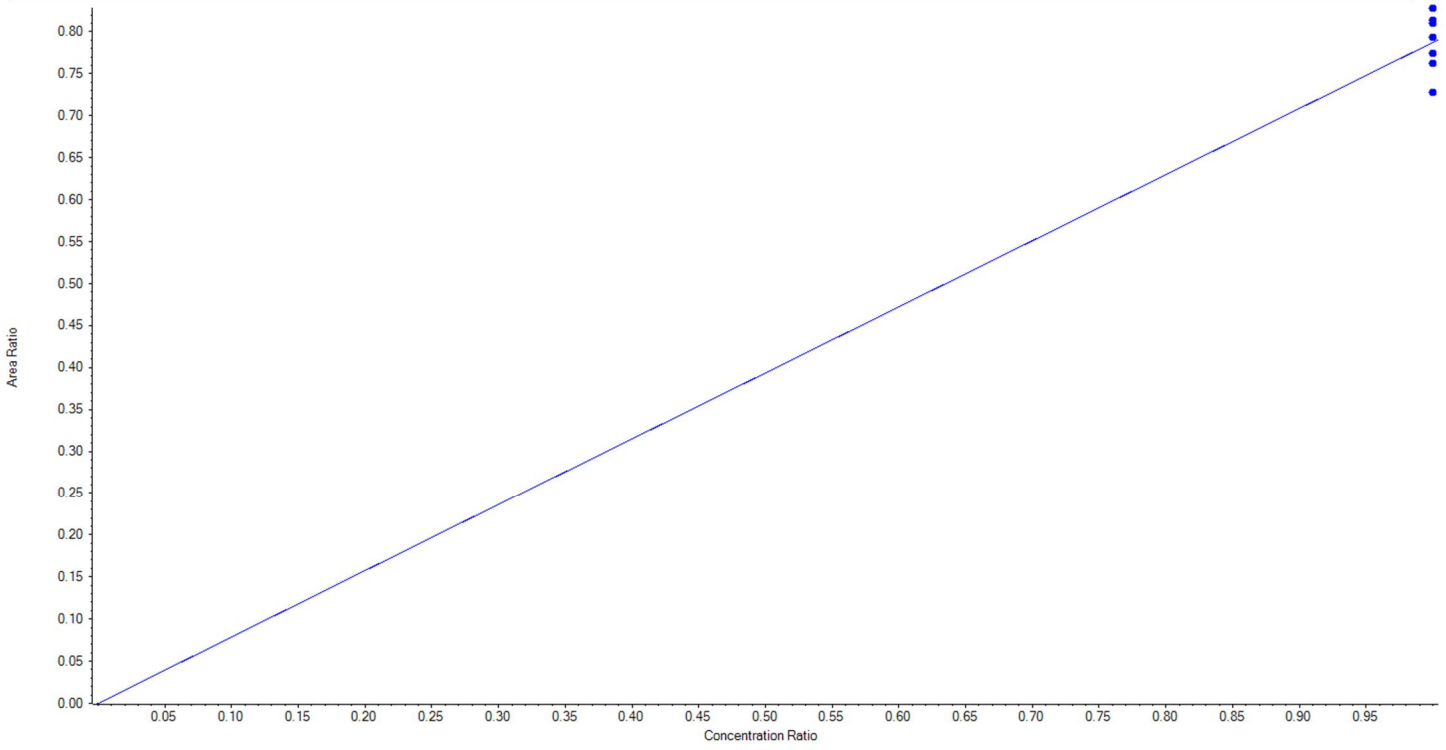
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C2-PFTeDA	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	715.0 / 670.0	**Result Table**	18222018_SIS_D
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.78723 x (std. dev. = 0.03476) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	242.249601	96.9
3	KB74	L2	True	250.00	262.922814	105.2
4	KB75	L3	True	250.00	245.975733	98.4
5	KB76	L4	True	250.00	231.048930	92.4
6	KB77	L5	True	250.00	252.097071	100.8
7	KB78	L6	True	250.00	258.482884	103.4
8	KB79	L7	True	250.00	257.222966	102.9



BATTELLE

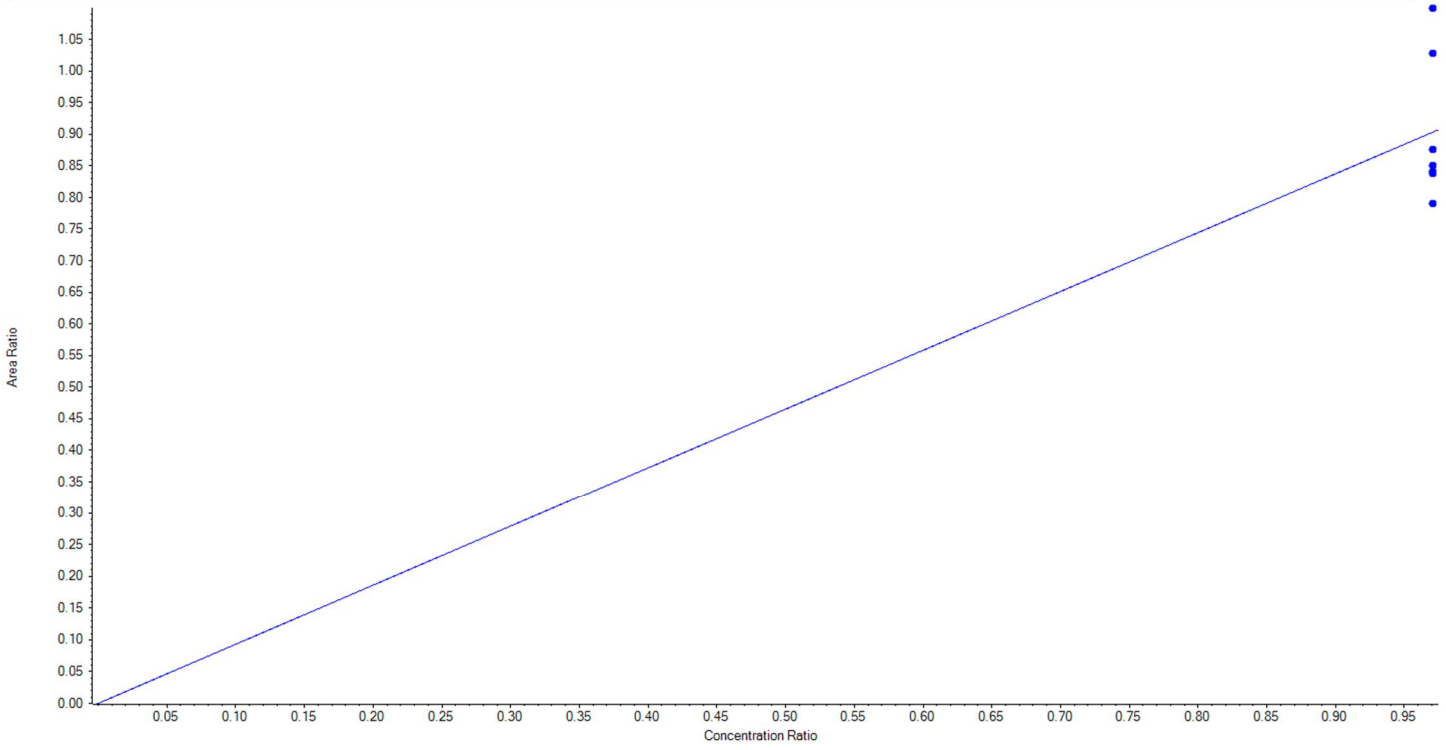
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C3-PFBS	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	302.0 / 99.0	**Result Table**	18222018_SIS_D
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.93048 x (std. dev. = 0.11752) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	232.25	225.022462	96.9
3	KB74	L2	True	232.25	215.609121	92.8
4	KB75	L3	True	232.25	218.748838	94.2
5	KB76	L4	True	232.25	203.233433	87.5
6	KB77	L5	True	232.25	216.348971	93.2
7	KB78	L6	True	232.25	264.163371	113.7
8	KB79	L7	True	232.25	282.623804	121.7



BATTELLE

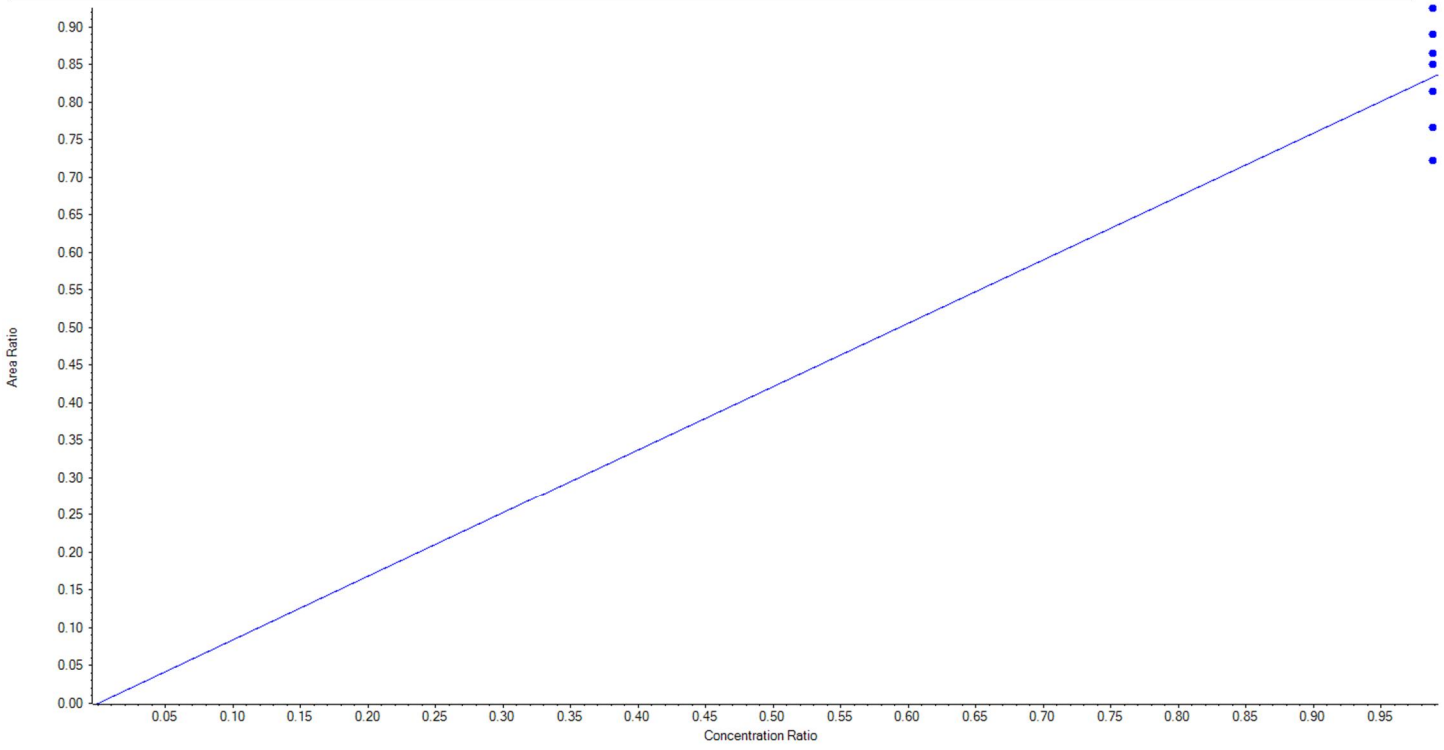
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C3-PFHxS	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	402.0 / 99.0	**Result Table**	18222018_SIS_D
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.84316 x (std. dev. = 0.07172) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	236.50	231.144826	97.7
3	KB74	L2	True	236.50	241.172849	102.0
4	KB75	L3	True	236.50	245.474666	103.8
5	KB76	L4	True	236.50	217.481590	92.0
6	KB77	L5	True	236.50	204.966129	86.7
7	KB78	L6	True	236.50	262.529838	111.0
8	KB79	L7	True	236.50	252.730102	106.9



BATTELLE

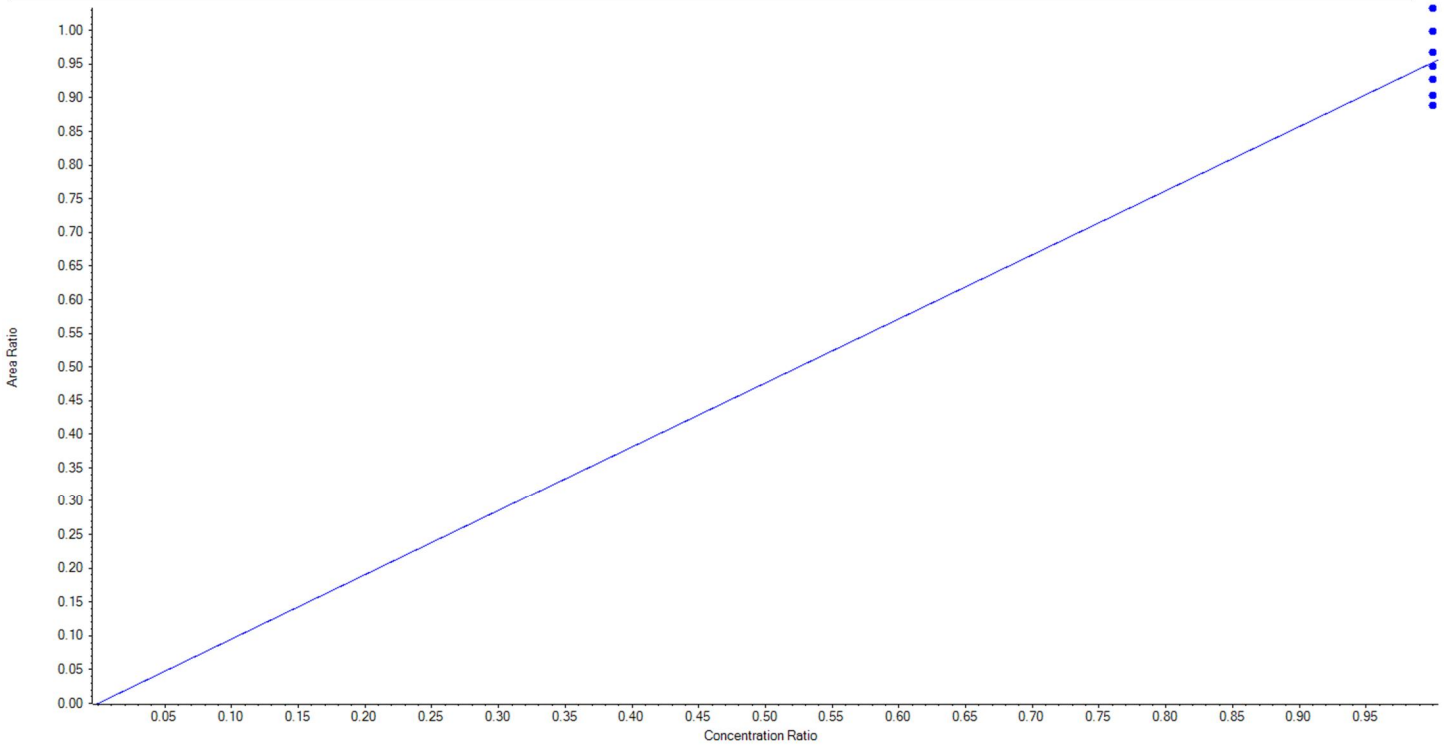
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:19 PM

Analyte Name	13C8-PFOS	**Data File**	Data18-0590_18-01588_18-0589.wiff
MRM Transition	507.0 / 99.0	**Result Table**	18222018_SIS_D
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.95250 x (std. dev. = 0.05159) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	239.25	250.871078	104.9
3	KB74	L2	True	239.25	243.225761	101.7
4	KB75	L3	True	239.25	223.367998	93.4
5	KB76	L4	True	239.25	233.089271	97.4
6	KB77	L5	True	239.25	226.800752	94.8
7	KB78	L6	True	239.25	259.494294	108.5
8	KB79	L7	True	239.25	237.900846	99.4



BATTELLE

	Isotope Dilution Calibration Curve Concentrations (ng/L)						
	KB73	KB74	KB75	KB76	KB77	KB78	KB79
PFBA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFPeA	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFHxA	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFHpA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFOA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFNA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFDA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFUnA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFDoA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFTrDA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFTeDA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
NMeFOSAA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
NEtFOSAA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFOSA	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFBS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFPeS	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFHxS (Branched)	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFHpS	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFOS (Branched)	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
PFDS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
PFNS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
4:2FTS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
6:2FTS	100.00	250.00	500.00	1,000.00	2,500.00	10,000.00	20,000.00
8:2FTS	101.00	252.50	505.00	1,010.00	2,525.00	10,100.00	20,200.00
	Surrogates / Extracted Internal Standards						
13C4-PFBA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C5-PFPeA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C5-PFHxA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C4-PFHpA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C8-PFOA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C9-PFNA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C6-PFDA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C7-PFUnA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFDoA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFTeDA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
d3-MeFOSAA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
d5-EtFOSAA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C8-FOSA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C3-PFBS	232.25	232.25	232.25	232.25	232.25	232.25	232.25
13C3-PFHxS	236.50	236.50	236.50	236.50	236.50	236.50	236.50
13C8-PFOS	239.25	239.25	239.25	239.25	239.25	239.25	239.25
13C2-4:2FTS	233.75	233.75	233.75	233.75	233.75	233.75	233.75
13C2-6:2FTS	237.25	237.25	237.25	237.25	237.25	237.25	237.25
13C2-8:2FTS	239.50	239.50	239.50	239.50	239.50	239.50	239.50
	Internal Standards						
13C3-PFBA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFOA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C2-PFDA	250.00	250.00	250.00	250.00	250.00	250.00	250.00
13C4-PFOS	239.25	239.25	239.25	239.25	239.25	239.25	239.25

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:19:52 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	34121.38	100.508541	87.4	true
PFBS_2	298.9 / 99.0	1.54	11376.82	104.973014	49.2	true
PFHxA_1	313.0 / 269.0	1.86	29559.44	108.810616	8.6	false
PFHxA_2	313.0 / 119.0	1.86	1820.55	96.626394	5.0	true
PFHpA_1	363.0 / 319.0	2.27	27461.51	109.378901	32.5	false
PFHpA_2	363.0 / 169.0	2.28	452.16	87.419215	16.3	false
PFHxS_1	399.0 / 80.0	2.30	41548.97	98.667560	105.3	false
PFHxS_2	399.0 / 99.0	2.30	12342.77	103.341956	121.9	false
PFOA_1	413.0 / 369.0	2.68	37502.72	108.562585	80.7	false
PFOA_2	413.0 / 169.0	2.68	3242.22	186.082953	93.9	false
PFNA_1	463.0 / 419.0	3.09	35504.93	84.547360	93.2	false
PFNA_2	463.0 / 219.0	3.08	11275.60	90.726226	104.2	false
PFOS_1	499.0 / 80.0	3.08	58322.66	107.416508	88.8	false
PFOS_2	499.0 / 99.0	3.08	11449.55	99.944163	130.2	false
PFDA_1	513.0 / 469.0	3.44	40465.96	103.005915	134.2	false
PFDA_2	513.0 / 219.0	3.45	1529.84	87.993271	43.2	false
PFUnA_1	563.0 / 519.0	3.77	34250.97	107.476986	120.9	false
PFUnA_2	563.0 / 269.0	3.77	1857.80	18.012950	52.7	false
PFDoA_1	613.0 / 569.0	4.05	35536.85	89.096034	179.1	false
PFDoA_2	613.0 / 319.0	4.05	5633.28	83.834610	135.3	false
PFTrDA_1	663.0 / 619.0	4.30	32085.90	88.381710	301.9	false
PFTrDA_2	663.0 / 169.0	4.29	2075.19	74.946847	90.4	false
PFTeDA_1	713.0 / 669.0	4.52	35121.14	85.190698	429.9	false
PFTeDA_2	713.0 / 169.0	4.52	1897.16	84.195949	187.8	false
NMeFOSAA_1	570.0 / 419.0	3.60	7195.58	71.469191	446.1	false
NMeFOSAA_2	570.0 / 512.0	3.60	2702.54	< 0	119.0	false
NEtFOSAA_1	584.0 / 419.0	3.76	4869.54	115.264032	180.3	false
NEtFOSAA_2	584.0 / 483.0	3.75	497.78	92.096020	46.2	false

BATTELLE

Summary Quant Report

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.54	82732.42	250.634359	162.2	false
PFBS_2	298.9 / 99.0	1.54	23697.79	232.586481	112.3	false
PFHxA_1	313.0 / 269.0	1.86	69428.44	255.441826	18.7	false
PFHxA_2	313.0 / 119.0	1.86	5603.61	291.668576	12.0	false
PFHpA_1	363.0 / 319.0	2.27	61416.89	250.531214	55.5	false
PFHpA_2	363.0 / 169.0	2.27	1327.29	272.137525	33.5	false
PFHxS_1	399.0 / 80.0	2.29	105000.38	237.672593	152.4	false
PFHxS_2	399.0 / 99.0	2.29	31173.21	247.818105	181.9	false
PFOA_1	413.0 / 369.0	2.68	94146.10	261.629716	138.0	false
PFOA_2	413.0 / 169.0	2.69	4825.84	254.066051	117.9	false
PFNA_1	463.0 / 419.0	3.08	94261.15	267.106975	179.6	false
PFNA_2	463.0 / 219.0	3.08	27761.70	256.353586	161.4	false
PFOS_1	499.0 / 80.0	3.08	145680.43	238.845452	127.7	false
PFOS_2	499.0 / 99.0	3.08	27853.85	239.211228	218.6	false
PFDA_1	513.0 / 469.0	3.44	97934.02	264.156573	187.1	false
PFDA_2	513.0 / 219.0	3.44	4695.51	311.243515	168.5	false
PFUnA_1	563.0 / 519.0	3.77	94347.62	251.685215	175.4	false
PFUnA_2	563.0 / 269.0	3.76	6111.17	242.887117	120.3	false
PFDoA_1	613.0 / 569.0	4.05	85968.05	249.033090	227.3	false
PFDoA_2	613.0 / 319.0	4.05	13378.00	242.468633	212.2	false
PFTrDA_1	663.0 / 619.0	4.30	79066.79	251.136552	360.0	false
PFTrDA_2	663.0 / 169.0	4.30	6052.65	294.577243	214.3	false
PFTeDA_1	713.0 / 669.0	4.52	90469.76	257.037481	605.7	false
PFTeDA_2	713.0 / 169.0	4.52	4614.68	266.758889	334.1	false
NMeFOSAA_1	570.0 / 419.0	3.59	13335.20	208.839498	296.2	false
NMeFOSAA_2	570.0 / 512.0	3.60	8842.89	181.382642	468.8	false
NEtFOSAA_1	584.0 / 419.0	3.76	14019.40	253.235603	277.0	false
NEtFOSAA_2	584.0 / 483.0	3.76	920.19	197.427076	209.0	false

BATTELLE

Summary Quant Report

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	146376.08	532.234965	235.1	false
PFBS_2	298.9 / 99.0	1.55	44144.82	533.800722	167.4	false
PFHxA_1	313.0 / 269.0	1.87	113510.85	507.490422	24.1	false
PFHxA_2	313.0 / 119.0	1.87	7952.17	493.442238	14.8	false
PFHpA_1	363.0 / 319.0	2.28	108487.38	454.742181	71.3	false
PFHpA_2	363.0 / 169.0	2.27	2419.80	512.271480	54.3	false
PFHxS_1	399.0 / 80.0	2.30	173873.25	517.374784	277.8	false
PFHxS_2	399.0 / 99.0	2.30	46769.02	486.568925	261.7	false
PFOA_1	413.0 / 369.0	2.69	161721.14	458.025313	204.2	false
PFOA_2	413.0 / 169.0	2.69	9295.62	470.534982	181.3	false
PFNA_1	463.0 / 419.0	3.08	136937.83	449.487978	198.7	false
PFNA_2	463.0 / 219.0	3.08	44613.37	482.614568	211.4	false
PFOS_1	499.0 / 80.0	3.08	243614.10	486.328897	174.6	false
PFOS_2	499.0 / 99.0	3.08	48507.55	530.318821	246.8	false
PFDA_1	513.0 / 469.0	3.44	168873.67	483.725734	238.3	false
PFDA_2	513.0 / 219.0	3.44	6929.02	490.024516	166.0	false
PFUnA_1	563.0 / 519.0	3.77	151166.34	453.977887	206.7	false
PFUnA_2	563.0 / 269.0	3.77	9133.56	481.959008	152.6	false
PFDoA_1	613.0 / 569.0	4.05	148418.75	526.324928	269.5	false
PFDoA_2	613.0 / 319.0	4.05	24481.65	554.769739	256.3	false
PFTrDA_1	663.0 / 619.0	4.30	141547.97	516.237138	463.5	false
PFTrDA_2	663.0 / 169.0	4.30	8945.39	498.914182	191.3	false
PFTeDA_1	713.0 / 669.0	4.52	155254.62	504.798334	759.6	false
PFTeDA_2	713.0 / 169.0	4.52	7111.52	480.306995	328.4	false
NMeFOSAA_1	570.0 / 419.0	3.60	24954.41	595.249399	291.6	true
NMeFOSAA_2	570.0 / 512.0	3.60	14566.03	556.562411	258.0	false
NEtFOSAA_1	584.0 / 419.0	3.76	27028.98	482.878951	374.9	false
NEtFOSAA_2	584.0 / 483.0	3.76	2404.73	649.935419	199.6	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:20:05 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	317369.24	975.854331	410.9	false
PFBS_2	298.9 / 99.0	1.55	94000.04	968.926964	267.2	false
PFHxA_1	313.0 / 269.0	1.87	234193.92	897.348485	39.2	false
PFHxA_2	313.0 / 119.0	1.87	17169.19	907.899027	24.8	false
PFHpA_1	363.0 / 319.0	2.28	241015.82	971.695242	122.2	false
PFHpA_2	363.0 / 169.0	2.28	4690.26	956.361339	84.7	false
PFHxS_1	399.0 / 80.0	2.30	365087.93	989.008162	380.4	false
PFHxS_2	399.0 / 99.0	2.30	103147.31	978.578682	556.6	false
PFOA_1	413.0 / 369.0	2.69	353405.29	995.677222	292.6	false
PFOA_2	413.0 / 169.0	2.69	22086.27	1072.350826	278.3	false
PFNA_1	463.0 / 419.0	3.09	338237.12	1111.820340	351.7	false
PFNA_2	463.0 / 219.0	3.09	95433.78	1022.068861	357.2	false
PFOS_1	499.0 / 80.0	3.08	544732.00	994.580618	231.1	false
PFOS_2	499.0 / 99.0	3.08	93466.96	947.792019	347.8	false
PFDA_1	513.0 / 469.0	3.44	384108.61	984.480424	334.6	false
PFDA_2	513.0 / 219.0	3.45	15671.11	1000.887262	306.6	false
PFUnA_1	563.0 / 519.0	3.77	345037.14	1014.616700	294.9	false
PFUnA_2	563.0 / 269.0	3.77	17521.72	999.644410	170.4	false
PFDoA_1	613.0 / 569.0	4.05	331374.52	1029.973188	401.0	false
PFDoA_2	613.0 / 319.0	4.05	51594.39	1028.359731	380.6	false
PFTrDA_1	663.0 / 619.0	4.30	302243.30	1002.427883	649.0	false
PFTrDA_2	663.0 / 169.0	4.30	18729.97	963.859948	370.2	false
PFTeDA_1	713.0 / 669.0	4.51	348008.54	1031.897501	1009.8	false
PFTeDA_2	713.0 / 169.0	4.51	16510.32	1042.648241	554.8	false
NMeFOSAA_1	570.0 / 419.0	3.60	56726.34	1233.267050	935.9	true
NMeFOSAA_2	570.0 / 512.0	3.60	30041.54	1116.273104	311.4	false
NEtFOSAA_1	584.0 / 419.0	3.76	56533.60	1003.840402	532.0	false
NEtFOSAA_2	584.0 / 483.0	3.76	3842.98	1107.750721	279.8	false

BATTELLE

Summary Quant Report

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	769469.74	2436.537610	675.7	false
PFBS_2	298.9 / 99.0	1.55	234574.65	2506.399166	631.1	false
PFHxA_1	313.0 / 269.0	1.86	569994.39	2554.105922	69.2	false
PFHxA_2	313.0 / 119.0	1.86	41525.96	2553.633299	48.5	false
PFHpA_1	363.0 / 319.0	2.27	554954.47	2533.494870	202.7	false
PFHpA_2	363.0 / 169.0	2.28	11110.22	2570.713799	202.9	false
PFHxS_1	399.0 / 80.0	2.30	899529.77	2757.432516	466.0	false
PFHxS_2	399.0 / 99.0	2.29	254144.71	2728.607961	520.7	false
PFOA_1	413.0 / 369.0	2.68	822738.44	2399.417317	443.1	false
PFOA_2	413.0 / 169.0	2.68	49365.58	2442.924402	346.0	false
PFNA_1	463.0 / 419.0	3.08	747825.23	2694.794754	440.6	false
PFNA_2	463.0 / 219.0	3.08	229915.67	2707.468474	528.3	false
PFOS_1	499.0 / 80.0	3.08	1291659.30	2419.142735	347.0	false
PFOS_2	499.0 / 99.0	3.08	234948.66	2478.331212	808.9	false
PFDA_1	513.0 / 469.0	3.44	905149.50	2440.339152	582.8	false
PFDA_2	513.0 / 219.0	3.44	33024.65	2228.683671	341.1	false
PFUnA_1	563.0 / 519.0	3.76	849755.26	2531.168763	433.1	false
PFUnA_2	563.0 / 269.0	3.76	44720.73	2754.364561	291.2	false
PFDoA_1	613.0 / 569.0	4.05	762841.22	2512.104680	507.0	false
PFDoA_2	613.0 / 319.0	4.05	120810.66	2563.459258	512.4	false
PFTrDA_1	663.0 / 619.0	4.30	707042.36	2642.100132	921.3	false
PFTrDA_2	663.0 / 169.0	4.30	46679.08	2738.938649	474.3	false
PFTeDA_1	713.0 / 669.0	4.52	795572.90	2656.331591	1687.6	false
PFTeDA_2	713.0 / 169.0	4.52	36992.56	2661.401828	934.2	false
NMeFOSAA_1	570.0 / 419.0	3.59	128671.19	2673.555867	690.2	true
NMeFOSAA_2	570.0 / 512.0	3.59	70316.14	2623.733926	509.9	false
NEtFOSAA_1	584.0 / 419.0	3.76	129275.26	2193.919219	658.5	false
NEtFOSAA_2	584.0 / 483.0	3.76	7552.45	2171.436204	642.4	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:20:13 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	3639647.48	10551.026841	1770.6	false
PFBS_2	298.9 / 99.0	1.54	1087556.93	10669.903540	1426.4	false
PFHxA_1	313.0 / 269.0	1.87	2537107.36	10152.794039	116.5	false
PFHxA_2	313.0 / 119.0	1.87	183709.31	10066.268167	98.7	false
PFHpA_1	363.0 / 319.0	2.27	2405904.37	10160.014145	335.3	false
PFHpA_2	363.0 / 169.0	2.27	49527.78	10610.262033	308.8	false
PFHxS_1	399.0 / 80.0	2.30	3672070.68	10024.721431	1012.6	false
PFHxS_2	399.0 / 99.0	2.30	1034770.81	9894.381625	950.2	false
PFOA_1	413.0 / 369.0	2.69	3339565.37	9800.522459	821.5	false
PFOA_2	413.0 / 169.0	2.68	199653.22	9852.781134	653.7	false
PFNA_1	463.0 / 419.0	3.08	3165758.43	10205.443379	1107.1	false
PFNA_2	463.0 / 219.0	3.08	963898.98	10149.991831	910.9	false
PFOS_1	499.0 / 80.0	3.08	5410648.83	10607.466324	526.1	false
PFOS_2	499.0 / 99.0	3.08	974080.99	10824.623723	863.5	false
PFDA_1	513.0 / 469.0	3.44	3636310.90	9630.647919	756.9	false
PFDA_2	513.0 / 219.0	3.44	147623.10	9822.501680	542.5	false
PFUnA_1	563.0 / 519.0	3.77	3535598.17	9677.911533	606.4	false
PFUnA_2	563.0 / 269.0	3.77	163242.51	9491.720703	579.2	false
PFDoA_1	613.0 / 569.0	4.05	3456013.28	10565.379593	741.6	false
PFDoA_2	613.0 / 319.0	4.05	541648.94	10692.821021	693.7	false
PFTrDA_1	663.0 / 619.0	4.30	3111653.18	10548.173082	1010.2	false
PFTrDA_2	663.0 / 169.0	4.30	196901.54	10520.412689	738.1	false
PFTeDA_1	713.0 / 669.0	4.52	3467580.23	10503.581439	2069.7	false
PFTeDA_2	713.0 / 169.0	4.51	162175.94	10648.951861	1753.8	false
NMeFOSAA_1	570.0 / 419.0	3.60	555467.81	9567.618995	1280.2	true
NMeFOSAA_2	570.0 / 512.0	3.60	318990.40	10139.510763	1015.6	false
NEtFOSAA_1	584.0 / 419.0	3.76	533532.19	9444.163786	978.5	false
NEtFOSAA_2	584.0 / 483.0	3.76	32707.74	10131.354561	526.2	false

BATTELLE

Summary Quant Report

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	6502862.66	19846.703354	2639.9	false
PFBS_2	298.9 / 99.0	1.55	1904225.52	19676.910112	1806.9	false
PFHxA_1	313.0 / 269.0	1.87	4396686.08	20217.508690	170.7	false
PFHxA_2	313.0 / 119.0	1.86	322269.94	20283.962299	131.1	false
PFHpA_1	363.0 / 319.0	2.27	4125009.19	19870.143448	430.0	false
PFHpA_2	363.0 / 169.0	2.27	79139.46	19340.834609	336.4	false
PFHxS_1	399.0 / 80.0	2.30	6165219.94	20068.622953	955.1	false
PFHxS_2	399.0 / 99.0	2.30	1776444.95	20254.202745	1044.5	false
PFOA_1	413.0 / 369.0	2.68	5551271.60	20326.165390	1008.7	false
PFOA_2	413.0 / 169.0	2.68	327871.67	20157.342605	855.4	false
PFNA_1	463.0 / 419.0	3.08	5273827.62	19536.799214	1308.5	false
PFNA_2	463.0 / 219.0	3.08	1623154.16	19640.776454	1219.0	false
PFOS_1	499.0 / 80.0	3.08	9211348.93	19496.219465	546.9	false
PFOS_2	499.0 / 99.0	3.08	1601531.17	19229.778835	724.2	false
PFDA_1	513.0 / 469.0	3.44	6156207.59	20443.644282	860.4	false
PFDA_2	513.0 / 219.0	3.44	244506.58	20408.666086	624.7	false
PFUnA_1	563.0 / 519.0	3.76	6031506.10	20313.162915	730.9	false
PFUnA_2	563.0 / 269.0	3.76	281789.39	20279.424201	546.1	false
PFDoA_1	613.0 / 569.0	4.05	5814143.64	19378.088488	761.2	false
PFDoA_2	613.0 / 319.0	4.05	891108.60	19184.287007	746.0	false
PFTrDA_1	663.0 / 619.0	4.30	5430141.50	19301.543504	1274.8	false
PFTrDA_2	663.0 / 169.0	4.30	343511.10	19258.350443	832.7	false
PFTeDA_1	713.0 / 669.0	4.52	6079763.98	19311.162956	2228.4	false
PFTeDA_2	713.0 / 169.0	4.51	278117.27	19165.736237	1542.2	false
NMeFOSAA_1	570.0 / 419.0	3.59	969212.88	19092.468812	1388.0	true
NMeFOSAA_2	570.0 / 512.0	3.59	537798.36	19632.537155	1305.5	false
NEtFOSAA_1	584.0 / 419.0	3.76	894319.51	20856.698006	993.6	false
NEtFOSAA_2	584.0 / 483.0	3.76	53931.19	22119.823543	748.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:49:36 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	85911.23	258.078699	589.0	false
d3-MeFOSAA	573.0 / 419.0	3.59	12726.65	250.221707	174.0	false
d5-EtFOSAA	589.0 / 419.0	3.75	13685.13	262.671199	188.6	false
13C5-PFHxA	318.0 / 273.0	1.85	58992.05	243.049455	734.9	false
13C4-PFHpA	367.0 / 322.0	2.26	68993.21	252.883573	875.4	false
13C8-PFOA	421.0 / 376.0	2.67	83707.61	251.823599	3920.2	false
13C9-PFNA	472.0 / 427.0	3.07	77004.14	231.215140	706.9	false
13C6-PFDA	519.0 / 474.0	3.43	86235.95	259.534461	912.8	false
13C7-PFUnA	570.0 / 525.0	3.75	74552.54	244.672187	690.3	false
13C2-PFTeDA	715.0 / 670.0	4.52	65334.68	245.534303	1392.0	false
13C3-PFBS	302.0 / 99.0	1.53	25507.06	231.116682	381.8	false
13C3-PFHxS	402.0 / 99.0	2.28	25598.79	256.001632	273.3	false
13C8-PFOS	507.0 / 99.0	3.07	25133.03	239.624764	245.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:49:41 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	87955.17	258.307131	850.9	false
d3-MeFOSAA	573.0 / 419.0	3.59	12674.29	205.301118	155.7	false
d5-EtFOSAA	589.0 / 419.0	3.75	15006.90	237.307222	159.1	false
13C5-PFHxA	318.0 / 273.0	1.85	64192.67	256.364104	744.0	false
13C4-PFHpA	367.0 / 322.0	2.26	69145.47	245.667987	824.1	false
13C8-PFOA	421.0 / 376.0	2.67	86802.22	253.123736	10954.0	false
13C9-PFNA	472.0 / 427.0	3.07	86008.04	250.329357	225862.6	false
13C6-PFDA	519.0 / 474.0	3.43	86272.70	253.835780	1444.8	false
13C7-PFUnA	570.0 / 525.0	3.75	87493.78	280.719213	996.9	false
13C2-PFTeDA	715.0 / 670.0	4.51	69129.79	253.984041	1739.1	false
13C3-PFBS	302.0 / 99.0	1.53	26620.23	198.718979	524.6	false
13C3-PFHxS	402.0 / 99.0	2.28	28943.98	238.472453	319.9	false
13C8-PFOS	507.0 / 99.0	3.07	29474.77	231.522846	244.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:49:46 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	75924.03	221.653879	713.9	false
d3-MeFOSAA	573.0 / 419.0	3.59	10266.64	198.766210	163.0	false
d5-EtFOSAA	589.0 / 419.0	3.75	14339.78	271.025032	219.8	false
13C5-PFHxA	318.0 / 273.0	1.86	54588.76	232.024639	685.5	false
13C4-PFHpA	367.0 / 322.0	2.27	67914.41	256.806395	479.4	false
13C8-PFOA	421.0 / 376.0	2.68	85054.35	263.971874	1544.9	false
13C9-PFNA	472.0 / 427.0	3.07	79144.96	245.163086	1111.5	false
13C6-PFDA	519.0 / 474.0	3.43	82680.23	241.825547	773.1	false
13C7-PFUnA	570.0 / 525.0	3.75	77659.10	247.689949	704.1	false
13C2-PFTeDA	715.0 / 670.0	4.51	64141.97	234.263449	1294.0	false
13C3-PFBS	302.0 / 99.0	1.53	22770.68	203.165718	391.5	false
13C3-PFHxS	402.0 / 99.0	2.29	23096.50	227.443232	279.6	false
13C8-PFOS	507.0 / 99.0	3.07	25018.51	234.883127	202.7	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:49:50 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	88837.02	240.469815	917.4	false
d3-MeFOSAA	573.0 / 419.0	3.59	12872.58	241.154226	164.7	false
d5-EtFOSAA	589.0 / 419.0	3.76	14023.71	256.474822	201.1	false
13C5-PFHxA	318.0 / 273.0	1.85	64645.10	263.859828	612.8	false
13C4-PFHpA	367.0 / 322.0	2.27	71039.67	257.959593	602.6	false
13C8-PFOA	421.0 / 376.0	2.68	85417.17	254.573472	7949.1	false
13C9-PFNA	472.0 / 427.0	3.07	83855.35	249.441918	927.2	false
13C6-PFDA	519.0 / 474.0	3.43	93417.19	253.336528	951.4	false
13C7-PFUnA	570.0 / 525.0	3.75	79269.80	234.419788	617.3	false
13C2-PFTeDA	715.0 / 670.0	4.51	72717.46	246.247279	1265.5	false
13C3-PFBS	302.0 / 99.0	1.53	27220.85	235.012505	396.1	false
13C3-PFHxS	402.0 / 99.0	2.29	25507.54	243.058192	320.1	false
13C8-PFOS	507.0 / 99.0	3.07	27152.73	246.671377	250.8	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:49:54 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	85190.84	245.586916	723.8	false
d3-MeFOSAA	573.0 / 419.0	3.59	12995.98	230.650075	137.7	false
d5-EtFOSAA	589.0 / 419.0	3.75	14377.68	249.106946	225.0	false
13C5-PFHxA	318.0 / 273.0	1.85	55982.86	232.257516	668.3	false
13C4-PFHpA	367.0 / 322.0	2.26	62944.79	232.320508	548.0	false
13C8-PFOA	421.0 / 376.0	2.67	82477.09	249.849396	4810.0	false
13C9-PFNA	472.0 / 427.0	3.07	78399.76	237.044809	814.1	false
13C6-PFDA	519.0 / 474.0	3.42	89372.90	258.120569	829.4	false
13C7-PFUnA	570.0 / 525.0	3.75	78235.90	246.398664	718.5	false
13C2-PFTeDA	715.0 / 670.0	4.51	65885.03	237.610301	1486.5	false
13C3-PFBS	302.0 / 99.0	1.53	26641.68	217.904512	379.1	false
13C3-PFHxS	402.0 / 99.0	2.28	22857.01	206.336677	321.4	false
13C8-PFOS	507.0 / 99.0	3.06	27089.57	233.143125	229.9	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:49:59 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	92551.66	245.967877	829.8	false
d3-MeFOSAA	573.0 / 419.0	3.59	16336.51	303.640786	120.2	false
d5-EtFOSAA	589.0 / 419.0	3.75	13671.67	248.070447	130.2	false
13C5-PFHxA	318.0 / 273.0	1.85	63012.56	266.379146	741.9	false
13C4-PFHpA	367.0 / 322.0	2.27	68152.10	256.309897	722.4	false
13C8-PFOA	421.0 / 376.0	2.68	81941.47	252.933954	4399.2	false
13C9-PFNA	472.0 / 427.0	3.07	88781.02	273.523216	1029.7	false
13C6-PFDA	519.0 / 474.0	3.43	91272.35	243.017669	1523.9	false
13C7-PFUnA	570.0 / 525.0	3.75	85125.55	247.157644	912.0	false
13C2-PFTeDA	715.0 / 670.0	4.51	73328.14	243.798491	1504.8	false
13C3-PFBS	302.0 / 99.0	1.53	29219.74	250.286360	441.1	false
13C3-PFHxS	402.0 / 99.0	2.29	25399.89	240.129280	291.1	false
13C8-PFOS	507.0 / 99.0	3.07	25647.86	231.168064	244.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:50:02 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	84995.48	279.935683	935.4	false
d3-MeFOSAA	573.0 / 419.0	3.58	14155.70	320.265877	110.9	false
d5-EtFOSAA	589.0 / 419.0	3.75	10202.70	225.344333	114.1	false
13C5-PFHxA	318.0 / 273.0	1.85	54884.46	256.065312	654.0	false
13C4-PFHpA	367.0 / 322.0	2.26	59762.45	248.052047	580.7	false
13C8-PFOA	421.0 / 376.0	2.67	65672.10	223.723969	3546.8	false
13C9-PFNA	472.0 / 427.0	3.07	77431.85	263.282474	884.6	false
13C6-PFDA	519.0 / 474.0	3.42	72835.00	240.329447	642.2	false
13C7-PFUnA	570.0 / 525.0	3.75	69185.77	248.942556	667.1	false
13C2-PFTeDA	715.0 / 670.0	4.51	70034.29	288.562136	1391.4	false
13C3-PFBS	302.0 / 99.0	1.53	27770.08	289.545243	431.9	false
13C3-PFHxS	402.0 / 99.0	2.29	21208.13	244.058536	273.2	false
13C8-PFOS	507.0 / 99.0	3.07	23492.06	257.736698	220.0	false

BATTELLE

Summary Quant Report

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	36035.22	104.635578	126.2	true
PFBS_2	298.9 / 99.0	1.57	10918.15	109.976962	78.2	true
PFHxA_1	313.0 / 269.0	1.90	32164.19	98.968181	3.3	false
PFHxA_2	313.0 / 119.0	1.91	2959.44	113.183087	3.5	false
PFHpA_1	363.0 / 319.0	2.32	32551.91	113.465532	39.8	false
PFHpA_2	363.0 / 169.0	2.32	1000.19	103.311634	29.1	false
PFHxS_1	399.0 / 80.0	2.34	44418.07	105.225987	134.5	false
PFHxS_2	399.0 / 99.0	2.34	12198.64	98.139274	86.9	false
PFOA_1	413.0 / 369.0	2.73	42708.15	113.608497	67.5	false
PFOA_2	413.0 / 169.0	2.73	2568.95	104.849376	46.6	false
PFNA_1	463.0 / 419.0	3.14	40302.36	100.132667	94.3	false
PFNA_2	463.0 / 219.0	3.14	13162.53	111.702594	118.3	false
PFOS_1	499.0 / 80.0	3.13	65728.52	112.998705	102.9	false
PFOS_2	499.0 / 99.0	3.13	11345.50	110.962710	100.1	false
PFDA_1	513.0 / 469.0	3.50	49242.60	100.375074	136.7	false
PFDA_2	513.0 / 219.0	3.49	2266.31	112.406023	88.7	false
PFUnA_1	563.0 / 519.0	3.83	45897.49	111.527231	163.3	false
PFUnA_2	563.0 / 269.0	3.82	1918.57	102.220892	42.6	true
PFDoA_1	613.0 / 569.0	4.11	39723.04	90.939755	179.1	false
PFDoA_2	613.0 / 319.0	4.11	6547.85	86.545687	145.5	false
PFTrDA_1	663.0 / 619.0	4.37	34866.78	85.967911	309.6	false
PFTrDA_2	663.0 / 169.0	4.36	2214.00	78.198175	110.2	false
PFTeDA_1	713.0 / 669.0	4.59	40930.04	81.728327	685.4	false
PFTeDA_2	713.0 / 169.0	4.58	2198.76	89.886117	212.0	false
NMeFOSAA_1	570.0 / 419.0	3.65	8081.03	75.824991	298.4	false
NMeFOSAA_2	570.0 / 512.0	3.65	3645.21	3.453918	224.2	false
NEtFOSAA_1	584.0 / 419.0	3.82	8180.80	104.771450	524.6	false
NEtFOSAA_2	584.0 / 483.0	3.82	421.19	41.412646	48.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:08:57 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	93283.23	249.370464	246.3	false
PFBS_2	298.9 / 99.0	1.57	26423.99	242.180085	146.1	false
PFHxA_1	313.0 / 269.0	1.90	81008.49	269.910942	7.1	false
PFHxA_2	313.0 / 119.0	1.89	5592.03	230.645561	6.5	false
PFHpA_1	363.0 / 319.0	2.31	75049.99	261.922885	57.6	false
PFHpA_2	363.0 / 169.0	2.31	1497.90	175.823351	28.9	true
PFHxS_1	399.0 / 80.0	2.33	108184.43	232.865372	188.9	false
PFHxS_2	399.0 / 99.0	2.33	30598.50	231.314187	310.4	false
PFOA_1	413.0 / 369.0	2.73	100033.19	242.259718	128.9	false
PFOA_2	413.0 / 169.0	2.73	7259.40	273.238913	110.3	false
PFNA_1	463.0 / 419.0	3.13	107846.09	263.216231	192.5	false
PFNA_2	463.0 / 219.0	3.12	28095.55	220.916460	213.9	false
PFOS_1	499.0 / 80.0	3.12	165271.40	245.807613	161.0	false
PFOS_2	499.0 / 99.0	3.12	28706.92	244.538081	211.7	true
PFDA_1	513.0 / 469.0	3.49	122994.62	264.467518	236.7	false
PFDA_2	513.0 / 219.0	3.48	4770.77	245.500787	791.7	false
PFUnA_1	563.0 / 519.0	3.82	106014.14	244.824605	237.3	false
PFUnA_2	563.0 / 269.0	3.81	5018.00	242.442598	81.5	false
PFDoA_1	613.0 / 569.0	4.10	107705.01	247.072023	318.6	false
PFDoA_2	613.0 / 319.0	4.10	19126.54	274.615048	276.9	false
PFTrDA_1	663.0 / 619.0	4.35	90249.73	241.563939	481.4	false
PFTrDA_2	663.0 / 169.0	4.35	6147.30	247.986856	208.6	false
PFTeDA_1	713.0 / 669.0	4.58	109852.37	253.645310	931.4	false
PFTeDA_2	713.0 / 169.0	4.58	5150.42	238.937138	369.4	false
NMeFOSAA_1	570.0 / 419.0	3.65	21539.90	268.876365	843.1	false
NMeFOSAA_2	570.0 / 512.0	3.65	11614.86	218.419800	528.2	false
NEtFOSAA_1	584.0 / 419.0	3.81	21525.62	251.018896	397.7	false
NEtFOSAA_2	584.0 / 483.0	3.80	1206.24	191.667209	290.9	false

BATTELLE

Summary Quant Report

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	163617.84	495.098560	296.3	false
PFBS_2	298.9 / 99.0	1.57	45956.46	475.121472	212.6	false
PFHxA_1	313.0 / 269.0	1.89	123711.77	490.752146	10.9	false
PFHxA_2	313.0 / 119.0	1.89	9937.29	514.901118	10.8	false
PFHpA_1	363.0 / 319.0	2.31	119885.50	452.888167	85.7	false
PFHpA_2	363.0 / 169.0	2.31	3804.54	618.850678	67.0	false
PFHxS_1	399.0 / 80.0	2.33	185842.71	467.824000	256.2	false
PFHxS_2	399.0 / 99.0	2.33	54144.25	484.563583	238.2	false
PFOA_1	413.0 / 369.0	2.72	178566.76	467.456638	160.8	false
PFOA_2	413.0 / 169.0	2.72	10469.56	421.303706	138.9	false
PFNA_1	463.0 / 419.0	3.12	170504.46	450.336433	203.9	false
PFNA_2	463.0 / 219.0	3.12	51980.47	448.287193	301.6	false
PFOS_1	499.0 / 80.0	3.12	275067.90	508.954098	204.8	false
PFOS_2	499.0 / 99.0	3.12	48946.70	520.238814	287.5	false
PFDA_1	513.0 / 469.0	3.48	213151.42	495.556524	301.2	false
PFDA_2	513.0 / 219.0	3.48	8539.13	479.073328	239.1	false
PFUnA_1	563.0 / 519.0	3.81	185383.49	423.690587	269.5	false
PFUnA_2	563.0 / 269.0	3.81	10671.72	501.608235	165.4	false
PFDoA_1	613.0 / 569.0	4.09	184868.00	506.360909	343.9	false
PFDoA_2	613.0 / 319.0	4.09	28751.08	494.661881	331.3	false
PFTrDA_1	663.0 / 619.0	4.35	151211.59	488.700899	597.4	false
PFTrDA_2	663.0 / 169.0	4.34	10123.70	495.036348	322.3	false
PFTeDA_1	713.0 / 669.0	4.57	182656.44	515.154084	1232.8	false
PFTeDA_2	713.0 / 169.0	4.56	8526.49	490.005825	501.7	false
NMeFOSAA_1	570.0 / 419.0	3.63	34656.73	500.524214	2338.0	false
NMeFOSAA_2	570.0 / 512.0	3.64	18345.00	439.990383	658.5	false
NEtFOSAA_1	584.0 / 419.0	3.80	31971.45	508.056535	633.3	false
NEtFOSAA_2	584.0 / 483.0	3.80	2497.16	637.470069	8056.1	true

BATTELLE

Summary Quant Report

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	336045.72	1091.288759	552.2	false
PFBS_2	298.9 / 99.0	1.56	98081.89	1086.381545	407.4	false
PFHxA_1	313.0 / 269.0	1.89	240693.36	1004.472242	18.1	false
PFHxA_2	313.0 / 119.0	1.89	17814.42	980.952621	16.5	false
PFHpA_1	363.0 / 319.0	2.30	251954.77	963.772233	144.8	false
PFHpA_2	363.0 / 169.0	2.30	6187.13	1051.701356	84.1	false
PFHxS_1	399.0 / 80.0	2.32	369801.30	1074.776448	333.3	false
PFHxS_2	399.0 / 99.0	2.32	106671.06	1107.476178	416.8	false
PFOA_1	413.0 / 369.0	2.71	347996.75	956.844142	237.9	false
PFOA_2	413.0 / 169.0	2.71	24237.17	1028.034772	244.5	false
PFNA_1	463.0 / 419.0	3.11	345587.51	1046.243999	410.7	false
PFNA_2	463.0 / 219.0	3.11	106652.75	1050.052047	427.7	false
PFOS_1	499.0 / 80.0	3.11	549475.41	953.422687	298.0	false
PFOS_2	499.0 / 99.0	3.11	96044.01	958.547975	432.6	false
PFDA_1	513.0 / 469.0	3.47	409723.46	987.592944	454.6	false
PFDA_2	513.0 / 219.0	3.47	17306.29	1010.924950	319.9	false
PFUnA_1	563.0 / 519.0	3.80	370869.35	1026.343861	315.7	false
PFUnA_2	563.0 / 269.0	3.80	17491.40	981.918474	206.5	false
PFDoA_1	613.0 / 569.0	4.09	374694.74	1050.478389	498.6	false
PFDoA_2	613.0 / 319.0	4.09	54643.36	971.395687	458.0	false
PFTrDA_1	663.0 / 619.0	4.34	321677.62	1126.764608	812.9	false
PFTrDA_2	663.0 / 169.0	4.34	21874.98	1164.067670	449.0	false
PFTeDA_1	713.0 / 669.0	4.56	357047.01	1095.645152	1545.8	false
PFTeDA_2	713.0 / 169.0	4.56	17306.66	1092.239213	701.8	false
NMeFOSAA_1	570.0 / 419.0	3.63	68030.30	1133.404189	751.5	false
NMeFOSAA_2	570.0 / 512.0	3.63	39158.03	1163.925478	709.7	false
NEtFOSAA_1	584.0 / 419.0	3.80	66289.88	943.782521	754.6	false
NEtFOSAA_2	584.0 / 483.0	3.80	4059.44	945.207707	43600.8	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:09:09 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	776289.58	2332.691625	927.0	false
PFBS_2	298.9 / 99.0	1.56	228434.75	2339.199841	734.2	false
PFHxA_1	313.0 / 269.0	1.89	609668.03	2495.865956	39.8	false
PFHxA_2	313.0 / 119.0	1.89	44913.51	2451.366061	32.3	false
PFHpA_1	363.0 / 319.0	2.30	584043.68	2376.996854	232.0	false
PFHpA_2	363.0 / 169.0	2.30	13193.99	2469.602759	211.4	false
PFHxS_1	399.0 / 80.0	2.32	886495.01	2696.493262	388.0	false
PFHxS_2	399.0 / 99.0	2.32	252473.06	2749.725828	571.1	false
PFOA_1	413.0 / 369.0	2.71	834165.44	2452.232813	357.8	false
PFOA_2	413.0 / 169.0	2.71	53993.69	2444.883328	444.0	false
PFNA_1	463.0 / 419.0	3.11	783461.97	2491.510736	552.9	false
PFNA_2	463.0 / 219.0	3.11	254909.55	2632.290752	603.7	false
PFOS_1	499.0 / 80.0	3.11	1306443.89	2300.880982	452.4	false
PFOS_2	499.0 / 99.0	3.11	224020.69	2271.299000	545.6	false
PFDA_1	513.0 / 469.0	3.47	986588.88	2418.646707	564.2	false
PFDA_2	513.0 / 219.0	3.47	39607.95	2354.317167	415.6	false
PFUnA_1	563.0 / 519.0	3.80	871741.30	2538.187940	460.9	false
PFUnA_2	563.0 / 269.0	3.80	43333.05	2544.385755	300.0	false
PFDoA_1	613.0 / 569.0	4.09	821796.76	2565.539851	662.4	false
PFDoA_2	613.0 / 319.0	4.09	135656.47	2712.576260	522.0	false
PFTrDA_1	663.0 / 619.0	4.33	735746.86	2664.921530	986.7	false
PFTrDA_2	663.0 / 169.0	4.33	48743.98	2684.712399	618.7	false
PFTeDA_1	713.0 / 669.0	4.56	816378.76	2603.218162	1929.9	false
PFTeDA_2	713.0 / 169.0	4.55	40737.36	2680.771848	1193.3	false
NMeFOSAA_1	570.0 / 419.0	3.63	151508.36	2465.257046	2245.1	false
NMeFOSAA_2	570.0 / 512.0	3.63	88173.15	2616.439396	615.9	false
NEtFOSAA_1	584.0 / 419.0	3.79	155433.42	2522.760733	648.0	false
NEtFOSAA_2	584.0 / 483.0	3.79	9620.27	2637.389496	1231310.6	false

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	3735985.71	9811.581725	1503.9	false
PFBS_2	298.9 / 99.0	1.56	1134069.29	10143.472130	1449.0	false
PFHxA_1	313.0 / 269.0	1.88	2658827.36	9993.499522	90.8	false
PFHxA_2	313.0 / 119.0	1.88	200130.60	10083.260482	76.5	false
PFHpA_1	363.0 / 319.0	2.30	2497856.31	9765.162244	436.5	false
PFHpA_2	363.0 / 169.0	2.30	53385.07	9796.218447	441.5	false
PFHxS_1	399.0 / 80.0	2.32	3854430.51	9828.822898	984.2	false
PFHxS_2	399.0 / 99.0	2.32	1062752.95	9714.855919	1104.6	false
PFOA_1	413.0 / 369.0	2.71	3551933.53	10326.914009	921.2	false
PFOA_2	413.0 / 169.0	2.71	226064.95	10121.411629	875.1	false
PFNA_1	463.0 / 419.0	3.11	3442576.47	10047.185055	870.1	false
PFNA_2	463.0 / 219.0	3.11	1068510.97	10108.558837	1018.0	false
PFOS_1	499.0 / 80.0	3.10	5888305.73	9674.048541	719.2	false
PFOS_2	499.0 / 99.0	3.10	1040866.54	9849.093945	1187.7	false
PFDA_1	513.0 / 469.0	3.47	4121337.28	9760.929085	867.9	false
PFDA_2	513.0 / 219.0	3.46	165545.81	9514.985150	1080.3	false
PFUnA_1	563.0 / 519.0	3.79	3980687.38	10323.155375	894.2	false
PFUnA_2	563.0 / 269.0	3.79	194191.57	10125.204796	674.2	false
PFDoA_1	613.0 / 569.0	4.08	3840657.97	10368.355085	1057.4	false
PFDoA_2	613.0 / 319.0	4.08	576764.61	9996.454238	1020.7	false
PFTrDA_1	663.0 / 619.0	4.33	3350407.66	10336.521146	1444.2	false
PFTrDA_2	663.0 / 169.0	4.33	218945.29	10280.911529	1007.9	false
PFTeDA_1	713.0 / 669.0	4.55	3751651.69	10217.289136	2725.0	false
PFTeDA_2	713.0 / 169.0	4.54	182332.73	10258.453725	1759.6	false
NMeFOSAA_1	570.0 / 419.0	3.62	753927.92	11007.670601	2278.1	false
NMeFOSAA_2	570.0 / 512.0	3.62	404364.11	10905.550987	1426.8	false
NEtFOSAA_1	584.0 / 419.0	3.79	707833.72	9564.590700	1144.3	false
NEtFOSAA_2	584.0 / 483.0	3.79	40332.26	9326.284871	2770.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:09:17 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	7654212.63	20608.833290	2863.5	false
PFBS_2	298.9 / 99.0	1.56	2213700.05	20297.167965	1861.8	false
PFHxA_1	313.0 / 269.0	1.89	5068064.70	20340.031011	123.0	false
PFHxA_2	313.0 / 119.0	1.88	377383.63	20319.191070	98.6	false
PFHpA_1	363.0 / 319.0	2.29	4752932.81	20415.792084	545.6	false
PFHpA_2	363.0 / 169.0	2.30	99502.18	20134.491774	637.6	false
PFHxS_1	399.0 / 80.0	2.32	6929917.90	20287.492034	1348.5	false
PFHxS_2	399.0 / 99.0	2.32	1934460.53	20307.425032	1153.9	false
PFOA_1	413.0 / 369.0	2.71	6162786.15	19790.684183	1174.3	false
PFOA_2	413.0 / 169.0	2.71	403546.52	19956.278277	1429.0	false
PFNA_1	463.0 / 419.0	3.11	6224206.25	19951.374879	1314.8	false
PFNA_2	463.0 / 219.0	3.11	1903895.81	19778.192118	1655.3	false
PFOS_1	499.0 / 80.0	3.10	10402856.43	20553.887374	904.0	true
PFOS_2	499.0 / 99.0	3.10	1792140.82	20395.319474	1641.5	false
PFDA_1	513.0 / 469.0	3.47	7455074.70	20322.432148	1181.3	false
PFDA_2	513.0 / 219.0	3.47	311824.53	20632.792594	1380.7	false
PFUnA_1	563.0 / 519.0	3.79	6840458.50	19682.270401	830.9	false
PFUnA_2	563.0 / 269.0	3.79	343323.53	19852.219250	642.0	false
PFDoA_1	613.0 / 569.0	4.07	7074590.20	19521.253987	1036.7	false
PFDoA_2	613.0 / 319.0	4.07	1117673.36	19813.751199	984.9	false
PFTrDA_1	663.0 / 619.0	4.32	6045542.29	19405.559967	1420.4	false
PFTrDA_2	663.0 / 169.0	4.32	396998.36	19399.087023	1127.9	false
PFTeDA_1	713.0 / 669.0	4.54	6908120.06	19583.319829	2951.8	false
PFTeDA_2	713.0 / 169.0	4.54	332887.97	19499.706134	2522.7	false
NMeFOSAA_1	570.0 / 419.0	3.62	1331189.45	18898.442593	2363.5	false
NMeFOSAA_2	570.0 / 512.0	3.62	719500.36	18905.673956	1612.0	false
NEtFOSAA_1	584.0 / 419.0	3.78	1231583.02	20455.019164	1168.4	false
NEtFOSAA_2	584.0 / 483.0	3.78	71957.40	20511.980648	877.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:55:57 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.10	91402.83	234.027671	1231.7	false
d3-MeFOSAA	573.0 / 419.0	3.65	16104.22	243.102584	203.5	false
d5-EtFOSAA	589.0 / 419.0	3.81	18885.04	261.116785	197.5	false
13C5-PFHxA	318.0 / 273.0	1.89	61468.01	262.567314	846.3	false
13C4-PFHpA	367.0 / 322.0	2.30	69894.37	262.427043	1233.4	false
13C8-PFOA	421.0 / 376.0	2.72	82686.75	255.212785	7328.7	false
13C9-PFNA	472.0 / 427.0	3.12	91536.04	247.430463	984.5	false
13C6-PFDA	519.0 / 474.0	3.48	97086.56	246.733475	862.5	false
13C7-PFUnA	570.0 / 525.0	3.81	90055.69	247.760751	681.9	false
13C2-PFTeDA	715.0 / 670.0	4.58	76389.03	242.249601	2670.6	false
13C3-PFBS	302.0 / 99.0	1.55	26120.14	225.022462	521.2	false
13C3-PFHxS	402.0 / 99.0	2.33	24312.83	231.144826	504.5	false
13C8-PFOS	507.0 / 99.0	3.12	29809.56	250.871078	289.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:56:01 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.09	107747.25	265.932266	1391.1	false
d3-MeFOSAA	573.0 / 419.0	3.64	17700.53	228.792666	243.9	false
d5-EtFOSAA	589.0 / 419.0	3.80	22032.11	260.842878	257.9	false
13C5-PFHxA	318.0 / 273.0	1.89	67688.32	254.187234	641.8	false
13C4-PFHpA	367.0 / 322.0	2.30	76065.72	251.075240	798.7	false
13C8-PFOA	421.0 / 376.0	2.72	96880.10	262.875155	404.7	false
13C9-PFNA	472.0 / 427.0	3.11	109970.74	261.328420	1372.3	false
13C6-PFDA	519.0 / 474.0	3.48	103376.35	253.248818	1556.3	false
13C7-PFUnA	570.0 / 525.0	3.80	99154.47	262.960755	932.2	false
13C2-PFTeDA	715.0 / 670.0	4.57	86008.02	262.922814	1938.6	false
13C3-PFBS	302.0 / 99.0	1.55	29228.78	215.609121	465.4	false
13C3-PFHxS	402.0 / 99.0	2.32	29626.05	241.172849	441.9	false
13C8-PFOS	507.0 / 99.0	3.11	33752.70	243.225761	275.4	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:56:09 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	95394.66	249.447374	1919.0	false
d3-MeFOSAA	573.0 / 419.0	3.63	16732.69	245.689732	259.5	false
d5-EtFOSAA	589.0 / 419.0	3.79	16744.24	225.192349	304.7	false
13C5-PFHxA	318.0 / 273.0	1.88	59853.55	230.325952	495.7	false
13C4-PFHpA	367.0 / 322.0	2.29	72363.27	244.763156	5134.6	false
13C8-PFOA	421.0 / 376.0	2.71	92242.14	256.482263	3147.3	false
13C9-PFNA	472.0 / 427.0	3.10	106517.52	259.384215	1506.1	false
13C6-PFDA	519.0 / 474.0	3.47	99092.64	257.192135	1016.5	false
13C7-PFUnA	570.0 / 525.0	3.79	101859.96	286.201660	947.8	false
13C2-PFTeDA	715.0 / 670.0	4.56	75947.40	245.975733	2310.8	false
13C3-PFBS	302.0 / 99.0	1.55	26105.02	218.748838	604.7	false
13C3-PFHxS	402.0 / 99.0	2.32	26545.24	245.474666	396.8	false
13C8-PFOS	507.0 / 99.0	3.10	27286.93	223.367998	263.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:56:13 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	95903.63	245.945631	1244.5	false
d3-MeFOSAA	573.0 / 419.0	3.62	15347.55	223.328296	188.7	false
d5-EtFOSAA	589.0 / 419.0	3.79	19076.22	254.251713	210.8	false
13C5-PFHxA	318.0 / 273.0	1.88	58835.13	235.058052	1009.1	false
13C4-PFHpA	367.0 / 322.0	2.29	73044.35	256.507439	778.8	false
13C8-PFOA	421.0 / 376.0	2.70	89256.01	257.662297	1337.8	false
13C9-PFNA	472.0 / 427.0	3.10	96659.60	244.372857	1496.3	false
13C6-PFDA	519.0 / 474.0	3.46	97605.58	248.450649	1104.6	false
13C7-PFUnA	570.0 / 525.0	3.78	85263.94	234.954208	671.4	false
13C2-PFTeDA	715.0 / 670.0	4.55	72740.35	231.048930	2036.8	false
13C3-PFBS	302.0 / 99.0	1.55	24473.16	203.233433	669.1	false
13C3-PFHxS	402.0 / 99.0	2.32	23731.17	217.481590	485.7	false
13C8-PFOS	507.0 / 99.0	3.10	28732.45	233.089271	315.7	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:56:17 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	87520.82	248.975274	984.0	false
d3-MeFOSAA	573.0 / 419.0	3.62	15905.32	227.365315	163.7	false
d5-EtFOSAA	589.0 / 419.0	3.78	16835.01	220.425706	271.8	false
13C5-PFHxA	318.0 / 273.0	1.88	61167.94	257.145365	677.6	false
13C4-PFHpA	367.0 / 322.0	2.29	69461.61	256.669677	849.4	false
13C8-PFOA	421.0 / 376.0	2.70	84283.75	256.019871	1295.1	false
13C9-PFNA	472.0 / 427.0	3.10	93667.25	249.179395	1439.8	false
13C6-PFDA	519.0 / 474.0	3.46	97196.35	274.445566	2304.2	false
13C7-PFUnA	570.0 / 525.0	3.78	81503.66	249.135582	792.6	false
13C2-PFTeDA	715.0 / 670.0	4.55	71548.15	252.097071	2268.3	false
13C3-PFBS	302.0 / 99.0	1.55	26519.94	216.348971	787.4	false
13C3-PFHxS	402.0 / 99.0	2.31	22766.78	204.966129	549.1	false
13C8-PFOS	507.0 / 99.0	3.10	28458.87	226.800752	280.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:56:21 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	102072.61	251.235272	905.7	false
d3-MeFOSAA	573.0 / 419.0	3.61	18026.94	274.494088	140.7	false
d5-EtFOSAA	589.0 / 419.0	3.78	19940.39	278.106701	245.9	false
13C5-PFHxA	318.0 / 273.0	1.87	67298.42	264.503275	733.1	false
13C4-PFHpA	367.0 / 322.0	2.28	72755.48	251.342992	508.8	false
13C8-PFOA	421.0 / 376.0	2.70	85622.31	243.157749	1201.3	false
13C9-PFNA	472.0 / 427.0	3.09	103069.19	256.344825	1142.1	false
13C6-PFDA	519.0 / 474.0	3.45	101281.21	247.435316	1442.1	false
13C7-PFUnA	570.0 / 525.0	3.78	91776.59	242.726450	856.9	false
13C2-PFTeDA	715.0 / 670.0	4.54	84788.29	258.482884	1567.2	false
13C3-PFBS	302.0 / 99.0	1.54	30399.13	264.163371	680.5	false
13C3-PFHxS	402.0 / 99.0	2.31	27375.94	262.529838	495.9	false
13C8-PFOS	507.0 / 99.0	3.09	30568.34	259.494294	315.3	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:56:24 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	99995.01	254.436513	1141.6	false
d3-MeFOSAA	573.0 / 419.0	3.62	18400.21	307.227320	102.1	false
d5-EtFOSAA	589.0 / 419.0	3.78	16351.10	250.063868	251.7	false
13C5-PFHxA	318.0 / 273.0	1.87	63134.84	246.212808	622.1	false
13C4-PFHpA	367.0 / 322.0	2.28	66285.64	227.214453	928.8	false
13C8-PFOA	421.0 / 376.0	2.70	77573.52	218.589880	452635.8	false
13C9-PFNA	472.0 / 427.0	3.09	93994.33	231.959824	113653.9	false
13C6-PFDA	519.0 / 474.0	3.45	88095.93	222.494042	731.4	false
13C7-PFUnA	570.0 / 525.0	3.78	82754.96	226.260594	1283.3	false
13C2-PFTeDA	715.0 / 670.0	4.54	81617.66	257.222966	1991.1	false
13C3-PFBS	302.0 / 99.0	1.54	29660.00	282.623804	815.0	false
13C3-PFHxS	402.0 / 99.0	2.31	24033.73	252.730102	656.4	false
13C8-PFOS	507.0 / 99.0	3.09	25557.23	237.900846	289.4	false

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:20:50 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.330	0.302	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.060	0.072	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.300	0.285	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.090	0.058	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.200	0.185	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.380	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.75	NEtFOSAA	0.100	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:20:55 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.54	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.080	0.072	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.300	0.285	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.290	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.190	0.185	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.060	0.054	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.080	0.066	ü
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.660	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.070	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:20:59 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.270	0.285	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.200	0.185	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.060	0.054	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.580	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.090	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:21:04 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.280	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.51	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.530	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.070	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:21:08 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.550	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.060	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:21:11 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.300	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.51	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.570	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.060	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:21:18 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.150	0.158	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.51	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.550	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.060	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:10:13 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.91	PFHxA	0.090	0.077	ü
PFHpA_1	363.0 / 319.0	2.32	PFHpA			
PFHpA_2	363.0 / 169.0	2.32	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.34	PFHxS			
PFHxS_2	399.0 / 99.0	2.34	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.73	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.14	PFNA			
PFNA_2	463.0 / 219.0	3.14	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.13	PFOS			
PFOS_2	499.0 / 99.0	3.13	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.50	PFDA			
PFDA_2	513.0 / 219.0	3.49	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.83	PFUnA			
PFUnA_2	563.0 / 269.0	3.82	PFUnA	0.040	0.049	ü
PFDoA_1	613.0 / 569.0	4.11	PFDoA			
PFDoA_2	613.0 / 319.0	4.11	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.37	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.36	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.59	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.58	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.65	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.65	NMeFOSAA	0.450	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.82	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.82	NEtFOSAA	0.050	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:10:17 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.73	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.13	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.260	0.306	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.49	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.82	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.10	PFDoA			
PFDoA_2	613.0 / 319.0	4.10	PFDoA	0.180	0.160	ü
PFTrDA_1	663.0 / 619.0	4.35	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.35	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.58	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.58	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.65	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.65	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.060	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:10:22 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.12	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.300	0.306	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.48	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.81	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.060	0.049	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.35	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.57	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.64	NMeFOSAA	0.530	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.080	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:10:27 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.150	0.160	ü
PFTrDA_1	663.0 / 619.0	4.34	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.580	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.060	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:10:31 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.170	0.160	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.55	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.580	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:10:36 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.08	PFDoA			
PFDoA_2	613.0 / 319.0	4.08	PFDoA	0.150	0.160	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:10:40 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.062	ü

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:23:13 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	25507.06	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	25507.06	232.25
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	58992.05	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	58992.05	250.00
PFHpA_1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	68993.21	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	68993.21	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	25123.12	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	25123.12	236.50
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	83707.61	250.00
PFOA_2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	83707.61	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	77004.14	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	77004.14	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	25159.77	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	25159.77	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	86235.95	250.00
PFDA_2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	86235.95	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	74552.54	250.00
PFUnA_2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	74552.54	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	85911.23	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	85911.23	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	65334.68	250.00
PFTrDA_2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	65334.68	250.00
PFTeDA_1	713.0 / 669.0	4.52	13C2-PFTeDA	715.0 / 670.0	65334.68	250.00
PFTeDA_2	713.0 / 169.0	4.52	13C2-PFTeDA	715.0 / 670.0	65334.68	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	11949.32	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	11949.32	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	14175.60	250.00
NEtFOSAA_2	584.0 / 483.0	3.75	d5-EtFOSAA	589.0 / 419.0	14175.60	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:23:17 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.54	13C3-PFBS	302.0 / 99.0	26620.23	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	26620.23	232.25
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	64192.67	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	64192.67	250.00
PFHpA_1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	69145.47	250.00
PFHpA_2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	69145.47	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	28665.19	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	28665.19	236.50
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	86802.22	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	86802.22	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	86008.04	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	86008.04	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	29815.50	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	29815.50	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	86272.70	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	86272.70	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	87493.78	250.00
PFUnA_2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	87493.78	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	87955.17	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	87955.17	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	69129.79	250.00
PFTrDA_2	663.0 / 169.0	4.30	13C2-PFTeDA	715.0 / 670.0	69129.79	250.00
PFTeDA_1	713.0 / 669.0	4.52	13C2-PFTeDA	715.0 / 670.0	69129.79	250.00
PFTeDA_2	713.0 / 169.0	4.52	13C2-PFTeDA	715.0 / 670.0	69129.79	250.00
NMeFOSAA_1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	12110.49	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	12110.49	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	15502.77	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	15502.77	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:23:20 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	22770.68	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	22770.68	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	54588.76	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	54588.76	250.00
PFHpA_1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	67914.41	250.00
PFHpA_2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	67914.41	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	22563.92	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	22563.92	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	85054.35	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	85054.35	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	79144.96	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	79144.96	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	25059.03	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	25059.03	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	82680.23	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	82680.23	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	77659.10	250.00
PFUnA_2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	77659.10	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	75924.03	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	75924.03	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	64141.97	250.00
PFTrDA_2	663.0 / 169.0	4.30	13C2-PFTeDA	715.0 / 670.0	64141.97	250.00
PFTeDA_1	713.0 / 669.0	4.52	13C2-PFTeDA	715.0 / 670.0	64141.97	250.00
PFTeDA_2	713.0 / 169.0	4.52	13C2-PFTeDA	715.0 / 670.0	64141.97	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	9963.29	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	9963.29	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	14707.85	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	14707.85	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:23:25 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	27220.85	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	27220.85	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	64645.10	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	64645.10	250.00
PFHpA_1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	71039.67	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	71039.67	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	25138.95	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	25138.95	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	85417.17	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	85417.17	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	83855.35	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	83855.35	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	27718.53	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	27718.53	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	93417.19	250.00
PFDA_2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	93417.19	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	79269.80	250.00
PFUnA_2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	79269.80	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	88837.02	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	88837.02	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	72717.46	250.00
PFTrDA_2	663.0 / 169.0	4.30	13C2-PFTeDA	715.0 / 670.0	72717.46	250.00
PFTeDA_1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	72717.46	250.00
PFTeDA_2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	72717.46	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	11764.01	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	11764.01	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	14293.39	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	14293.39	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:23:29 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	26641.68	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	26641.68	232.25
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	55982.86	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	55982.86	250.00
PFHpA_1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	62944.79	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	62944.79	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	22441.34	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	22441.34	236.50
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	82477.09	250.00
PFOA_2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	82477.09	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	78399.76	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	78399.76	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	27200.51	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	27200.51	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	89372.90	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	89372.90	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	78235.90	250.00
PFUnA_2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	78235.90	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	85190.84	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	85190.84	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	65885.03	250.00
PFTrDA_2	663.0 / 169.0	4.30	13C2-PFTeDA	715.0 / 670.0	65885.03	250.00
PFTeDA_1	713.0 / 669.0	4.52	13C2-PFTeDA	715.0 / 670.0	65885.03	250.00
PFTeDA_2	713.0 / 169.0	4.52	13C2-PFTeDA	715.0 / 670.0	65885.03	250.00
NMeFOSAA_1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	12798.77	250.00
NMeFOSAA_2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	12798.77	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	14703.02	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	14703.02	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:23:33 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	29219.74	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	29219.74	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	63012.56	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	63012.56	250.00
PFHpA_1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	68152.10	250.00
PFHpA_2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	68152.10	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	25302.81	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	25302.81	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	81941.47	250.00
PFOA_2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	81941.47	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	88781.02	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	88781.02	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	26078.29	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	26078.29	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	91272.35	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	91272.35	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	85125.55	250.00
PFUnA_2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	85125.55	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	92551.66	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	92551.66	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	73328.14	250.00
PFTrDA_2	663.0 / 169.0	4.30	13C2-PFTeDA	715.0 / 670.0	73328.14	250.00
PFTeDA_1	713.0 / 669.0	4.52	13C2-PFTeDA	715.0 / 670.0	73328.14	250.00
PFTeDA_2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	73328.14	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	15828.08	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	15828.08	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	13944.25	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	13944.25	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:23:37 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	27770.08	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	27770.08	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	54884.46	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	54884.46	250.00
PFHpA_1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	59762.45	250.00
PFHpA_2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	59762.45	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	21237.44	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	21237.44	236.50
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	65672.10	250.00
PFOA_2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	65672.10	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	77431.85	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	77431.85	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	24167.05	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	24167.05	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	72835.00	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	72835.00	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	69185.77	250.00
PFUnA_2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	69185.77	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	84995.48	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	84995.48	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	70034.29	250.00
PFTrDA_2	663.0 / 169.0	4.30	13C2-PFTeDA	715.0 / 670.0	70034.29	250.00
PFTeDA_1	713.0 / 669.0	4.52	13C2-PFTeDA	715.0 / 670.0	70034.29	250.00
PFTeDA_2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	70034.29	250.00
NMeFOSAA_1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	13907.55	250.00
NMeFOSAA_2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	13907.55	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	10565.00	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	10565.00	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	86188.94	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	26230.38	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	26230.38	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	77765.59	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	77765.59	250.00
13C8-PFOA	421.0 / 376.0	2.67	13C2-PFOA	415.0 / 370.0	77765.59	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	77765.59	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	86188.94	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	86188.94	250.00
13C2-PFTeDA	715.0 / 670.0	4.52	13C2-PFDA	515.0 / 470.0	86188.94	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	26230.38	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	26230.38	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	26230.38	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 3:50:45 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	88161.46	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	31838.16	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	31838.16	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	80226.33	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	80226.33	250.00
13C8-PFOA	421.0 / 376.0	2.67	13C2-PFOA	415.0 / 370.0	80226.33	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	80226.33	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	88161.46	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	88161.46	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	88161.46	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	31838.16	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	31838.16	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	31838.16	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	88686.54	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	26637.97	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	26637.97	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	75380.30	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	75380.30	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	75380.30	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	75380.30	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	88686.54	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	88686.54	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	88686.54	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	26637.97	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	26637.97	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	26637.97	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	95650.49	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	27528.74	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	27528.74	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	78496.63	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	78496.63	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	78496.63	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	78496.63	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	95650.49	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	95650.49	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	95650.49	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	27528.74	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	27528.74	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	27528.74	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	89813.46	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	29058.35	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	29058.35	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	77227.86	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	77227.86	250.00
13C8-PFOA	421.0 / 376.0	2.67	13C2-PFOA	415.0 / 370.0	77227.86	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	77227.86	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	89813.46	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	89813.46	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	89813.46	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	29058.35	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	29058.35	239.25
13C8-PFOS	507.0 / 99.0	3.06	13C4-PFOS	503.0 / 99.0	29058.35	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 3:50:59 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	97422.57	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	27746.91	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	27746.91	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	75790.65	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	75790.65	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	75790.65	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	75790.65	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	97422.57	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	97422.57	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	97422.57	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	27746.91	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	27746.91	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	27746.91	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	78612.45	250.00
d3-MeFOSAA	573.0 / 419.0	3.58	13C4-PFOS	503.0 / 99.0	22794.83	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	22794.83	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	68673.21	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	68673.21	250.00
13C8-PFOA	421.0 / 376.0	2.67	13C2-PFOA	415.0 / 370.0	68673.21	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	68673.21	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	78612.45	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	78612.45	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	78612.45	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	22794.83	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	22794.83	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	22794.83	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	26120.14	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	26120.14	232.25
PFHxA_1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	61468.01	250.00
PFHxA_2	313.0 / 119.0	1.91	13C5-PFHxA	318.0 / 273.0	61468.01	250.00
PFHpA_1	363.0 / 319.0	2.32	13C4-PFHpA	367.0 / 322.0	69894.37	250.00
PFHpA_2	363.0 / 169.0	2.32	13C4-PFHpA	367.0 / 322.0	69894.37	250.00
PFHxS_1	399.0 / 80.0	2.34	13C3-PFHxS	402.0 / 99.0	24619.85	236.50
PFHxS_2	399.0 / 99.0	2.34	13C3-PFHxS	402.0 / 99.0	24619.85	236.50
PFOA_1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	82686.75	250.00
PFOA_2	413.0 / 169.0	2.73	13C8-PFOA	421.0 / 376.0	82686.75	250.00
PFNA_1	463.0 / 419.0	3.14	13C9-PFNA	472.0 / 427.0	91536.04	250.00
PFNA_2	463.0 / 219.0	3.14	13C9-PFNA	472.0 / 427.0	91536.04	250.00
PFOS_1	499.0 / 80.0	3.13	13C8-PFOS	507.0 / 99.0	29514.87	239.25
PFOS_2	499.0 / 99.0	3.13	13C8-PFOS	507.0 / 99.0	29514.87	239.25
PFDA_1	513.0 / 469.0	3.50	13C6-PFDA	519.0 / 474.0	97086.56	250.00
PFDA_2	513.0 / 219.0	3.49	13C6-PFDA	519.0 / 474.0	97086.56	250.00
PFUnA_1	563.0 / 519.0	3.83	13C7-PFUnA	570.0 / 525.0	90055.69	250.00
PFUnA_2	563.0 / 269.0	3.82	13C7-PFUnA	570.0 / 525.0	90055.69	250.00
PFDoA_1	613.0 / 569.0	4.11	13C2-PFDoA	615.0 / 570.0	91402.83	250.00
PFDoA_2	613.0 / 319.0	4.11	13C2-PFDoA	615.0 / 570.0	91402.83	250.00
PFTrDA_1	663.0 / 619.0	4.37	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
PFTrDA_2	663.0 / 169.0	4.36	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
PFTeDA_1	713.0 / 669.0	4.59	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
PFTeDA_2	713.0 / 169.0	4.58	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
NMeFOSAA_1	570.0 / 419.0	3.65	d3-MeFOSAA	573.0 / 419.0	16233.26	250.00
NMeFOSAA_2	570.0 / 512.0	3.65	d3-MeFOSAA	573.0 / 419.0	16233.26	250.00
NEtFOSAA_1	584.0 / 419.0	3.82	d5-EtFOSAA	589.0 / 419.0	19192.99	250.00
NEtFOSAA_2	584.0 / 483.0	3.82	d5-EtFOSAA	589.0 / 419.0	19192.99	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	29228.78	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	29228.78	232.25
PFHxA_1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	67688.32	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	67688.32	250.00
PFHpA_1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	76065.72	250.00
PFHpA_2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	76065.72	250.00
PFHxS_1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	29708.48	236.50
PFHxS_2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	29708.48	236.50
PFOA_1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	96880.10	250.00
PFOA_2	413.0 / 169.0	2.73	13C8-PFOA	421.0 / 376.0	96880.10	250.00
PFNA_1	463.0 / 419.0	3.13	13C9-PFNA	472.0 / 427.0	109970.74	250.00
PFNA_2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	109970.74	250.00
PFOS_1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	33822.33	239.25
PFOS_2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	33822.33	239.25
PFDA_1	513.0 / 469.0	3.49	13C6-PFDA	519.0 / 474.0	103376.35	250.00
PFDA_2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	103376.35	250.00
PFUnA_1	563.0 / 519.0	3.82	13C7-PFUnA	570.0 / 525.0	99154.47	250.00
PFUnA_2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	99154.47	250.00
PFDoA_1	613.0 / 569.0	4.10	13C2-PFDoA	615.0 / 570.0	107747.25	250.00
PFDoA_2	613.0 / 319.0	4.10	13C2-PFDoA	615.0 / 570.0	107747.25	250.00
PFTrDA_1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
PFTrDA_2	663.0 / 169.0	4.35	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
PFTeDA_1	713.0 / 669.0	4.58	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
PFTeDA_2	713.0 / 169.0	4.58	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
NMeFOSAA_1	570.0 / 419.0	3.65	d3-MeFOSAA	573.0 / 419.0	17661.42	250.00
NMeFOSAA_2	570.0 / 512.0	3.65	d3-MeFOSAA	573.0 / 419.0	17661.42	250.00
NEtFOSAA_1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	22570.27	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	22570.27	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	26105.02	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	26105.02	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	59853.55	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	59853.55	250.00
PFHpA_1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	72363.27	250.00
PFHpA_2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	72363.27	250.00
PFHxS_1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	26459.07	236.50
PFHxS_2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	26459.07	236.50
PFOA_1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	92242.14	250.00
PFOA_2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	92242.14	250.00
PFNA_1	463.0 / 419.0	3.12	13C9-PFNA	472.0 / 427.0	106517.52	250.00
PFNA_2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	106517.52	250.00
PFOS_1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	27084.38	239.25
PFOS_2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	27084.38	239.25
PFDA_1	513.0 / 469.0	3.48	13C6-PFDA	519.0 / 474.0	99092.64	250.00
PFDA_2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	99092.64	250.00
PFUnA_1	563.0 / 519.0	3.81	13C7-PFUnA	570.0 / 525.0	101859.96	250.00
PFUnA_2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	101859.96	250.00
PFDoA_1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	95394.66	250.00
PFDoA_2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	95394.66	250.00
PFTrDA_1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
PFTrDA_2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
PFTeDA_1	713.0 / 669.0	4.57	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
PFTeDA_2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	16616.33	250.00
NMeFOSAA_2	570.0 / 512.0	3.64	d3-MeFOSAA	573.0 / 419.0	16616.33	250.00
NEtFOSAA_1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	16999.01	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	16999.01	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	24473.16	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	24473.16	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	58835.13	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	58835.13	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	73044.35	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	73044.35	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	23463.21	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	23463.21	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	89256.01	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	89256.01	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	96659.60	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	96659.60	250.00
PFOS_1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	28834.11	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	28834.11	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	97605.58	250.00
PFDA_2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	97605.58	250.00
PFUnA_1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	85263.94	250.00
PFUnA_2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	85263.94	250.00
PFDoA_1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	95903.63	250.00
PFDoA_2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	95903.63	250.00
PFTrDA_1	663.0 / 619.0	4.34	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
PFTrDA_2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
PFTeDA_1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
PFTeDA_2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	15280.98	250.00
NMeFOSAA_2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	15280.98	250.00
NEtFOSAA_1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	19201.47	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	19201.47	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:14:32 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	26519.94	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	26519.94	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	61167.94	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	61167.94	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	69461.61	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	69461.61	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	22669.25	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	22669.25	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	84283.75	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	84283.75	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	93667.25	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	93667.25	250.00
PFOS_1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	28376.74	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	28376.74	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	97196.35	250.00
PFDA_2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	97196.35	250.00
PFUnA_1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	81503.66	250.00
PFUnA_2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	81503.66	250.00
PFDoA_1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	87520.82	250.00
PFDoA_2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	87520.82	250.00
PFTrDA_1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
PFTrDA_2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
PFTeDA_1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
PFTeDA_2	713.0 / 169.0	4.55	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	16063.93	250.00
NMeFOSAA_2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	16063.93	250.00
NEtFOSAA_1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	16992.28	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	16992.28	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	30399.13	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	30399.13	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	67298.42	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	67298.42	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	72755.48	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	72755.48	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	27186.76	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	27186.76	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	85622.31	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	85622.31	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	103069.19	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	103069.19	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	30401.17	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	30401.17	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	101281.21	250.00
PFDA_2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	101281.21	250.00
PFUnA_1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	91776.59	250.00
PFUnA_2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	91776.59	250.00
PFDoA_1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	102072.61	250.00
PFDoA_2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	102072.61	250.00
PFTrDA_1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
PFTrDA_2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
PFTeDA_1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
PFTeDA_2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
NMeFOSAA_1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	18223.77	250.00
NMeFOSAA_2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	18223.77	250.00
NEtFOSAA_1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	20489.99	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	20489.99	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:14:44 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	29660.00	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	29660.00	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	63134.84	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	63134.84	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	66285.64	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	66285.64	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	23705.87	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	23705.87	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	77573.52	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	77573.52	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	93994.33	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	93994.33	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	25276.93	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	25276.93	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	88095.93	250.00
PFDA_2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	88095.93	250.00
PFUnA_1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	82754.96	250.00
PFUnA_2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	82754.96	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	99995.01	250.00
PFDoA_2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	99995.01	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
PFTrDA_2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
PFTeDA_1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
PFTeDA_2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
NMeFOSAA_1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	18782.71	250.00
NMeFOSAA_2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	18782.71	250.00
NEtFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	16682.63	250.00
NEtFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	16682.63	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.10	13C2-PFDA	515.0 / 470.0	100139.46	250.00
d3-MeFOSAA	573.0 / 419.0	3.65	13C4-PFOS	503.0 / 99.0	29846.55	239.25
d5-EtFOSAA	589.0 / 419.0	3.81	13C4-PFOS	503.0 / 99.0	29846.55	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C9-PFNA	472.0 / 427.0	3.12	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C6-PFDA	519.0 / 474.0	3.48	13C2-PFDA	515.0 / 470.0	100139.46	250.00
13C7-PFUnA	570.0 / 525.0	3.81	13C2-PFDA	515.0 / 470.0	100139.46	250.00
13C2-PFTeDA	715.0 / 670.0	4.58	13C2-PFDA	515.0 / 470.0	100139.46	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	29846.55	239.25
13C3-PFHxS	402.0 / 99.0	2.33	13C4-PFOS	503.0 / 99.0	29846.55	239.25
13C8-PFOS	507.0 / 99.0	3.12	13C4-PFOS	503.0 / 99.0	29846.55	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.09	13C2-PFDA	515.0 / 470.0	103883.83	250.00
d3-MeFOSAA	573.0 / 419.0	3.64	13C4-PFOS	503.0 / 99.0	34856.85	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	34856.85	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C9-PFNA	472.0 / 427.0	3.11	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C6-PFDA	519.0 / 474.0	3.48	13C2-PFDA	515.0 / 470.0	103883.83	250.00
13C7-PFUnA	570.0 / 525.0	3.80	13C2-PFDA	515.0 / 470.0	103883.83	250.00
13C2-PFTeDA	715.0 / 670.0	4.57	13C2-PFDA	515.0 / 470.0	103883.83	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	34856.85	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	34856.85	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	34856.85	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.08	13C2-PFDA	515.0 / 470.0	98052.33	250.00
d3-MeFOSAA	573.0 / 419.0	3.63	13C4-PFOS	503.0 / 99.0	30684.77	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	30684.77	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C6-PFDA	519.0 / 474.0	3.47	13C2-PFDA	515.0 / 470.0	98052.33	250.00
13C7-PFUnA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	98052.33	250.00
13C2-PFTeDA	715.0 / 670.0	4.56	13C2-PFDA	515.0 / 470.0	98052.33	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	30684.77	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	30684.77	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	30684.77	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.08	13C2-PFDA	515.0 / 470.0	99978.99	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	30962.75	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	30962.75	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	99978.99	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	99978.99	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	99978.99	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	30962.75	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	30962.75	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	30962.75	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	90129.70	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	31518.26	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	31518.26	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	90129.70	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	90129.70	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	90129.70	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	31518.26	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	31518.26	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	31518.26	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:57:14 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	104169.70	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	29589.19	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	29589.19	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	104169.70	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	104169.70	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	104169.70	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	29589.19	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	29589.19	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	29589.19	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	100765.46	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	26984.04	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	26984.04	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	100765.46	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	100765.46	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	100765.46	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	26984.04	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	26984.04	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	26984.04	239.25

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:24:28 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.55	925.435980	1010.00	91.63
PFBS_2	298.9 / 99.0	1.54	950.236372	1010.00	94.08
PFHxA_1	313.0 / 269.0	1.86	879.267704	1010.00	87.06
PFHxA_2	313.0 / 119.0	1.86	949.504440	1010.00	94.01
PFHpA_1	363.0 / 319.0	2.27	964.602765	1000.00	96.46
PFHpA_2	363.0 / 169.0	2.27	1223.585962	1000.00	122.36
PFHxS_1	399.0 / 80.0	2.30	889.617656	1010.00	88.08
PFHxS_2	399.0 / 99.0	2.29	858.021180	1010.00	84.95
PFOA_1	413.0 / 369.0	2.68	865.140938	1000.00	86.51
PFOA_2	413.0 / 169.0	2.68	875.419686	1000.00	87.54
PFNA_1	463.0 / 419.0	3.08	952.628861	1000.00	95.26
PFNA_2	463.0 / 219.0	3.08	965.063864	1000.00	96.51
PFOS_1	499.0 / 80.0	3.08	1025.902305	1000.00	102.59
PFOS_2	499.0 / 99.0	3.08	1013.860679	1000.00	101.39
PFDA_1	513.0 / 469.0	3.44	932.797929	1000.00	93.28
PFDA_2	513.0 / 219.0	3.44	834.143591	1000.00	83.41
PFUnA_1	563.0 / 519.0	3.76	958.510248	1000.00	95.85
PFUnA_2	563.0 / 269.0	3.76	951.670001	1000.00	95.17
PFDoA_1	613.0 / 569.0	4.05	895.168832	1000.00	89.52
PFDoA_2	613.0 / 319.0	4.05	887.918400	1000.00	88.79
PFTrDA_1	663.0 / 619.0	4.30	997.200651	1000.00	99.72
PFTrDA_2	663.0 / 169.0	4.29	956.042222	1000.00	95.60
PFTeDA_1	713.0 / 669.0	4.51	986.644713	1000.00	98.66
PFTeDA_2	713.0 / 169.0	4.51	966.965594	1000.00	96.70
NMeFOSAA_1	570.0 / 419.0	3.59	947.445233	1000.00	94.74
NMeFOSAA_2	570.0 / 512.0	3.59	844.344682	1000.00	84.43
NEtFOSAA_1	584.0 / 419.0	3.75	1009.319182	1000.00	100.93
NEtFOSAA_2	584.0 / 483.0	3.75	860.050415	1000.00	86.01

BATTELLE

QC Summary Report

Sample Name	KB77 CCV	**Injection Vial**	8
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:06:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	2618.538405	2525.00	103.70
PFBS_2	298.9 / 99.0	1.53	2523.454240	2525.00	99.94
PFHxA_1	313.0 / 269.0	1.85	2414.953985	2525.00	95.64
PFHxA_2	313.0 / 119.0	1.85	2631.721050	2525.00	104.23
PFHpA_1	363.0 / 319.0	2.26	2407.707049	2500.00	96.31
PFHpA_2	363.0 / 169.0	2.25	2665.898057	2500.00	106.64
PFHxS_1	399.0 / 80.0	2.28	2478.608784	2525.00	98.16
PFHxS_2	399.0 / 99.0	2.28	2448.753553	2525.00	96.98
PFOA_1	413.0 / 369.0	2.67	2430.684244	2500.00	97.23
PFOA_2	413.0 / 169.0	2.67	2282.079114	2500.00	91.28
PFNA_1	463.0 / 419.0	3.06	2579.529090	2500.00	103.18
PFNA_2	463.0 / 219.0	3.06	2612.371058	2500.00	104.49
PFOS_1	499.0 / 80.0	3.06	2722.127690	2500.00	108.89
PFOS_2	499.0 / 99.0	3.06	2729.536249	2500.00	109.18
PFDA_1	513.0 / 469.0	3.42	2534.222686	2500.00	101.37
PFDA_2	513.0 / 219.0	3.42	2901.723207	2500.00	116.07
PFUnA_1	563.0 / 519.0	3.74	2497.834896	2500.00	99.91
PFUnA_2	563.0 / 269.0	3.74	2381.658019	2500.00	95.27
PFDoA_1	613.0 / 569.0	4.02	2544.545066	2500.00	101.78
PFDoA_2	613.0 / 319.0	4.02	2539.047004	2500.00	101.56
PFTrDA_1	663.0 / 619.0	4.27	2551.708640	2500.00	102.07
PFTrDA_2	663.0 / 169.0	4.27	2596.429572	2500.00	103.86
PFTeDA_1	713.0 / 669.0	4.49	2460.343220	2500.00	98.41
PFTeDA_2	713.0 / 169.0	4.48	2407.060266	2500.00	96.28
NMeFOSAA_1	570.0 / 419.0	3.57	2790.523735	2500.00	111.62
NMeFOSAA_2	570.0 / 512.0	3.57	2886.592458	2500.00	115.46
NEtFOSAA_1	584.0 / 419.0	3.73	2397.243044	2500.00	95.89
NEtFOSAA_2	584.0 / 483.0	3.73	2687.008450	2500.00	107.48

QC Summary Report

Sample Name	KB76 CCV	**Injection Vial**	20
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:16:58	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	989.775458	1010.00	98.00
PFBS_2	298.9 / 99.0	1.53	1045.698086	1010.00	103.53
PFHxA_1	313.0 / 269.0	1.85	973.394262	1010.00	96.38
PFHxA_2	313.0 / 119.0	1.85	967.984877	1010.00	95.84
PFHpA_1	363.0 / 319.0	2.26	1013.599398	1000.00	101.36
PFHpA_2	363.0 / 169.0	2.25	1064.736662	1000.00	106.47
PFHxS_1	399.0 / 80.0	2.28	1028.241446	1010.00	101.81
PFHxS_2	399.0 / 99.0	2.28	1018.195658	1010.00	100.81
PFOA_1	413.0 / 369.0	2.67	973.408296	1000.00	97.34
PFOA_2	413.0 / 169.0	2.66	1077.900626	1000.00	107.79
PFNA_1	463.0 / 419.0	3.06	1006.656406	1000.00	100.67
PFNA_2	463.0 / 219.0	3.06	996.950833	1000.00	99.70
PFOS_1	499.0 / 80.0	3.06	999.892638	1000.00	99.99
PFOS_2	499.0 / 99.0	3.06	997.910580	1000.00	99.79
PFDA_1	513.0 / 469.0	3.42	1054.802091	1000.00	105.48
PFDA_2	513.0 / 219.0	3.42	1156.680689	1000.00	115.67
PFUnA_1	563.0 / 519.0	3.74	1001.333272	1000.00	100.13
PFUnA_2	563.0 / 269.0	3.74	1033.866671	1000.00	103.39
PFDoA_1	613.0 / 569.0	4.02	1006.215803	1000.00	100.62
PFDoA_2	613.0 / 319.0	4.02	1023.784957	1000.00	102.38
PFTrDA_1	663.0 / 619.0	4.27	1095.043458	1000.00	109.50
PFTrDA_2	663.0 / 169.0	4.27	1066.371556	1000.00	106.64
PFTeDA_1	713.0 / 669.0	4.48	1049.344804	1000.00	104.93
PFTeDA_2	713.0 / 169.0	4.48	1076.103332	1000.00	107.61
NMeFOSAA_1	570.0 / 419.0	3.57	934.906413	1000.00	93.49
NMeFOSAA_2	570.0 / 512.0	3.57	814.194547	1000.00	81.42
NEtFOSAA_1	584.0 / 419.0	3.73	816.729181	1000.00	81.67
NEtFOSAA_2	584.0 / 483.0	3.73	894.068053	1000.00	89.41

BATTELLE

QC Summary Report

Sample Name	KB77 CCV	**Injection Vial**	32
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:27:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	2586.301413	2525.00	102.43
PFBS_2	298.9 / 99.0	1.53	2553.864805	2525.00	101.14
PFHxA_1	313.0 / 269.0	1.84	2394.980653	2525.00	94.85
PFHxA_2	313.0 / 119.0	1.84	2341.354809	2525.00	92.73
PFHpA_1	363.0 / 319.0	2.25	2411.648918	2500.00	96.47
PFHpA_2	363.0 / 169.0	2.25	2637.301651	2500.00	105.49
PFHxS_1	399.0 / 80.0	2.27	2669.427503	2525.00	105.72
PFHxS_2	399.0 / 99.0	2.27	2680.132137	2525.00	106.14
PFOA_1	413.0 / 369.0	2.66	2640.463512	2500.00	105.62
PFOA_2	413.0 / 169.0	2.66	2624.174438	2500.00	104.97
PFNA_1	463.0 / 419.0	3.06	2584.800953	2500.00	103.39
PFNA_2	463.0 / 219.0	3.06	2681.020057	2500.00	107.24
PFOS_1	499.0 / 80.0	3.06	2422.396206	2500.00	96.90
PFOS_2	499.0 / 99.0	3.05	2326.641814	2500.00	93.07
PFDA_1	513.0 / 469.0	3.41	2497.598102	2500.00	99.90
PFDA_2	513.0 / 219.0	3.41	2446.527416	2500.00	97.86
PFUnA_1	563.0 / 519.0	3.73	2556.162099	2500.00	102.25
PFUnA_2	563.0 / 269.0	3.73	2379.945427	2500.00	95.20
PFDoA_1	613.0 / 569.0	4.02	2494.741318	2500.00	99.79
PFDoA_2	613.0 / 319.0	4.02	2538.755056	2500.00	101.55
PFTrDA_1	663.0 / 619.0	4.27	2671.143836	2500.00	106.85
PFTrDA_2	663.0 / 169.0	4.26	2767.373103	2500.00	110.69
PFTeDA_1	713.0 / 669.0	4.48	2570.473865	2500.00	102.82
PFTeDA_2	713.0 / 169.0	4.48	2671.672171	2500.00	106.87
NMeFOSAA_1	570.0 / 419.0	3.57	2600.671630	2500.00	104.03
NMeFOSAA_2	570.0 / 512.0	3.57	2717.075787	2500.00	108.68
NEtFOSAA_1	584.0 / 419.0	3.73	2230.930510	2500.00	89.24
NEtFOSAA_2	584.0 / 483.0	3.73	2452.449855	2500.00	98.10

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:25:05 PM

Sample Name	KB76 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:38:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	1051.503067	1010.00	104.11
PFBS_2	298.9 / 99.0	1.53	1048.902984	1010.00	103.85
PFHxA_1	313.0 / 269.0	1.85	955.834936	1010.00	94.64
PFHxA_2	313.0 / 119.0	1.85	1084.098025	1010.00	107.34
PFHpA_1	363.0 / 319.0	2.25	906.968379	1000.00	90.70
PFHpA_2	363.0 / 169.0	2.25	901.246670	1000.00	90.12
PFHxS_1	399.0 / 80.0	2.28	1113.109504	1010.00	110.21
PFHxS_2	399.0 / 99.0	2.28	1044.215650	1010.00	103.39
PFOA_1	413.0 / 369.0	2.66	1067.791804	1000.00	106.78
PFOA_2	413.0 / 169.0	2.66	1167.826673	1000.00	116.78
PFNA_1	463.0 / 419.0	3.06	1084.637395	1000.00	108.46
PFNA_2	463.0 / 219.0	3.06	1110.866151	1000.00	111.09
PFOS_1	499.0 / 80.0	3.06	1090.149050	1000.00	109.01
PFOS_2	499.0 / 99.0	3.06	1207.952335	1000.00	120.80
PFDA_1	513.0 / 469.0	3.41	928.635367	1000.00	92.86
PFDA_2	513.0 / 219.0	3.41	1028.416326	1000.00	102.84
PFUnA_1	563.0 / 519.0	3.73	982.889881	1000.00	98.29
PFUnA_2	563.0 / 269.0	3.73	1044.633288	1000.00	104.46
PFDoA_1	613.0 / 569.0	4.02	995.699189	1000.00	99.57
PFDoA_2	613.0 / 319.0	4.02	989.933439	1000.00	98.99
PFTrDA_1	663.0 / 619.0	4.26	1054.173145	1000.00	105.42
PFTrDA_2	663.0 / 169.0	4.26	1067.774372	1000.00	106.78
PFTeDA_1	713.0 / 669.0	4.48	1004.267494	1000.00	100.43
PFTeDA_2	713.0 / 169.0	4.48	1040.794678	1000.00	104.08
NMeFOSAA_1	570.0 / 419.0	3.57	1060.838774	1000.00	106.08
NMeFOSAA_2	570.0 / 512.0	3.57	1063.866294	1000.00	106.39
NEtFOSAA_1	584.0 / 419.0	3.73	992.412599	1000.00	99.24
NEtFOSAA_2	584.0 / 483.0	3.73	1187.585277	1000.00	118.76

QC Summary Report

Sample Name	KB77 CCV	**Injection Vial**	54
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:48:43	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	2614.484612	2525.00	103.54
PFBS_2	298.9 / 99.0	1.53	2642.884645	2525.00	104.67
PFHxA_1	313.0 / 269.0	1.84	2401.203203	2525.00	95.10
PFHxA_2	313.0 / 119.0	1.84	2636.228680	2525.00	104.41
PFHpA_1	363.0 / 319.0	2.25	2392.910868	2500.00	95.72
PFHpA_2	363.0 / 169.0	2.25	2772.885569	2500.00	110.92
PFHxS_1	399.0 / 80.0	2.27	2580.006343	2525.00	102.18
PFHxS_2	399.0 / 99.0	2.27	2603.461116	2525.00	103.11
PFOA_1	413.0 / 369.0	2.66	2491.957034	2500.00	99.68
PFOA_2	413.0 / 169.0	2.66	2489.100640	2500.00	99.56
PFNA_1	463.0 / 419.0	3.05	2673.640219	2500.00	106.95
PFNA_2	463.0 / 219.0	3.05	2692.775975	2500.00	107.71
PFOS_1	499.0 / 80.0	3.05	2392.027295	2500.00	95.68
PFOS_2	499.0 / 99.0	3.05	2261.626985	2500.00	90.47
PFDA_1	513.0 / 469.0	3.41	2482.319820	2500.00	99.29
PFDA_2	513.0 / 219.0	3.41	2222.595137	2500.00	88.90
PFUnA_1	563.0 / 519.0	3.73	2329.995804	2500.00	93.20
PFUnA_2	563.0 / 269.0	3.73	2324.892343	2500.00	93.00
PFDoA_1	613.0 / 569.0	4.01	2656.031965	2500.00	106.24
PFDoA_2	613.0 / 319.0	4.01	2684.730331	2500.00	107.39
PFTrDA_1	663.0 / 619.0	4.26	2518.469291	2500.00	100.74
PFTrDA_2	663.0 / 169.0	4.26	2594.715929	2500.00	103.79
PFTeDA_1	713.0 / 669.0	4.48	2433.962127	2500.00	97.36
PFTeDA_2	713.0 / 169.0	4.47	2464.084078	2500.00	98.56
NMeFOSAA_1	570.0 / 419.0	3.56	2622.495869	2500.00	104.90
NMeFOSAA_2	570.0 / 512.0	3.56	2558.033193	2500.00	102.32
NEtFOSAA_1	584.0 / 419.0	3.73	2476.785432	2500.00	99.07
NEtFOSAA_2	584.0 / 483.0	3.73	2574.695583	2500.00	102.99

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:25:14 PM

Sample Name	KB76 CCV	**Injection Vial**	9
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:00:12	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.54	1094.479121	1010.00	108.36
PFBS_2	298.9 / 99.0	1.53	1103.197423	1010.00	109.23
PFHxA_1	313.0 / 269.0	1.85	1024.717549	1010.00	101.46
PFHxA_2	313.0 / 119.0	1.85	1092.032569	1010.00	108.12
PFHpA_1	363.0 / 319.0	2.26	969.410085	1000.00	96.94
PFHpA_2	363.0 / 169.0	2.26	998.636100	1000.00	99.86
PFHxS_1	399.0 / 80.0	2.28	1009.965335	1010.00	100.00
PFHxS_2	399.0 / 99.0	2.28	951.621939	1010.00	94.22
PFOA_1	413.0 / 369.0	2.67	968.963295	1000.00	96.90
PFOA_2	413.0 / 169.0	2.67	942.709655	1000.00	94.27
PFNA_1	463.0 / 419.0	3.07	1049.822940	1000.00	104.98
PFNA_2	463.0 / 219.0	3.07	1072.737926	1000.00	107.27
PFOS_1	499.0 / 80.0	3.07	973.592281	1000.00	97.36
PFOS_2	499.0 / 99.0	3.07	988.767171	1000.00	98.88
PFDA_1	513.0 / 469.0	3.42	965.488410	1000.00	96.55
PFDA_2	513.0 / 219.0	3.42	932.792097	1000.00	93.28
PFUnA_1	563.0 / 519.0	3.75	950.669435	1000.00	95.07
PFUnA_2	563.0 / 269.0	3.75	926.773562	1000.00	92.68
PFDoA_1	613.0 / 569.0	4.03	1072.872182	1000.00	107.29
PFDoA_2	613.0 / 319.0	4.03	1115.728132	1000.00	111.57
PFTrDA_1	663.0 / 619.0	4.28	1078.702604	1000.00	107.87
PFTrDA_2	663.0 / 169.0	4.28	1075.124519	1000.00	107.51
PFTeDA_1	713.0 / 669.0	4.50	1062.927039	1000.00	106.29
PFTeDA_2	713.0 / 169.0	4.49	1000.825848	1000.00	100.08
NMeFOSAA_1	570.0 / 419.0	3.58	1210.368174	1000.00	121.04
NMeFOSAA_2	570.0 / 512.0	3.58	896.799869	1000.00	89.68
NEtFOSAA_1	584.0 / 419.0	3.74	817.823959	1000.00	81.78
NEtFOSAA_2	584.0 / 483.0	3.74	711.617875	1000.00	71.16

BATTELLE

QC Summary Report

Sample Name	KB77 CCV	**Injection Vial**	15
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T11:05:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	2653.967216	2525.00	105.11
PFBS_2	298.9 / 99.0	1.53	2577.401525	2525.00	102.08
PFHxA_1	313.0 / 269.0	1.85	2454.195351	2525.00	97.20
PFHxA_2	313.0 / 119.0	1.85	2251.154529	2525.00	89.15
PFHpA_1	363.0 / 319.0	2.26	2384.250449	2500.00	95.37
PFHpA_2	363.0 / 169.0	2.26	2264.339203	2500.00	90.57
PFHxS_1	399.0 / 80.0	2.28	2465.151746	2525.00	97.63
PFHxS_2	399.0 / 99.0	2.28	2514.704361	2525.00	99.59
PFOA_1	413.0 / 369.0	2.67	2427.613700	2500.00	97.10
PFOA_2	413.0 / 169.0	2.67	2380.153220	2500.00	95.21
PFNA_1	463.0 / 419.0	3.06	2556.387108	2500.00	102.26
PFNA_2	463.0 / 219.0	3.06	2652.910073	2500.00	106.12
PFOS_1	499.0 / 80.0	3.06	2626.526372	2500.00	105.06
PFOS_2	499.0 / 99.0	3.06	2639.708039	2500.00	105.59
PFDA_1	513.0 / 469.0	3.42	2300.029384	2500.00	92.00
PFDA_2	513.0 / 219.0	3.42	2435.886333	2500.00	97.44
PFUnA_1	563.0 / 519.0	3.74	2213.908710	2500.00	88.56
PFUnA_2	563.0 / 269.0	3.74	2150.075137	2500.00	86.00
PFDoA_1	613.0 / 569.0	4.03	2541.164940	2500.00	101.65
PFDoA_2	613.0 / 319.0	4.03	2533.427948	2500.00	101.34
PFTrDA_1	663.0 / 619.0	4.27	2701.380024	2500.00	108.06
PFTrDA_2	663.0 / 169.0	4.27	2702.922087	2500.00	108.12
PFTeDA_1	713.0 / 669.0	4.49	2703.892175	2500.00	108.16
PFTeDA_2	713.0 / 169.0	4.49	2674.441535	2500.00	106.98
NMeFOSAA_1	570.0 / 419.0	3.58	2358.578404	2500.00	94.34
NMeFOSAA_2	570.0 / 512.0	3.57	2477.487274	2500.00	99.10
NEtFOSAA_1	584.0 / 419.0	3.74	2266.296622	2500.00	90.65
NEtFOSAA_2	584.0 / 483.0	3.74	2067.346424	2500.00	82.69

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.04	276.754344	250.00	110.70
d3-MeFOSAA	573.0 / 419.0	3.59	256.502272	250.00	102.60
d5-EtFOSAA	589.0 / 419.0	3.75	205.964344	250.00	82.39
13C5-PFHxA	318.0 / 273.0	1.85	232.644972	250.00	93.06
13C4-PFHpA	367.0 / 322.0	2.26	216.588781	250.00	86.64
13C8-PFOA	421.0 / 376.0	2.67	243.586025	250.00	97.43
13C9-PFNA	472.0 / 427.0	3.06	251.131162	250.00	100.45
13C6-PFDA	519.0 / 474.0	3.42	262.700560	250.00	105.08
13C7-PFUnA	570.0 / 525.0	3.74	255.397242	250.00	102.16
13C2-PFTeDA	715.0 / 670.0	4.51	255.314914	250.00	102.13
13C3-PFBS	302.0 / 99.0	1.53	212.938723	232.25	91.69
13C3-PFHxS	402.0 / 99.0	2.28	238.736615	236.50	100.95
13C8-PFOS	507.0 / 99.0	3.06	201.629894	239.25	84.28

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 26/10/2018 3:19:48 PM

Sample Name	KB77 CCV	**Injection Vial**	8
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:06:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.01	234.499515	250.00	93.80
d3-MeFOSAA	573.0 / 419.0	3.57	209.000085	250.00	83.60
d5-EtFOSAA	589.0 / 419.0	3.72	230.020313	250.00	92.01
13C5-PFHxA	318.0 / 273.0	1.84	243.999606	250.00	97.60
13C4-PFHpA	367.0 / 322.0	2.25	236.653880	250.00	94.66
13C8-PFOA	421.0 / 376.0	2.65	250.303847	250.00	100.12
13C9-PFNA	472.0 / 427.0	3.05	245.581612	250.00	98.23
13C6-PFDA	519.0 / 474.0	3.40	236.274350	250.00	94.51
13C7-PFUnA	570.0 / 525.0	3.72	263.268331	250.00	105.31
13C2-PFTeDA	715.0 / 670.0	4.48	239.068729	250.00	95.63
13C3-PFBS	302.0 / 99.0	1.52	192.754666	232.25	82.99
13C3-PFHxS	402.0 / 99.0	2.27	212.061970	236.50	89.67
13C8-PFOS	507.0 / 99.0	3.05	189.347670	239.25	79.14

BATTELLE

QC Summary Report

Sample Name	KB76 CCV	**Injection Vial**	20
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:16:58	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.01	240.949012	250.00	96.38
d3-MeFOSAA	573.0 / 419.0	3.56	245.972436	250.00	98.39
d5-EtFOSAA	589.0 / 419.0	3.72	280.617478	250.00	112.25
13C5-PFHxA	318.0 / 273.0	1.84	240.101418	250.00	96.04
13C4-PFHpA	367.0 / 322.0	2.25	224.914059	250.00	89.97
13C8-PFOA	421.0 / 376.0	2.66	238.871401	250.00	95.55
13C9-PFNA	472.0 / 427.0	3.05	246.487493	250.00	98.59
13C6-PFDA	519.0 / 474.0	3.40	231.844738	250.00	92.74
13C7-PFUnA	570.0 / 525.0	3.72	254.497278	250.00	101.80
13C2-PFTeDA	715.0 / 670.0	4.48	222.802973	250.00	89.12
13C3-PFBS	302.0 / 99.0	1.52	205.123496	232.25	88.32
13C3-PFHxS	402.0 / 99.0	2.27	222.603141	236.50	94.12
13C8-PFOS	507.0 / 99.0	3.04	235.703636	239.25	98.52

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:53:02 PM

Sample Name	KB77 CCV	**Injection Vial**	32
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:27:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.01	261.367760	250.00	104.55
d3-MeFOSAA	573.0 / 419.0	3.56	240.025363	250.00	96.01
d5-EtFOSAA	589.0 / 419.0	3.72	244.208781	250.00	97.68
13C5-PFHxA	318.0 / 273.0	1.83	252.007159	250.00	100.80
13C4-PFHpA	367.0 / 322.0	2.24	228.738093	250.00	91.50
13C8-PFOA	421.0 / 376.0	2.65	224.879579	250.00	89.95
13C9-PFNA	472.0 / 427.0	3.04	238.981178	250.00	95.59
13C6-PFDA	519.0 / 474.0	3.40	252.432163	250.00	100.97
13C7-PFUnA	570.0 / 525.0	3.72	274.263822	250.00	109.71
13C2-PFTeDA	715.0 / 670.0	4.47	245.024977	250.00	98.01
13C3-PFBS	302.0 / 99.0	1.51	213.304010	232.25	91.84
13C3-PFHxS	402.0 / 99.0	2.26	211.686025	236.50	89.51
13C8-PFOS	507.0 / 99.0	3.04	240.900040	239.25	100.69

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:53:06 PM

Sample Name	KB76 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:38:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.01	257.418801	250.00	102.97
d3-MeFOSAA	573.0 / 419.0	3.56	209.624825	250.00	83.85
d5-EtFOSAA	589.0 / 419.0	3.72	231.194002	250.00	92.48
13C5-PFHxA	318.0 / 273.0	1.83	252.155195	250.00	100.86
13C4-PFHpA	367.0 / 322.0	2.24	240.267835	250.00	96.11
13C8-PFOA	421.0 / 376.0	2.65	230.281740	250.00	92.11
13C9-PFNA	472.0 / 427.0	3.04	228.352225	250.00	91.34
13C6-PFDA	519.0 / 474.0	3.40	259.380372	250.00	103.75
13C7-PFUnA	570.0 / 525.0	3.72	265.230373	250.00	106.09
13C2-PFTeDA	715.0 / 670.0	4.47	238.666684	250.00	95.47
13C3-PFBS	302.0 / 99.0	1.51	194.627784	232.25	83.80
13C3-PFHxS	402.0 / 99.0	2.27	192.711481	236.50	81.48
13C8-PFOS	507.0 / 99.0	3.04	200.258855	239.25	83.70

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:53:10 PM

Sample Name	KB77 CCV	**Injection Vial**	54
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:48:43	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.00	256.653962	250.00	102.66
d3-MeFOSAA	573.0 / 419.0	3.56	244.618873	250.00	97.85
d5-EtFOSAA	589.0 / 419.0	3.72	261.764825	250.00	104.71
13C5-PFHxA	318.0 / 273.0	1.83	235.242088	250.00	94.10
13C4-PFHpA	367.0 / 322.0	2.24	221.306589	250.00	88.52
13C8-PFOA	421.0 / 376.0	2.65	236.610680	250.00	94.64
13C9-PFNA	472.0 / 427.0	3.04	237.516793	250.00	95.01
13C6-PFDA	519.0 / 474.0	3.39	269.978403	250.00	107.99
13C7-PFUnA	570.0 / 525.0	3.71	281.606197	250.00	112.64
13C2-PFTeDA	715.0 / 670.0	4.47	258.387341	250.00	103.35
13C3-PFBS	302.0 / 99.0	1.51	219.479219	232.25	94.50
13C3-PFHxS	402.0 / 99.0	2.26	229.071151	236.50	96.86
13C8-PFOS	507.0 / 99.0	3.04	251.187070	239.25	104.99

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 3:53:14 PM

Sample Name	KB76 CCV	**Injection Vial**	9
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:00:12	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.02	257.234380	250.00	102.89
d3-MeFOSAA	573.0 / 419.0	3.57	212.338830	250.00	84.94
d5-EtFOSAA	589.0 / 419.0	3.73	286.251533	250.00	114.50
13C5-PFHxA	318.0 / 273.0	1.84	234.982272	250.00	93.99
13C4-PFHpA	367.0 / 322.0	2.25	234.812756	250.00	93.93
13C8-PFOA	421.0 / 376.0	2.66	253.745154	250.00	101.50
13C9-PFNA	472.0 / 427.0	3.05	241.966448	250.00	96.79
13C6-PFDA	519.0 / 474.0	3.41	274.747145	250.00	109.90
13C7-PFUnA	570.0 / 525.0	3.73	289.454360	250.00	115.78
13C2-PFTeDA	715.0 / 670.0	4.49	255.061036	250.00	102.02
13C3-PFBS	302.0 / 99.0	1.52	189.103754	232.25	81.42
13C3-PFHxS	402.0 / 99.0	2.27	209.574265	236.50	88.61
13C8-PFOS	507.0 / 99.0	3.05	234.825617	239.25	98.15

Sample Name	KB77 CCV	**Injection Vial**	15
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T11:05:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.02	251.340197	250.00	100.54
d3-MeFOSAA	573.0 / 419.0	3.57	268.686395	250.00	107.47
d5-EtFOSAA	589.0 / 419.0	3.73	285.531561	250.00	114.21
13C5-PFHxA	318.0 / 273.0	1.84	251.415713	250.00	100.57
13C4-PFHpA	367.0 / 322.0	2.25	235.049672	250.00	94.02
13C8-PFOA	421.0 / 376.0	2.66	241.452164	250.00	96.58
13C9-PFNA	472.0 / 427.0	3.05	251.096037	250.00	100.44
13C6-PFDA	519.0 / 474.0	3.41	260.258942	250.00	104.10
13C7-PFUnA	570.0 / 525.0	3.73	282.827342	250.00	113.13
13C2-PFTeDA	715.0 / 670.0	4.48	236.422431	250.00	94.57
13C3-PFBS	302.0 / 99.0	1.52	230.763812	232.25	99.36
13C3-PFHxS	402.0 / 99.0	2.27	241.118261	236.50	101.95
13C8-PFOS	507.0 / 99.0	3.05	244.016346	239.25	101.99

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:46:05 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T17:53:40	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFHxA_1	313.0 / 269.0	1.88	462.536206	505.00	91.59
PFHxA_2	313.0 / 119.0	1.88	426.082853	505.00	84.37
PFHxS_1	399.0 / 80.0	2.31	554.491852	505.00	109.80
PFHxS_2	399.0 / 99.0	2.31	583.696961	505.00	115.58
PFOS_1	499.0 / 80.0	3.10	523.903404	500.00	104.78
PFOS_2	499.0 / 99.0	3.10	473.131452	500.00	94.63
PFOA_1	413.0 / 369.0	2.70	473.437432	500.00	94.69
PFOA_2	413.0 / 369.0	2.70	473.437432	500.00	94.69

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 4:46:09 PM

Sample Name	KB77 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:04:05	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFHxA_1	313.0 / 269.0	1.85	2481.381808	2525.00	98.27
PFHxA_2	313.0 / 119.0	1.85	2555.100258	2525.00	101.19
PFHxS_1	399.0 / 80.0	2.29	2610.058343	2525.00	103.37
PFHxS_2	399.0 / 99.0	2.28	2651.183730	2525.00	105.00
PFOS_1	499.0 / 80.0	3.07	2655.453547	2500.00	106.22
PFOS_2	499.0 / 99.0	3.07	2638.171601	2500.00	105.53
PFOA_1	413.0 / 369.0	2.67	2629.464130	2500.00	105.18
PFOA_2	413.0 / 369.0	2.67	2629.464130	2500.00	105.18

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:15:39 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.56	877.420602	1010.00	86.87
PFBS_2	298.9 / 99.0	1.56	838.659062	1010.00	83.04
PFHxA_1	313.0 / 269.0	1.89	1006.652936	1010.00	99.67
PFHxA_2	313.0 / 119.0	1.89	896.376115	1010.00	88.75
PFHpA_1	363.0 / 319.0	2.30	856.292979	1000.00	85.63
PFHpA_2	363.0 / 169.0	2.29	976.724688	1000.00	97.67
PFHxS_1	399.0 / 80.0	2.32	998.233289	1010.00	98.83
PFHxS_2	399.0 / 99.0	2.32	992.688608	1010.00	98.29
PFOA_1	413.0 / 369.0	2.71	930.879127	1000.00	93.09
PFOA_2	413.0 / 169.0	2.71	872.168076	1000.00	87.22
PFNA_1	463.0 / 419.0	3.11	1034.052055	1000.00	103.41
PFNA_2	463.0 / 219.0	3.10	1037.625087	1000.00	103.76
PFOS_1	499.0 / 80.0	3.10	906.626239	1000.00	90.66
PFOS_2	499.0 / 99.0	3.10	919.881718	1000.00	91.99
PFDA_1	513.0 / 469.0	3.46	983.979238	1000.00	98.40
PFDA_2	513.0 / 219.0	3.46	976.593938	1000.00	97.66
PFUnA_1	563.0 / 519.0	3.79	923.159866	1000.00	92.32
PFUnA_2	563.0 / 269.0	3.79	975.741234	1000.00	97.57
PFDoA_1	613.0 / 569.0	4.07	980.552902	1000.00	98.06
PFDoA_2	613.0 / 319.0	4.07	934.947666	1000.00	93.49
PFTrDA_1	663.0 / 619.0	4.32	1073.075185	1000.00	107.31
PFTrDA_2	663.0 / 169.0	4.32	1041.820014	1000.00	104.18
PFTeDA_1	713.0 / 669.0	4.54	1020.055697	1000.00	102.01
PFTeDA_2	713.0 / 169.0	4.54	1079.815842	1000.00	107.98
NMeFOSAA_1	570.0 / 419.0	3.62	945.129517	1000.00	94.51
NMeFOSAA_2	570.0 / 512.0	3.62	965.108458	1000.00	96.51
NEtFOSAA_1	584.0 / 419.0	3.78	1244.646852	1000.00	124.46
NEtFOSAA_2	584.0 / 483.0	3.78	1233.660110	1000.00	123.37

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:15:43 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.57	502.963491	505.00	99.60
PFBS_2	298.9 / 99.0	1.57	496.453145	505.00	98.31
PFHxA_1	313.0 / 269.0	1.91	480.896992	505.00	95.23
PFHxA_2	313.0 / 119.0	1.91	485.682826	505.00	96.17
PFHpA_1	363.0 / 319.0	2.33	481.224420	500.00	96.24
PFHpA_2	363.0 / 169.0	2.32	452.441038	500.00	90.49
PFHxS_1	399.0 / 80.0	2.35	518.322649	505.00	102.64
PFHxS_2	399.0 / 99.0	2.35	520.806905	505.00	103.13
PFOA_1	413.0 / 369.0	2.74	450.789129	500.00	90.16
PFOA_2	413.0 / 169.0	2.74	546.555914	500.00	109.31
PFNA_1	463.0 / 419.0	3.14	494.521439	500.00	98.90
PFNA_2	463.0 / 219.0	3.14	507.732683	500.00	101.55
PFOS_1	499.0 / 80.0	3.14	441.273324	500.00	88.25
PFOS_2	499.0 / 99.0	3.14	470.431215	500.00	94.09
PFDA_1	513.0 / 469.0	3.50	451.709750	500.00	90.34
PFDA_2	513.0 / 219.0	3.50	556.902124	500.00	111.38
PFUnA_1	563.0 / 519.0	3.83	457.038917	500.00	91.41
PFUnA_2	563.0 / 269.0	3.83	585.085583	500.00	117.02
PFDoA_1	613.0 / 569.0	4.11	507.066970	500.00	101.41
PFDoA_2	613.0 / 319.0	4.11	531.157147	500.00	106.23
PFTrDA_1	663.0 / 619.0	4.36	452.740787	500.00	90.55
PFTrDA_2	663.0 / 169.0	4.36	467.337333	500.00	93.47
PFTeDA_1	713.0 / 669.0	4.58	504.192869	500.00	100.84
PFTeDA_2	713.0 / 169.0	4.58	503.867021	500.00	100.77
NMeFOSAA_1	570.0 / 419.0	3.66	429.345311	500.00	85.87
NMeFOSAA_2	570.0 / 512.0	3.66	376.857105	500.00	75.37
NEtFOSAA_1	584.0 / 419.0	3.82	419.389608	500.00	83.88
NEtFOSAA_2	584.0 / 483.0	3.81	616.043667	500.00	123.21

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 5:15:47 PM

Sample Name	KB76 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.55	1001.344883	1010.00	99.14
PFBS_2	298.9 / 99.0	1.55	1000.991268	1010.00	99.11
PFHxA_1	313.0 / 269.0	1.87	1056.822100	1010.00	104.64
PFHxA_2	313.0 / 119.0	1.88	1063.589580	1010.00	105.31
PFHpA_1	363.0 / 319.0	2.29	1028.757834	1000.00	102.88
PFHpA_2	363.0 / 169.0	2.28	1078.591914	1000.00	107.86
PFHxS_1	399.0 / 80.0	2.31	1019.434169	1010.00	100.93
PFHxS_2	399.0 / 99.0	2.31	1082.086267	1010.00	107.14
PFOA_1	413.0 / 369.0	2.70	932.235404	1000.00	93.22
PFOA_2	413.0 / 169.0	2.70	933.002458	1000.00	93.30
PFNA_1	463.0 / 419.0	3.09	969.448009	1000.00	96.94
PFNA_2	463.0 / 219.0	3.09	1051.266014	1000.00	105.13
PFOS_1	499.0 / 80.0	3.09	897.563869	1000.00	89.76
PFOS_2	499.0 / 99.0	3.09	878.460836	1000.00	87.85
PFDA_1	513.0 / 469.0	3.45	961.338899	1000.00	96.13
PFDA_2	513.0 / 219.0	3.45	966.373157	1000.00	96.64
PFUnA_1	563.0 / 519.0	3.77	987.093706	1000.00	98.71
PFUnA_2	563.0 / 269.0	3.77	910.317875	1000.00	91.03
PFDoA_1	613.0 / 569.0	4.05	1015.587992	1000.00	101.56
PFDoA_2	613.0 / 319.0	4.05	1054.052180	1000.00	105.41
PFTrDA_1	663.0 / 619.0	4.29	1124.598888	1000.00	112.46
PFTrDA_2	663.0 / 169.0	4.29	1060.017484	1000.00	106.00
PFTeDA_1	713.0 / 669.0	4.51	1082.017300	1000.00	108.20
PFTeDA_2	713.0 / 169.0	4.50	1150.888154	1000.00	115.09
NMeFOSAA_1	570.0 / 419.0	3.60	1103.795666	1000.00	110.38
NMeFOSAA_2	570.0 / 512.0	3.60	1164.756781	1000.00	116.48
NEtFOSAA_1	584.0 / 419.0	3.76	1000.785651	1000.00	100.08
NEtFOSAA_2	584.0 / 483.0	3.76	1121.091255	1000.00	112.11

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	10/17/2018 9:13:49 PM	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.06	231.611603	250.00	92.64
d3-MeFOSAA	573.0 / 419.0	3.61	235.098552	250.00	94.04
d5-EtFOSAA	589.0 / 419.0	3.78	176.181506	250.00	70.47
13C5-PFHxA	318.0 / 273.0	1.88	233.905404	250.00	93.56
13C4-PFHpA	367.0 / 322.0	2.29	244.843738	250.00	97.94
13C8-PFOA	421.0 / 376.0	2.70	255.222211	250.00	102.09
13C9-PFNA	472.0 / 427.0	3.09	253.115276	250.00	101.25
13C6-PFDA	519.0 / 474.0	3.45	223.796875	250.00	89.52
13C7-PFUnA	570.0 / 525.0	3.77	237.910809	250.00	95.16
13C2-PFTeDA	715.0 / 670.0	4.54	218.862217	250.00	87.54
13C3-PFBS	302.0 / 99.0	1.55	206.860264	232.25	89.07
13C3-PFHxS	402.0 / 99.0	2.31	210.154754	236.50	88.86
13C8-PFOS	507.0 / 99.0	3.09	222.736043	239.25	93.10

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.10	259.132404	250.00	103.65
d3-MeFOSAA	573.0 / 419.0	3.65	208.974174	250.00	83.59
d5-EtFOSAA	589.0 / 419.0	3.81	206.830753	250.00	82.73
13C5-PFHxA	318.0 / 273.0	1.89	259.924320	250.00	103.97
13C4-PFHpA	367.0 / 322.0	2.31	255.044502	250.00	102.02
13C8-PFOA	421.0 / 376.0	2.73	260.077016	250.00	104.03
13C9-PFNA	472.0 / 427.0	3.13	231.388886	250.00	92.56
13C6-PFDA	519.0 / 474.0	3.49	276.436354	250.00	110.57
13C7-PFUnA	570.0 / 525.0	3.81	284.738017	250.00	113.90
13C2-PFTeDA	715.0 / 670.0	4.57	291.091815	250.00	116.44
13C3-PFBS	302.0 / 99.0	1.55	219.366193	232.25	94.45
13C3-PFHxS	402.0 / 99.0	2.34	221.464127	236.50	93.64
13C8-PFOS	507.0 / 99.0	3.13	250.834474	239.25	104.84

BATTELLE

QC Summary Report

Created with Analyst Reporter
Printed: 24/10/2018 8:29:25 PM

Sample Name	KB76 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.04	256.341694	250.00	102.54
d3-MeFOSAA	573.0 / 419.0	3.60	178.456423	250.00	71.38
d5-EtFOSAA	589.0 / 419.0	3.76	179.468006	250.00	71.79
13C5-PFHxA	318.0 / 273.0	1.86	235.917680	250.00	94.37
13C4-PFHpA	367.0 / 322.0	2.28	242.401821	250.00	96.96
13C8-PFOA	421.0 / 376.0	2.69	262.212463	250.00	104.88
13C9-PFNA	472.0 / 427.0	3.08	239.637060	250.00	95.85
13C6-PFDA	519.0 / 474.0	3.43	265.216691	250.00	106.09
13C7-PFUnA	570.0 / 525.0	3.75	266.281774	250.00	106.51
13C2-PFTeDA	715.0 / 670.0	4.50	261.638965	250.00	104.66
13C3-PFBS	302.0 / 99.0	1.53	250.521132	232.25	107.87
13C3-PFHxS	402.0 / 99.0	2.30	227.825684	236.50	96.33
13C8-PFOS	507.0 / 99.0	3.08	260.938939	239.25	109.07

BATTELLE

Summary Quant Report

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	296877.48	925.435980	482.3	false
PFBS_2	298.9 / 99.0	1.54	90909.55	950.236372	282.0	false
PFHxA_1	313.0 / 269.0	1.86	217093.67	879.267704	36.6	false
PFHxA_2	313.0 / 119.0	1.86	16972.25	949.504440	22.6	false
PFHpA_1	363.0 / 319.0	2.27	215468.22	964.602765	102.4	false
PFHpA_2	363.0 / 169.0	2.27	5393.75	1223.585962	110.6	false
PFHxS_1	399.0 / 80.0	2.30	359478.13	889.617656	351.4	false
PFHxS_2	399.0 / 99.0	2.29	99045.52	858.021180	363.7	false
PFOA_1	413.0 / 369.0	2.68	315096.35	865.140938	275.6	false
PFOA_2	413.0 / 169.0	2.68	18384.18	875.419686	201.1	false
PFNA_1	463.0 / 419.0	3.08	315104.60	952.628861	358.1	false
PFNA_2	463.0 / 219.0	3.08	97554.83	965.063864	337.2	false
PFOS_1	499.0 / 80.0	3.08	503138.84	1025.902305	227.7	false
PFOS_2	499.0 / 99.0	3.08	89366.71	1013.860679	403.9	false
PFDA_1	513.0 / 469.0	3.44	351373.08	932.797929	425.8	false
PFDA_2	513.0 / 219.0	3.44	12651.11	834.143591	150.4	false
PFUnA_1	563.0 / 519.0	3.76	330436.07	958.510248	296.0	false
PFUnA_2	563.0 / 269.0	3.76	16992.68	951.670001	221.5	false
PFDoA_1	613.0 / 569.0	4.05	309663.77	895.168832	435.7	false
PFDoA_2	613.0 / 319.0	4.05	47964.58	887.918400	329.0	false
PFTrDA_1	663.0 / 619.0	4.30	290122.51	997.200651	584.3	false
PFTrDA_2	663.0 / 169.0	4.29	17930.65	956.042222	394.5	false
PFTeDA_1	713.0 / 669.0	4.51	321499.58	986.644713	1289.1	false
PFTeDA_2	713.0 / 169.0	4.51	14831.62	966.965594	569.7	false
NMeFOSAA_1	570.0 / 419.0	3.59	57580.04	947.445233	858.6	false
NMeFOSAA_2	570.0 / 512.0	3.59	30788.84	844.344682	676.5	false
NEtFOSAA_1	584.0 / 419.0	3.75	50075.43	1009.319182	566.8	false
NEtFOSAA_2	584.0 / 483.0	3.75	2667.21	860.050415	784.9	false

BATTELLE

Summary Quant Report

Sample Name	KB77 CCV	**Injection Vial**	8
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:06:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	790654.35	2618.538405	658.7	false
PFBS_2	298.9 / 99.0	1.53	225875.02	2523.454240	449.8	false
PFHxA_1	313.0 / 269.0	1.85	571801.77	2414.953985	62.5	false
PFHxA_2	313.0 / 119.0	1.85	45381.90	2631.721050	46.1	false
PFHpA_1	363.0 / 319.0	2.26	542408.72	2407.707049	169.4	false
PFHpA_2	363.0 / 169.0	2.25	11846.80	2665.898057	185.3	false
PFHxS_1	399.0 / 80.0	2.28	888151.00	2478.608784	463.6	false
PFHxS_2	399.0 / 99.0	2.28	250530.05	2448.753553	610.0	false
PFOA_1	413.0 / 369.0	2.67	842924.24	2430.684244	425.1	false
PFOA_2	413.0 / 169.0	2.67	46597.98	2282.079114	417.7	false
PFNA_1	463.0 / 419.0	3.06	749260.46	2579.529090	502.9	false
PFNA_2	463.0 / 219.0	3.06	232159.67	2612.371058	489.9	false
PFOS_1	499.0 / 80.0	3.06	1308871.32	2722.127690	346.8	false
PFOS_2	499.0 / 99.0	3.06	232869.59	2729.536249	633.8	false
PFDA_1	513.0 / 469.0	3.42	915939.43	2534.222686	787.9	false
PFDA_2	513.0 / 219.0	3.42	41818.81	2901.723207	496.4	false
PFUnA_1	563.0 / 519.0	3.74	953944.10	2497.834896	477.2	false
PFUnA_2	563.0 / 269.0	3.74	44246.80	2381.658019	326.7	false
PFDoA_1	613.0 / 569.0	4.02	785432.48	2544.545066	651.7	false
PFDoA_2	613.0 / 319.0	4.02	121666.74	2539.047004	623.2	false
PFTrDA_1	663.0 / 619.0	4.27	731825.98	2551.708640	852.2	false
PFTrDA_2	663.0 / 169.0	4.27	47449.22	2596.429572	527.2	false
PFTeDA_1	713.0 / 669.0	4.49	790173.93	2460.343220	1652.5	false
PFTeDA_2	713.0 / 169.0	4.48	35919.16	2407.060266	751.1	false
NMeFOSAA_1	570.0 / 419.0	3.57	131850.02	2790.523735	616.6	false
NMeFOSAA_2	570.0 / 512.0	3.57	75583.31	2886.592458	456.4	false
NEtFOSAA_1	584.0 / 419.0	3.73	136134.19	2397.243044	885.7	false
NEtFOSAA_2	584.0 / 483.0	3.73	8949.17	2687.008450	609.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:25:59 PM

Sample Name	KB76 CCV	**Injection Vial**	20
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:16:58	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	294116.67	989.775458	336.6	false
PFBS_2	298.9 / 99.0	1.53	92551.01	1045.698086	254.3	false
PFHxA_1	313.0 / 269.0	1.85	229559.07	973.394262	36.9	false
PFHxA_2	313.0 / 119.0	1.85	16555.26	967.984877	25.3	false
PFHpA_1	363.0 / 319.0	2.26	217961.24	1013.599398	108.7	false
PFHpA_2	363.0 / 169.0	2.25	4524.06	1064.736662	100.4	false
PFHxS_1	399.0 / 80.0	2.28	370731.71	1028.241446	402.0	false
PFHxS_2	399.0 / 99.0	2.28	104822.18	1018.195658	443.7	false
PFOA_1	413.0 / 369.0	2.67	322419.23	973.408296	301.1	false
PFOA_2	413.0 / 169.0	2.66	20720.88	1077.900626	351.2	false
PFNA_1	463.0 / 419.0	3.06	302271.42	1006.656406	326.7	false
PFNA_2	463.0 / 219.0	3.06	91585.92	996.950833	319.7	false
PFOS_1	499.0 / 80.0	3.06	534818.65	999.892638	235.7	false
PFOS_2	499.0 / 99.0	3.06	95951.70	997.910580	494.3	false
PFDA_1	513.0 / 469.0	3.42	361110.36	1054.802091	466.7	false
PFDA_2	513.0 / 219.0	3.42	15860.32	1156.680689	372.3	false
PFUnA_1	563.0 / 519.0	3.74	354697.88	1001.333272	303.3	false
PFUnA_2	563.0 / 269.0	3.74	18815.92	1033.866671	253.2	false
PFDoA_1	613.0 / 569.0	4.02	311424.14	1006.215803	439.0	false
PFDoA_2	613.0 / 319.0	4.02	49388.60	1023.784957	361.5	false
PFTrDA_1	663.0 / 619.0	4.27	285827.79	1095.043458	669.9	false
PFTrDA_2	663.0 / 169.0	4.27	17903.74	1066.371556	365.4	false
PFTeDA_1	713.0 / 669.0	4.48	307055.18	1049.344804	1091.2	false
PFTeDA_2	713.0 / 169.0	4.48	14769.23	1076.103332	518.6	false
NMeFOSAA_1	570.0 / 419.0	3.57	52515.26	934.906413	363.9	false
NMeFOSAA_2	570.0 / 512.0	3.57	27596.61	814.194547	324.2	false
NEtFOSAA_1	584.0 / 419.0	3.73	52753.75	816.729181	783.7	false
NEtFOSAA_2	584.0 / 483.0	3.73	3627.65	894.068053	143.7	false

BATTELLE

Summary Quant Report

Sample Name	KB77 CCV	**Injection Vial**	32
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:27:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	893111.32	2586.301413	671.8	false
PFBS_2	298.9 / 99.0	1.53	261394.08	2553.864805	621.7	false
PFHxA_1	313.0 / 269.0	1.84	655341.73	2394.980653	70.3	false
PFHxA_2	313.0 / 119.0	1.84	46678.55	2341.354809	46.5	false
PFHpA_1	363.0 / 319.0	2.25	587542.67	2411.648918	156.7	false
PFHpA_2	363.0 / 169.0	2.25	12674.65	2637.301651	173.2	false
PFHxS_1	399.0 / 80.0	2.27	994274.21	2669.427503	374.0	false
PFHxS_2	399.0 / 99.0	2.27	284994.96	2680.132137	635.1	false
PFOA_1	413.0 / 369.0	2.66	920478.21	2640.463512	509.0	false
PFOA_2	413.0 / 169.0	2.66	53956.33	2624.174438	370.6	false
PFNA_1	463.0 / 419.0	3.06	817429.17	2584.800953	485.4	false
PFNA_2	463.0 / 219.0	3.06	259300.33	2681.020057	453.1	false
PFOS_1	499.0 / 80.0	3.06	1489235.74	2422.396206	327.3	false
PFOS_2	499.0 / 99.0	3.05	254180.42	2326.641814	518.0	false
PFDA_1	513.0 / 469.0	3.41	984825.57	2497.598102	636.0	false
PFDA_2	513.0 / 219.0	3.41	38512.87	2446.527416	472.6	false
PFUnA_1	563.0 / 519.0	3.73	1038435.37	2556.162099	458.3	false
PFUnA_2	563.0 / 269.0	3.73	47034.12	2379.945427	305.5	false
PFDoA_1	613.0 / 569.0	4.02	876576.39	2494.741318	554.5	false
PFDoA_2	613.0 / 319.0	4.02	138450.00	2538.755056	485.6	false
PFTrDA_1	663.0 / 619.0	4.27	801245.86	2671.143836	968.1	false
PFTrDA_2	663.0 / 169.0	4.26	52864.00	2767.373103	544.4	false
PFTeDA_1	713.0 / 669.0	4.48	863435.49	2570.473865	1286.4	false
PFTeDA_2	713.0 / 169.0	4.48	41627.95	2671.672171	903.9	false
NMeFOSAA_1	570.0 / 419.0	3.57	149099.54	2600.671630	680.4	false
NMeFOSAA_2	570.0 / 512.0	3.57	86456.52	2717.075787	962.9	false
NEtFOSAA_1	584.0 / 419.0	3.73	143065.51	2230.930510	693.8	false
NEtFOSAA_2	584.0 / 483.0	3.73	9252.14	2452.449855	375.4	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:26:08 PM

Sample Name	KB76 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:38:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	310976.16	1051.503067	354.6	false
PFBS_2	298.9 / 99.0	1.53	92457.94	1048.902984	277.6	false
PFHxA_1	313.0 / 269.0	1.85	238293.20	955.834936	39.0	false
PFHxA_2	313.0 / 119.0	1.85	19572.16	1084.098025	29.8	false
PFHpA_1	363.0 / 319.0	2.25	209774.80	906.968379	93.9	false
PFHpA_2	363.0 / 169.0	2.25	4122.19	901.246670	79.4	false
PFHxS_1	399.0 / 80.0	2.28	357688.61	1113.109504	292.1	false
PFHxS_2	399.0 / 99.0	2.28	95884.88	1044.215650	326.1	false
PFOA_1	413.0 / 369.0	2.66	343121.35	1067.791804	273.7	false
PFOA_2	413.0 / 169.0	2.66	21825.50	1167.826673	228.8	false
PFNA_1	463.0 / 419.0	3.06	302616.96	1084.637395	351.0	false
PFNA_2	463.0 / 219.0	3.06	94696.21	1110.866151	277.3	false
PFOS_1	499.0 / 80.0	3.06	531425.56	1090.149050	262.6	false
PFOS_2	499.0 / 99.0	3.06	105374.93	1207.952335	427.9	false
PFDA_1	513.0 / 469.0	3.41	335262.37	928.635367	402.2	false
PFDA_2	513.0 / 219.0	3.41	14882.37	1028.416326	343.0	false
PFUnA_1	563.0 / 519.0	3.73	341560.98	982.889881	343.1	false
PFUnA_2	563.0 / 269.0	3.73	18633.43	1044.633288	231.0	false
PFDoA_1	613.0 / 569.0	4.02	310010.57	995.699189	344.3	false
PFDoA_2	613.0 / 319.0	4.02	48083.41	989.933439	339.1	false
PFTrDA_1	663.0 / 619.0	4.26	277786.23	1054.173145	604.7	false
PFTrDA_2	663.0 / 169.0	4.26	18076.18	1067.774372	360.6	false
PFTeDA_1	713.0 / 669.0	4.48	296747.54	1004.267494	1078.0	false
PFTeDA_2	713.0 / 169.0	4.48	14428.43	1040.794678	572.9	false
NMeFOSAA_1	570.0 / 419.0	3.57	53055.23	1060.838774	697.0	false
NMeFOSAA_2	570.0 / 512.0	3.57	30998.84	1063.866294	557.5	false
NEtFOSAA_1	584.0 / 419.0	3.73	54546.83	992.412599	490.0	false
NEtFOSAA_2	584.0 / 483.0	3.73	4008.39	1187.585277	507.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:26:13 PM

Sample Name	KB77 CCV	**Injection Vial**	54
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:48:43	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	731379.83	2614.484612	713.3	false
PFBS_2	298.9 / 99.0	1.53	219077.74	2642.884645	528.3	false
PFHxA_1	313.0 / 269.0	1.84	524709.14	2401.203203	57.9	false
PFHxA_2	313.0 / 119.0	1.84	41952.52	2636.228680	46.3	false
PFHpA_1	363.0 / 319.0	2.25	482553.09	2392.910868	147.3	false
PFHpA_2	363.0 / 169.0	2.25	11028.77	2772.885569	181.4	false
PFHxS_1	399.0 / 80.0	2.27	820160.53	2580.006343	365.9	false
PFHxS_2	399.0 / 99.0	2.27	236269.88	2603.461116	570.8	false
PFOA_1	413.0 / 369.0	2.66	781951.94	2491.957034	513.7	false
PFOA_2	413.0 / 169.0	2.66	46039.92	2489.100640	437.4	false
PFNA_1	463.0 / 419.0	3.05	718494.23	2673.640219	440.0	false
PFNA_2	463.0 / 219.0	3.05	221427.40	2692.775975	501.9	false
PFOS_1	499.0 / 80.0	3.05	1275665.80	2392.027295	351.6	false
PFOS_2	499.0 / 99.0	3.05	214403.41	2261.626985	575.4	false
PFDA_1	513.0 / 469.0	3.41	879361.23	2482.319820	713.3	false
PFDA_2	513.0 / 219.0	3.41	31458.05	2222.595137	374.5	false
PFUnA_1	563.0 / 519.0	3.73	816375.63	2329.995804	423.4	false
PFUnA_2	563.0 / 269.0	3.73	39668.06	2324.892343	266.5	false
PFDoA_1	613.0 / 569.0	4.01	769263.81	2656.031965	478.8	false
PFDoA_2	613.0 / 319.0	4.01	120673.62	2684.730331	549.1	false
PFTrDA_1	663.0 / 619.0	4.26	669691.71	2518.469291	925.2	false
PFTrDA_2	663.0 / 169.0	4.26	43957.57	2594.715929	434.9	false
PFTeDA_1	713.0 / 669.0	4.48	724756.41	2433.962127	1700.4	false
PFTeDA_2	713.0 / 169.0	4.47	34068.31	2464.084078	805.0	false
NMeFOSAA_1	570.0 / 419.0	3.56	122524.70	2622.495869	1070.1	false
NMeFOSAA_2	570.0 / 512.0	3.56	66624.45	2558.033193	503.2	false
NEtFOSAA_1	584.0 / 419.0	3.73	129669.66	2476.785432	565.7	false
NEtFOSAA_2	584.0 / 483.0	3.73	7909.88	2574.695583	1640.0	false

BATTELLE

Summary Quant Report

Sample Name	KB76 CCV	**Injection Vial**	9
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:00:12	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.54	306147.22	1094.479121	395.2	false
PFBS_2	298.9 / 99.0	1.53	91920.78	1103.197423	329.2	false
PFHxA_1	313.0 / 269.0	1.85	230936.07	1024.717549	36.2	false
PFHxA_2	313.0 / 119.0	1.85	17843.03	1092.032569	24.4	false
PFHpA_1	363.0 / 319.0	2.26	212744.70	969.410085	94.6	false
PFHpA_2	363.0 / 169.0	2.26	4331.65	998.636100	93.9	false
PFHxS_1	399.0 / 80.0	2.28	348664.74	1009.965335	367.2	false
PFHxS_2	399.0 / 99.0	2.28	93878.52	951.621939	398.1	false
PFOA_1	413.0 / 369.0	2.67	333193.56	968.963295	272.4	false
PFOA_2	413.0 / 169.0	2.67	18736.56	942.709655	205.2	false
PFNA_1	463.0 / 419.0	3.07	301862.78	1049.822940	338.4	false
PFNA_2	463.0 / 219.0	3.07	94245.91	1072.737926	284.5	false
PFOS_1	499.0 / 80.0	3.07	515199.84	973.592281	222.8	false
PFOS_2	499.0 / 99.0	3.07	94058.12	988.767171	375.1	false
PFDA_1	513.0 / 469.0	3.42	356812.45	965.488410	346.1	false
PFDA_2	513.0 / 219.0	3.42	13850.79	932.792097	273.0	false
PFUnA_1	563.0 / 519.0	3.75	348567.44	950.669435	306.1	false
PFUnA_2	563.0 / 269.0	3.75	17647.86	926.773562	174.8	false
PFDoA_1	613.0 / 569.0	4.03	322081.49	1072.872182	345.3	false
PFDoA_2	613.0 / 319.0	4.03	52148.39	1115.728132	321.6	false
PFTrDA_1	663.0 / 619.0	4.28	293485.66	1078.702604	588.2	false
PFTrDA_2	663.0 / 169.0	4.28	18799.61	1075.124519	317.2	false
PFTeDA_1	713.0 / 669.0	4.50	323920.15	1062.927039	952.2	false
PFTeDA_2	713.0 / 169.0	4.49	14364.76	1000.825848	589.3	false
NMeFOSAA_1	570.0 / 419.0	3.58	56776.01	1210.368174	488.4	false
NMeFOSAA_2	570.0 / 512.0	3.58	25466.75	896.799869	346.7	false
NEtFOSAA_1	584.0 / 419.0	3.74	51068.78	817.823959	552.3	false
NEtFOSAA_2	584.0 / 483.0	3.74	2836.60	711.617875	189.9	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:26:22 PM

Sample Name	KB77 CCV	**Injection Vial**	15
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T11:05:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	814589.52	2653.967216	602.0	false
PFBS_2	298.9 / 99.0	1.53	234485.62	2577.401525	548.7	false
PFHxA_1	313.0 / 269.0	1.85	597282.81	2454.195351	62.3	false
PFHxA_2	313.0 / 119.0	1.85	39931.16	2251.154529	44.2	false
PFHpA_1	363.0 / 319.0	2.26	532245.31	2384.250449	151.4	false
PFHpA_2	363.0 / 169.0	2.26	9976.24	2264.339203	137.5	false
PFHxS_1	399.0 / 80.0	2.28	869684.60	2465.151746	531.4	false
PFHxS_2	399.0 / 99.0	2.28	253252.30	2514.704361	588.5	false
PFOA_1	413.0 / 369.0	2.67	810185.80	2427.613700	431.9	false
PFOA_2	413.0 / 169.0	2.67	46797.68	2380.153220	361.1	false
PFNA_1	463.0 / 419.0	3.06	757559.14	2556.387108	508.3	false
PFNA_2	463.0 / 219.0	3.06	240427.04	2652.910073	504.3	false
PFOS_1	499.0 / 80.0	3.06	1372136.75	2626.526372	322.8	false
PFOS_2	499.0 / 99.0	3.06	244745.68	2639.708039	592.5	false
PFDA_1	513.0 / 469.0	3.42	871272.44	2300.029384	620.7	false
PFDA_2	513.0 / 219.0	3.42	36826.05	2435.886333	338.3	false
PFUnA_1	563.0 / 519.0	3.74	863889.70	2213.908710	428.9	false
PFUnA_2	563.0 / 269.0	3.74	41002.14	2150.075137	253.1	false
PFDoA_1	613.0 / 569.0	4.03	799620.92	2541.164940	527.7	false
PFDoA_2	613.0 / 319.0	4.03	123756.93	2533.427948	506.3	false
PFTrDA_1	663.0 / 619.0	4.27	728177.47	2701.380024	888.4	false
PFTrDA_2	663.0 / 169.0	4.27	46425.25	2702.922087	448.1	false
PFTeDA_1	713.0 / 669.0	4.49	815766.04	2703.892175	1451.8	false
PFTeDA_2	713.0 / 169.0	4.49	37451.56	2674.441535	867.1	false
NMeFOSAA_1	570.0 / 419.0	3.58	126585.19	2358.578404	543.1	false
NMeFOSAA_2	570.0 / 512.0	3.57	74006.20	2477.487274	638.0	false
NEtFOSAA_1	584.0 / 419.0	3.74	139414.64	2266.296622	811.2	false
NEtFOSAA_2	584.0 / 483.0	3.74	7513.56	2067.346424	365.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:54:29 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	95135.72	276.754344	993.3	false
d3-MeFOSAA	573.0 / 419.0	3.59	14894.97	256.502272	223.2	false
d5-EtFOSAA	589.0 / 419.0	3.75	12251.47	205.964344	160.9	false
13C5-PFHxA	318.0 / 273.0	1.85	61132.74	232.644972	537.8	false
13C4-PFHpA	367.0 / 322.0	2.26	63973.94	216.588781	604.6	false
13C8-PFOA	421.0 / 376.0	2.67	87660.16	243.586025	1335.9	false
13C9-PFNA	472.0 / 427.0	3.06	90548.20	251.131162	1365.9	false
13C6-PFDA	519.0 / 474.0	3.42	90137.54	262.700560	1984.7	false
13C7-PFUnA	570.0 / 525.0	3.74	80361.02	255.397242	520.0	false
13C2-PFTeDA	715.0 / 670.0	4.51	70155.09	255.314914	1608.1	false
13C3-PFBS	302.0 / 99.0	1.53	26831.39	212.938723	535.7	false
13C3-PFHxS	402.0 / 99.0	2.28	27255.56	238.736615	306.6	false
13C8-PFOS	507.0 / 99.0	3.06	24145.02	201.629894	229.3	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 26/10/2018 3:19:12 PM

Sample Name	KB77 CCV	**Injection Vial**	8
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:06:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	86607.75	234.499515	753.6	false
d3-MeFOSAA	573.0 / 419.0	3.57	12733.04	209.000085	127.6	false
d5-EtFOSAA	589.0 / 419.0	3.72	14354.87	230.020313	200.7	false
13C5-PFHxA	318.0 / 273.0	1.84	59372.76	243.999606	689.9	false
13C4-PFHpA	367.0 / 322.0	2.25	64728.97	236.653880	673.0	false
13C8-PFOA	421.0 / 376.0	2.65	83413.31	250.303847	2550.4	false
13C9-PFNA	472.0 / 427.0	3.05	81996.06	245.581612	704.6	false
13C6-PFDA	519.0 / 474.0	3.40	87101.77	236.274350	724.6	false
13C7-PFUnA	570.0 / 525.0	3.72	89000.72	263.268331	897.0	false
13C2-PFTeDA	715.0 / 670.0	4.48	70578.34	239.068729	1310.5	false
13C3-PFBS	302.0 / 99.0	1.52	25481.82	192.754666	411.4	false
13C3-PFHxS	402.0 / 99.0	2.27	25400.13	212.061970	379.5	false
13C8-PFOS	507.0 / 99.0	3.05	23788.64	189.347670	211.8	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:54:33 PM

Sample Name	KB76 CCV	**Injection Vial**	20
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:16:58	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	85405.98	240.949012	887.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	13747.25	245.972436	152.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	16065.40	280.617478	202.9	false
13C5-PFHxA	318.0 / 273.0	1.84	58504.03	240.101418	791.0	false
13C4-PFHpA	367.0 / 322.0	2.25	61601.97	224.914059	904.3	false
13C8-PFOA	421.0 / 376.0	2.66	79712.23	238.871401	1253.9	false
13C9-PFNA	472.0 / 427.0	3.05	82410.96	246.487493	963.0	false
13C6-PFDA	519.0 / 474.0	3.40	82026.83	231.844738	6104.8	false
13C7-PFUnA	570.0 / 525.0	3.72	82570.77	254.497278	865.9	false
13C2-PFTeDA	715.0 / 670.0	4.48	63127.40	222.802973	1193.4	false
13C3-PFBS	302.0 / 99.0	1.52	24876.24	205.123496	399.9	false
13C3-PFHxS	402.0 / 99.0	2.27	24459.54	222.603141	248.6	false
13C8-PFOS	507.0 / 99.0	3.04	27165.63	235.703636	266.6	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:54:37 PM

Sample Name	KB77 CCV	**Injection Vial**	32
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:27:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	98565.99	261.367760	880.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	15111.96	240.025363	126.5	false
d5-EtFOSAA	589.0 / 419.0	3.72	15749.70	244.208781	195.7	false
13C5-PFHxA	318.0 / 273.0	1.83	68610.41	252.007159	577.8	false
13C4-PFHpA	367.0 / 322.0	2.24	70000.72	228.738093	707.9	false
13C8-PFOA	421.0 / 376.0	2.65	83848.80	224.879579	2926.0	false
13C9-PFNA	472.0 / 427.0	3.04	89277.05	238.981178	805.1	false
13C6-PFDA	519.0 / 474.0	3.40	95020.07	252.432163	689.7	false
13C7-PFUnA	570.0 / 525.0	3.72	94672.46	274.263822	1071.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	73861.69	245.024977	1577.9	false
13C3-PFBS	302.0 / 99.0	1.51	29140.88	213.304010	388.4	false
13C3-PFHxS	402.0 / 99.0	2.26	26202.54	211.686025	287.0	false
13C8-PFOS	507.0 / 99.0	3.04	31276.96	240.900040	339.6	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:54:44 PM

Sample Name	KB76 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:38:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	85891.51	257.418801	861.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	12298.31	209.624825	165.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	13893.99	231.194002	179.5	false
13C5-PFHxA	318.0 / 273.0	1.83	61825.26	252.155195	564.0	false
13C4-PFHpA	367.0 / 322.0	2.24	66218.69	240.267835	944.0	false
13C8-PFOA	421.0 / 376.0	2.65	77326.30	230.281740	1588.0	false
13C9-PFNA	472.0 / 427.0	3.04	76824.95	228.352225	607.7	false
13C6-PFDA	519.0 / 474.0	3.40	86385.85	259.380372	818.9	false
13C7-PFUnA	570.0 / 525.0	3.72	81005.27	265.230373	778.7	false
13C2-PFTeDA	715.0 / 670.0	4.47	63655.45	238.666684	1569.7	false
13C3-PFBS	302.0 / 99.0	1.51	24776.93	194.627784	449.0	false
13C3-PFHxS	402.0 / 99.0	2.27	22227.88	192.711481	372.6	false
13C8-PFOS	507.0 / 99.0	3.04	24228.06	200.258855	263.3	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:54:49 PM

Sample Name	KB77 CCV	**Injection Vial**	54
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:48:43	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	81301.83	256.653962	1185.4	false
d3-MeFOSAA	573.0 / 419.0	3.56	12125.87	244.618873	161.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	13291.74	261.764825	218.4	false
13C5-PFHxA	318.0 / 273.0	1.83	54792.63	235.242088	667.7	false
13C4-PFHpA	367.0 / 322.0	2.24	57941.32	221.306589	668.5	false
13C8-PFOA	421.0 / 376.0	2.65	75476.40	236.610680	2670.2	false
13C9-PFNA	472.0 / 427.0	3.04	75910.26	237.516793	882.2	false
13C6-PFDA	519.0 / 474.0	3.39	85364.42	269.978403	678.7	false
13C7-PFUnA	570.0 / 525.0	3.71	81653.46	281.606197	859.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	65427.06	258.387341	1319.6	false
13C3-PFBS	302.0 / 99.0	1.51	23607.85	219.479219	463.6	false
13C3-PFHxS	402.0 / 99.0	2.26	22324.46	229.071151	332.5	false
13C8-PFOS	507.0 / 99.0	3.04	25677.00	251.187070	255.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:54:54 PM

Sample Name	KB76 CCV	**Injection Vial**	9
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:00:12	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.02	82981.73	257.234380	693.6	false
d3-MeFOSAA	573.0 / 419.0	3.57	12132.51	212.338830	144.3	false
d5-EtFOSAA	589.0 / 419.0	3.73	16753.92	286.251533	210.5	false
13C5-PFHxA	318.0 / 273.0	1.84	55957.42	234.982272	671.0	false
13C4-PFHpA	367.0 / 322.0	2.25	62853.75	234.812756	897.6	false
13C8-PFOA	421.0 / 376.0	2.66	82754.20	253.745154	1121.6	false
13C9-PFNA	472.0 / 427.0	3.05	79063.63	241.966448	942.0	false
13C6-PFDA	519.0 / 474.0	3.41	88467.19	274.747145	1965.3	false
13C7-PFUnA	570.0 / 525.0	3.73	85469.99	289.454360	614.6	false
13C2-PFTeDA	715.0 / 670.0	4.49	65770.54	255.061036	1332.6	false
13C3-PFBS	302.0 / 99.0	1.52	23445.60	189.103754	385.3	false
13C3-PFHxS	402.0 / 99.0	2.27	23542.18	209.574265	277.3	false
13C8-PFOS	507.0 / 99.0	3.05	27668.82	234.825617	217.9	false

BATTELLE

Summary Quant Report

Sample Name	KB77 CCV	**Injection Vial**	15
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T11:05:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.02	88288.27	251.340197	1230.4	false
d3-MeFOSAA	573.0 / 419.0	3.57	13899.93	268.686395	182.6	false
d5-EtFOSAA	589.0 / 419.0	3.73	15131.03	285.531561	197.7	false
13C5-PFHxA	318.0 / 273.0	1.84	61034.05	251.415713	823.7	false
13C4-PFHpA	367.0 / 322.0	2.25	64139.62	235.049672	549.5	false
13C8-PFOA	421.0 / 376.0	2.66	80275.05	241.452164	2759.0	false
13C9-PFNA	472.0 / 427.0	3.05	83640.89	251.096037	1268.0	false
13C6-PFDA	519.0 / 474.0	3.41	91251.97	260.258942	1031.7	false
13C7-PFUnA	570.0 / 525.0	3.73	90937.40	282.827342	958.9	false
13C2-PFTeDA	715.0 / 670.0	4.48	66384.02	236.422431	1831.1	false
13C3-PFBS	302.0 / 99.0	1.52	25904.46	230.763812	512.0	false
13C3-PFHxS	402.0 / 99.0	2.27	24523.62	241.118261	331.4	false
13C8-PFOS	507.0 / 99.0	3.05	26032.14	244.016346	248.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:47:13 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T17:53:40	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.88	128539.87	462.536206	28.1	false
PFHxA_2	313.0 / 119.0	1.88	8530.36	426.082853	19.6	false
PFHxS_1	399.0 / 80.0	2.31	201935.55	554.491852	245.6	false
PFHxS_2	399.0 / 99.0	2.31	60601.70	583.696961	303.3	false
PFOS_1	499.0 / 80.0	3.10	276075.96	523.903404	174.9	false
PFOS_2	499.0 / 99.0	3.10	45916.44	473.131452	254.9	false
PFOA_1	413.0 / 369.0	2.70	166140.26	473.437432	215.8	false
PFOA_2	413.0 / 369.0	2.70	166140.26	473.437432	215.8	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:47:18 PM

Sample Name	KB77 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:04:05	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.85	522909.91	2481.381808	60.5	false
PFHxA_2	313.0 / 119.0	1.85	39226.70	2555.100258	49.9	false
PFHxS_1	399.0 / 80.0	2.29	777342.28	2610.058343	503.7	false
PFHxS_2	399.0 / 99.0	2.28	225405.51	2651.183730	812.1	false
PFOS_1	499.0 / 80.0	3.07	1213506.01	2655.453547	321.9	false
PFOS_2	499.0 / 99.0	3.07	213979.89	2638.171601	443.2	false
PFOA_1	413.0 / 369.0	2.67	775348.48	2629.464130	531.1	false
PFOA_2	413.0 / 369.0	2.67	775348.48	2629.464130	531.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:18:19 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	299608.43	877.420602	544.9	false
PFBS_2	298.9 / 99.0	1.56	83942.08	838.659062	365.9	false
PFHxA_1	313.0 / 269.0	1.89	241930.51	1006.652936	19.8	false
PFHxA_2	313.0 / 119.0	1.89	16403.84	896.376115	16.0	false
PFHpA_1	363.0 / 319.0	2.30	215911.99	856.292979	126.4	false
PFHpA_2	363.0 / 169.0	2.29	5561.78	976.724688	99.7	false
PFHxS_1	399.0 / 80.0	2.32	361966.55	998.233289	454.9	false
PFHxS_2	399.0 / 99.0	2.32	100883.75	992.688608	416.4	false
PFOA_1	413.0 / 369.0	2.71	338169.16	930.879127	304.4	false
PFOA_2	413.0 / 169.0	2.71	20580.91	872.168076	223.7	false
PFNA_1	463.0 / 419.0	3.11	356729.03	1034.052055	304.0	false
PFNA_2	463.0 / 219.0	3.10	110066.88	1037.625087	466.5	false
PFOS_1	499.0 / 80.0	3.10	539708.03	906.626239	343.1	false
PFOS_2	499.0 / 99.0	3.10	95211.86	919.881718	450.1	false
PFDA_1	513.0 / 469.0	3.46	380336.88	983.979238	327.0	false
PFDA_2	513.0 / 219.0	3.46	15587.84	976.593938	361.3	false
PFUnA_1	563.0 / 519.0	3.79	349720.15	923.159866	376.6	false
PFUnA_2	563.0 / 269.0	3.79	18202.70	975.741234	188.3	false
PFDoA_1	613.0 / 569.0	4.07	341302.82	980.552902	460.6	false
PFDoA_2	613.0 / 319.0	4.07	51304.06	934.947666	412.2	false
PFTrDA_1	663.0 / 619.0	4.32	300565.45	1073.075185	751.7	false
PFTrDA_2	663.0 / 169.0	4.32	19250.55	1041.820014	533.2	false
PFTeDA_1	713.0 / 669.0	4.54	326564.00	1020.055697	1259.1	false
PFTeDA_2	713.0 / 169.0	4.54	16770.44	1079.815842	804.1	false
NMeFOSAA_1	570.0 / 419.0	3.62	66944.31	945.129517	505.3	false
NMeFOSAA_2	570.0 / 512.0	3.62	38615.63	965.108458	1105.4	false
NEtFOSAA_1	584.0 / 419.0	3.78	66942.43	1244.646852	673.7	true
NEtFOSAA_2	584.0 / 483.0	3.78	4011.16	1233.660110	1226.3	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:18:23 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	168978.15	502.963491	322.3	false
PFBS_2	298.9 / 99.0	1.57	48809.67	496.453145	291.2	false
PFHxA_1	313.0 / 269.0	1.91	126916.53	480.896992	53.4	false
PFHxA_2	313.0 / 119.0	1.91	9853.35	485.682826	37.8	false
PFHpA_1	363.0 / 319.0	2.33	122684.07	481.224420	144.6	false
PFHpA_2	363.0 / 169.0	2.32	2810.04	452.441038	71.0	false
PFHxS_1	399.0 / 80.0	2.35	189643.10	518.322649	373.4	false
PFHxS_2	399.0 / 99.0	2.35	53628.52	520.806905	306.2	false
PFOA_1	413.0 / 369.0	2.74	161964.93	450.789129	221.4	false
PFOA_2	413.0 / 169.0	2.74	12663.26	546.555914	171.1	false
PFNA_1	463.0 / 419.0	3.14	153809.90	494.521439	245.9	false
PFNA_2	463.0 / 219.0	3.14	48313.22	507.732683	267.6	false
PFOS_1	499.0 / 80.0	3.14	271288.67	441.273324	138.3	false
PFOS_2	499.0 / 99.0	3.14	50370.97	470.431215	328.2	false
PFDA_1	513.0 / 469.0	3.50	192864.33	451.709750	246.1	false
PFDA_2	513.0 / 219.0	3.50	9748.77	556.902124	140.1	false
PFUnA_1	563.0 / 519.0	3.83	182696.97	457.038917	282.3	false
PFUnA_2	563.0 / 269.0	3.83	11392.08	585.085583	150.5	false
PFDoA_1	613.0 / 569.0	4.11	176881.65	507.066970	383.4	false
PFDoA_2	613.0 / 319.0	4.11	29345.59	531.157147	282.3	false
PFTrDA_1	663.0 / 619.0	4.36	153271.81	452.740787	539.5	false
PFTrDA_2	663.0 / 169.0	4.36	10446.97	467.337333	231.0	false
PFTeDA_1	713.0 / 669.0	4.58	194920.48	504.192869	1043.6	false
PFTeDA_2	713.0 / 169.0	4.58	9520.51	503.867021	572.8	false
NMeFOSAA_1	570.0 / 419.0	3.66	25942.22	429.345311	543.2	false
NMeFOSAA_2	570.0 / 512.0	3.66	13927.12	376.857105	561.8	false
NEtFOSAA_1	584.0 / 419.0	3.82	25050.06	419.389608	464.9	false
NEtFOSAA_2	584.0 / 483.0	3.81	2285.31	616.043667	3911.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:18:27 PM

Sample Name	KB76 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	344722.96	1001.344883	363.2	false
PFBS_2	298.9 / 99.0	1.55	101016.65	1000.991268	347.0	false
PFHxA_1	313.0 / 269.0	1.87	240614.74	1056.822100	68.9	false
PFHxA_2	313.0 / 119.0	1.88	18311.60	1063.589580	54.4	false
PFHpA_1	363.0 / 319.0	2.29	240696.52	1028.757834	195.6	false
PFHpA_2	363.0 / 169.0	2.28	5674.80	1078.591914	112.9	false
PFHxS_1	399.0 / 80.0	2.31	338511.58	1019.434169	275.0	false
PFHxS_2	399.0 / 99.0	2.31	100538.67	1082.086267	379.8	false
PFOA_1	413.0 / 369.0	2.70	327303.99	932.235404	257.0	false
PFOA_2	413.0 / 169.0	2.70	21255.99	933.002458	227.2	false
PFNA_1	463.0 / 419.0	3.09	298472.15	969.448009	405.7	false
PFNA_2	463.0 / 219.0	3.09	99282.33	1051.266014	343.9	false
PFOS_1	499.0 / 80.0	3.09	524079.74	897.563869	175.5	false
PFOS_2	499.0 / 99.0	3.09	89183.17	878.460836	366.4	false
PFDA_1	513.0 / 469.0	3.45	374851.90	961.338899	373.2	false
PFDA_2	513.0 / 219.0	3.45	15556.35	966.373157	174.9	false
PFUnA_1	563.0 / 519.0	3.77	355849.02	987.093706	367.6	false
PFUnA_2	563.0 / 269.0	3.77	16171.39	910.317875	247.9	false
PFDoA_1	613.0 / 569.0	4.05	332542.53	1015.587992	398.9	false
PFDoA_2	613.0 / 319.0	4.05	54208.57	1054.052180	301.9	false
PFTrDA_1	663.0 / 619.0	4.29	319937.00	1124.598888	685.2	false
PFTrDA_2	663.0 / 169.0	4.29	19909.93	1060.017484	312.7	false
PFTeDA_1	713.0 / 669.0	4.51	351518.95	1082.017300	1357.7	false
PFTeDA_2	713.0 / 169.0	4.50	18132.16	1150.888154	636.2	false
NMeFOSAA_1	570.0 / 419.0	3.60	48667.62	1103.795666	481.5	false
NMeFOSAA_2	570.0 / 512.0	3.60	28746.04	1164.756781	467.2	false
NEtFOSAA_1	584.0 / 419.0	3.76	45676.56	1000.785651	590.8	false
NEtFOSAA_2	584.0 / 483.0	3.76	3100.33	1121.091255	136.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:01:20 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.06	93406.68	231.611603	1689.5	false
d3-MeFOSAA	573.0 / 419.0	3.61	17579.80	235.098552	175.3	false
d5-EtFOSAA	589.0 / 419.0	3.78	14383.26	176.181506	200.6	false
13C5-PFHxA	318.0 / 273.0	1.88	59013.59	233.905404	685.2	false
13C4-PFHpA	367.0 / 322.0	2.29	70279.06	244.843738	1118.6	false
13C8-PFOA	421.0 / 376.0	2.70	89115.92	255.222211	9011.3	false
13C9-PFNA	472.0 / 427.0	3.09	100916.15	253.115276	1888.1	false
13C6-PFDA	519.0 / 474.0	3.45	90930.64	223.796875	1073.3	false
13C7-PFUnA	570.0 / 525.0	3.77	89293.12	237.910809	829.4	false
13C2-PFTeDA	715.0 / 670.0	4.54	71262.97	218.862217	1767.1	false
13C3-PFBS	302.0 / 99.0	1.55	27104.45	206.860264	624.1	false
13C3-PFHxS	402.0 / 99.0	2.31	24951.95	210.154754	577.2	false
13C8-PFOS	507.0 / 99.0	3.09	29875.11	222.736043	244.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:58:42 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.10	91153.41	259.132404	1635.1	false
d3-MeFOSAA	573.0 / 419.0	3.65	14430.39	208.974174	229.9	false
d5-EtFOSAA	589.0 / 419.0	3.81	15593.14	206.830753	180.2	false
13C5-PFHxA	318.0 / 273.0	1.89	62579.70	259.924320	518.8	false
13C4-PFHpA	367.0 / 322.0	2.31	69859.85	255.044502	892.1	false
13C8-PFOA	421.0 / 376.0	2.73	86658.98	260.077016	2121.4	false
13C9-PFNA	472.0 / 427.0	3.13	88035.85	231.388886	1040.8	false
13C6-PFDA	519.0 / 474.0	3.49	97968.15	276.436354	928.7	false
13C7-PFUnA	570.0 / 525.0	3.81	93214.36	284.738017	747.8	false
13C2-PFTeDA	715.0 / 670.0	4.57	82671.66	291.091815	2248.9	false
13C3-PFBS	302.0 / 99.0	1.55	26543.28	219.366193	494.4	false
13C3-PFHxS	402.0 / 99.0	2.34	24282.31	221.464127	509.7	false
13C8-PFOS	507.0 / 99.0	3.13	31069.02	250.834474	285.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 24/10/2018 8:28:55 PM

Sample Name	KB76 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	87957.23	256.341694	1355.5	false
d3-MeFOSAA	573.0 / 419.0	3.60	11117.53	178.456423	200.1	true
d5-EtFOSAA	589.0 / 419.0	3.76	12206.64	179.468006	204.1	false
13C5-PFHxA	318.0 / 273.0	1.86	55992.85	235.917680	677.5	false
13C4-PFHpA	367.0 / 322.0	2.28	65453.53	242.401821	1043.4	false
13C8-PFOA	421.0 / 376.0	2.69	86129.20	262.212463	4771.1	false
13C9-PFNA	472.0 / 427.0	3.08	89878.65	239.637060	8301.6	false
13C6-PFDA	519.0 / 474.0	3.43	91683.61	265.216691	2695.3	false
13C7-PFUnA	570.0 / 525.0	3.75	85031.52	266.281774	1033.9	false
13C2-PFTeDA	715.0 / 670.0	4.50	72482.00	261.638965	1286.2	false
13C3-PFBS	302.0 / 99.0	1.53	27347.65	250.521132	298.7	false
13C3-PFHxS	402.0 / 99.0	2.30	22536.17	227.825684	267.9	false
13C8-PFOS	507.0 / 99.0	3.08	29158.82	260.938939	206.0	false

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:26:53 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.080	0.072	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.030	0.020	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.150	0.158	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.51	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.530	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.75	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.75	NEtFOSAA	0.050	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:26:57 PM

Sample Name	KB77 CCV	**Injection Vial**	8
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:06:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.072	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.150	0.158	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.27	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.49	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.570	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.070	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:27:01 PM

Sample Name	KB76 CCV	**Injection Vial**	20
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:16:58	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.300	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.27	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.530	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.070	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:27:05 PM

Sample Name	KB77 CCV	**Injection Vial**	32
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:27:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.580	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:27:09 PM

Sample Name	KB76 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:38:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.185	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.580	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.070	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:27:13 PM

Sample Name	KB77 CCV	**Injection Vial**	54
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:48:43	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.05	PFNA			
PFNA_2	463.0 / 219.0	3.05	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.56	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.56	NMeFOSAA	0.540	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:27:18 PM

Sample Name	KB76 CCV	**Injection Vial**	9
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:00:12	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.54	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.072	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.07	PFNA			
PFNA_2	463.0 / 219.0	3.07	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.75	PFUnA			
PFUnA_2	563.0 / 269.0	3.75	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.03	PFDoA			
PFDoA_2	613.0 / 319.0	4.03	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.28	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.49	PFTeDA	0.040	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.58	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.58	NMeFOSAA	0.450	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.74	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.74	NEtFOSAA	0.060	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:27:23 PM

Sample Name	KB77 CCV	**Injection Vial**	15
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T11:05:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.03	PFDoA			
PFDoA_2	613.0 / 319.0	4.03	PFDoA	0.150	0.158	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.27	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.49	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.49	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.58	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.580	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.74	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.74	NEtFOSAA	0.050	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:47:50 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T17:53:40	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.072	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.300	0.285	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.170	0.185	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 369.0	2.70	PFOA	1.000	1.000	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:47:55 PM

Sample Name	KB77 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:04:05	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.072	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.180	0.185	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 369.0	2.67	PFOA	1.000	1.000	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:22:56 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.150	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.580	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:23:00 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.91	PFHxA			
PFHxA_2	313.0 / 119.0	1.91	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.33	PFHpA			
PFHpA_2	363.0 / 169.0	2.32	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.35	PFHxS			
PFHxS_2	399.0 / 99.0	2.35	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.74	PFOA			
PFOA_2	413.0 / 169.0	2.74	PFOA	0.080	0.065	ü
PFNA_1	463.0 / 419.0	3.14	PFNA			
PFNA_2	463.0 / 219.0	3.14	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.14	PFOS			
PFOS_2	499.0 / 99.0	3.14	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.50	PFDA			
PFDA_2	513.0 / 219.0	3.50	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.83	PFUnA			
PFUnA_2	563.0 / 269.0	3.83	PFUnA	0.060	0.049	ü
PFDoA_1	613.0 / 569.0	4.11	PFDoA			
PFDoA_2	613.0 / 319.0	4.11	PFDoA	0.170	0.160	ü
PFTrDA_1	663.0 / 619.0	4.36	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.36	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.58	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.58	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.66	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.66	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.82	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.81	NEtFOSAA	0.090	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:23:04 PM

Sample Name	KB76 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.300	0.282	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.590	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.070	0.062	ü

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:27:50 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	26831.39	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	26831.39	232.25
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	61132.74	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	61132.74	250.00
PFHpA_1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	63973.94	250.00
PFHpA_2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	63973.94	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	27470.00	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	27470.00	236.50
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	87660.16	250.00
PFOA_2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	87660.16	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	90548.20	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	90548.20	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	24828.88	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	24828.88	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	90137.54	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	90137.54	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	80361.02	250.00
PFUnA_2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	80361.02	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	95135.72	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	95135.72	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	70155.09	250.00
PFTrDA_2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	70155.09	250.00
PFTeDA_1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	70155.09	250.00
PFTeDA_2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	70155.09	250.00
NMeFOSAA_1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	15217.23	250.00
NMeFOSAA_2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	15217.23	250.00
NEtFOSAA_1	584.0 / 419.0	3.75	d5-EtFOSAA	589.0 / 419.0	12589.68	250.00
NEtFOSAA_2	584.0 / 483.0	3.75	d5-EtFOSAA	589.0 / 419.0	12589.68	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:27:53 PM

Sample Name	KB77 CCV	**Injection Vial**	8
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:06:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	25481.82	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	25481.82	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	59372.76	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	59372.76	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	64728.97	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	64728.97	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	24634.26	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	24634.26	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	83413.31	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	83413.31	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	81996.06	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	81996.06	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	24507.68	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24507.68	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	87101.77	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	87101.77	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	89000.72	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	89000.72	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	86607.75	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	86607.75	250.00
PFTrDA_1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	70578.34	250.00
PFTrDA_2	663.0 / 169.0	4.27	13C2-PFTeDA	715.0 / 670.0	70578.34	250.00
PFTeDA_1	713.0 / 669.0	4.49	13C2-PFTeDA	715.0 / 670.0	70578.34	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	70578.34	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	12583.21	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	12583.21	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	14152.84	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	14152.84	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:27:57 PM

Sample Name	KB76 CCV	**Injection Vial**	20
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:16:58	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	24876.24	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	24876.24	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	58504.03	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	58504.03	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	61601.97	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	61601.97	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	24568.24	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	24568.24	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	79712.23	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	79712.23	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	82410.96	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	82410.96	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	27071.12	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	27071.12	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	82026.83	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	82026.83	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	82570.77	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	82570.77	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	85405.98	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	85405.98	250.00
PFTrDA_1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	63127.40	250.00
PFTrDA_2	663.0 / 169.0	4.27	13C2-PFTeDA	715.0 / 670.0	63127.40	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	63127.40	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	63127.40	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	14047.80	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	14047.80	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	16512.92	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	16512.92	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:28:02 PM

Sample Name	KB77 CCV	**Injection Vial**	32
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:27:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	29140.88	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	29140.88	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	68610.41	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	68610.41	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	70000.72	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	70000.72	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	25617.98	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	25617.98	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	83848.80	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	83848.80	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	89277.05	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	89277.05	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	31319.26	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	31319.26	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	95020.07	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	95020.07	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	94672.46	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	94672.46	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	98565.99	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	98565.99	250.00
PFTrDA_1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	73861.69	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	73861.69	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	73861.69	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	73861.69	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	15231.84	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	15231.84	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	15997.73	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	15997.73	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:28:06 PM

Sample Name	KB76 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:38:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	24776.93	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	24776.93	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	61825.26	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	61825.26	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	66218.69	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	66218.69	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	21921.82	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	21921.82	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	77326.30	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	77326.30	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	76824.95	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	76824.95	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	24694.99	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24694.99	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	86385.85	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	86385.85	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	81005.27	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	81005.27	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	85891.51	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	85891.51	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	63655.45	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	63655.45	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	63655.45	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	63655.45	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	12645.04	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	12645.04	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	13954.96	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	13954.96	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:28:10 PM

Sample Name	KB77 CCV	**Injection Vial**	54
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:48:43	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	23607.85	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	23607.85	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	54792.63	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	54792.63	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	57941.32	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	57941.32	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	21859.82	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	21859.82	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	75476.40	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	75476.40	250.00
PFNA_1	463.0 / 419.0	3.05	13C9-PFNA	472.0 / 427.0	75910.26	250.00
PFNA_2	463.0 / 219.0	3.05	13C9-PFNA	472.0 / 427.0	75910.26	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	27166.81	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	27166.81	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	85364.42	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	85364.42	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	81653.46	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	81653.46	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	81301.83	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	81301.83	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	65427.06	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	65427.06	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	65427.06	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	65427.06	250.00
NMeFOSAA_1	570.0 / 419.0	3.56	d3-MeFOSAA	573.0 / 419.0	12416.44	250.00
NMeFOSAA_2	570.0 / 512.0	3.56	d3-MeFOSAA	573.0 / 419.0	12416.44	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	13042.39	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	13042.39	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:28:13 PM

Sample Name	KB76 CCV	**Injection Vial**	9
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:00:12	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.54	13C3-PFBS	302.0 / 99.0	23445.60	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	23445.60	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	55957.42	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	55957.42	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	62853.75	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	62853.75	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	23517.57	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	23517.57	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	82754.20	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	82754.20	250.00
PFNA_1	463.0 / 419.0	3.07	13C9-PFNA	472.0 / 427.0	79063.63	250.00
PFNA_2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	79063.63	250.00
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	26774.51	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	26774.51	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	88467.19	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	88467.19	250.00
PFUnA_1	563.0 / 519.0	3.75	13C7-PFUnA	570.0 / 525.0	85469.99	250.00
PFUnA_2	563.0 / 269.0	3.75	13C7-PFUnA	570.0 / 525.0	85469.99	250.00
PFDoA_1	613.0 / 569.0	4.03	13C2-PFDoA	615.0 / 570.0	82981.73	250.00
PFDoA_2	613.0 / 319.0	4.03	13C2-PFDoA	615.0 / 570.0	82981.73	250.00
PFTrDA_1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	65770.54	250.00
PFTrDA_2	663.0 / 169.0	4.28	13C2-PFTeDA	715.0 / 670.0	65770.54	250.00
PFTeDA_1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	65770.54	250.00
PFTeDA_2	713.0 / 169.0	4.49	13C2-PFTeDA	715.0 / 670.0	65770.54	250.00
NMeFOSAA_1	570.0 / 419.0	3.58	d3-MeFOSAA	573.0 / 419.0	11980.96	250.00
NMeFOSAA_2	570.0 / 512.0	3.58	d3-MeFOSAA	573.0 / 419.0	11980.96	250.00
NEtFOSAA_1	584.0 / 419.0	3.74	d5-EtFOSAA	589.0 / 419.0	15963.26	250.00
NEtFOSAA_2	584.0 / 483.0	3.74	d5-EtFOSAA	589.0 / 419.0	15963.26	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	KB77 CCV	**Injection Vial**	15
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T11:05:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	25904.46	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	25904.46	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	61034.05	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	61034.05	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	64139.62	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	64139.62	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	24252.91	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	24252.91	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	80275.05	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	80275.05	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	83640.89	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	83640.89	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	26623.46	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	26623.46	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	91251.97	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	91251.97	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	90937.40	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	90937.40	250.00
PFDoA_1	613.0 / 569.0	4.03	13C2-PFDoA	615.0 / 570.0	88288.27	250.00
PFDoA_2	613.0 / 319.0	4.03	13C2-PFDoA	615.0 / 570.0	88288.27	250.00
PFTrDA_1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	66384.02	250.00
PFTrDA_2	663.0 / 169.0	4.27	13C2-PFTeDA	715.0 / 670.0	66384.02	250.00
PFTeDA_1	713.0 / 669.0	4.49	13C2-PFTeDA	715.0 / 670.0	66384.02	250.00
PFTeDA_2	713.0 / 169.0	4.49	13C2-PFTeDA	715.0 / 670.0	66384.02	250.00
NMeFOSAA_1	570.0 / 419.0	3.58	d3-MeFOSAA	573.0 / 419.0	14208.13	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	14208.13	250.00
NEtFOSAA_1	584.0 / 419.0	3.74	d5-EtFOSAA	589.0 / 419.0	15342.86	250.00
NEtFOSAA_2	584.0 / 483.0	3.74	d5-EtFOSAA	589.0 / 419.0	15342.86	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 3:55:38 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	89002.65	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	29947.74	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	29947.74	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	84191.62	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	84191.62	250.00
13C8-PFOA	421.0 / 376.0	2.67	13C2-PFOA	415.0 / 370.0	84191.62	250.00
13C9-PFNA	472.0 / 427.0	3.06	13C2-PFOA	415.0 / 370.0	84191.62	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	89002.65	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	89002.65	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	89002.65	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	29947.74	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	29947.74	239.25
13C8-PFOS	507.0 / 99.0	3.06	13C4-PFOS	503.0 / 99.0	29947.74	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB77 CCV	**Injection Vial**	8
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:06:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	95624.37	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	31419.64	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	31419.64	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	77962.69	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	77962.69	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	77962.69	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	77962.69	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	95624.37	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	95624.37	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	95624.37	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	31419.64	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	31419.64	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	31419.64	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB76 CCV	**Injection Vial**	20
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:16:58	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	91773.41	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28823.38	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28823.38	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	78069.21	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	78069.21	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	78069.21	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	78069.21	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	91773.41	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	91773.41	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	91773.41	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	28823.38	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28823.38	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	28823.38	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB77 CCV	**Injection Vial**	32
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:27:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	97640.24	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	32469.77	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	32469.77	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	87229.99	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	87229.99	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	87229.99	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	87229.99	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	97640.24	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	97640.24	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	97640.24	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	32469.77	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	32469.77	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	32469.77	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 3:55:50 PM

Sample Name	KB76 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:38:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	86390.05	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	30256.47	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	30256.47	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	78557.33	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	78557.33	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	78557.33	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	78557.33	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	86390.05	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	86390.05	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	86390.05	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	30256.47	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	30256.47	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	30256.47	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 3:55:54 PM

Sample Name	KB77 CCV	**Injection Vial**	54
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:48:43	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	82017.42	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	25564.57	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	25564.57	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	74626.97	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	74626.97	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	74626.97	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	74626.97	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	82017.42	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	82017.42	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	82017.42	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	25564.57	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	25564.57	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	25564.57	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 3:55:59 PM

Sample Name	KB76 CCV	**Injection Vial**	9
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:00:12	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.02	13C2-PFDA	515.0 / 470.0	83523.22	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	29467.05	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	29467.05	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	76297.67	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	76297.67	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	76297.67	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	76297.67	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	83523.22	250.00
13C7-PFUnA	570.0 / 525.0	3.73	13C2-PFDA	515.0 / 470.0	83523.22	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	83523.22	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	29467.05	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29467.05	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	29467.05	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 3:56:03 PM

Sample Name	KB77 CCV	**Injection Vial**	15
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T11:05:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.02	13C2-PFDA	515.0 / 470.0	90948.35	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	26679.79	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	26679.79	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	77780.10	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	77780.10	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	77780.10	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	77780.10	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	90948.35	250.00
13C7-PFUnA	570.0 / 525.0	3.73	13C2-PFDA	515.0 / 470.0	90948.35	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	90948.35	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	26679.79	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	26679.79	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	26679.79	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:48:21 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T17:53:40	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	67602.21	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	67602.21	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	24499.91	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	24499.91	236.50
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	26404.17	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	26404.17	239.25
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	84528.98	250.00
PFOA_2	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	84528.98	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:48:26 PM

Sample Name	KB77 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:04:05	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	52852.90	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	52852.90	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	20481.46	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	20481.46	236.50
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	23290.15	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	23290.15	239.25
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	70924.09	250.00
PFOA_2	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	70924.09	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:24:06 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	27104.45	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	27104.45	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	59013.59	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	59013.59	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	70279.06	250.00
PFHpA_2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	70279.06	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	24692.35	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	24692.35	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	89115.92	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	89115.92	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	100916.15	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	100916.15	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	29786.30	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	29786.30	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	90930.64	250.00
PFDA_2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	90930.64	250.00
PFUnA_1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	89293.12	250.00
PFUnA_2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	89293.12	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	93406.68	250.00
PFDoA_2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	93406.68	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
PFTrDA_2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
PFTeDA_1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
PFTeDA_2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
NMeFOSAA_1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	17861.22	250.00
NMeFOSAA_2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	17861.22	250.00
NEtFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	14753.24	250.00
NEtFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	14753.24	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:24:10 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	26543.28	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	26543.28	232.25
PFHxA_1	313.0 / 269.0	1.91	13C5-PFHxA	318.0 / 273.0	62579.70	250.00
PFHxA_2	313.0 / 119.0	1.91	13C5-PFHxA	318.0 / 273.0	62579.70	250.00
PFHpA_1	363.0 / 319.0	2.33	13C4-PFHpA	367.0 / 322.0	69859.85	250.00
PFHpA_2	363.0 / 169.0	2.32	13C4-PFHpA	367.0 / 322.0	69859.85	250.00
PFHxS_1	399.0 / 80.0	2.35	13C3-PFHxS	402.0 / 99.0	24467.83	236.50
PFHxS_2	399.0 / 99.0	2.35	13C3-PFHxS	402.0 / 99.0	24467.83	236.50
PFOA_1	413.0 / 369.0	2.74	13C8-PFOA	421.0 / 376.0	86658.98	250.00
PFOA_2	413.0 / 169.0	2.74	13C8-PFOA	421.0 / 376.0	86658.98	250.00
PFNA_1	463.0 / 419.0	3.14	13C9-PFNA	472.0 / 427.0	88035.85	250.00
PFNA_2	463.0 / 219.0	3.14	13C9-PFNA	472.0 / 427.0	88035.85	250.00
PFOS_1	499.0 / 80.0	3.14	13C8-PFOS	507.0 / 99.0	30825.96	239.25
PFOS_2	499.0 / 99.0	3.14	13C8-PFOS	507.0 / 99.0	30825.96	239.25
PFDA_1	513.0 / 469.0	3.50	13C6-PFDA	519.0 / 474.0	97968.15	250.00
PFDA_2	513.0 / 219.0	3.50	13C6-PFDA	519.0 / 474.0	97968.15	250.00
PFUnA_1	563.0 / 519.0	3.83	13C7-PFUnA	570.0 / 525.0	93214.36	250.00
PFUnA_2	563.0 / 269.0	3.83	13C7-PFUnA	570.0 / 525.0	93214.36	250.00
PFDoA_1	613.0 / 569.0	4.11	13C2-PFDoA	615.0 / 570.0	91153.41	250.00
PFDoA_2	613.0 / 319.0	4.11	13C2-PFDoA	615.0 / 570.0	91153.41	250.00
PFTrDA_1	663.0 / 619.0	4.36	13C2-PFTeDA	715.0 / 670.0	82671.66	250.00
PFTrDA_2	663.0 / 169.0	4.36	13C2-PFTeDA	715.0 / 670.0	82671.66	250.00
PFTeDA_1	713.0 / 669.0	4.58	13C2-PFTeDA	715.0 / 670.0	82671.66	250.00
PFTeDA_2	713.0 / 169.0	4.58	13C2-PFTeDA	715.0 / 670.0	82671.66	250.00
NMeFOSAA_1	570.0 / 419.0	3.66	d3-MeFOSAA	573.0 / 419.0	14257.30	250.00
NMeFOSAA_2	570.0 / 512.0	3.66	d3-MeFOSAA	573.0 / 419.0	14257.30	250.00
NEtFOSAA_1	584.0 / 419.0	3.82	d5-EtFOSAA	589.0 / 419.0	16047.60	250.00
NEtFOSAA_2	584.0 / 483.0	3.81	d5-EtFOSAA	589.0 / 419.0	16047.60	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:24:14 PM

Sample Name	KB76 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	27347.65	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	27347.65	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	55992.85	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	55992.85	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	65453.53	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	65453.53	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	22621.36	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	22621.36	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	86129.20	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	86129.20	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	89878.65	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	89878.65	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	29216.40	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	29216.40	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	91683.61	250.00
PFDA_2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	91683.61	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	85031.52	250.00
PFUnA_2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	85031.52	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	87957.23	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	87957.23	250.00
PFTrDA_1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	72482.00	250.00
PFTrDA_2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	72482.00	250.00
PFTeDA_1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	72482.00	250.00
PFTeDA_2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	72482.00	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	11210.49	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	11210.49	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	12487.00	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	12487.00	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:02:27 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.06	13C2-PFDA	515.0 / 470.0	103402.36	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	33690.55	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	33690.55	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	103402.36	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	103402.36	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	103402.36	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	33690.55	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	33690.55	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	33690.55	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:00:32 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.10	13C2-PFDA	515.0 / 470.0	90191.16	250.00
d3-MeFOSAA	573.0 / 419.0	3.65	13C4-PFOS	503.0 / 99.0	31112.11	239.25
d5-EtFOSAA	589.0 / 419.0	3.81	13C4-PFOS	503.0 / 99.0	31112.11	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	81344.96	250.00
13C4-PFHpA	367.0 / 322.0	2.31	13C2-PFOA	415.0 / 370.0	81344.96	250.00
13C8-PFOA	421.0 / 376.0	2.73	13C2-PFOA	415.0 / 370.0	81344.96	250.00
13C9-PFNA	472.0 / 427.0	3.13	13C2-PFOA	415.0 / 370.0	81344.96	250.00
13C6-PFDA	519.0 / 474.0	3.49	13C2-PFDA	515.0 / 470.0	90191.16	250.00
13C7-PFUnA	570.0 / 525.0	3.81	13C2-PFDA	515.0 / 470.0	90191.16	250.00
13C2-PFTeDA	715.0 / 670.0	4.57	13C2-PFDA	515.0 / 470.0	90191.16	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	31112.11	239.25
13C3-PFHxS	402.0 / 99.0	2.34	13C4-PFOS	503.0 / 99.0	31112.11	239.25
13C8-PFOS	507.0 / 99.0	3.13	13C4-PFOS	503.0 / 99.0	31112.11	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 7:21:47 PM

Sample Name	KB76 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	87976.17	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	28672.60	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	28672.60	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	80189.24	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	80189.24	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	80189.24	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	80189.24	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	87976.17	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	87976.17	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	87976.17	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	28672.60	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	28672.60	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	28672.60	239.25

Raw Analytical Data

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:28:44 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	4373.77	2.164632	16.0	true
PFBS_2	298.9 / 99.0	1.56	2029.35	0.577695	16.6	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.30	5352.10	0.327008	29.4	false
PFHxS_2	399.0 / 99.0	2.30	1556.21	0.663660	23.1	false
PFOA_1	413.0 / 369.0	2.69	7801.49	22.788502	28.8	false
PFOA_2	413.0 / 169.0	2.69	567.97	56.728950	21.3	false
PFNA_1	463.0 / 419.0	3.08	5655.36	< 0	32.2	false
PFNA_2	463.0 / 219.0	3.09	1076.76	< 0	19.5	false
PFOS_1	499.0 / 80.0	3.08	11070.40	10.902350	20.2	false
PFOS_2	499.0 / 99.0	3.09	2595.91	< 0	29.4	false
PFDA_1	513.0 / 469.0	3.44	5527.60	5.057310	32.7	false
PFDA_2	513.0 / 219.0	3.45	461.28	12.789867	22.3	false
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.05	5155.84	< 0	61.1	false
PFDoA_2	613.0 / 319.0	4.05	832.74	< 0	43.5	false
PFTrDA_1	663.0 / 619.0	4.30	4077.14	< 0	125.1	false
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.52	4950.78	< 0	142.1	false
PFTeDA_2	713.0 / 169.0	4.53	509.14	< 0	38.1	true
NMeFOSAA_1	570.0 / 419.0	3.59	582.82	< 0	21.4	false
NMeFOSAA_2	570.0 / 512.0	3.60	672.60	< 0	95.0	false
NEtFOSAA_1	584.0 / 419.0	3.76	1126.52	52.382076	36.4	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:28:49 PM

Sample Name	CR890PB-FS(0)	**Injection Vial**	10
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:28:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	2.66	87943.82	242.545681	136.0	true
PFOA_2	413.0 / 169.0	2.66	6204.32	315.837968	100.7	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:28:53 PM

Sample Name	CR891LCS-FS(0)	**Injection Vial**	11
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:39:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	2803542.87	7628.178916	1242.4	false
PFBS_2	298.9 / 99.0	1.53	809723.53	7452.832761	753.4	false
PFHxA_1	313.0 / 269.0	1.85	1918711.00	7269.995545	101.5	false
PFHxA_2	313.0 / 119.0	1.85	145629.13	7558.238092	86.2	false
PFHpA_1	363.0 / 319.0	2.25	1760886.79	7062.788120	267.6	false
PFHpA_2	363.0 / 169.0	2.25	34682.38	7055.718260	292.5	false
PFHxS_1	399.0 / 80.0	2.28	2730078.98	7183.366791	604.6	false
PFHxS_2	399.0 / 99.0	2.28	792372.22	7302.817016	711.8	false
PFOA_1	413.0 / 369.0	2.66	2775793.20	8072.582251	848.6	false
PFOA_2	413.0 / 169.0	2.66	163813.12	8016.643727	683.6	false
PFNA_1	463.0 / 419.0	3.06	2401891.02	7895.383294	921.3	false
PFNA_2	463.0 / 219.0	3.06	768302.78	8252.188403	889.1	false
PFOS_1	499.0 / 80.0	3.06	3986172.63	7012.416075	421.0	false
PFOS_2	499.0 / 99.0	3.06	683233.16	6804.682758	925.3	false
PFDA_1	513.0 / 469.0	3.41	2848007.18	7142.267894	881.6	false
PFDA_2	513.0 / 219.0	3.41	108059.61	6804.666390	705.2	false
PFUnA_1	563.0 / 519.0	3.73	2973861.12	7390.257012	763.9	false
PFUnA_2	563.0 / 269.0	3.73	145387.39	7654.112677	478.7	false
PFDoA_1	613.0 / 569.0	4.02	2619242.20	7470.346357	722.2	false
PFDoA_2	613.0 / 319.0	4.02	413697.59	7617.251275	632.8	false
PFTrDA_1	663.0 / 619.0	4.27	2341036.35	7496.693533	1315.2	false
PFTrDA_2	663.0 / 169.0	4.26	145280.75	7327.240630	625.0	false
PFTeDA_1	713.0 / 669.0	4.48	2513814.41	7191.715299	1467.0	false
PFTeDA_2	713.0 / 169.0	4.48	115588.01	7160.865996	1248.7	false
NMeFOSAA_1	570.0 / 419.0	3.57	414846.99	8449.766770	1443.4	false
NMeFOSAA_2	570.0 / 512.0	3.57	226631.09	8499.010373	838.1	false
NEtFOSAA_1	584.0 / 419.0	3.73	414953.49	6757.713859	927.6	false
NEtFOSAA_2	584.0 / 483.0	3.73	28188.39	8010.110547	1017.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:29:02 PM

Sample Name	J8358-FS-D(3)	**Injection Vial**	13
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:00:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.54	2455829.16	5757.899663	1065.3	true
PFBS_2	298.9 / 99.0	1.53	740818.75	5873.894064	892.2	true
PFHxA_1	313.0 / 269.0	1.85	6176282.08	21598.745799	201.9	true
PFHxA_2	313.0 / 119.0	1.85	434204.41	20782.951642	162.3	false
PFHpA_1	363.0 / 319.0	2.26	1103381.70	3853.644298	255.7	false
PFHpA_2	363.0 / 169.0	2.25	23551.89	4171.310516	243.3	false
PFHxS_1	399.0 / 80.0	2.28	17372129.96	48114.503239	1120.1	false
PFHxS_2	399.0 / 99.0	2.28	5238524.94	50819.487345	1409.7	false
PFOA_1	413.0 / 369.0	2.67	5723181.66	16058.423839	862.0	false
PFOA_2	413.0 / 169.0	2.66	364057.47	17155.762121	556.1	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.01	143897982.29	344094.572172	631.9	false
PFOS_2	499.0 / 99.0	3.06	33852549.88	459715.816157	1605.0	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 26/10/2018 10:58:59 AM

Sample Name	J8358-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:11:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	1.85	2070246.20	7895.357507	99.5	true
PFHxA_2	313.0 / 119.0	1.85	146057.03	7628.540923	93.2	false
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.28	5953452.20	17882.020652	748.5	false
PFHxS_2	399.0 / 99.0	2.28	1771920.03	18642.269412	1112.4	false
PFOA_1	413.0 / 369.0	2.66	2187007.47	6307.569701	663.1	false
PFOA_2	413.0 / 169.0	2.66	137850.69	6694.962133	380.3	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	75840549.17	168109.383102	897.5	false
PFOS_2	499.0 / 99.0	3.06	13466403.39	169503.859073	1709.4	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:29:10 PM

Sample Name	J8358-FS-D(7)	**Injection Vial**	15
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:22:34	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	9027054.88	17173.964951	619.3	false
PFOS_2	499.0 / 99.0	3.06	1552689.82	16755.101339	1172.5	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:29:14 PM

Sample Name	J8359-FS(0)	**Injection Vial**	16
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:33:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	63353884.00	164951.369521	525.6	false
PFBS_2	298.9 / 99.0	1.53	22369727.75	197291.825431	1028.7	false
PFHxA_1	313.0 / 269.0	1.84	64906866.53	208911.829359	376.6	false
PFHxA_2	313.0 / 119.0	1.84	4738427.08	208682.908721	470.5	false
PFHpA_1	363.0 / 319.0	2.25	16658084.52	76088.473231	425.8	false
PFHpA_2	363.0 / 169.0	2.24	319468.05	74042.507434	532.2	false
PFHxS_1	399.0 / 80.0	2.23	147559017.83	491937.439534	336.5	true
PFHxS_2	399.0 / 99.0	2.28	93801250.70	1095344.781927	886.9	false
PFOA_1	413.0 / 369.0	2.65	21384481.49	63684.971497	723.0	false
PFOA_2	413.0 / 169.0	2.57	2503375.52	125026.307676	733.0	false
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.03	1311432.99	2435.226265	113.1	false
PFOS_2	499.0 / 99.0	3.06	225041.50	2351.878380	205.2	false
PFDA_1	513.0 / 469.0	3.41	12754.47	23.876699	29.9	false
PFDA_2	513.0 / 219.0	3.43	510.02	14.655555	20.2	false
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 26/10/2018 10:59:03 AM

Sample Name	J8359-FS-D(3)	**Injection Vial**	17
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:44:17	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	8500589.11	21640.824046	621.1	true
PFBS_2	298.9 / 99.0	1.53	2490037.64	21463.693543	839.4	true
PFHxA_1	313.0 / 269.0	1.84	6699100.76	27150.652878	183.8	true
PFHxA_2	313.0 / 119.0	1.85	441935.40	24512.808216	161.2	false
PFHpA_1	363.0 / 319.0	2.26	1772348.94	7507.680193	285.1	false
PFHpA_2	363.0 / 169.0	2.25	35884.17	7710.303080	252.8	false
PFHxS_1	399.0 / 80.0	2.28	44249061.16	128468.457014	1247.4	false
PFHxS_2	399.0 / 99.0	2.28	14053540.80	142913.787115	1389.5	false
PFOA_1	413.0 / 369.0	2.65	2057956.70	6368.971624	483.3	false
PFOA_2	413.0 / 169.0	2.58	228576.05	11888.867580	449.1	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.04	153653.83	279.732542	47.2	false
PFOS_2	499.0 / 99.0	3.06	28175.92	270.677953	78.8	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:29:22 PM

Sample Name	J8359-FS-D(5)	**Injection Vial**	18
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:55:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	1486508.82	3452.170513	409.2	true
PFBS_2	298.9 / 99.0	1.53	449443.93	3525.849629	561.7	true
PFHxA_1	313.0 / 269.0	1.84	1171833.82	4338.691370	78.2	true
PFHxA_2	313.0 / 119.0	1.85	76242.05	3868.125718	52.5	false
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.28	8872767.77	24148.834206	747.1	false
PFHxS_2	399.0 / 99.0	2.28	2510800.29	23935.243313	945.6	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:29:26 PM

Sample Name	J8359-FS-D(7)	**Injection Vial**	19
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:06:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.28	1722382.89	4786.106758	477.0	false
PFHxS_2	399.0 / 99.0	2.28	480484.49	4676.196078	730.2	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:29:30 PM

Sample Name	J8368-FS(0)	**Injection Vial**	22
Sample ID	VC-SO-FB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:38:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.29	13260.42	24.348152	52.2	false
PFHxS_2	399.0 / 99.0	2.28	4292.46	29.754018	41.7	false
PFOA_1	413.0 / 369.0	2.66	74565.55	202.567041	120.5	false
PFOA_2	413.0 / 169.0	2.66	3835.35	203.904599	95.0	false
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	43327.99	71.571192	65.9	false
PFOS_2	499.0 / 99.0	3.06	7105.40	44.780982	73.2	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:29:33 PM

Sample Name	J8369-FS(0)	**Injection Vial**	23
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:49:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	1746755.13	4845.478406	367.3	false
PFBS_2	298.9 / 99.0	1.53	541773.07	5081.449679	363.5	false
PFHxA_1	313.0 / 269.0	1.84	2929241.23	13111.451007	114.9	false
PFHxA_2	313.0 / 119.0	1.85	186278.64	11413.771818	86.8	false
PFHpA_1	363.0 / 319.0	2.25	309515.65	1388.883652	108.8	false
PFHpA_2	363.0 / 169.0	2.22	8744.95	1990.385437	75.0	false
PFHxS_1	399.0 / 80.0	2.28	11952170.94	37725.376005	727.6	false
PFHxS_2	399.0 / 99.0	2.28	3477109.51	38441.417986	945.4	false
PFOA_1	413.0 / 369.0	2.66	768908.31	2414.883406	343.5	true
PFOA_2	413.0 / 169.0	2.65	41663.00	2223.044065	215.7	true
PFNA_1	463.0 / 419.0	3.06	14211.80	10.748667	42.3	false
PFNA_2	463.0 / 219.0	3.06	5957.82	33.691986	43.0	false
PFOS_1	499.0 / 80.0	3.03	26199365.83	49856.047424	430.8	false
PFOS_2	499.0 / 99.0	3.06	4203882.76	45410.643170	694.7	false
PFDA_1	513.0 / 469.0	3.41	17672.92	31.661077	76.3	false
PFDA_2	513.0 / 219.0	3.41	957.43	37.542827	35.6	false
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 26/10/2018 10:59:07 AM

Sample Name	J8370-FS(0)	**Injection Vial**	24
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:00:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	44388817.25	105074.371631	734.7	false
PFBS_2	298.9 / 99.0	1.53	14489492.72	116178.546261	1326.1	false
PFHxA_1	313.0 / 269.0	1.84	45896417.80	155487.680739	445.6	false
PFHxA_2	313.0 / 119.0	1.85	3215290.50	149046.586259	423.7	false
PFHpA_1	363.0 / 319.0	2.25	13029804.00	59073.777577	476.2	false
PFHpA_2	363.0 / 169.0	2.24	273687.88	62961.098954	547.0	false
PFHxS_1	399.0 / 80.0	2.25	128002740.01	395186.085094	523.0	false
PFHxS_2	399.0 / 99.0	2.28	69201785.25	748338.839924	972.1	false
PFOA_1	413.0 / 369.0	2.66	24628648.27	91558.522400	1026.5	false
PFOA_2	413.0 / 169.0	2.65	1293308.48	80641.105923	796.7	true
PFNA_1	463.0 / 419.0	3.05	161108.12	652.153094	185.7	false
PFNA_2	463.0 / 219.0	3.06	53707.63	715.583744	173.1	false
PFOS_1	499.0 / 80.0	3.00	101877568.16	254849.596233	351.1	false
PFOS_2	499.0 / 99.0	3.06	17213197.32	244523.133951	585.7	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:29:41 PM

Sample Name	J8370-FS-D(3)	**Injection Vial**	25
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:11:23	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	1514155.87	4121.450170	523.1	true
PFBS_2	298.9 / 99.0	1.53	474841.95	4368.939222	587.6	true
PFHxA_1	313.0 / 269.0	1.84	1498729.84	5901.477268	81.2	true
PFHxA_2	313.0 / 119.0	1.84	97883.37	5279.477606	71.4	false
PFHpA_1	363.0 / 319.0	2.25	492112.18	2017.129864	148.9	false
PFHpA_2	363.0 / 169.0	2.24	9662.77	2006.663510	110.0	false
PFHxS_1	399.0 / 80.0	2.27	11180227.22	35534.178832	781.7	false
PFHxS_2	399.0 / 99.0	2.27	3232646.89	35987.132795	660.2	false
PFOA_1	413.0 / 369.0	2.66	1129209.54	3363.507053	415.3	false
PFOA_2	413.0 / 169.0	2.65	57033.66	2877.539288	307.3	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.02	5140823.50	9234.157546	237.2	false
PFOS_2	499.0 / 99.0	3.06	824407.11	8387.923960	403.3	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:29:45 PM

Sample Name	J8370-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:22:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	5294828.88	16279.891911	679.2	false
PFHxS_2	399.0 / 99.0	2.27	1462015.23	15744.495076	740.1	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:29:56 PM

Sample Name	J8371-FS(0)	**Injection Vial**	28
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:43:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	47174381.76	104713.858043	1060.4	false
PFBS_2	298.9 / 99.0	1.52	15352007.39	115428.290616	1498.3	false
PFHxA_1	313.0 / 269.0	1.84	47153899.38	156950.548873	435.6	false
PFHxA_2	313.0 / 119.0	1.84	3327908.89	151565.828734	427.4	false
PFHpA_1	363.0 / 319.0	2.24	12958854.14	55935.837757	573.4	true
PFHpA_2	363.0 / 169.0	2.23	271852.96	59541.030312	428.5	false
PFHxS_1	399.0 / 80.0	2.24	127622067.22	403744.922491	418.3	false
PFHxS_2	399.0 / 99.0	2.27	71776478.19	795357.216421	938.2	false
PFOA_1	413.0 / 369.0	2.66	26220251.89	86825.576539	1059.9	false
PFOA_2	413.0 / 169.0	2.64	1385742.31	76965.647903	689.6	false
PFNA_1	463.0 / 419.0	3.05	163217.54	680.466240	182.6	false
PFNA_2	463.0 / 219.0	3.05	58192.42	801.540256	179.7	false
PFOS_1	499.0 / 80.0	2.99	123167061.90	341655.189375	376.1	false
PFOS_2	499.0 / 99.0	3.06	22401954.19	352894.705656	600.4	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:00 PM

Sample Name	J8371-FS-D(3)	**Injection Vial**	29
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:54:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	835224.00	1938.618070	544.9	true
PFBS_2	298.9 / 99.0	1.53	255329.13	1997.812998	438.7	true
PFHxA_1	313.0 / 269.0	1.84	849692.80	2703.416075	73.7	true
PFHxA_2	313.0 / 119.0	1.85	58078.64	2534.893623	54.2	false
PFHpA_1	363.0 / 319.0	2.25	271620.17	888.686570	112.5	true
PFHpA_2	363.0 / 169.0	2.25	6337.08	1049.950904	100.6	false
PFHxS_1	399.0 / 80.0	2.28	6394687.63	15360.848973	747.0	false
PFHxS_2	399.0 / 99.0	2.28	1797245.81	15121.256762	870.2	false
PFOA_1	413.0 / 369.0	2.66	641405.40	1431.470508	368.4	false
PFOA_2	413.0 / 169.0	2.64	34785.09	1330.785439	274.2	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.03	3692589.59	5729.165844	249.4	false
PFOS_2	499.0 / 99.0	3.06	619745.31	5439.277141	365.1	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:05 PM

Sample Name	J8371-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:05:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.28	2460451.77	7567.152644	593.5	false
PFHxS_2	399.0 / 99.0	2.28	717973.03	7734.602014	695.0	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:10 PM

Sample Name	J8371-FS-D(7)	**Injection Vial**	31
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:16:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:16 PM

Sample Name	J8372-FS(0)	**Injection Vial**	33
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:49:16	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.52	8743802.86	18344.841573	494.0	false
PFBS_2	298.9 / 99.0	1.52	2571041.59	18262.534649	605.6	false
PFHxA_1	313.0 / 269.0	1.84	19386171.69	55814.374781	260.0	false
PFHxA_2	313.0 / 119.0	1.84	1360478.82	53600.263569	315.2	false
PFHpA_1	363.0 / 319.0	2.25	4095537.78	13249.865665	328.5	false
PFHpA_2	363.0 / 169.0	2.25	79049.35	12973.888545	326.4	false
PFHxS_1	399.0 / 80.0	2.27	58963070.80	151497.359397	1172.4	false
PFHxS_2	399.0 / 99.0	2.27	19844302.89	178590.429570	1799.3	false
PFOA_1	413.0 / 369.0	2.66	7524711.10	24230.184125	549.5	false
PFOA_2	413.0 / 169.0	2.65	571111.38	30862.635829	834.1	false
PFNA_1	463.0 / 419.0	3.05	156384.86	857.944771	146.5	false
PFNA_2	463.0 / 219.0	3.05	53156.76	959.024494	212.8	false
PFOS_1	499.0 / 80.0	2.98	171021594.90	603969.644905	1052.3	false
PFOS_2	499.0 / 99.0	3.05	55797950.98	1119100.916683	2067.6	false
PFDA_1	513.0 / 469.0	3.41	44428.67	122.903188	97.8	false
PFDA_2	513.0 / 219.0	3.40	1220.62	72.236879	35.2	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:20 PM

Sample Name	J8372-FS-D(3)	**Injection Vial**	34
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:00:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	717775.07	1768.628488	323.5	true
PFBS_2	298.9 / 99.0	1.52	215260.90	1786.765988	314.1	true
PFHxA_1	313.0 / 269.0	1.84	1394704.74	5273.807246	76.3	true
PFHxA_2	313.0 / 119.0	1.84	92057.61	4768.844516	73.7	false
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	5855274.69	17077.268474	717.4	false
PFHxS_2	399.0 / 99.0	2.27	1627947.45	16629.998768	813.9	false
PFOA_1	413.0 / 369.0	2.66	831433.93	2412.061343	414.8	false
PFOA_2	413.0 / 169.0	2.66	56846.17	2794.009771	271.5	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	43618132.81	98961.149268	1349.2	false
PFOS_2	499.0 / 99.0	3.06	8006595.46	103145.434995	2365.9	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:24 PM

Sample Name	J8372-FS-D(5)	**Injection Vial**	35
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:11:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	18483464.22	31366.679530	1241.3	false
PFOS_2	499.0 / 99.0	3.06	3248937.52	31291.382354	1445.6	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:28 PM

Sample Name	J8372-FS-D(7)	**Injection Vial**	36
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:21:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	7701493.23	15190.412686	984.6	false
PFOS_2	499.0 / 99.0	3.05	1445928.00	16176.564429	1163.3	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:31 PM

Sample Name	J8382-FS(0)	**Injection Vial**	37
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:32:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.52	2188375.90	8560.442119	129.8	false
PFBS_2	298.9 / 99.0	1.52	496680.16	6568.417212	214.2	false
PFHxA_1	313.0 / 269.0	1.84	6656254.68	25486.353639	86.4	false
PFHxA_2	313.0 / 119.0	1.84	446729.30	23410.079821	147.8	false
PFHpA_1	363.0 / 319.0	2.25	1903239.38	7233.460529	107.7	false
PFHpA_2	363.0 / 169.0	2.24	38244.79	7372.707721	193.7	false
PFHxS_1	399.0 / 80.0	2.27	58557553.75	171676.817614	508.4	false
PFHxS_2	399.0 / 99.0	2.27	19063350.64	195759.737116	1168.0	false
PFOA_1	413.0 / 369.0	2.66	4777685.81	15484.634620	219.9	false
PFOA_2	413.0 / 169.0	2.64	398845.54	21702.160210	538.1	false
PFNA_1	463.0 / 419.0	3.06	202701.87	779.194912	88.7	false
PFNA_2	463.0 / 219.0	3.06	69351.76	877.612816	210.6	false
PFOS_1	499.0 / 80.0	3.04	85656744.36	191180.760001	553.3	false
PFOS_2	499.0 / 99.0	3.06	15628768.35	198085.784752	1574.6	false
PFDA_1	513.0 / 469.0	3.41	42190.30	105.438872	53.2	false
PFDA_2	513.0 / 219.0	3.40	1660.21	94.812260	41.7	false
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:36 PM

Sample Name	J8382-FS-D(3)	**Injection Vial**	38
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:43:42	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	1.85	471825.40	1577.748836	30.3	true
PFHxA_2	313.0 / 119.0	1.85	30957.35	1422.305313	29.5	false
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.28	4190014.95	11450.778759	640.0	false
PFHxS_2	399.0 / 99.0	2.28	1178324.88	11278.916248	883.1	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	6486443.11	11380.195252	418.1	false
PFOS_2	499.0 / 99.0	3.06	1141024.92	11348.073665	669.2	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:41 PM

Sample Name	J8383-FS(0)	**Injection Vial**	39
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:54:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.52	12638291.48	30796.790161	405.6	false
PFBS_2	298.9 / 99.0	1.52	3678393.83	30353.520720	504.1	false
PFHxA_1	313.0 / 269.0	1.84	29265157.98	81439.694456	232.8	false
PFHxA_2	313.0 / 119.0	1.84	1949974.88	74253.093034	394.9	false
PFHpA_1	363.0 / 319.0	2.24	6937592.63	20682.581545	283.7	false
PFHpA_2	363.0 / 169.0	2.24	137885.97	20856.009229	366.7	false
PFHxS_1	399.0 / 80.0	2.27	89205648.69	204367.912513	821.9	false
PFHxS_2	399.0 / 99.0	2.27	36178531.72	290316.472018	1137.9	false
PFOA_1	413.0 / 369.0	2.65	9476654.95	28957.678762	444.8	false
PFOA_2	413.0 / 169.0	2.64	496657.82	25474.337890	510.5	false
PFNA_1	463.0 / 419.0	3.05	2751722.49	15811.904850	333.6	false
PFNA_2	463.0 / 219.0	3.05	866588.63	16266.747972	458.1	false
PFOS_1	499.0 / 80.0	2.97	170274032.38	497867.952135	666.1	false
PFOS_2	499.0 / 99.0	3.05	52007484.50	863607.584985	1441.7	false
PFDA_1	513.0 / 469.0	3.41	624301.47	1686.732965	227.2	false
PFDA_2	513.0 / 219.0	3.41	23882.57	1612.790846	197.5	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:45 PM

Sample Name	J8383-FS-D(3)	**Injection Vial**	40
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:05:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	1264267.73	2983.847446	307.2	true
PFBS_2	298.9 / 99.0	1.53	376431.88	2999.471796	371.9	true
PFHxA_1	313.0 / 269.0	1.84	2241108.20	8533.790561	86.2	true
PFHxA_2	313.0 / 119.0	1.84	146531.33	7640.236773	80.8	false
PFHpA_1	363.0 / 319.0	2.25	548620.05	2089.871220	143.9	false
PFHpA_2	363.0 / 169.0	2.24	11121.84	2146.870482	135.2	false
PFHxS_1	399.0 / 80.0	2.27	10356760.47	26441.038533	966.9	false
PFHxS_2	399.0 / 99.0	2.27	2988469.53	26723.738663	1331.4	false
PFOA_1	413.0 / 369.0	2.65	933515.04	2653.641507	360.9	false
PFOA_2	413.0 / 169.0	2.64	47247.52	2281.070046	311.4	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.05	37981199.10	73980.471510	808.6	false
PFOS_2	499.0 / 99.0	3.05	6653177.76	73577.319698	1016.3	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:49 PM

Sample Name	J8383-FS-D(5)	**Injection Vial**	41
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:16:22	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	1830066.58	5232.538904	539.3	false
PFHxS_2	399.0 / 99.0	2.27	517601.25	5183.490874	711.9	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.05	8159862.54	15345.705114	662.3	false
PFOS_2	499.0 / 99.0	3.05	1435297.79	15308.712290	1047.3	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:53 PM

Sample Name	J8383-FS-D(7)	**Injection Vial**	42
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:27:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:30:56 PM

Sample Name	J8384-FS(0)	**Injection Vial**	44
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:59:56	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.52	7788133.33	18143.494373	308.2	false
PFBS_2	298.9 / 99.0	1.52	2192723.13	17293.474656	465.4	false
PFHxA_1	313.0 / 269.0	1.83	56259953.03	165533.205292	395.3	false
PFHxA_2	313.0 / 119.0	1.84	4288259.99	172644.391610	549.7	false
PFHpA_1	363.0 / 319.0	2.24	9315694.71	35637.449163	362.6	false
PFHpA_2	363.0 / 169.0	2.23	191839.38	37236.989510	475.8	false
PFHxS_1	399.0 / 80.0	2.26	109262526.54	315437.142674	547.6	false
PFHxS_2	399.0 / 99.0	2.27	61631305.62	623223.922145	1192.0	false
PFOA_1	413.0 / 369.0	2.65	18206861.46	61035.298798	594.9	false
PFOA_2	413.0 / 169.0	2.64	922180.45	51861.558872	596.8	true
PFNA_1	463.0 / 419.0	3.05	331503.15	2218.032707	165.1	false
PFNA_2	463.0 / 219.0	3.05	115350.59	2528.596152	266.6	false
PFOS_1	499.0 / 80.0	2.96	182908073.42	737692.514644	633.9	false
PFOS_2	499.0 / 99.0	3.05	77088645.33	1765724.275107	1650.8	false
PFDA_1	513.0 / 469.0	3.40	25228.04	57.629603	58.8	false
PFDA_2	513.0 / 219.0	3.41	972.02	46.095586	31.8	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:03 PM

Sample Name	J8384-FS-D(3)	**Injection Vial**	45
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:10:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	712558.82	1670.392522	265.9	true
PFBS_2	298.9 / 99.0	1.53	217115.02	1714.322868	289.1	true
PFHxA_1	313.0 / 269.0	1.84	4921976.20	19329.114034	145.5	true
PFHxA_2	313.0 / 119.0	1.84	326220.56	17534.703956	135.0	false
PFHpA_1	363.0 / 319.0	2.25	889935.81	3485.378795	177.9	false
PFHpA_2	363.0 / 169.0	2.25	18822.65	3737.961164	177.9	false
PFHxS_1	399.0 / 80.0	2.27	23994573.56	67930.237093	917.2	false
PFHxS_2	399.0 / 99.0	2.27	7117276.12	70576.212721	957.1	false
PFOA_1	413.0 / 369.0	2.65	1934990.28	6090.453482	459.3	false
PFOA_2	413.0 / 169.0	2.64	93668.85	4972.417083	453.5	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	63502384.43	146715.798035	1058.4	false
PFOS_2	499.0 / 99.0	3.06	13631675.32	178847.189762	1723.2	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:11 PM

Sample Name	J8384-FS-D(7)	**Injection Vial**	47
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:32:33	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	2806322.93	7534.221365	575.6	false
PFHxS_2	399.0 / 99.0	2.27	780414.37	7338.285304	637.5	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	10713399.11	18974.782612	1264.3	false
PFOS_2	499.0 / 99.0	3.06	2044552.31	20545.325114	1626.5	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:14 PM

Sample Name	J8384-FS-D(9)	**Injection Vial**	48
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:43:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	3013888.97	6361.572497	448.4	false
PFOS_2	499.0 / 99.0	3.06	595571.49	7119.678314	1042.9	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:18 PM

Sample Name	J8385-FS(0)	**Injection Vial**	49
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:54:20	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	7278044.71	18666.113267	355.1	false
PFBS_2	298.9 / 99.0	1.53	2090715.84	18153.650004	449.4	false
PFHxA_1	313.0 / 269.0	1.84	52599295.41	169824.879901	338.6	false
PFHxA_2	313.0 / 119.0	1.84	3913112.60	172873.409638	480.8	false
PFHpA_1	363.0 / 319.0	2.25	8743553.37	34985.572600	312.4	false
PFHpA_2	363.0 / 169.0	2.24	177366.43	36009.389046	407.1	false
PFHxS_1	399.0 / 80.0	2.27	104527175.26	330623.333075	479.1	false
PFHxS_2	399.0 / 99.0	2.27	58071027.52	643375.174040	1013.5	false
PFOA_1	413.0 / 369.0	2.65	16490590.53	64151.839634	576.9	false
PFOA_2	413.0 / 169.0	2.64	762581.30	49768.386474	630.5	true
PFNA_1	463.0 / 419.0	3.06	313486.99	2244.970009	150.4	false
PFNA_2	463.0 / 219.0	3.06	101786.68	2384.930628	264.5	false
PFOS_1	499.0 / 80.0	2.97	174325777.28	826942.444427	625.4	false
PFOS_2	499.0 / 99.0	3.06	69250323.48	1865628.487807	1738.5	false
PFDA_1	513.0 / 469.0	3.40	19163.12	42.429473	46.2	false
PFDA_2	513.0 / 219.0	3.40	589.65	21.031043	19.6	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:22 PM

Sample Name	J8385-FS-D(3)	**Injection Vial**	50
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:05:13	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	631520.73	1637.818130	255.7	true
PFBS_2	298.9 / 99.0	1.53	182135.09	1589.603952	284.1	true
PFHxA_1	313.0 / 269.0	1.84	4036117.17	16749.673148	129.8	true
PFHxA_2	313.0 / 119.0	1.84	271563.38	15426.090575	128.3	false
PFHpA_1	363.0 / 319.0	2.25	758970.22	3062.488810	164.4	false
PFHpA_2	363.0 / 169.0	2.24	15349.94	3139.966076	180.3	false
PFHxS_1	399.0 / 80.0	2.27	20409336.71	60428.894343	917.7	false
PFHxS_2	399.0 / 99.0	2.27	5974084.90	61955.609905	1131.2	false
PFOA_1	413.0 / 369.0	2.65	1538157.67	5174.807673	404.8	false
PFOA_2	413.0 / 169.0	2.64	77314.21	4390.283503	292.1	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	53928768.61	122692.126409	1033.8	false
PFOS_2	499.0 / 99.0	3.06	11039182.29	142615.161337	1592.4	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:29 PM

Sample Name	J8385-FS-D(5)	**Injection Vial**	51
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:16:05	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	6966663.03	22315.128122	739.0	false
PFHxS_2	399.0 / 99.0	2.27	1996903.66	22403.924672	802.7	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	23895608.48	54541.080980	1185.5	false
PFOS_2	499.0 / 99.0	3.06	4361934.09	56521.943337	1739.3	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:34 PM

Sample Name	J8385-FS-D(7)	**Injection Vial**	52
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:26:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	2197371.48	7454.714456	548.8	false
PFHxS_2	399.0 / 99.0	2.27	623196.28	7405.238210	763.7	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.05	8215389.51	16968.075563	804.6	false
PFOS_2	499.0 / 99.0	3.05	1567206.46	18363.065884	1082.8	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:38 PM

Sample Name	J8385-FS-D(9)	**Injection Vial**	53
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:37:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 26/10/2018 10:59:11 AM

Sample Name	J8395-FS(0)	**Injection Vial**	2
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:44:08	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.50	3533393.53	24812.206178	44.2	false
PFBS_2	298.9 / 99.0	1.50	632817.34	15038.076827	168.4	false
PFHxA_1	313.0 / 269.0	1.82	6561483.17	85207.120166	67.1	false
PFHxA_2	313.0 / 119.0	1.82	346167.09	61509.694400	100.8	false
PFHpA_1	363.0 / 319.0	2.24	3531865.56	37608.931846	104.1	false
PFHpA_2	363.0 / 169.0	2.22	99754.41	53900.288992	203.9	true
PFHxS_1	399.0 / 80.0	2.26	24707707.41	100658.100499	282.4	false
PFHxS_2	399.0 / 99.0	2.26	6810891.18	97187.048545	753.5	false
PFOA_1	413.0 / 369.0	2.65	31350108.49	222708.234139	350.1	false
PFOA_2	413.0 / 169.0	2.64	1658753.54	197597.813662	501.4	false
PFNA_1	463.0 / 419.0	2.95	471020.92	2879.388385	107.3	false
PFNA_2	463.0 / 219.0	2.95	155942.58	3118.748479	139.2	false
PFOS_1	499.0 / 80.0	3.06	11927925.85	31636.303815	146.1	false
PFOS_2	499.0 / 99.0	3.07	1843492.20	27746.086165	478.0	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	3.60	2911.00	< 0	48.8	false
NMeFOSAA_2	570.0 / 512.0	3.60	1608.22	< 0	27.4	true
NEtFOSAA_1	584.0 / 419.0	3.77	39489.58	665.460351	255.6	false
NEtFOSAA_2	584.0 / 483.0	3.76	2548.04	662.811716	39.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 26/10/2018 10:59:15 AM

Sample Name	J8395-FS-D(3)	**Injection Vial**	3
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:55:00	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	1.85	2224688.80	7205.871447	45.1	false
PFHxA_2	313.0 / 119.0	1.86	136886.74	6071.483501	65.1	false
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.29	3722731.43	11412.748003	193.0	false
PFHxS_2	399.0 / 99.0	2.29	1051776.48	11293.735961	383.8	false
PFOA_1	413.0 / 369.0	2.68	6390448.90	19897.416278	383.9	false
PFOA_2	413.0 / 169.0	2.67	331584.87	17339.278797	420.1	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.07	1491709.92	2863.641495	121.5	false
PFOS_2	499.0 / 99.0	3.08	243063.57	2628.054007	310.5	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:52 PM

Sample Name	J8396-FS(0)	**Injection Vial**	4
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:05:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	2591923.72	7093.528102	85.7	false
PFBS_2	298.9 / 99.0	1.53	650555.60	6019.084205	208.7	false
PFHxA_1	313.0 / 269.0	1.85	4332363.87	13204.661492	62.5	false
PFHxA_2	313.0 / 119.0	1.85	300489.84	12538.128304	123.1	false
PFHpA_1	363.0 / 319.0	2.26	4095102.39	13683.831679	161.4	false
PFHpA_2	363.0 / 169.0	2.21	108589.09	18411.002876	231.1	false
PFHxS_1	399.0 / 80.0	2.28	15065705.83	42022.963878	294.1	false
PFHxS_2	399.0 / 99.0	2.28	4277203.23	41787.558847	778.7	false
PFOA_1	413.0 / 369.0	2.67	22814159.75	67988.139354	511.3	false
PFOA_2	413.0 / 169.0	2.66	1214481.18	60710.972047	526.9	false
PFNA_1	463.0 / 419.0	3.07	5070997.37	17684.887136	499.6	false
PFNA_2	463.0 / 219.0	3.07	1573410.28	17924.000768	812.6	false
PFOS_1	499.0 / 80.0	3.07	9339246.24	16440.843896	231.4	false
PFOS_2	499.0 / 99.0	3.07	1501654.53	14991.131686	866.2	false
PFDA_1	513.0 / 469.0	3.43	642271.77	1456.970229	218.6	false
PFDA_2	513.0 / 219.0	3.43	24809.74	1405.537262	178.7	false
PFUnA_1	563.0 / 519.0	3.76	198992.60	480.871155	188.3	false
PFUnA_2	563.0 / 269.0	3.75	11431.72	486.185401	66.1	false
PFDoA_1	613.0 / 569.0	4.04	5558.57	< 0	47.7	false
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:56 PM

Sample Name	J8396-FS-D(3)	**Injection Vial**	5
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:16:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.29	1283520.61	3377.924361	269.1	false
PFHxS_2	399.0 / 99.0	2.28	352654.13	3250.219016	531.5	false
PFOA_1	413.0 / 369.0	2.67	2257616.20	6303.265478	455.4	false
PFOA_2	413.0 / 169.0	2.67	119681.36	5631.676893	346.5	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	955801.62	1843.242585	150.8	false
PFOS_2	499.0 / 99.0	3.08	155501.27	1681.139906	289.4	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:32:02 PM

Sample Name	J8397-FS(0)	**Injection Vial**	6
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:27:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.52	3021002.94	11149.620700	84.1	false
PFBS_2	298.9 / 99.0	1.52	659391.30	8230.341664	214.8	false
PFHxA_1	313.0 / 269.0	1.84	4875573.86	18626.202229	62.1	false
PFHxA_2	313.0 / 119.0	1.84	321480.29	16810.163301	123.6	false
PFHpA_1	363.0 / 319.0	2.25	2702426.25	9620.181453	137.0	false
PFHpA_2	363.0 / 169.0	2.19	97203.33	17559.797008	251.5	false
PFHxS_1	399.0 / 80.0	2.28	19118813.39	51165.584893	329.0	false
PFHxS_2	399.0 / 99.0	2.28	5487486.46	51437.746665	820.9	false
PFOA_1	413.0 / 369.0	2.67	35678084.83	113704.370270	519.4	false
PFOA_2	413.0 / 169.0	2.65	2074917.64	110899.455273	627.8	true
PFNA_1	463.0 / 419.0	2.95	1984362.83	7345.567455	235.1	false
PFNA_2	463.0 / 219.0	2.95	665530.10	8052.385398	454.7	false
PFOS_1	499.0 / 80.0	3.07	35359492.33	80840.830453	374.0	false
PFOS_2	499.0 / 99.0	3.07	6038749.59	78387.044909	1422.2	false
PFDA_1	513.0 / 469.0	3.42	121677.46	311.381391	109.2	false
PFDA_2	513.0 / 219.0	3.43	5599.77	352.603407	106.4	false
PFUnA_1	563.0 / 519.0	3.75	12357.96	32.418655	40.9	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.03	4219.77	< 0	43.3	false
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:32:06 PM

Sample Name	J8397-FS-D(3)	**Injection Vial**	7
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:38:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	1.85	686942.39	2178.413408	29.9	false
PFHxA_2	313.0 / 119.0	1.85	43743.16	1903.431820	38.2	false
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.28	2034855.74	4669.700007	356.8	false
PFHxS_2	399.0 / 99.0	2.28	566868.21	4556.121575	825.1	false
PFOA_1	413.0 / 369.0	2.67	4218409.82	12340.793237	487.2	false
PFOA_2	413.0 / 169.0	2.66	220077.75	10823.870589	448.1	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.07	4101901.58	7539.163354	357.0	false
PFOS_2	499.0 / 99.0	3.07	688357.10	7163.636053	715.1	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:32:10 PM

Sample Name	J8398-FS(0)	**Injection Vial**	8
Sample ID	VC-AQ-FB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:49:21	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.29	6820.09	7.024934	32.4	false
PFHxS_2	399.0 / 99.0	2.29	2207.41	10.109502	23.7	false
PFOA_1	413.0 / 369.0	2.67	75292.95	228.744849	118.9	false
PFOA_2	413.0 / 169.0	2.67	4003.79	233.129498	67.5	false
PFNA_1	463.0 / 419.0	3.05	2797.33	< 0	14.3	false
PFNA_2	463.0 / 219.0	3.25	560.17	< 0	9.0	false
PFOS_1	499.0 / 80.0	3.07	11221.39	12.976914	25.9	false
PFOS_2	499.0 / 99.0	3.07	2712.99	0.899265	36.0	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:32:14 PM

Sample Name	J8399-FS(0)	**Injection Vial**	11
Sample ID	VC-AQ-EB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:21:57	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.83	68379.65	197.820585	227.4	false
PFBS_2	298.9 / 99.0	1.83	19530.14	180.750765	135.8	false
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.28	3309.08	< 0	17.7	false
PFHxS_2	399.0 / 99.0	2.26	1039.72	< 0	11.9	false
PFOA_1	413.0 / 369.0	2.67	76585.14	211.835709	119.9	false
PFOA_2	413.0 / 169.0	2.67	5302.89	274.889235	106.8	false
PFNA_1	463.0 / 419.0	3.08	1450.22	< 0	12.1	false
PFNA_2	463.0 / 219.0	3.06	402.35	< 0	11.4	false
PFOS_1	499.0 / 80.0	3.06	28710.29	49.742844	61.3	false
PFOS_2	499.0 / 99.0	3.06	4206.07	18.395199	48.7	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:32:18 PM

Sample Name	J8400-FS(0)	**Injection Vial**	12
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:32:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.51	11757423.49	55639.564477	106.3	false
PFBS_2	298.9 / 99.0	1.51	3377806.87	54138.249759	277.7	false
PFHxA_1	313.0 / 269.0	1.83	23985939.25	118169.509203	167.3	false
PFHxA_2	313.0 / 119.0	1.83	1541088.09	103887.607234	267.6	false
PFHpA_1	363.0 / 319.0	2.24	4567551.49	23049.971409	155.6	false
PFHpA_2	363.0 / 169.0	2.19	137329.36	35166.153872	219.8	false
PFHxS_1	399.0 / 80.0	2.27	98371203.53	327928.320774	540.7	false
PFHxS_2	399.0 / 99.0	2.27	44647461.24	521321.815309	1162.6	false
PFOA_1	413.0 / 369.0	2.65	35252556.45	159846.061450	503.0	false
PFOA_2	413.0 / 169.0	2.65	1946250.44	147990.728402	517.6	false
PFNA_1	463.0 / 419.0	2.95	1747340.70	10392.108971	224.7	false
PFNA_2	463.0 / 219.0	2.94	587408.31	11416.444480	420.1	false
PFOS_1	499.0 / 80.0	2.97	203524064.43	726991.139748	267.5	false
PFOS_2	499.0 / 99.0	3.06	68077932.22	1381044.147576	2108.3	false
PFDA_1	513.0 / 469.0	3.41	229529.02	687.505106	110.3	false
PFDA_2	513.0 / 219.0	3.42	8548.69	633.817292	116.6	false
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 26/10/2018 10:59:19 AM

Sample Name	J8400-FS-D(3)	**Injection Vial**	13
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:43:40	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	2185636.67	5119.184918	153.8	false
PFBS_2	298.9 / 99.0	1.53	646176.45	5116.715637	272.7	false
PFHxA_1	313.0 / 269.0	1.84	4323022.70	13394.327853	81.9	false
PFHxA_2	313.0 / 119.0	1.85	274662.40	11649.262316	104.9	false
PFHpA_1	363.0 / 319.0	2.25	593404.79	2108.024698	101.7	false
PFHpA_2	363.0 / 169.0	2.20	19000.28	3425.186839	116.3	false
PFHxS_1	399.0 / 80.0	2.28	20067801.99	53208.232055	769.4	false
PFHxS_2	399.0 / 99.0	2.28	6027927.25	55981.447137	1313.5	false
PFOA_1	413.0 / 369.0	2.66	4609076.54	13975.948503	467.8	false
PFOA_2	413.0 / 169.0	2.65	249166.41	12696.815943	392.8	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.04	62403366.77	131957.400617	458.9	false
PFOS_2	499.0 / 99.0	3.06	10554480.89	126730.189776	1031.0	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:32:26 PM

Sample Name	J8400-FS-D(5)	**Injection Vial**	14
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:54:32	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.28	7019528.96	19052.147123	806.6	false
PFHxS_2	399.0 / 99.0	2.28	2030684.43	19305.205078	1136.1	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	25441104.87	53568.858157	504.0	false
PFOS_2	499.0 / 99.0	3.06	4237458.47	50650.887550	1010.9	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:56:34 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	80124.04	248.377776	782.6	false
d3-MeFOSAA	573.0 / 419.0	3.59	11745.22	216.980139	181.7	false
d5-EtFOSAA	589.0 / 419.0	3.75	12344.01	222.621640	151.9	false
13C5-PFHxA	318.0 / 273.0	1.86	54750.90	232.083677	683.2	false
13C4-PFHpA	367.0 / 322.0	2.26	61985.92	233.754207	432.9	false
13C8-PFOA	421.0 / 376.0	2.68	85450.51	264.483330	1747.4	false
13C9-PFNA	472.0 / 427.0	3.07	78595.95	242.803243	957.2	false
13C6-PFDA	519.0 / 474.0	3.43	85705.91	266.173683	10188.6	false
13C7-PFUnA	570.0 / 525.0	3.75	69477.27	235.294949	700.0	false
13C2-PFTeDA	715.0 / 670.0	4.51	64277.73	249.273775	1709.8	false
13C3-PFBS	302.0 / 99.0	1.53	24552.93	209.036451	395.2	false
13C3-PFHxS	402.0 / 99.0	2.29	23410.29	219.977323	253.8	false
13C8-PFOS	507.0 / 99.0	3.07	25235.30	226.070072	265.4	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:56:37 PM

Sample Name	CR890PB-FS(0)	**Injection Vial**	10
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:28:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	87695.56	276.961830	1163.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	13080.61	239.439816	197.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	14400.49	257.334634	183.0	false
13C5-PFHxA	318.0 / 273.0	1.84	62215.05	264.515038	689.2	false
13C4-PFHpA	367.0 / 322.0	2.24	70784.31	267.734890	1238.2	false
13C8-PFOA	421.0 / 376.0	2.65	87485.65	271.595165	1016.0	false
13C9-PFNA	472.0 / 427.0	3.04	88930.62	275.554304	1936.8	false
13C6-PFDA	519.0 / 474.0	3.40	88623.52	280.411469	5120.6	false
13C7-PFUnA	570.0 / 525.0	3.72	92030.22	317.535836	639.8	false
13C2-PFTeDA	715.0 / 670.0	4.48	68028.61	268.781934	1383.8	false
13C3-PFBS	302.0 / 99.0	1.51	25649.88	216.378366	403.7	false
13C3-PFHxS	402.0 / 99.0	2.27	23880.08	222.339491	262.9	false
13C8-PFOS	507.0 / 99.0	3.04	27188.67	241.341650	247.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:56:41 PM

Sample Name	CR891LCS-FS(0)	**Injection Vial**	11
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:39:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	99094.42	292.012098	702.4	false
d3-MeFOSAA	573.0 / 419.0	3.56	12910.23	253.078123	109.6	false
d5-EtFOSAA	589.0 / 419.0	3.72	15091.96	288.814372	153.2	false
13C5-PFHxA	318.0 / 273.0	1.83	66504.14	290.302459	574.2	false
13C4-PFHpA	367.0 / 322.0	2.24	71738.51	278.591261	1044.6	false
13C8-PFOA	421.0 / 376.0	2.65	82688.59	263.559054	1126.5	false
13C9-PFNA	472.0 / 427.0	3.04	86947.97	276.606556	757.8	false
13C6-PFDA	519.0 / 474.0	3.40	96354.75	284.465239	980.1	false
13C7-PFUnA	570.0 / 525.0	3.72	93766.09	301.868209	877.4	false
13C2-PFTeDA	715.0 / 670.0	4.48	77522.19	285.787918	1499.7	false
13C3-PFBS	302.0 / 99.0	1.51	31116.75	281.109177	332.8	false
13C3-PFHxS	402.0 / 99.0	2.27	25891.22	258.158106	252.7	false
13C8-PFOS	507.0 / 99.0	3.04	29078.99	276.424167	233.6	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:56:48 PM

Sample Name	J8358-FS-D(3)	**Injection Vial**	13
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:00:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	100992.18	286.341339	670.1	false
d3-MeFOSAA	573.0 / 419.0	3.57	13983.22	363.180393	188.5	true
d5-EtFOSAA	589.0 / 419.0	3.73	18155.63	460.340298	197.8	false
13C5-PFHxA	318.0 / 273.0	1.84	72172.97	278.861337	577.0	false
13C4-PFHpA	367.0 / 322.0	2.25	82334.81	283.015553	631.5	false
13C8-PFOA	421.0 / 376.0	2.66	85700.47	241.783835	1234.5	false
13C9-PFNA	472.0 / 427.0	3.05	62356.37	175.588303	1025.8	false
13C6-PFDA	519.0 / 474.0	3.41	98245.88	279.071254	999.5	false
13C7-PFUnA	570.0 / 525.0	3.72	104962.87	325.126190	932.4	false
13C2-PFTeDA	715.0 / 670.0	4.48	81603.84	289.449679	1442.7	false
13C3-PFBS	302.0 / 99.0	1.52	36091.34	431.994635	377.2	false
13C3-PFHxS	402.0 / 99.0	2.27	25416.24	335.767776	293.6	false
13C8-PFOS	507.0 / 99.0	3.05	21150.95	266.391966	219.8	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:56:52 PM

Sample Name	J8358-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:11:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	89629.96	253.721772	1109.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	13069.37	259.328502	165.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	15530.73	300.842945	243.5	false
13C5-PFHxA	318.0 / 273.0	1.84	66085.67	269.807099	693.5	false
13C4-PFHpA	367.0 / 322.0	2.24	75556.57	274.429886	702.7	false
13C8-PFOA	421.0 / 376.0	2.65	83381.90	248.569674	1272.8	false
13C9-PFNA	472.0 / 427.0	3.05	74529.18	221.754990	911.6	false
13C6-PFDA	519.0 / 474.0	3.40	87959.75	249.455441	729.1	false
13C7-PFUnA	570.0 / 525.0	3.72	97321.20	300.976059	663.1	false
13C2-PFTeDA	715.0 / 670.0	4.48	75631.72	267.839539	1233.1	false
13C3-PFBS	302.0 / 99.0	1.51	31754.31	290.374415	456.4	false
13C3-PFHxS	402.0 / 99.0	2.27	23358.66	235.752254	261.1	false
13C8-PFOS	507.0 / 99.0	3.04	22383.67	215.378706	208.4	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:56:56 PM

Sample Name	J8358-FS-D(7)	**Injection Vial**	15
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:22:34	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	82981.42	239.233926	697.6	false
d3-MeFOSAA	573.0 / 419.0	3.56	14362.32	269.258959	202.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	15455.62	282.868542	178.9	false
13C5-PFHxA	318.0 / 273.0	1.84	65807.55	253.048935	667.8	false
13C4-PFHpA	367.0 / 322.0	2.25	67029.45	229.301830	940.0	false
13C8-PFOA	421.0 / 376.0	2.66	83550.47	234.589188	1315.9	false
13C9-PFNA	472.0 / 427.0	3.05	88710.39	248.601816	941.2	false
13C6-PFDA	519.0 / 474.0	3.40	92522.13	267.234162	727.5	false
13C7-PFUnA	570.0 / 525.0	3.72	89233.54	281.054126	889.0	false
13C2-PFTeDA	715.0 / 670.0	4.48	67271.39	242.626633	1253.0	false
13C3-PFBS	302.0 / 99.0	1.52	27199.59	235.000093	441.9	false
13C3-PFHxS	402.0 / 99.0	2.27	25008.87	238.480117	316.0	false
13C8-PFOS	507.0 / 99.0	3.05	26496.90	240.888823	238.7	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:00 PM

Sample Name	J8359-FS(0)	**Injection Vial**	16
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:33:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	84970.86	265.244325	989.1	false
d3-MeFOSAA	573.0 / 419.0	3.56	11527.96	226.386494	136.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	15016.06	287.876797	145.3	false
13C5-PFHxA	318.0 / 273.0	1.83	78473.61	289.438595	204.4	false
13C4-PFHpA	367.0 / 322.0	2.24	63036.95	206.843119	320.3	false
13C8-PFOA	421.0 / 376.0	2.65	80740.88	217.448575	655.4	false
13C9-PFNA	472.0 / 427.0	3.05	89540.50	240.687380	572.1	false
13C6-PFDA	519.0 / 474.0	3.40	89654.67	280.384133	642.0	false
13C7-PFUnA	570.0 / 525.0	3.72	85026.76	289.969066	856.7	false
13C2-PFTeDA	715.0 / 670.0	4.48	66423.55	259.396623	1299.3	false
13C3-PFBS	302.0 / 99.0	1.51	32570.72	294.771548	246.8	false
13C3-PFHxS	402.0 / 99.0	2.27	20496.35	204.732669	175.2	false
13C8-PFOS	507.0 / 99.0	3.05	27295.46	259.934859	209.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:04 PM

Sample Name	J8359-FS-D(3)	**Injection Vial**	17
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:44:17	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	82262.61	237.281076	770.3	false
d3-MeFOSAA	573.0 / 419.0	3.57	12414.61	236.306183	216.8	false
d5-EtFOSAA	589.0 / 419.0	3.73	13511.91	251.079490	191.7	false
13C5-PFHxA	318.0 / 273.0	1.84	62285.25	257.713748	314.0	false
13C4-PFHpA	367.0 / 322.0	2.25	67929.69	250.049000	571.8	false
13C8-PFOA	421.0 / 376.0	2.66	77705.17	234.764605	921.7	false
13C9-PFNA	472.0 / 427.0	3.05	81589.38	246.029400	958.5	false
13C6-PFDA	519.0 / 474.0	3.40	88634.80	256.135220	1077.5	false
13C7-PFUnA	570.0 / 525.0	3.72	84460.64	266.155159	841.9	false
13C2-PFTeDA	715.0 / 670.0	4.48	66580.62	240.256205	1276.6	false
13C3-PFBS	302.0 / 99.0	1.51	33293.52	292.053005	388.2	false
13C3-PFHxS	402.0 / 99.0	2.27	24022.11	232.576328	248.1	false
13C8-PFOS	507.0 / 99.0	3.05	26424.57	243.907909	280.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:09 PM

Sample Name	J8359-FS-D(5)	**Injection Vial**	18
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:55:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	99416.11	258.355593	805.6	false
d3-MeFOSAA	573.0 / 419.0	3.56	14794.02	269.324352	181.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	15752.49	279.956993	198.5	false
13C5-PFHxA	318.0 / 273.0	1.83	67946.33	251.794677	632.3	false
13C4-PFHpA	367.0 / 322.0	2.24	80994.85	267.024442	1076.7	false
13C8-PFOA	421.0 / 376.0	2.65	96768.35	261.844904	1064.9	false
13C9-PFNA	472.0 / 427.0	3.04	94176.55	254.345624	925.3	false
13C6-PFDA	519.0 / 474.0	3.40	103398.25	269.202282	5538.1	false
13C7-PFUnA	570.0 / 525.0	3.72	97953.33	278.099541	830.1	false
13C2-PFTeDA	715.0 / 670.0	4.48	77254.97	251.161876	989.8	false
13C3-PFBS	302.0 / 99.0	1.51	36382.64	305.241577	526.2	false
13C3-PFHxS	402.0 / 99.0	2.27	25799.86	238.901664	279.4	false
13C8-PFOS	507.0 / 99.0	3.04	32038.47	282.837649	269.3	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:13 PM

Sample Name	J8359-FS-D(7)	**Injection Vial**	19
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:06:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	91519.84	257.741864	1146.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	13062.96	235.016744	241.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	14037.38	246.544775	163.3	false
13C5-PFHxA	318.0 / 273.0	1.84	65377.36	249.349152	727.8	false
13C4-PFHpA	367.0 / 322.0	2.24	69897.05	237.166018	947.7	false
13C8-PFOA	421.0 / 376.0	2.66	83276.41	231.917123	859.7	false
13C9-PFNA	472.0 / 427.0	3.05	87398.11	242.931361	1638.6	false
13C6-PFDA	519.0 / 474.0	3.40	95168.78	268.515062	847.4	false
13C7-PFUnA	570.0 / 525.0	3.72	93694.27	288.272140	819.0	false
13C2-PFTeDA	715.0 / 670.0	4.48	71703.43	252.624714	1330.8	false
13C3-PFBS	302.0 / 99.0	1.51	26192.98	217.171122	313.7	false
13C3-PFHxS	402.0 / 99.0	2.27	24829.02	227.210878	297.4	false
13C8-PFOS	507.0 / 99.0	3.05	24725.48	215.713760	262.3	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:17 PM

Sample Name	J8368-FS(0)	**Injection Vial**	22
Sample ID	VC-SO-FB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:38:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	84241.46	249.481104	651.1	false
d3-MeFOSAA	573.0 / 419.0	3.56	12290.51	227.993752	185.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	15273.39	276.592792	187.1	false
13C5-PFHxA	318.0 / 273.0	1.84	59257.15	237.353705	502.5	false
13C4-PFHpA	367.0 / 322.0	2.24	66531.46	237.080286	480.8	false
13C8-PFOA	421.0 / 376.0	2.65	88877.32	259.942042	1879.3	false
13C9-PFNA	472.0 / 427.0	3.05	82645.53	241.254614	906.3	false
13C6-PFDA	519.0 / 474.0	3.40	96534.86	286.418037	1304.2	false
13C7-PFUnA	570.0 / 525.0	3.72	85943.21	278.063036	592.8	false
13C2-PFTeDA	715.0 / 670.0	4.48	67285.57	249.287141	1251.2	false
13C3-PFBS	302.0 / 99.0	1.51	27944.10	238.892834	367.1	false
13C3-PFHxS	402.0 / 99.0	2.27	23395.87	220.751987	222.9	false
13C8-PFOS	507.0 / 99.0	3.04	26164.26	235.362552	186.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:21 PM

Sample Name	J8369-FS(0)	**Injection Vial**	23
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:49:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	93144.45	236.956261	784.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	12530.65	303.702697	191.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	14038.29	332.155722	192.8	false
13C5-PFHxA	318.0 / 273.0	1.84	56357.20	257.815261	562.0	false
13C4-PFHpA	367.0 / 322.0	2.24	63929.57	260.180087	583.5	false
13C8-PFOA	421.0 / 376.0	2.65	76586.94	255.825721	887.7	false
13C9-PFNA	472.0 / 427.0	3.04	69518.52	231.771841	716.5	false
13C6-PFDA	519.0 / 474.0	3.40	101318.44	258.228487	992.4	false
13C7-PFUnA	570.0 / 525.0	3.72	86481.76	240.356393	926.6	false
13C2-PFTeDA	715.0 / 670.0	4.48	73637.45	234.356026	1201.5	false
13C3-PFBS	302.0 / 99.0	1.51	30491.65	340.577661	335.6	false
13C3-PFHxS	402.0 / 99.0	2.27	22286.57	274.745637	231.2	false
13C8-PFOS	507.0 / 99.0	3.04	26296.15	309.060357	173.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:25 PM

Sample Name	J8370-FS(0)	**Injection Vial**	24
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:00:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	82702.81	262.277281	921.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	13625.76	295.079948	171.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	14166.79	299.504217	227.0	false
13C5-PFHxA	318.0 / 273.0	1.84	74553.18	325.561745	255.4	false
13C4-PFHpA	367.0 / 322.0	2.24	63507.28	246.719706	547.0	false
13C8-PFOA	421.0 / 376.0	2.65	64680.26	206.238283	625.9	false
13C9-PFNA	472.0 / 427.0	3.05	66163.10	210.563964	672.5	false
13C6-PFDA	519.0 / 474.0	3.40	91353.83	290.249567	926.9	false
13C7-PFUnA	570.0 / 525.0	3.72	87385.60	302.761187	567.8	false
13C2-PFTeDA	715.0 / 670.0	4.47	65945.45	261.632324	1023.7	false
13C3-PFBS	302.0 / 99.0	1.51	35823.45	357.525051	297.4	false
13C3-PFHxS	402.0 / 99.0	2.27	22563.64	248.542503	209.3	false
13C8-PFOS	507.0 / 99.0	3.04	20121.56	211.308299	202.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:28 PM

Sample Name	J8370-FS-D(3)	**Injection Vial**	25
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:11:23	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	83858.10	245.457777	883.6	false
d3-MeFOSAA	573.0 / 419.0	3.56	14131.31	271.639531	171.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	14887.69	279.376688	194.0	false
13C5-PFHxA	318.0 / 273.0	1.83	63957.36	248.928847	531.1	false
13C4-PFHpA	367.0 / 322.0	2.24	70068.61	242.617052	844.9	false
13C8-PFOA	421.0 / 376.0	2.65	80745.09	229.472767	1077.4	false
13C9-PFNA	472.0 / 427.0	3.04	83217.86	236.049050	901.6	false
13C6-PFDA	519.0 / 474.0	3.40	90929.02	266.648251	702.6	false
13C7-PFUnA	570.0 / 525.0	3.72	87573.96	280.044273	595.4	false
13C2-PFTeDA	715.0 / 670.0	4.48	70268.48	257.311098	1219.9	false
13C3-PFBS	302.0 / 99.0	1.51	31060.11	275.152465	390.1	false
13C3-PFHxS	402.0 / 99.0	2.27	22074.52	215.831125	285.6	false
13C8-PFOS	507.0 / 99.0	3.04	27786.13	259.008721	248.9	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:32 PM

Sample Name	J8370-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:22:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	90764.54	262.559110	981.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	12986.86	228.003573	195.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	14690.44	251.782043	174.5	false
13C5-PFHxA	318.0 / 273.0	1.83	63540.34	245.960258	596.4	false
13C4-PFHpA	367.0 / 322.0	2.24	66611.58	229.391998	701.6	false
13C8-PFOA	421.0 / 376.0	2.65	84199.56	237.988273	1354.1	false
13C9-PFNA	472.0 / 427.0	3.04	84248.58	237.672548	1416.0	false
13C6-PFDA	519.0 / 474.0	3.40	86182.44	249.766461	747.5	false
13C7-PFUnA	570.0 / 525.0	3.72	87922.43	277.862841	722.3	false
13C2-PFTeDA	715.0 / 670.0	4.47	67962.42	245.949470	1548.5	false
13C3-PFBS	302.0 / 99.0	1.51	28095.53	227.318460	370.5	false
13C3-PFHxS	402.0 / 99.0	2.26	22818.79	203.771010	303.3	false
13C8-PFOS	507.0 / 99.0	3.04	27795.70	236.641490	208.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:39 PM

Sample Name	J8371-FS(0)	**Injection Vial**	28
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:43:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	85409.55	261.072838	829.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	12560.29	333.581431	158.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	15942.29	413.338223	184.5	false
13C5-PFHxA	318.0 / 273.0	1.83	75881.97	305.049749	282.3	false
13C4-PFHpA	367.0 / 322.0	2.23	66704.43	238.561232	579.6	false
13C8-PFOA	421.0 / 376.0	2.65	72613.84	213.148243	726.4	false
13C9-PFNA	472.0 / 427.0	3.04	64424.30	188.748175	525.4	false
13C6-PFDA	519.0 / 474.0	3.40	91901.71	281.438350	1007.7	false
13C7-PFUnA	570.0 / 525.0	3.72	92569.09	309.130003	662.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	70638.29	270.123027	1191.7	false
13C3-PFBS	302.0 / 99.0	1.51	38202.56	467.578917	357.9	false
13C3-PFHxS	402.0 / 99.0	2.26	21549.42	291.105414	202.6	false
13C8-PFOS	507.0 / 99.0	3.04	17984.09	231.615045	154.3	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:43 PM

Sample Name	J8371-FS-D(3)	**Injection Vial**	29
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:54:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	111860.69	273.373895	670.5	false
d3-MeFOSAA	573.0 / 419.0	3.56	16021.97	282.058866	218.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	19443.80	334.162270	197.8	false
13C5-PFHxA	318.0 / 273.0	1.83	78874.77	270.692761	650.5	false
13C4-PFHpA	367.0 / 322.0	2.24	87494.66	267.136437	1130.4	false
13C8-PFOA	421.0 / 376.0	2.65	107802.75	270.146077	1132.8	false
13C9-PFNA	472.0 / 427.0	3.04	103341.92	258.473516	57063.7	false
13C6-PFDA	519.0 / 474.0	3.40	114904.40	281.332982	1079.4	false
13C7-PFUnA	570.0 / 525.0	3.72	118004.47	315.063388	896.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	85821.29	262.386069	1669.3	false
13C3-PFBS	302.0 / 99.0	1.51	36296.52	294.475241	493.2	false
13C3-PFHxS	402.0 / 99.0	2.27	29310.17	262.454816	308.2	false
13C8-PFOS	507.0 / 99.0	3.04	32261.05	275.409078	275.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:46 PM

Sample Name	J8371-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:05:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	82987.85	241.531335	678.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	13554.63	246.307507	200.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	16012.14	284.048035	228.0	false
13C5-PFHxA	318.0 / 273.0	1.83	58049.48	232.979948	644.1	false
13C4-PFHpA	367.0 / 322.0	2.24	69686.99	248.819829	989.5	false
13C8-PFOA	421.0 / 376.0	2.65	87125.21	255.325571	2872.3	false
13C9-PFNA	472.0 / 427.0	3.04	87115.04	254.808729	1063.8	false
13C6-PFDA	519.0 / 474.0	3.40	88540.36	258.169353	995.1	false
13C7-PFUnA	570.0 / 525.0	3.72	88068.83	280.027790	536.1	false
13C2-PFTeDA	715.0 / 670.0	4.47	69167.36	251.840945	1407.3	false
13C3-PFBS	302.0 / 99.0	1.51	24404.95	204.374990	409.5	false
13C3-PFHxS	402.0 / 99.0	2.26	23327.54	215.611183	293.8	false
13C8-PFOS	507.0 / 99.0	3.04	24666.46	217.356508	248.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:50 PM

Sample Name	J8371-FS-D(7)	**Injection Vial**	31
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:16:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	90844.86	237.634721	702.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	12582.94	221.836563	212.4	false
d5-EtFOSAA	589.0 / 419.0	3.72	14702.55	253.043935	234.0	false
13C5-PFHxA	318.0 / 273.0	1.83	65684.53	253.145229	733.5	false
13C4-PFHpA	367.0 / 322.0	2.24	72292.69	247.864381	1076.6	false
13C8-PFOA	421.0 / 376.0	2.65	86245.59	242.702251	1901.2	false
13C9-PFNA	472.0 / 427.0	3.04	96959.29	272.330976	975.0	false
13C6-PFDA	519.0 / 474.0	3.40	96283.59	252.328473	710.4	false
13C7-PFUnA	570.0 / 525.0	3.72	96349.90	275.347237	2787.8	false
13C2-PFTeDA	715.0 / 670.0	4.47	71359.38	233.521461	1357.9	false
13C3-PFBS	302.0 / 99.0	1.51	30235.79	245.658780	435.1	false
13C3-PFHxS	402.0 / 99.0	2.26	28657.23	256.978971	392.1	false
13C8-PFOS	507.0 / 99.0	3.04	30362.56	259.576377	294.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:54 PM

Sample Name	J8372-FS(0)	**Injection Vial**	33
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:49:16	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	104996.54	339.504707	897.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	14502.99	502.845756	191.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	18862.44	638.451054	232.0	false
13C5-PFHxA	318.0 / 273.0	1.83	87708.32	349.691652	276.4	false
13C4-PFHpA	367.0 / 322.0	2.24	88970.66	315.576297	430.1	false
13C8-PFOA	421.0 / 376.0	2.65	74674.81	217.394673	616.3	false
13C9-PFNA	472.0 / 427.0	3.04	49635.16	144.223138	401.6	false
13C6-PFDA	519.0 / 474.0	3.40	80564.32	260.986486	680.6	false
13C7-PFUnA	570.0 / 525.0	3.72	97074.57	342.922688	940.2	false
13C2-PFTeDA	715.0 / 670.0	4.47	78217.19	316.401993	2375.3	false
13C3-PFBS	302.0 / 99.0	1.50	40394.68	645.448210	404.8	false
13C3-PFHxS	402.0 / 99.0	2.26	27443.97	483.990182	232.1	false
13C8-PFOS	507.0 / 99.0	3.04	15606.94	262.404180	124.4	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:57:58 PM

Sample Name	J8372-FS-D(3)	**Injection Vial**	34
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:00:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	89247.54	264.057197	850.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	13213.61	276.718205	163.0	false
d5-EtFOSAA	589.0 / 419.0	3.72	15464.88	316.166135	213.3	false
13C5-PFHxA	318.0 / 273.0	1.83	66578.02	259.342965	469.3	false
13C4-PFHpA	367.0 / 322.0	2.24	72258.38	250.406108	784.5	false
13C8-PFOA	421.0 / 376.0	2.65	82911.72	235.824994	874.8	false
13C9-PFNA	472.0 / 427.0	3.04	81309.86	230.827662	902.8	false
13C6-PFDA	519.0 / 474.0	3.40	83600.44	247.807685	864.9	false
13C7-PFUnA	570.0 / 525.0	3.72	93737.40	302.994396	725.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	75058.36	277.822225	2593.4	false
13C3-PFBS	302.0 / 99.0	1.51	34168.76	329.765689	435.4	false
13C3-PFHxS	402.0 / 99.0	2.26	23666.30	252.091885	369.3	false
13C8-PFOS	507.0 / 99.0	3.04	22206.35	225.511848	208.7	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:03 PM

Sample Name	J8372-FS-D(5)	**Injection Vial**	35
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:11:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	87308.45	265.794743	695.6	false
d3-MeFOSAA	573.0 / 419.0	3.56	10408.60	227.530355	139.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	14538.37	310.252503	184.1	false
13C5-PFHxA	318.0 / 273.0	1.83	61521.89	269.760983	683.3	false
13C4-PFHpA	367.0 / 322.0	2.24	64912.79	253.217002	532.6	false
13C8-PFOA	421.0 / 376.0	2.65	84614.60	270.910039	1169.6	false
13C9-PFNA	472.0 / 427.0	3.04	85650.14	273.702352	779.8	false
13C6-PFDA	519.0 / 474.0	3.40	86188.88	262.872885	935.9	false
13C7-PFUnA	570.0 / 525.0	3.72	89540.18	297.802295	653.3	false
13C2-PFTeDA	715.0 / 670.0	4.47	70823.86	269.734140	1304.5	false
13C3-PFBS	302.0 / 99.0	1.51	29557.01	297.760894	424.2	false
13C3-PFHxS	402.0 / 99.0	2.26	23619.44	262.620748	320.2	false
13C8-PFOS	507.0 / 99.0	3.04	29056.37	308.009680	207.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:07 PM

Sample Name	J8372-FS-D(7)	**Injection Vial**	36
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:21:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	84430.90	236.968537	720.8	false
d3-MeFOSAA	573.0 / 419.0	3.56	12677.63	261.589228	182.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	15666.99	315.587508	187.5	false
13C5-PFHxA	318.0 / 273.0	1.83	61548.20	241.630480	532.5	false
13C4-PFHpA	367.0 / 322.0	2.24	66888.73	233.615875	740.3	false
13C8-PFOA	421.0 / 376.0	2.65	84496.37	242.217022	1605.5	false
13C9-PFNA	472.0 / 427.0	3.04	78897.50	225.735872	760.9	false
13C6-PFDA	519.0 / 474.0	3.40	92746.28	260.789562	1040.4	false
13C7-PFUnA	570.0 / 525.0	3.72	91761.63	281.365154	793.1	false
13C2-PFTeDA	715.0 / 670.0	4.47	69383.19	243.618196	1318.3	false
13C3-PFBS	302.0 / 99.0	1.51	29371.55	279.298572	406.7	false
13C3-PFHxS	402.0 / 99.0	2.26	23476.53	246.392864	247.1	false
13C8-PFOS	507.0 / 99.0	3.04	26179.62	261.951578	235.9	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:11 PM

Sample Name	J8382-FS(0)	**Injection Vial**	37
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:32:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	99804.83	304.051723	707.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	13504.74	313.351746	125.0	false
d5-EtFOSAA	589.0 / 419.0	3.72	15634.00	354.134775	150.3	false
13C5-PFHxA	318.0 / 273.0	1.83	65925.38	295.368590	116.4	false
13C4-PFHpA	367.0 / 322.0	2.23	75709.78	301.770480	236.5	false
13C8-PFOA	421.0 / 376.0	2.65	74193.54	242.721387	346.2	false
13C9-PFNA	472.0 / 427.0	3.04	70460.34	230.068634	281.8	false
13C6-PFDA	519.0 / 474.0	3.40	88024.70	268.661194	507.7	false
13C7-PFUnA	570.0 / 525.0	3.72	99353.54	330.673361	607.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	75311.98	287.029272	1904.1	false
13C3-PFBS	302.0 / 99.0	1.51	21647.80	231.483363	223.1	false
13C3-PFHxS	402.0 / 99.0	2.26	23545.14	277.881570	136.9	false
13C8-PFOS	507.0 / 99.0	3.04	22099.39	248.657892	121.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:16 PM

Sample Name	J8382-FS-D(3)	**Injection Vial**	38
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:43:42	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	91777.61	250.595514	895.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	13630.89	240.650446	181.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	16295.90	280.862119	193.6	false
13C5-PFHxA	318.0 / 273.0	1.84	74699.01	312.786872	301.2	false
13C4-PFHpA	367.0 / 322.0	2.24	80447.47	299.680948	481.1	false
13C8-PFOA	421.0 / 376.0	2.65	86350.17	264.014133	1201.3	false
13C9-PFNA	472.0 / 427.0	3.04	88954.77	271.458794	836.2	false
13C6-PFDA	519.0 / 474.0	3.40	95704.84	261.803165	542.6	false
13C7-PFUnA	570.0 / 525.0	3.72	91401.65	272.653138	677.1	false
13C2-PFTeDA	715.0 / 670.0	4.47	74192.38	253.432328	1434.5	false
13C3-PFBS	302.0 / 99.0	1.51	40560.55	330.009352	358.7	false
13C3-PFHxS	402.0 / 99.0	2.27	25220.02	226.474911	267.2	false
13C8-PFOS	507.0 / 99.0	3.04	28372.66	242.906028	197.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:20 PM

Sample Name	J8383-FS(0)	**Injection Vial**	39
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:54:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	98027.55	280.755508	850.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	13469.75	465.186850	134.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	14999.58	505.707530	148.3	false
13C5-PFHxA	318.0 / 273.0	1.83	90751.33	370.661114	185.6	false
13C4-PFHpA	367.0 / 322.0	2.23	96563.51	350.873159	432.1	false
13C8-PFOA	421.0 / 376.0	2.65	78691.87	234.684388	493.7	false
13C9-PFNA	472.0 / 427.0	3.04	49890.37	148.505220	318.0	false
13C6-PFDA	519.0 / 474.0	3.40	89012.15	255.407627	494.3	false
13C7-PFUnA	570.0 / 525.0	3.72	94939.82	297.062952	552.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	74263.57	266.086086	1265.2	false
13C3-PFBS	302.0 / 99.0	1.51	34789.21	553.697317	300.3	false
13C3-PFHxS	402.0 / 99.0	2.26	30023.03	527.393477	211.0	false
13C8-PFOS	507.0 / 99.0	3.04	16956.34	283.972172	161.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:25 PM

Sample Name	J8383-FS-D(3)	**Injection Vial**	40
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:05:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	89017.57	241.624977	1045.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	12404.61	309.612400	155.1	false
d5-EtFOSAA	589.0 / 419.0	3.71	16876.83	411.224032	240.3	false
13C5-PFHxA	318.0 / 273.0	1.83	66198.91	263.486431	275.7	false
13C4-PFHpA	367.0 / 322.0	2.24	75402.29	266.996154	635.0	false
13C8-PFOA	421.0 / 376.0	2.65	84613.93	245.911907	950.9	false
13C9-PFNA	472.0 / 427.0	3.04	77288.24	224.192857	863.7	false
13C6-PFDA	519.0 / 474.0	3.39	91538.31	248.927825	797.9	false
13C7-PFUnA	570.0 / 525.0	3.71	84255.15	249.851806	612.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	67020.69	227.583720	1150.2	false
13C3-PFBS	302.0 / 99.0	1.51	35778.89	411.549396	385.2	false
13C3-PFHxS	402.0 / 99.0	2.26	27278.37	346.310667	330.3	false
13C8-PFOS	507.0 / 99.0	3.03	27052.42	327.429051	285.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:28 PM

Sample Name	J8383-FS-D(5)	**Injection Vial**	41
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:16:22	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	87522.68	238.855875	632.3	false
d3-MeFOSAA	573.0 / 419.0	3.55	13229.14	253.260783	239.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	13491.67	252.147546	154.0	false
13C5-PFHxA	318.0 / 273.0	1.83	62476.05	242.249766	537.1	false
13C4-PFHpA	367.0 / 322.0	2.23	67804.94	233.896783	729.5	false
13C8-PFOA	421.0 / 376.0	2.65	86299.57	244.336723	228654.1	false
13C9-PFNA	472.0 / 427.0	3.04	88386.04	249.766685	796.4	false
13C6-PFDA	519.0 / 474.0	3.39	93908.29	256.757841	606.6	false
13C7-PFUnA	570.0 / 525.0	3.71	92016.28	274.346816	875.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	69288.09	236.559339	1547.1	false
13C3-PFBS	302.0 / 99.0	1.51	31113.28	274.499985	436.3	false
13C3-PFHxS	402.0 / 99.0	2.26	24417.68	237.767903	336.1	false
13C8-PFOS	507.0 / 99.0	3.04	26408.25	245.161356	212.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:32 PM

Sample Name	J8383-FS-D(7)	**Injection Vial**	42
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:27:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	84847.42	232.297982	1034.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	12924.89	254.000217	194.4	false
d5-EtFOSAA	589.0 / 419.0	3.72	14720.01	282.402081	202.4	false
13C5-PFHxA	318.0 / 273.0	1.83	62872.37	243.666146	468.5	false
13C4-PFHpA	367.0 / 322.0	2.24	64880.26	223.697428	1040.2	false
13C8-PFOA	421.0 / 376.0	2.65	79790.44	225.796146	1665.8	false
13C9-PFNA	472.0 / 427.0	3.04	79462.28	224.438494	790.1	false
13C6-PFDA	519.0 / 474.0	3.40	89563.63	245.664774	908.9	false
13C7-PFUnA	570.0 / 525.0	3.72	92248.59	275.922085	855.6	false
13C2-PFTeDA	715.0 / 670.0	4.47	65173.53	223.225706	1665.3	false
13C3-PFBS	302.0 / 99.0	1.51	29486.46	267.048345	474.6	false
13C3-PFHxS	402.0 / 99.0	2.27	23499.77	234.900085	278.0	false
13C8-PFOS	507.0 / 99.0	3.04	23685.61	225.718800	182.6	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:36 PM

Sample Name	J8384-FS(0)	**Injection Vial**	44
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:59:56	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	99199.55	305.178027	1029.4	false
d3-MeFOSAA	573.0 / 419.0	3.56	15265.68	633.796945	144.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	15470.96	627.052028	179.9	false
13C5-PFHxA	318.0 / 273.0	1.82	85842.15	344.265846	182.6	false
13C4-PFHpA	367.0 / 322.0	2.23	75259.92	268.515991	365.9	false
13C8-PFOA	421.0 / 376.0	2.65	71727.55	210.043673	500.9	false
13C9-PFNA	472.0 / 427.0	3.04	43346.72	126.692397	424.6	true
13C6-PFDA	519.0 / 474.0	3.39	89544.05	275.984535	589.1	false
13C7-PFUnA	570.0 / 525.0	3.71	99287.38	333.701027	764.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	72957.81	280.789919	1946.7	false
13C3-PFBS	302.0 / 99.0	1.50	36378.67	696.050582	349.4	false
13C3-PFHxS	402.0 / 99.0	2.26	23630.36	499.018406	212.6	false
13C8-PFOS	507.0 / 99.0	3.04	12206.18	245.747819	92.7	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:39 PM

Sample Name	J8384-FS-D(3)	**Injection Vial**	45
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:10:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	90377.12	254.454733	967.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	12055.84	324.119097	139.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	15731.63	412.888975	201.0	false
13C5-PFHxA	318.0 / 273.0	1.83	64263.10	265.774621	323.7	false
13C4-PFHpA	367.0 / 322.0	2.24	73413.47	270.110039	680.7	false
13C8-PFOA	421.0 / 376.0	2.65	76403.77	230.726208	929.2	false
13C9-PFNA	472.0 / 427.0	3.04	68852.36	207.525605	837.0	false
13C6-PFDA	519.0 / 474.0	3.40	89997.72	253.856339	1161.6	false
13C7-PFUnA	570.0 / 525.0	3.71	97866.56	301.027596	1226.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	68444.16	241.076359	2242.6	false
13C3-PFBS	302.0 / 99.0	1.51	35899.98	444.796360	372.7	false
13C3-PFHxS	402.0 / 99.0	2.26	24674.58	337.418798	294.1	false
13C8-PFOS	507.0 / 99.0	3.04	22129.37	288.504052	189.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:46 PM

Sample Name	J8384-FS-D(7)	**Injection Vial**	47
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:32:33	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	90047.31	243.736437	955.1	false
d3-MeFOSAA	573.0 / 419.0	3.56	14252.90	257.169835	189.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	15944.23	280.849102	256.5	false
13C5-PFHxA	318.0 / 273.0	1.83	68059.22	256.004096	523.0	false
13C4-PFHpA	367.0 / 322.0	2.24	71353.17	238.773622	916.9	false
13C8-PFOA	421.0 / 376.0	2.65	89218.14	245.043626	4171.2	false
13C9-PFNA	472.0 / 427.0	3.04	94169.77	258.150202	880.9	false
13C6-PFDA	519.0 / 474.0	3.40	93317.53	253.056436	870.8	false
13C7-PFUnA	570.0 / 525.0	3.72	94819.80	280.394001	614.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	69890.33	236.664447	16495.4	false
13C3-PFBS	302.0 / 99.0	1.51	28481.75	236.833728	387.4	false
13C3-PFHxS	402.0 / 99.0	2.26	26015.67	238.761482	328.4	false
13C8-PFOS	507.0 / 99.0	3.04	28708.16	251.187564	236.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:50 PM

Sample Name	J8384-FS-D(9)	**Injection Vial**	48
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:43:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	85671.86	239.746990	744.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	13158.82	245.960020	225.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	12194.80	222.522824	180.4	false
13C5-PFHxA	318.0 / 273.0	1.83	58348.79	243.998776	591.7	false
13C4-PFHpA	367.0 / 322.0	2.24	62006.73	230.678802	702.1	false
13C8-PFOA	421.0 / 376.0	2.65	79416.00	242.490136	1341.1	false
13C9-PFNA	472.0 / 427.0	3.04	78125.15	238.093532	858.6	false
13C6-PFDA	519.0 / 474.0	3.40	85291.45	239.124946	525.5	false
13C7-PFUnA	570.0 / 525.0	3.72	83559.60	255.464901	688.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	63064.83	220.784406	1737.7	false
13C3-PFBS	302.0 / 99.0	1.51	25095.50	216.173949	375.1	false
13C3-PFHxS	402.0 / 99.0	2.26	23914.30	227.361876	368.4	false
13C8-PFOS	507.0 / 99.0	3.04	23683.10	214.665339	241.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:53 PM

Sample Name	J8385-FS(0)	**Injection Vial**	49
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:54:20	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	82266.17	258.085413	1115.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	12414.55	678.370893	152.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	14190.11	756.962536	184.9	false
13C5-PFHxA	318.0 / 273.0	1.83	75669.49	363.161708	231.3	true
13C4-PFHpA	367.0 / 322.0	2.24	71953.66	307.216965	359.8	false
13C8-PFOA	421.0 / 376.0	2.65	61810.00	216.604902	452.8	false
13C9-PFNA	472.0 / 427.0	3.04	39312.26	137.501742	325.8	false
13C6-PFDA	519.0 / 474.0	3.40	87531.77	275.113765	686.7	false
13C7-PFUnA	570.0 / 525.0	3.72	89419.40	306.474161	641.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	63809.13	250.432769	1895.5	false
13C3-PFBS	302.0 / 99.0	1.51	33044.86	832.147109	246.6	false
13C3-PFHxS	402.0 / 99.0	2.26	23403.10	650.462090	212.2	false
13C8-PFOS	507.0 / 99.0	3.04	10244.68	271.462812	106.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:57 PM

Sample Name	J8385-FS-D(3)	**Injection Vial**	50
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:05:13	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	84656.72	245.301711	855.5	false
d3-MeFOSAA	573.0 / 419.0	3.56	12459.78	260.687932	224.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	15035.97	307.110443	218.7	false
13C5-PFHxA	318.0 / 273.0	1.83	60803.72	262.826993	350.7	false
13C4-PFHpA	367.0 / 322.0	2.24	71240.57	273.955682	568.1	false
13C8-PFOA	421.0 / 376.0	2.65	71483.00	225.617583	961.7	false
13C9-PFNA	472.0 / 427.0	3.04	72023.31	226.889239	821.5	false
13C6-PFDA	519.0 / 474.0	3.40	86041.12	249.775366	854.9	false
13C7-PFUnA	570.0 / 525.0	3.72	94085.06	297.837737	1559.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	68327.88	247.687016	1526.8	false
13C3-PFBS	302.0 / 99.0	1.51	32444.98	312.837070	464.2	false
13C3-PFHxS	402.0 / 99.0	2.26	23504.08	250.130284	368.9	false
13C8-PFOS	507.0 / 99.0	3.04	21483.99	217.972444	177.9	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:01 PM

Sample Name	J8385-FS-D(5)	**Injection Vial**	51
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:16:05	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	78893.54	242.353163	838.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	11595.13	253.329296	173.5	false
d5-EtFOSAA	589.0 / 419.0	3.72	13731.64	292.876456	172.4	false
13C5-PFHxA	318.0 / 273.0	1.83	61160.82	264.616771	621.9	false
13C4-PFHpA	367.0 / 322.0	2.24	65761.27	253.120520	581.5	false
13C8-PFOA	421.0 / 376.0	2.65	76512.43	241.716531	2769.8	false
13C9-PFNA	472.0 / 427.0	3.04	74775.71	235.779240	1060.0	false
13C6-PFDA	519.0 / 474.0	3.40	88506.22	272.386443	1012.0	false
13C7-PFUnA	570.0 / 525.0	3.72	88244.56	296.152312	594.7	false
13C2-PFTeDA	715.0 / 670.0	4.47	66858.28	256.938172	1551.0	false
13C3-PFBS	302.0 / 99.0	1.51	28088.36	282.810922	382.5	false
13C3-PFHxS	402.0 / 99.0	2.26	21783.81	242.078359	335.5	false
13C8-PFOS	507.0 / 99.0	3.04	21767.32	230.616600	216.9	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:06 PM

Sample Name	J8385-FS-D(7)	**Injection Vial**	52
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:26:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	85062.95	238.951531	874.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	10986.90	229.982511	164.4	false
d5-EtFOSAA	589.0 / 419.0	3.72	13049.24	266.659741	172.4	false
13C5-PFHxA	318.0 / 273.0	1.83	57228.07	236.341322	666.6	false
13C4-PFHpA	367.0 / 322.0	2.24	65364.03	240.149923	998.8	false
13C8-PFOA	421.0 / 376.0	2.65	79712.55	240.374029	1777.5	false
13C9-PFNA	472.0 / 427.0	3.04	80946.81	243.630275	1932.8	false
13C6-PFDA	519.0 / 474.0	3.39	85029.15	239.299435	1307.0	false
13C7-PFUnA	570.0 / 525.0	3.72	86288.30	264.814160	800.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	65569.46	230.429002	1503.6	false
13C3-PFBS	302.0 / 99.0	1.51	26069.44	251.484625	392.3	false
13C3-PFHxS	402.0 / 99.0	2.26	20531.62	218.602579	280.2	false
13C8-PFOS	507.0 / 99.0	3.04	24427.70	247.958068	216.6	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:09 PM

Sample Name	J8385-FS-D(9)	**Injection Vial**	53
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:37:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	84534.92	249.646861	1194.5	false
d3-MeFOSAA	573.0 / 419.0	3.56	11584.08	223.089718	207.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	14438.54	271.452510	173.6	false
13C5-PFHxA	318.0 / 273.0	1.83	58440.03	255.808131	794.7	false
13C4-PFHpA	367.0 / 322.0	2.24	60698.89	236.372952	495.3	false
13C8-PFOA	421.0 / 376.0	2.65	78587.71	251.182214	833.1	false
13C9-PFNA	472.0 / 427.0	3.04	87483.88	279.082728	1098.8	false
13C6-PFDA	519.0 / 474.0	3.40	90217.30	266.921904	869.4	false
13C7-PFUnA	570.0 / 525.0	3.72	89090.95	287.437535	662.1	false
13C2-PFTeDA	715.0 / 670.0	4.47	65952.89	243.663196	2403.0	false
13C3-PFBS	302.0 / 99.0	1.51	26302.71	233.441889	478.4	false
13C3-PFHxS	402.0 / 99.0	2.26	23066.29	225.947894	265.6	false
13C8-PFOS	507.0 / 99.0	3.04	27406.10	255.941859	257.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:13 PM

Sample Name	J8395-FS(0)	**Injection Vial**	2
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:44:08	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.06	81845.99	371.425402	624.0	true
d3-MeFOSAA	573.0 / 419.0	3.60	11310.45	330.765368	107.4	false
d5-EtFOSAA	589.0 / 419.0	3.76	14566.27	415.854161	113.6	false
13C5-PFHxA	318.0 / 273.0	1.81	22301.90	139.851617	45.4	true
13C4-PFHpA	367.0 / 322.0	2.23	27037.82	150.837834	106.3	false
13C8-PFOA	421.0 / 376.0	2.65	33847.80	154.983802	138.5	false
13C9-PFNA	472.0 / 427.0	3.06	46266.66	211.443700	186.8	false
13C6-PFDA	519.0 / 474.0	3.43	68556.42	311.692790	418.2	false
13C7-PFUnA	570.0 / 525.0	3.76	70931.50	351.668364	317.1	false
13C2-PFTeDA	715.0 / 670.0	4.53	63785.36	362.127412	1180.9	true
13C3-PFBS	302.0 / 99.0	1.48	12071.03	162.683824	90.5	false
13C3-PFHxS	402.0 / 99.0	2.25	16731.82	248.883307	83.0	false
13C8-PFOS	507.0 / 99.0	3.05	17402.54	246.790576	86.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:17 PM

Sample Name	J8395-FS-D(3)	**Injection Vial**	3
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:55:00	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	87874.53	253.562042	762.7	false
d3-MeFOSAA	573.0 / 419.0	3.59	12533.93	240.707002	131.1	false
d5-EtFOSAA	589.0 / 419.0	3.76	15171.51	284.434711	176.5	false
13C5-PFHxA	318.0 / 273.0	1.85	77794.09	311.613637	121.8	false
13C4-PFHpA	367.0 / 322.0	2.26	84572.30	301.377698	364.4	false
13C8-PFOA	421.0 / 376.0	2.67	77228.74	225.880682	407.8	false
13C9-PFNA	472.0 / 427.0	3.07	82425.11	240.619269	450.1	false
13C6-PFDA	519.0 / 474.0	3.43	84539.14	244.390033	640.4	false
13C7-PFUnA	570.0 / 525.0	3.76	80443.27	253.589276	452.7	false
13C2-PFTeDA	715.0 / 670.0	4.52	66393.58	239.669888	1930.1	false
13C3-PFBS	302.0 / 99.0	1.52	28154.35	249.176361	220.9	false
13C3-PFHxS	402.0 / 99.0	2.28	22739.33	222.121916	168.2	false
13C8-PFOS	507.0 / 99.0	3.07	25425.16	236.777782	152.8	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:21 PM

Sample Name	J8396-FS(0)	**Injection Vial**	4
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:05:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	100436.02	257.016624	907.6	false
d3-MeFOSAA	573.0 / 419.0	3.59	12786.27	278.873722	122.5	false
d5-EtFOSAA	589.0 / 419.0	3.75	16394.95	349.081112	157.7	false
13C5-PFHxA	318.0 / 273.0	1.84	82765.03	294.477034	128.0	false
13C4-PFHpA	367.0 / 322.0	2.25	86140.98	272.663794	244.2	false
13C8-PFOA	421.0 / 376.0	2.66	80686.83	209.622329	385.4	false
13C9-PFNA	472.0 / 427.0	3.06	82229.32	213.222111	393.4	false
13C6-PFDA	519.0 / 474.0	3.42	105911.69	271.531411	576.5	false
13C7-PFUnA	570.0 / 525.0	3.74	96506.62	269.804241	587.1	false
13C2-PFTeDA	715.0 / 670.0	4.51	70115.69	224.467307	1363.3	false
13C3-PFBS	302.0 / 99.0	1.51	30932.31	310.910973	173.1	false
13C3-PFHxS	402.0 / 99.0	2.27	26344.42	292.256805	158.5	false
13C8-PFOS	507.0 / 99.0	3.05	29535.94	312.385113	115.6	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:25 PM

Sample Name	J8396-FS-D(3)	**Injection Vial**	5
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:16:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	86817.32	257.908751	720.2	false
d3-MeFOSAA	573.0 / 419.0	3.58	13731.94	249.175217	190.4	false
d5-EtFOSAA	589.0 / 419.0	3.74	13986.77	247.766632	163.9	false
13C5-PFHxA	318.0 / 273.0	1.84	77951.31	332.126808	250.3	false
13C4-PFHpA	367.0 / 322.0	2.25	82545.15	312.885301	523.6	false
13C8-PFOA	421.0 / 376.0	2.67	86132.71	267.965536	856.7	false
13C9-PFNA	472.0 / 427.0	3.06	84087.52	261.103735	601.9	false
13C6-PFDA	519.0 / 474.0	3.42	92632.06	275.692807	1049.2	false
13C7-PFUnA	570.0 / 525.0	3.74	92838.10	301.304656	631.1	false
13C2-PFTeDA	715.0 / 670.0	4.50	71579.10	266.018642	1181.7	false
13C3-PFBS	302.0 / 99.0	1.52	39863.82	333.358773	334.1	false
13C3-PFHxS	402.0 / 99.0	2.28	26961.99	248.849737	292.7	false
13C8-PFOS	507.0 / 99.0	3.06	26330.01	231.686050	183.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:29 PM

Sample Name	J8397-FS(0)	**Injection Vial**	6
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:27:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	97590.29	315.192959	1116.8	false
d3-MeFOSAA	573.0 / 419.0	3.58	11509.29	277.916360	128.2	false
d5-EtFOSAA	589.0 / 419.0	3.73	15209.20	358.529098	153.9	false
13C5-PFHxA	318.0 / 273.0	1.83	66057.25	235.419307	113.6	false
13C4-PFHpA	367.0 / 322.0	2.24	80845.01	256.323197	247.9	false
13C8-PFOA	421.0 / 376.0	2.66	75449.02	196.338510	350.7	false
13C9-PFNA	472.0 / 427.0	3.06	77175.34	200.447741	334.8	false
13C6-PFDA	519.0 / 474.0	3.41	91465.16	295.957969	472.8	false
13C7-PFUnA	570.0 / 525.0	3.73	90017.22	317.625564	504.0	false
13C2-PFTeDA	715.0 / 670.0	4.50	75719.96	305.947166	1264.4	false
13C3-PFBS	302.0 / 99.0	1.51	22952.57	255.421204	191.6	false
13C3-PFHxS	402.0 / 99.0	2.27	24913.91	305.998891	148.1	false
13C8-PFOS	507.0 / 99.0	3.05	22064.40	258.364993	104.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:33 PM

Sample Name	J8397-FS-D(3)	**Injection Vial**	7
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:38:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	86335.89	243.396469	939.9	false
d3-MeFOSAA	573.0 / 419.0	3.58	12022.05	221.060210	156.8	false
d5-EtFOSAA	589.0 / 419.0	3.74	13682.42	245.610773	159.6	false
13C5-PFHxA	318.0 / 273.0	1.84	79010.80	309.405450	229.8	false
13C4-PFHpA	367.0 / 322.0	2.25	87637.74	305.313316	429.0	false
13C8-PFOA	421.0 / 376.0	2.66	82197.97	235.035191	810.5	false
13C9-PFNA	472.0 / 427.0	3.06	77701.74	221.754905	602.0	false
13C6-PFDA	519.0 / 474.0	3.41	91519.26	258.487654	686.7	false
13C7-PFUnA	570.0 / 525.0	3.73	91322.47	281.268094	541.8	false
13C2-PFTeDA	715.0 / 670.0	4.50	71913.27	253.628512	1788.7	false
13C3-PFBS	302.0 / 99.0	1.52	37100.82	314.394930	376.1	false
13C3-PFHxS	402.0 / 99.0	2.27	30327.60	283.649808	249.4	false
13C8-PFOS	507.0 / 99.0	3.05	28100.71	250.567771	217.3	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:37 PM

Sample Name	J8398-FS(0)	**Injection Vial**	8
Sample ID	VC-AQ-FB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:49:21	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.02	85649.24	264.775992	584.7	false
d3-MeFOSAA	573.0 / 419.0	3.57	12552.01	262.639322	185.2	false
d5-EtFOSAA	589.0 / 419.0	3.73	13575.57	277.304495	203.1	false
13C5-PFHxA	318.0 / 273.0	1.84	58885.31	252.844774	645.3	false
13C4-PFHpA	367.0 / 322.0	2.25	64203.53	245.255661	634.0	false
13C8-PFOA	421.0 / 376.0	2.66	79436.24	249.055426	1066.1	false
13C9-PFNA	472.0 / 427.0	3.05	75042.30	234.830305	4485.8	false
13C6-PFDA	519.0 / 474.0	3.41	88523.26	274.168117	662.0	false
13C7-PFUnA	570.0 / 525.0	3.73	88587.46	299.190158	910.4	false
13C2-PFTeDA	715.0 / 670.0	4.49	67323.60	260.368619	1580.1	false
13C3-PFBS	302.0 / 99.0	1.52	25213.51	243.130670	393.8	false
13C3-PFHxS	402.0 / 99.0	2.27	21563.18	229.494160	272.7	false
13C8-PFOS	507.0 / 99.0	3.05	23380.47	237.233209	215.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:41 PM

Sample Name	J8399-FS(0)	**Injection Vial**	11
Sample ID	VC-AQ-EB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:21:57	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.02	92772.11	279.019409	767.7	false
d3-MeFOSAA	573.0 / 419.0	3.57	13255.49	261.029738	187.9	false
d5-EtFOSAA	589.0 / 419.0	3.73	15481.02	297.609208	172.4	false
13C5-PFHxA	318.0 / 273.0	1.84	63461.38	272.818581	667.4	false
13C4-PFHpA	367.0 / 322.0	2.25	65688.87	251.228744	486.3	false
13C8-PFOA	421.0 / 376.0	2.66	87274.65	273.957315	2182.4	false
13C9-PFNA	472.0 / 427.0	3.05	78240.46	245.130230	922.3	false
13C6-PFDA	519.0 / 474.0	3.41	94129.63	283.627145	971.2	false
13C7-PFUnA	570.0 / 525.0	3.73	89148.31	292.920689	555.2	false
13C2-PFTeDA	715.0 / 670.0	4.49	81164.21	305.385032	1826.0	false
13C3-PFBS	302.0 / 99.0	1.52	27515.37	249.706478	399.3	false
13C3-PFHxS	402.0 / 99.0	2.27	24107.27	241.465350	291.5	false
13C8-PFOS	507.0 / 99.0	3.05	23435.96	223.796411	187.7	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:45 PM

Sample Name	J8400-FS(0)	**Injection Vial**	12
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:32:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.02	95141.26	320.752780	922.8	false
d3-MeFOSAA	573.0 / 419.0	3.57	11206.34	431.328236	122.6	true
d5-EtFOSAA	589.0 / 419.0	3.73	16867.66	633.798844	131.0	false
13C5-PFHxA	318.0 / 273.0	1.82	51264.77	197.175029	96.9	false
13C4-PFHpA	367.0 / 322.0	2.23	57047.07	195.199787	191.5	false
13C8-PFOA	421.0 / 376.0	2.65	53029.43	148.929312	288.2	false
13C9-PFNA	472.0 / 427.0	3.04	48126.55	134.902069	235.2	false
13C6-PFDA	519.0 / 474.0	3.40	79571.39	268.758966	440.7	false
13C7-PFUnA	570.0 / 525.0	3.72	95257.56	350.849545	648.3	false
13C2-PFTeDA	715.0 / 670.0	4.48	74436.47	313.944956	1791.1	false
13C3-PFBS	302.0 / 99.0	1.50	17917.26	317.815948	125.4	false
13C3-PFHxS	402.0 / 99.0	2.26	20108.02	393.664091	124.2	true
13C8-PFOS	507.0 / 99.0	3.04	13239.00	247.101441	77.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:50 PM

Sample Name	J8400-FS-D(3)	**Injection Vial**	13
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:43:40	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.02	88864.22	261.356529	870.8	false
d3-MeFOSAA	573.0 / 419.0	3.57	13808.33	296.897735	158.3	false
d5-EtFOSAA	589.0 / 419.0	3.73	15952.30	334.843102	191.4	false
13C5-PFHxA	318.0 / 273.0	1.83	81418.68	345.722656	218.7	false
13C4-PFHpA	367.0 / 322.0	2.25	80856.90	305.445654	463.9	false
13C8-PFOA	421.0 / 376.0	2.66	79302.09	245.877446	621.9	false
13C9-PFNA	472.0 / 427.0	3.05	74022.81	229.071116	517.4	false
13C6-PFDA	519.0 / 474.0	3.41	94403.31	278.162199	513.8	false
13C7-PFUnA	570.0 / 525.0	3.73	87330.78	280.603895	479.6	false
13C2-PFTeDA	715.0 / 670.0	4.48	70634.51	259.889970	2425.2	false
13C3-PFBS	302.0 / 99.0	1.51	34886.45	345.686520	254.0	true
13C3-PFHxS	402.0 / 99.0	2.27	26242.78	287.003986	200.5	false
13C8-PFOS	507.0 / 99.0	3.05	23617.46	246.249192	174.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:59:54 PM

Sample Name	J8400-FS-D(5)	**Injection Vial**	14
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:54:32	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.02	88822.45	253.399976	653.4	false
d3-MeFOSAA	573.0 / 419.0	3.57	15204.67	307.424643	227.7	false
d5-EtFOSAA	589.0 / 419.0	3.73	14896.13	294.027193	181.9	false
13C5-PFHxA	318.0 / 273.0	1.84	67826.66	277.967355	281.2	false
13C4-PFHpA	367.0 / 322.0	2.25	78525.74	286.298109	576.2	false
13C8-PFOA	421.0 / 376.0	2.66	82529.18	246.962595	900.8	false
13C9-PFNA	472.0 / 427.0	3.05	81168.09	242.426261	886.7	false
13C6-PFDA	519.0 / 474.0	3.41	90050.00	257.378337	689.2	false
13C7-PFUnA	570.0 / 525.0	3.73	89686.97	279.533041	816.5	false
13C2-PFTeDA	715.0 / 670.0	4.49	70220.72	250.619759	2011.8	false
13C3-PFBS	302.0 / 99.0	1.52	34936.78	325.540160	308.6	false
13C3-PFHxS	402.0 / 99.0	2.27	25833.28	265.676800	320.4	false
13C8-PFOS	507.0 / 99.0	3.05	24135.31	236.641235	187.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:49:07 PM

Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:04:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 26/10/2018 11:06:06 AM

Sample Name	J8369-FS-D(3)	**Injection Vial**	5
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:37:10	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.29	586060.89	1572.929192	274.9	false
PFHxS_2	399.0 / 99.0	2.29	167920.18	1578.651617	351.9	false
PFOS_1	499.0 / 80.0	3.06	1379838.70	2516.199836	318.7	false
PFOS_2	499.0 / 99.0	3.08	223770.29	2295.458364	391.5	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:49:15 PM

Sample Name	J8395-FS-D(5)	**Injection Vial**	6
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:48:02	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	2.68	1305147.81	3768.713318	296.4	false
PFOA_2	413.0 / 369.0	2.68	1305147.81	3768.713318	296.4	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:49:19 PM

Sample Name	J8400-FS-D(7)	**Injection Vial**	7
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:58:54	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.29	341099.41	944.089550	236.2	false
PFHxS_2	399.0 / 99.0	2.29	96477.25	935.186197	269.9	false
PFOS_1	499.0 / 80.0	3.07	1334313.76	2375.073574	334.2	false
PFOS_2	499.0 / 99.0	3.08	224088.89	2243.701453	600.1	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:21:37 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	4270.08	7.967207	23.4	true
PFBS_2	298.9 / 99.0	1.57	1751.65	15.187213	22.1	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	3.11	5116.99	< 0	29.4	false
PFNA_2	463.0 / 219.0	3.11	1412.81	< 0	28.4	false
PFOS_1	499.0 / 80.0	3.10	10007.21	20.457445	28.3	false
PFOS_2	499.0 / 99.0	3.11	2107.71	23.036162	36.0	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.08	4132.45	< 0	50.7	false
PFDoA_2	613.0 / 319.0	4.08	648.21	< 0	25.1	false
PFTrDA_1	663.0 / 619.0	4.32	3827.82	< 0	101.8	false
PFTrDA_2	663.0 / 169.0	4.34	292.14	< 0	21.8	false
PFTeDA_1	713.0 / 669.0	4.54	4005.90	< 0	149.6	false
PFTeDA_2	713.0 / 169.0	4.54	211.66	< 0	28.3	false
NMeFOSAA_1	570.0 / 419.0	3.63	1091.61	< 0	277.3	false
NMeFOSAA_2	570.0 / 512.0	3.61	558.08	< 0	27.6	false
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:22:00 PM

Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:22:08 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	8
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:32:58	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	1.88	1795315.52	6874.561397	192.1	false
PFHxA_2	313.0 / 119.0	1.88	117394.25	6014.543666	156.5	false
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:22:12 PM

Sample Name	J8358-FS(0)	**Injection Vial**	9
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:43:49	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.55	24692170.60	55311.557138	1235.5	false
PFBS_2	298.9 / 99.0	1.55	7842293.39	59819.454581	1710.1	false
PFHxA_1	313.0 / 269.0	1.88	51959145.11	205650.125363	831.1	false
PFHxA_2	313.0 / 119.0	1.88	4135997.84	219784.223821	764.5	false
PFHpA_1	363.0 / 319.0	2.29	9736361.21	38090.824139	834.5	false
PFHpA_2	363.0 / 169.0	2.28	210450.03	38851.957263	665.5	false
PFHxS_1	399.0 / 80.0	2.31	95633108.96	339406.776727	852.3	false
PFHxS_2	399.0 / 99.0	2.31	40642237.19	517368.473453	1555.6	false
PFOA_1	413.0 / 369.0	2.70	34935642.39	149471.326341	1335.9	false
PFOA_2	413.0 / 169.0	2.70	2739521.88	180491.482316	1174.1	false
PFNA_1	463.0 / 419.0	3.10	692824.84	6605.680197	408.2	false
PFNA_2	463.0 / 219.0	3.10	215222.66	6653.084838	360.8	false
PFOS_1	499.0 / 80.0	3.03	204222786.47	1112229.590674	390.3	false
PFOS_2	499.0 / 99.0	3.10	115323262.11	3617871.079319	1859.8	false
PFDA_1	513.0 / 469.0	3.45	92704.11	285.090642	169.5	false
PFDA_2	513.0 / 219.0	3.30	8967.46	696.250934	80.0	false
PFUnA_1	563.0 / 519.0	3.68	63732.36	166.007338	171.7	false
PFUnA_2	563.0 / 269.0	3.57	5651.77	313.587706	102.6	false
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:22:16 PM

Sample Name	J8400-FS-D(9)	**Injection Vial**	10
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:05:33	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.31	824722.38	2931.294933	500.0	false
PFHxS_2	399.0 / 99.0	2.31	240148.71	3057.204270	639.3	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:22:19 PM

Sample Name	J8371-FS-D(9)	**Injection Vial**	11
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:16:26	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	2.28	1420378.40	6504.814462	411.6	false
PFHpA_2	363.0 / 169.0	2.28	33540.42	7193.400648	263.0	false
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:58:37 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	91698.47	244.195426	1281.1	false
d3-MeFOSAA	573.0 / 419.0	3.61	16302.89	250.085369	195.5	false
d5-EtFOSAA	589.0 / 419.0	3.78	17051.45	239.580705	212.6	false
13C5-PFHxA	318.0 / 273.0	1.87	61987.66	244.293373	826.7	false
13C4-PFHpA	367.0 / 322.0	2.28	70438.43	244.000657	1152.0	false
13C8-PFOA	421.0 / 376.0	2.70	88535.23	252.114367	1604.4	false
13C9-PFNA	472.0 / 427.0	3.09	100138.19	249.732890	1149.5	false
13C6-PFDA	519.0 / 474.0	3.45	97258.51	257.077741	4005.3	false
13C7-PFUnA	570.0 / 525.0	3.78	88898.52	254.380465	800.7	false
13C2-PFTeDA	715.0 / 670.0	4.54	70451.22	232.374509	2131.0	false
13C3-PFBS	302.0 / 99.0	1.55	25201.92	220.626542	798.1	false
13C3-PFHxS	402.0 / 99.0	2.31	25094.63	242.439381	606.8	false
13C8-PFOS	507.0 / 99.0	3.09	26831.98	229.467599	276.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:01:24 PM

Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	83378.86	255.146181	1181.3	false
d3-MeFOSAA	573.0 / 419.0	3.64	9307.65	147.415465	160.5	false
d5-EtFOSAA	589.0 / 419.0	3.80	11069.66	160.584720	190.1	false
13C5-PFHxA	318.0 / 273.0	1.89	53978.91	265.037881	552.5	false
13C4-PFHpA	367.0 / 322.0	2.30	59454.32	256.591413	770.0	false
13C8-PFOA	421.0 / 376.0	2.72	73559.14	260.972929	2105.8	false
13C9-PFNA	472.0 / 427.0	3.12	82966.73	257.784793	1321.9	false
13C6-PFDA	519.0 / 474.0	3.48	81246.25	246.773110	673.0	false
13C7-PFUnA	570.0 / 525.0	3.80	77126.81	253.601788	7704.2	false
13C2-PFTeDA	715.0 / 670.0	4.56	68651.72	260.201077	1906.3	false
13C3-PFBS	302.0 / 99.0	1.55	22650.61	204.730817	383.7	false
13C3-PFHxS	402.0 / 99.0	2.33	20358.95	203.075227	270.2	false
13C8-PFOS	507.0 / 99.0	3.11	27967.03	246.941588	220.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:01:32 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	8
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:32:58	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	99999.42	279.531732	1774.7	false
d3-MeFOSAA	573.0 / 419.0	3.61	11619.26	256.789355	233.6	false
d5-EtFOSAA	589.0 / 419.0	3.77	13556.82	274.424825	206.1	false
13C5-PFHxA	318.0 / 273.0	1.87	65957.42	285.832564	442.0	false
13C4-PFHpA	367.0 / 322.0	2.28	76070.80	289.761622	894.6	false
13C8-PFOA	421.0 / 376.0	2.70	84986.65	266.117663	1616.9	false
13C9-PFNA	472.0 / 427.0	3.09	90214.45	247.396546	1027.1	false
13C6-PFDA	519.0 / 474.0	3.45	94228.08	261.441995	852.4	false
13C7-PFUnA	570.0 / 525.0	3.77	86097.07	258.604334	842.2	false
13C2-PFTeDA	715.0 / 670.0	4.51	82194.23	284.576768	1602.8	false
13C3-PFBS	302.0 / 99.0	1.54	32956.86	415.666325	395.8	false
13C3-PFHxS	402.0 / 99.0	2.30	23349.81	324.997958	278.9	false
13C8-PFOS	507.0 / 99.0	3.09	24680.24	304.083649	226.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:01:35 PM

Sample Name	J8358-FS(0)	**Injection Vial**	9
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:43:49	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	93250.26	387.307228	1332.7	true
d3-MeFOSAA	573.0 / 419.0	3.60	12891.41	771.035096	231.3	false
d5-EtFOSAA	589.0 / 419.0	3.76	12869.63	705.028359	214.4	false
13C5-PFHxA	318.0 / 273.0	1.87	64115.35	262.089879	480.4	false
13C4-PFHpA	367.0 / 322.0	2.28	72809.89	261.609486	1202.9	false
13C8-PFOA	421.0 / 376.0	2.70	58263.49	172.091624	984.1	false
13C9-PFNA	472.0 / 427.0	3.09	31496.42	81.473993	472.3	false
13C6-PFDA	519.0 / 474.0	3.44	72677.14	299.615864	764.6	false
13C7-PFUnA	570.0 / 525.0	3.76	83805.09	374.015646	763.5	true
13C2-PFTeDA	715.0 / 670.0	4.51	85100.32	437.785371	2546.6	false
13C3-PFBS	302.0 / 99.0	1.53	35656.69	1217.068919	362.1	false
13C3-PFHxS	402.0 / 99.0	2.30	19856.04	747.937058	224.2	false
13C8-PFOS	507.0 / 99.0	3.09	9264.55	308.917837	135.3	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:01:39 PM

Sample Name	J8400-FS-D(9)	**Injection Vial**	10
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:05:33	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	80932.76	227.689723	795.5	false
d3-MeFOSAA	573.0 / 419.0	3.60	9464.85	165.342829	169.8	false
d5-EtFOSAA	589.0 / 419.0	3.76	10993.05	175.896293	170.9	false
13C5-PFHxA	318.0 / 273.0	1.86	50980.10	216.059596	412.8	false
13C4-PFHpA	367.0 / 322.0	2.28	61072.90	227.507786	826.0	false
13C8-PFOA	421.0 / 376.0	2.69	72144.43	220.927930	930.3	false
13C9-PFNA	472.0 / 427.0	3.08	80002.10	214.557536	699.3	false
13C6-PFDA	519.0 / 474.0	3.44	77290.79	215.828216	986.8	false
13C7-PFUnA	570.0 / 525.0	3.76	73532.65	222.286488	1387.3	false
13C2-PFTeDA	715.0 / 670.0	4.51	66812.48	232.809762	1542.1	false
13C3-PFBS	302.0 / 99.0	1.53	26485.28	264.044159	333.1	false
13C3-PFHxS	402.0 / 99.0	2.30	19599.53	215.633337	247.4	false
13C8-PFOS	507.0 / 99.0	3.08	23607.64	229.915978	234.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:01:42 PM

Sample Name	J8371-FS-D(9)	**Injection Vial**	11
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:16:26	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	77541.54	205.987946	1362.5	false
d3-MeFOSAA	573.0 / 419.0	3.60	10482.98	168.696502	180.4	false
d5-EtFOSAA	589.0 / 419.0	3.76	10735.46	158.237301	194.1	false
13C5-PFHxA	318.0 / 273.0	1.86	51291.74	212.986691	403.7	false
13C4-PFHpA	367.0 / 322.0	2.27	62046.68	226.463599	864.1	false
13C8-PFOA	421.0 / 376.0	2.69	70763.56	212.319395	968.1	false
13C9-PFNA	472.0 / 427.0	3.08	70056.24	184.086250	796.1	false
13C6-PFDA	519.0 / 474.0	3.44	77235.20	203.649843	6370.3	false
13C7-PFUnA	570.0 / 525.0	3.76	71567.16	204.284280	1121.2	false
13C2-PFTeDA	715.0 / 670.0	4.50	65325.54	214.938847	1816.5	false
13C3-PFBS	302.0 / 99.0	1.53	28588.38	262.549495	391.5	false
13C3-PFHxS	402.0 / 99.0	2.30	18204.04	184.496265	241.6	false
13C8-PFOS	507.0 / 99.0	3.08	22618.39	202.921463	218.5	false

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:32:54 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.460	0.302	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.070	0.058	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.190	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.230	0.185	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.080	0.041	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.53	PFTeDA	0.100	0.048	
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	1.150	0.575	
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:32:57 PM

Sample Name	CR890PB-FS(0)	**Injection Vial**	10
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:28:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.070	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:03 PM

Sample Name	CR891LCS-FS(0)	**Injection Vial**	11
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:39:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.158	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.550	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.070	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:15 PM

Sample Name	J8358-FS-D(3)	**Injection Vial**	13
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:00:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.54	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.01	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.240	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:20 PM

Sample Name	J8358-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:11:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.150	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:27 PM

Sample Name	J8358-FS-D(7)	**Injection Vial**	15
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:22:34	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:31 PM

Sample Name	J8359-FS(0)	**Injection Vial**	16
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:33:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.350	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.23	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.640	0.285	
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.57	PFOA	0.120	0.058	
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.43	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:34 PM

Sample Name	J8359-FS-D(3)	**Injection Vial**	17
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:44:17	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.320	0.285	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.58	PFOA	0.110	0.058	
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.04	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.140	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:38 PM

Sample Name	J8359-FS-D(5)	**Injection Vial**	18
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:55:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:42 PM

Sample Name	J8359-FS-D(7)	**Injection Vial**	19
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:06:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:46 PM

Sample Name	J8368-FS(0)	**Injection Vial**	22
Sample ID	VC-SO-FB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:38:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.320	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.160	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:50 PM

Sample Name	J8369-FS(0)	**Injection Vial**	23
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:49:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.060	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.22	PFHpA	0.030	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.420	0.306	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.160	0.185	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:54 PM

Sample Name	J8370-FS(0)	**Injection Vial**	24
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:00:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.330	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.25	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.540	0.285	
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	3.05	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.00	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.130	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	3.42	PFDoA			
PFDoA_2	613.0 / 319.0	3.70	PFDoA	0.180	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:00 PM

Sample Name	J8370-FS-D(3)	**Injection Vial**	25
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:11:23	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.02	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.160	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:05 PM

Sample Name	J8370-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:22:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:15 PM

Sample Name	J8371-FS(0)	**Injection Vial**	28
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:43:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.52	PFBS	0.330	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.24	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.560	0.285	
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	3.05	PFNA			
PFNA_2	463.0 / 219.0	3.05	PFNA	0.360	0.306	ü
PFOS_1	499.0 / 80.0	2.99	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:20 PM

Sample Name	J8371-FS-D(3)	**Injection Vial**	29
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:54:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:24 PM

Sample Name	J8371-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:05:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:29 PM

Sample Name	J8371-FS-D(7)	**Injection Vial**	31
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:16:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:37 PM

Sample Name	J8372-FS(0)	**Injection Vial**	33
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:49:16	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.52	PFBS			
PFBS_2	298.9 / 99.0	1.52	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.340	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.080	0.058	ü
PFNA_1	463.0 / 419.0	3.05	PFNA			
PFNA_2	463.0 / 219.0	3.05	PFNA	0.340	0.306	ü
PFOS_1	499.0 / 80.0	2.98	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.330	0.185	
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.40	PFDA	0.030	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:44 PM

Sample Name	J8372-FS-D(3)	**Injection Vial**	34
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:00:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.52	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.070	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:48 PM

Sample Name	J8372-FS-D(5)	**Injection Vial**	35
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:11:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:53 PM

Sample Name	J8372-FS-D(7)	**Injection Vial**	36
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:21:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.190	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:34:59 PM

Sample Name	J8382-FS(0)	**Injection Vial**	37
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:32:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.52	PFBS			
PFBS_2	298.9 / 99.0	1.52	PFBS	0.230	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.330	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.080	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.340	0.306	ü
PFOS_1	499.0 / 80.0	3.04	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.40	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:03 PM

Sample Name	J8382-FS-D(3)	**Injection Vial**	38
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:43:42	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:07 PM

Sample Name	J8383-FS(0)	**Injection Vial**	39
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:54:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.52	PFBS			
PFBS_2	298.9 / 99.0	1.52	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.410	0.285	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	3.05	PFNA			
PFNA_2	463.0 / 219.0	3.05	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	2.97	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.310	0.185	
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:11 PM

Sample Name	J8383-FS-D(3)	**Injection Vial**	40
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:05:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:15 PM

Sample Name	J8383-FS-D(5)	**Injection Vial**	41
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:16:22	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:18 PM

Sample Name	J8383-FS-D(7)	**Injection Vial**	42
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:27:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:23 PM

Sample Name	J8384-FS(0)	**Injection Vial**	44
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:59:56	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.52	PFBS			
PFBS_2	298.9 / 99.0	1.52	PFBS	0.280	0.302	ü
PFHxA_1	313.0 / 269.0	1.83	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.072	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.560	0.285	
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	3.05	PFNA			
PFNA_2	463.0 / 219.0	3.05	PFNA	0.350	0.306	ü
PFOS_1	499.0 / 80.0	2.96	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.420	0.185	
PFDA_1	513.0 / 469.0	3.40	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:27 PM

Sample Name	J8384-FS-D(3)	**Injection Vial**	45
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:10:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.300	0.285	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.210	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:35 PM

Sample Name	J8384-FS-D(7)	**Injection Vial**	47
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:32:33	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:40 PM

Sample Name	J8384-FS-D(9)	**Injection Vial**	48
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:43:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:45 PM

Sample Name	J8385-FS(0)	**Injection Vial**	49
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:54:20	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.560	0.285	
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	2.97	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.400	0.185	
PFDA_1	513.0 / 469.0	3.40	PFDA			
PFDA_2	513.0 / 219.0	3.40	PFDA	0.030	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:49 PM

Sample Name	J8385-FS-D(3)	**Injection Vial**	50
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:05:13	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:54 PM

Sample Name	J8385-FS-D(5)	**Injection Vial**	51
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:16:05	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:59 PM

Sample Name	J8385-FS-D(7)	**Injection Vial**	52
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:26:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.190	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:36:03 PM

Sample Name	J8385-FS-D(9)	**Injection Vial**	53
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:37:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:36:26 PM

Sample Name	J8395-FS(0)	**Injection Vial**	2
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:44:08	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.50	PFBS			
PFBS_2	298.9 / 99.0	1.50	PFBS	0.180	0.302	ü
PFHxA_1	313.0 / 269.0	1.82	PFHxA			
PFHxA_2	313.0 / 119.0	1.82	PFHxA	0.050	0.072	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.22	PFHpA	0.030	0.020	ü
PFHxS_1	399.0 / 80.0	2.26	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	2.95	PFNA			
PFNA_2	463.0 / 219.0	2.95	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.130	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.550	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.77	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.060	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:36:30 PM

Sample Name	J8395-FS-D(3)	**Injection Vial**	3
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:55:00	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.060	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.130	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:36:34 PM

Sample Name	J8396-FS(0)	**Injection Vial**	4
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:05:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.250	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.21	PFHpA	0.030	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	3.07	PFNA			
PFNA_2	463.0 / 219.0	3.07	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.160	0.185	ü
PFDA_1	513.0 / 469.0	3.43	PFDA			
PFDA_2	513.0 / 219.0	3.43	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.75	PFUnA	0.060	0.054	ü
PFDoA_1	613.0 / 569.0	4.04	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:36:39 PM

Sample Name	J8396-FS-D(3)	**Injection Vial**	5
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:16:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.160	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:36:43 PM

Sample Name	J8397-FS(0)	**Injection Vial**	6
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:27:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.52	PFBS			
PFBS_2	298.9 / 99.0	1.52	PFBS	0.220	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.19	PFHpA	0.040	0.020	
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	2.95	PFNA			
PFNA_2	463.0 / 219.0	2.95	PFNA	0.340	0.306	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.43	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.75	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	
PFDoA_1	613.0 / 569.0	4.03	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:36:47 PM

Sample Name	J8397-FS-D(3)	**Injection Vial**	7
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:38:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.060	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:36:52 PM

Sample Name	J8398-FS(0)	**Injection Vial**	8
Sample ID	VC-AQ-FB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:49:21	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.320	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	3.05	PFNA			
PFNA_2	463.0 / 219.0	3.25	PFNA	0.200	0.306	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.240	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:36:56 PM

Sample Name	J8399-FS(0)	**Injection Vial**	11
Sample ID	VC-AQ-EB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:21:57	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.83	PFBS			
PFBS_2	298.9 / 99.0	1.83	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.26	PFHxS	0.310	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.070	0.058	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.280	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.150	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:37:01 PM

Sample Name	J8400-FS(0)	**Injection Vial**	12
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:32:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.51	PFBS			
PFBS_2	298.9 / 99.0	1.51	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.83	PFHxA			
PFHxA_2	313.0 / 119.0	1.83	PFHxA	0.060	0.072	ü
PFHpA_1	363.0 / 319.0	2.24	PFHpA			
PFHpA_2	363.0 / 169.0	2.19	PFHpA	0.030	0.020	
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.450	0.285	
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	2.95	PFNA			
PFNA_2	463.0 / 219.0	2.94	PFNA	0.340	0.306	ü
PFOS_1	499.0 / 80.0	2.97	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.330	0.185	
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:37:05 PM

Sample Name	J8400-FS-D(3)	**Injection Vial**	13
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:43:40	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.060	0.072	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.20	PFHpA	0.030	0.020	
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.050	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.04	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.140	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:37:12 PM

Sample Name	J8400-FS-D(5)	**Injection Vial**	14
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:54:32	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:49:41 PM

Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:04:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:49:47 PM

Sample Name	J8369-FS-D(3)	**Injection Vial**	5
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:37:10	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.290	0.285	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.130	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:49:53 PM

Sample Name	J8395-FS-D(5)	**Injection Vial**	6
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:48:02	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 369.0	2.68	PFOA	1.000	1.000	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:49:58 PM

Sample Name	J8400-FS-D(7)	**Injection Vial**	7
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:58:54	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.280	0.285	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.170	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:24:51 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.410	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.280	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.210	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	4.08	PFDoA			
PFDoA_2	613.0 / 319.0	4.08	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.080	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.510	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:24:55 PM

Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:25:02 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	8
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:32:58	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:25:06 PM

Sample Name	J8358-FS(0)	**Injection Vial**	9
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:43:49	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.320	0.292	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.420	0.282	
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.080	0.065	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.560	0.174	
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	3.30	PFDA	0.100	0.041	
PFUnA_1	563.0 / 519.0	3.68	PFUnA			
PFUnA_2	563.0 / 269.0	3.57	PFUnA	0.090	0.049	
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:25:10 PM

Sample Name	J8400-FS-D(9)	**Injection Vial**	10
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:05:33	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 5:25:14 PM

Sample Name	J8371-FS-D(9)	**Injection Vial**	11
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:16:26	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:37:45 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	24552.93	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	24552.93	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	54750.90	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	54750.90	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	61985.92	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	61985.92	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	23029.74	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	23029.74	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	85450.51	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	85450.51	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	78595.95	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	78595.95	250.00
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	25607.23	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	25607.23	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	85705.91	250.00
PFDA_2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	85705.91	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	69477.27	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	69477.27	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	80124.04	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	80124.04	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	64277.73	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	64277.73	250.00
PFTeDA_1	713.0 / 669.0	4.52	13C2-PFTeDA	715.0 / 670.0	64277.73	250.00
PFTeDA_2	713.0 / 169.0	4.53	13C2-PFTeDA	715.0 / 670.0	64277.73	250.00
NMeFOSAA_1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	12010.64	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	12010.64	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	12812.20	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	12812.20	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:37:49 PM

Sample Name	CR890PB-FS(0)	**Injection Vial**	10
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:28:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	25649.88	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	25649.88	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	62215.05	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	62215.05	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	70784.31	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	70784.31	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	23338.59	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	23338.59	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	87485.65	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	87485.65	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	88930.62	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	88930.62	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	28015.40	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	28015.40	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	88623.52	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	88623.52	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	92030.22	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	92030.22	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	87695.56	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	87695.56	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	68028.61	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68028.61	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	68028.61	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68028.61	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13141.00	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13141.00	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13922.34	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13922.34	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:37:53 PM

Sample Name	CR891LCS-FS(0)	**Injection Vial**	11
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:39:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	31116.75	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	31116.75	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	66504.14	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	66504.14	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	71738.51	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	71738.51	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	26236.62	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	26236.62	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	82688.59	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	82688.59	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	86947.97	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	86947.97	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	29046.56	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	29046.56	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	96354.75	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	96354.75	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	93766.09	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	93766.09	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	99094.42	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	99094.42	250.00
PFTrDA_1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	77522.19	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	77522.19	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	77522.19	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	77522.19	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	13367.68	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	13367.68	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	15176.16	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	15176.16	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:01 PM

Sample Name	J8358-FS-D(3)	**Injection Vial**	13
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:00:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.54	13C3-PFBS	302.0 / 99.0	36091.34	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	36091.34	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	72172.97	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	72172.97	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	82334.81	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	82334.81	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	24971.63	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	24971.63	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	85700.47	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	85700.47	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	62356.37	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	62356.37	250.00
PFOS_1	499.0 / 80.0	3.01	13C8-PFOS	507.0 / 99.0	21402.45	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	21402.45	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	98245.88	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	98245.88	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	104962.87	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	104962.87	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	100992.18	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	100992.18	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	81603.84	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	81603.84	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	81603.84	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	81603.84	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14794.29	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14794.29	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	17833.22	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17833.22	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:05 PM

Sample Name	J8358-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:11:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	31754.31	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	31754.31	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	66085.67	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	66085.67	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	75556.57	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	75556.57	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	23013.45	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	23013.45	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	83381.90	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	83381.90	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	74529.18	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	74529.18	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	23087.73	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	23087.73	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	87959.75	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	87959.75	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	97321.20	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	97321.20	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	89629.96	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	89629.96	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	75631.72	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75631.72	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	75631.72	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75631.72	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13127.91	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13127.91	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14984.19	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14984.19	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:10 PM

Sample Name	J8358-FS-D(7)	**Injection Vial**	15
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:22:34	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	27199.59	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	27199.59	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	65807.55	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	65807.55	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	67029.45	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	67029.45	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	24194.82	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	24194.82	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	83550.47	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	83550.47	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	88710.39	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	88710.39	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	26883.92	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	26883.92	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	92522.13	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	92522.13	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	89233.54	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	89233.54	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	82981.42	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	82981.42	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	67271.39	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	67271.39	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	67271.39	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	67271.39	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14205.69	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14205.69	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14869.40	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14869.40	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:14 PM

Sample Name	J8359-FS(0)	**Injection Vial**	16
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:33:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	32570.72	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	32570.72	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	78473.61	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	78473.61	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	63036.95	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	63036.95	250.00
PFHxS_1	399.0 / 80.0	2.23	13C3-PFHxS	402.0 / 99.0	20751.71	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	20751.71	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	80740.88	250.00
PFOA_2	413.0 / 169.0	2.57	13C8-PFOA	421.0 / 376.0	80740.88	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	89540.50	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	89540.50	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	27435.35	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	27435.35	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	89654.67	250.00
PFDA_2	513.0 / 219.0	3.43	13C6-PFDA	519.0 / 474.0	89654.67	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	85026.76	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	85026.76	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	84970.86	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	84970.86	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	66423.55	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66423.55	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	66423.55	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66423.55	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11983.28	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11983.28	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15409.31	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15409.31	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:18 PM

Sample Name	J8359-FS-D(3)	**Injection Vial**	17
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:44:17	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	33293.52	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	33293.52	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	62285.25	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	62285.25	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	67929.69	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	67929.69	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	23826.83	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	23826.83	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	77705.17	250.00
PFOA_2	413.0 / 169.0	2.58	13C8-PFOA	421.0 / 376.0	77705.17	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	81589.38	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	81589.38	250.00
PFOS_1	499.0 / 80.0	3.04	13C8-PFOS	507.0 / 99.0	27028.17	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	27028.17	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	88634.80	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	88634.80	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	84460.64	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	84460.64	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	82262.61	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	82262.61	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	66580.62	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66580.62	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	66580.62	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66580.62	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12101.54	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12101.54	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13739.67	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13739.67	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:22 PM

Sample Name	J8359-FS-D(5)	**Injection Vial**	18
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:55:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	36382.64	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	36382.64	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	67946.33	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	67946.33	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	80994.85	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	80994.85	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25403.39	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25403.39	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	96768.35	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	96768.35	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	94176.55	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	94176.55	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	32534.02	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	32534.02	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	103398.25	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	103398.25	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	97953.33	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	97953.33	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	99416.11	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	99416.11	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	77254.97	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	77254.97	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	77254.97	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	77254.97	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	15309.98	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	15309.98	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15844.22	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15844.22	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:26 PM

Sample Name	J8359-FS-D(7)	**Injection Vial**	19
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:06:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	26192.98	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	26192.98	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	65377.36	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	65377.36	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	69897.05	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	69897.05	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	24816.03	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	24816.03	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	83276.41	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	83276.41	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	87398.11	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	87398.11	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	24860.39	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	24860.39	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	95168.78	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	95168.78	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	93694.27	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	93694.27	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	91519.84	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	91519.84	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	71703.43	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71703.43	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	71703.43	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71703.43	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13243.68	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13243.68	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14046.02	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14046.02	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:30 PM

Sample Name	J8368-FS(0)	**Injection Vial**	22
Sample ID	VC-SO-FB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:38:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	27944.10	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	27944.10	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	59257.15	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	59257.15	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	66531.46	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	66531.46	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	22878.52	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	22878.52	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	88877.32	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	88877.32	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	82645.53	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	82645.53	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	26783.44	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	26783.44	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	96534.86	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	96534.86	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	85943.21	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	85943.21	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	84241.46	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	84241.46	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	67285.57	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	67285.57	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	67285.57	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	67285.57	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12320.10	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12320.10	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15247.50	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15247.50	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:34 PM

Sample Name	J8369-FS(0)	**Injection Vial**	23
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:49:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	30491.65	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	30491.65	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	56357.20	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	56357.20	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	63929.57	250.00
PFHpA_2	363.0 / 169.0	2.22	13C4-PFHpA	367.0 / 322.0	63929.57	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	21910.07	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	21910.07	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	76586.94	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	76586.94	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	69518.52	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	69518.52	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	26889.08	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	26889.08	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	101318.44	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	101318.44	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	86481.76	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	86481.76	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	93144.45	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	93144.45	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	73637.45	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73637.45	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	73637.45	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73637.45	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12739.10	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12739.10	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13776.76	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13776.76	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:38 PM

Sample Name	J8370-FS(0)	**Injection Vial**	24
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:00:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	35823.45	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	35823.45	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	74553.18	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	74553.18	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	63507.28	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	63507.28	250.00
PFHxS_1	399.0 / 80.0	2.25	13C3-PFHxS	402.0 / 99.0	22408.47	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	22408.47	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	64680.26	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	64680.26	250.00
PFNA_1	463.0 / 419.0	3.05	13C9-PFNA	472.0 / 427.0	66163.10	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	66163.10	250.00
PFOS_1	499.0 / 80.0	3.00	13C8-PFOS	507.0 / 99.0	20458.62	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	20458.62	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	91353.83	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	91353.83	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	87385.60	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	87385.60	250.00
PFDoA_1	613.0 / 569.0	3.42	13C2-PFDoA	615.0 / 570.0	82702.81	250.00
PFDoA_2	613.0 / 319.0	3.70	13C2-PFDoA	615.0 / 570.0	82702.81	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	65945.45	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65945.45	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	65945.45	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65945.45	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14089.14	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14089.14	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14175.19	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14175.19	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:42 PM

Sample Name	J8370-FS-D(3)	**Injection Vial**	25
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:11:23	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	31060.11	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	31060.11	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	63957.36	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	63957.36	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	70068.61	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	70068.61	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	21758.24	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	21758.24	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	80745.09	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	80745.09	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	83217.86	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	83217.86	250.00
PFOS_1	499.0 / 80.0	3.02	13C8-PFOS	507.0 / 99.0	28458.28	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	28458.28	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	90929.02	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	90929.02	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	87573.96	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	87573.96	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	83858.10	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	83858.10	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	70268.48	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70268.48	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	70268.48	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70268.48	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13796.11	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13796.11	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14817.96	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14817.96	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:48 PM

Sample Name	J8370-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:22:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	28095.53	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	28095.53	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	63540.34	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	63540.34	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	66611.58	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	66611.58	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	22479.79	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	22479.79	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	84199.56	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	84199.56	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	84248.58	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	84248.58	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	28708.39	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	28708.39	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	86182.44	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	86182.44	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	87922.43	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	87922.43	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	90764.54	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	90764.54	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	67962.42	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	67962.42	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	67962.42	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	67962.42	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12922.06	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12922.06	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14304.33	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14304.33	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:38:57 PM

Sample Name	J8371-FS(0)	**Injection Vial**	28
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:43:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	38202.56	232.25
PFBS_2	298.9 / 99.0	1.52	13C3-PFBS	302.0 / 99.0	38202.56	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	75881.97	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	75881.97	250.00
PFHpA_1	363.0 / 319.0	2.24	13C4-PFHpA	367.0 / 322.0	66704.43	250.00
PFHpA_2	363.0 / 169.0	2.23	13C4-PFHpA	367.0 / 322.0	66704.43	250.00
PFHxS_1	399.0 / 80.0	2.24	13C3-PFHxS	402.0 / 99.0	21868.23	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	21868.23	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	72613.84	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	72613.84	250.00
PFNA_1	463.0 / 419.0	3.05	13C9-PFNA	472.0 / 427.0	64424.30	250.00
PFNA_2	463.0 / 219.0	3.05	13C9-PFNA	472.0 / 427.0	64424.30	250.00
PFOS_1	499.0 / 80.0	2.99	13C8-PFOS	507.0 / 99.0	18449.86	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	18449.86	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	91901.71	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	91901.71	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	92569.09	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	92569.09	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	85409.55	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	85409.55	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	70638.29	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70638.29	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	70638.29	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70638.29	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12721.36	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12721.36	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15936.79	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15936.79	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:39:02 PM

Sample Name	J8371-FS-D(3)	**Injection Vial**	29
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:54:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	36296.52	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	36296.52	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	78874.77	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	78874.77	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	87494.66	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	87494.66	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	28772.06	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	28772.06	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	107802.75	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	107802.75	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	103341.92	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	103341.92	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	32922.32	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	32922.32	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	114904.40	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	114904.40	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	118004.47	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	118004.47	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	111860.69	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	111860.69	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	85821.29	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	85821.29	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	85821.29	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	85821.29	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16410.26	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16410.26	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19095.23	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19095.23	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:39:07 PM

Sample Name	J8371-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:05:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	24404.95	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	24404.95	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	58049.48	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	58049.48	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	69686.99	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	69686.99	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	22448.70	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	22448.70	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	87125.21	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	87125.21	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	87115.04	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	87115.04	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	25545.36	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	25545.36	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	88540.36	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	88540.36	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	88068.83	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	88068.83	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	82987.85	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	82987.85	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	69167.36	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69167.36	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	69167.36	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69167.36	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13552.16	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13552.16	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15961.02	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15961.02	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	J8371-FS-D(7)	**Injection Vial**	31
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:16:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	30235.79	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	30235.79	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	65684.53	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	65684.53	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	72292.69	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	72292.69	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	28171.82	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	28171.82	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	86245.59	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	86245.59	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	96959.29	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	96959.29	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	29354.31	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	29354.31	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	96283.59	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	96283.59	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	96349.90	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	96349.90	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	90844.86	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	90844.86	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	71359.38	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71359.38	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	71359.38	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71359.38	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12882.28	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12882.28	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13683.85	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13683.85	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	J8372-FS(0)	**Injection Vial**	33
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:49:16	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.52	13C3-PFBS	302.0 / 99.0	40394.68	232.25
PFBS_2	298.9 / 99.0	1.52	13C3-PFBS	302.0 / 99.0	40394.68	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	87708.32	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	87708.32	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	88970.66	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	88970.66	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	26924.14	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	26924.14	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	74674.81	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	74674.81	250.00
PFNA_1	463.0 / 419.0	3.05	13C9-PFNA	472.0 / 427.0	49635.16	250.00
PFNA_2	463.0 / 219.0	3.05	13C9-PFNA	472.0 / 427.0	49635.16	250.00
PFOS_1	499.0 / 80.0	2.98	13C8-PFOS	507.0 / 99.0	14492.01	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	14492.01	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	80564.32	250.00
PFDA_2	513.0 / 219.0	3.40	13C6-PFDA	519.0 / 474.0	80564.32	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	97074.57	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	97074.57	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	104996.54	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	104996.54	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	78217.19	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	78217.19	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	78217.19	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	78217.19	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14852.82	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14852.82	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	18775.03	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	18775.03	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:39:22 PM

Sample Name	J8372-FS-D(3)	**Injection Vial**	34
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:00:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	34168.76	232.25
PFBS_2	298.9 / 99.0	1.52	13C3-PFBS	302.0 / 99.0	34168.76	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	66578.02	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	66578.02	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	72258.38	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	72258.38	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	23699.57	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	23699.57	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	82911.72	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	82911.72	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	81309.86	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	81309.86	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	22555.57	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	22555.57	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	83600.44	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	83600.44	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	93737.40	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	93737.40	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	89247.54	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	89247.54	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	75058.36	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75058.36	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	75058.36	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75058.36	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13084.85	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13084.85	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15026.42	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15026.42	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:39:26 PM

Sample Name	J8372-FS-D(5)	**Injection Vial**	35
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:11:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	29557.01	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	29557.01	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	61521.89	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	61521.89	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	64912.79	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	64912.79	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	23774.09	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	23774.09	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	84614.60	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	84614.60	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	85650.14	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	85650.14	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	30148.12	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	30148.12	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	86188.88	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	86188.88	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	89540.18	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	89540.18	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	87308.45	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	87308.45	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	70823.86	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70823.86	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	70823.86	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70823.86	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	10574.95	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	10574.95	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14118.72	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14118.72	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:39:31 PM

Sample Name	J8372-FS-D(7)	**Injection Vial**	36
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:21:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	29371.55	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	29371.55	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	61548.20	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	61548.20	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	66888.73	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	66888.73	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	23334.67	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	23334.67	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	84496.37	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	84496.37	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	78897.50	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	78897.50	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	25928.98	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	25928.98	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	92746.28	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	92746.28	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	91761.63	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	91761.63	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	84430.90	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	84430.90	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	69383.19	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69383.19	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	69383.19	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69383.19	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12950.20	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12950.20	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15321.66	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15321.66	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:39:36 PM

Sample Name	J8382-FS(0)	**Injection Vial**	37
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:32:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.52	13C3-PFBS	302.0 / 99.0	21647.80	232.25
PFBS_2	298.9 / 99.0	1.52	13C3-PFBS	302.0 / 99.0	21647.80	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	65925.38	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	65925.38	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	75709.78	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	75709.78	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	23596.27	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	23596.27	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	74193.54	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	74193.54	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	70460.34	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	70460.34	250.00
PFOS_1	499.0 / 80.0	3.04	13C8-PFOS	507.0 / 99.0	22929.40	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	22929.40	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	88024.70	250.00
PFDA_2	513.0 / 219.0	3.40	13C6-PFDA	519.0 / 474.0	88024.70	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	99353.54	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	99353.54	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	99804.83	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	99804.83	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	75311.98	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75311.98	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	75311.98	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75311.98	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13991.34	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13991.34	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14449.51	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14449.51	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:39:40 PM

Sample Name	J8382-FS-D(3)	**Injection Vial**	38
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:43:42	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	40560.55	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	40560.55	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	74699.01	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	74699.01	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	80447.47	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	80447.47	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25281.07	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25281.07	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	86350.17	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	86350.17	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	88954.77	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	88954.77	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	29142.69	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	29142.69	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	95704.84	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	95704.84	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	91401.65	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	91401.65	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	91777.61	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	91777.61	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	74192.38	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74192.38	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	74192.38	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74192.38	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13842.00	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13842.00	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15894.62	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15894.62	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:39:44 PM

Sample Name	J8383-FS(0)	**Injection Vial**	39
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:54:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.52	13C3-PFBS	302.0 / 99.0	34789.21	232.25
PFBS_2	298.9 / 99.0	1.52	13C3-PFBS	302.0 / 99.0	34789.21	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	90751.33	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	90751.33	250.00
PFHpA_1	363.0 / 319.0	2.24	13C4-PFHpA	367.0 / 322.0	96563.51	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	96563.51	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	30196.60	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	30196.60	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	78691.87	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	78691.87	250.00
PFNA_1	463.0 / 419.0	3.05	13C9-PFNA	472.0 / 427.0	49890.37	250.00
PFNA_2	463.0 / 219.0	3.05	13C9-PFNA	472.0 / 427.0	49890.37	250.00
PFOS_1	499.0 / 80.0	2.97	13C8-PFOS	507.0 / 99.0	17503.51	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	17503.51	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	89012.15	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	89012.15	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	94939.82	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	94939.82	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	98027.55	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	98027.55	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	74263.57	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74263.57	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	74263.57	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74263.57	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13439.75	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13439.75	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15256.99	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15256.99	250.00

Sample Name	J8383-FS-D(3)	**Injection Vial**	40
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:05:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	35778.89	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	35778.89	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	66198.91	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	66198.91	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	75402.29	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	75402.29	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	27083.12	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	27083.12	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	84613.93	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	84613.93	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	77288.24	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	77288.24	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	26271.60	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	26271.60	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	91538.31	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	91538.31	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	84255.15	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	84255.15	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	89017.57	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	89017.57	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	67020.69	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	67020.69	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	67020.69	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	67020.69	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12695.18	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12695.18	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16224.78	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16224.78	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:39:52 PM

Sample Name	J8383-FS-D(5)	**Injection Vial**	41
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:16:22	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	31113.28	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	31113.28	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	62476.05	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	62476.05	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	67804.94	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	67804.94	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	24124.65	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	24124.65	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	86299.57	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	86299.57	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	88386.04	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	88386.04	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	27194.39	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	27194.39	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	93908.29	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	93908.29	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	92016.28	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	92016.28	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	87522.68	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	87522.68	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	69288.09	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69288.09	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	69288.09	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69288.09	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13292.44	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13292.44	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13629.49	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13629.49	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	J8383-FS-D(7)	**Injection Vial**	42
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:27:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	29486.46	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	29486.46	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	62872.37	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	62872.37	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	64880.26	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	64880.26	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	23724.23	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	23724.23	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	79790.44	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	79790.44	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	79462.28	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	79462.28	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	24433.71	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	24433.71	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	89563.63	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	89563.63	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	92248.59	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	92248.59	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	84847.42	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	84847.42	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	65173.53	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65173.53	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	65173.53	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65173.53	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13103.77	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13103.77	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14823.27	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14823.27	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:02 PM

Sample Name	J8384-FS(0)	**Injection Vial**	44
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:59:56	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.52	13C3-PFBS	302.0 / 99.0	36378.67	232.25
PFBS_2	298.9 / 99.0	1.52	13C3-PFBS	302.0 / 99.0	36378.67	232.25
PFHxA_1	313.0 / 269.0	1.83	13C5-PFHxA	318.0 / 273.0	85842.15	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	85842.15	250.00
PFHpA_1	363.0 / 319.0	2.24	13C4-PFHpA	367.0 / 322.0	75259.92	250.00
PFHpA_2	363.0 / 169.0	2.23	13C4-PFHpA	367.0 / 322.0	75259.92	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	23963.41	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	23963.41	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	71727.55	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	71727.55	250.00
PFNA_1	463.0 / 419.0	3.05	13C9-PFNA	472.0 / 427.0	42065.71	250.00
PFNA_2	463.0 / 219.0	3.05	13C9-PFNA	472.0 / 427.0	42065.71	250.00
PFOS_1	499.0 / 80.0	2.96	13C8-PFOS	507.0 / 99.0	12689.71	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	12689.71	239.25
PFDA_1	513.0 / 469.0	3.40	13C6-PFDA	519.0 / 474.0	89544.05	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	89544.05	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	99287.38	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	99287.38	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	99199.55	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	99199.55	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	72957.81	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	72957.81	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	72957.81	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	72957.81	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	15233.38	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	15233.38	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15450.19	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15450.19	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:07 PM

Sample Name	J8384-FS-D(3)	**Injection Vial**	45
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:10:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	35899.98	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	35899.98	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	64263.10	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	64263.10	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	73413.47	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	73413.47	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	24432.12	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	24432.12	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	76403.77	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	76403.77	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	68852.36	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	68852.36	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	22150.36	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	22150.36	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	89997.72	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	89997.72	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	97866.56	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	97866.56	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	90377.12	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	90377.12	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	68444.16	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68444.16	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	68444.16	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68444.16	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12557.01	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12557.01	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16029.13	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16029.13	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:16 PM

Sample Name	J8384-FS-D(7)	**Injection Vial**	47
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:32:33	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	28481.75	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	28481.75	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	68059.22	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	68059.22	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	71353.17	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	71353.17	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	25716.04	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	25716.04	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	89218.14	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	89218.14	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	94169.77	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	94169.77	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	28879.82	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	28879.82	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	93317.53	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	93317.53	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	94819.80	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	94819.80	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	90047.31	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	90047.31	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	69890.33	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69890.33	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	69890.33	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	69890.33	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14159.68	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14159.68	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16366.92	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16366.92	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	J8384-FS-D(9)	**Injection Vial**	48
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:43:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	25095.50	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	25095.50	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	58348.79	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	58348.79	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	62006.73	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	62006.73	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	23663.86	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	23663.86	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	79416.00	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	79416.00	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	78125.15	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	78125.15	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	24204.61	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24204.61	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	85291.45	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	85291.45	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	83559.60	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	83559.60	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	85671.86	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	85671.86	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	63064.83	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	63064.83	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	63064.83	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	63064.83	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12999.29	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12999.29	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	12179.69	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	12179.69	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:25 PM

Sample Name	J8385-FS(0)	**Injection Vial**	49
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:54:20	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	33044.86	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	33044.86	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	78228.71	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	78228.71	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	71953.66	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	71953.66	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	21871.92	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	21871.92	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	61810.00	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	61810.00	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	39312.26	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	39312.26	250.00
PFOS_1	499.0 / 80.0	2.97	13C8-PFOS	507.0 / 99.0	10789.00	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	10789.00	239.25
PFDA_1	513.0 / 469.0	3.40	13C6-PFDA	519.0 / 474.0	87531.77	250.00
PFDA_2	513.0 / 219.0	3.40	13C6-PFDA	519.0 / 474.0	87531.77	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	89419.40	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	89419.40	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	82266.17	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	82266.17	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	63809.13	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	63809.13	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	63809.13	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	63809.13	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12819.72	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12819.72	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13695.08	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13695.08	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:29 PM

Sample Name	J8385-FS-D(3)	**Injection Vial**	50
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:05:13	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	32444.98	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	32444.98	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	60803.72	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	60803.72	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	71240.57	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	71240.57	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	23360.55	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	23360.55	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	71483.00	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	71483.00	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	72023.31	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	72023.31	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	22493.91	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	22493.91	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	86041.12	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	86041.12	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	94085.06	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	94085.06	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	84656.72	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	84656.72	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	68327.88	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68327.88	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	68327.88	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68327.88	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12750.96	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12750.96	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15033.12	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15033.12	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:33 PM

Sample Name	J8385-FS-D(5)	**Injection Vial**	51
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:16:05	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	28088.36	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	28088.36	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	61160.82	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	61160.82	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	65761.27	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	65761.27	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	21583.95	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	21583.95	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	76512.43	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	76512.43	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	74775.71	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	74775.71	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	22418.46	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	22418.46	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	88506.22	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	88506.22	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	88244.56	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	88244.56	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	78893.54	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	78893.54	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	66858.28	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66858.28	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	66858.28	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66858.28	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11846.30	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11846.30	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14018.13	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14018.13	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:37 PM

Sample Name	J8385-FS-D(7)	**Injection Vial**	52
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:26:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	26069.44	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	26069.44	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	57228.07	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	57228.07	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	65364.03	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	65364.03	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	20350.15	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	20350.15	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	79712.55	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	79712.55	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	80946.81	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	80946.81	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	24763.34	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	24763.34	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	85029.15	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	85029.15	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	86288.30	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	86288.30	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	85062.95	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	85062.95	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	65569.46	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65569.46	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	65569.46	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65569.46	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	10608.41	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	10608.41	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	12861.20	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	12861.20	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:42 PM

Sample Name	J8385-FS-D(9)	**Injection Vial**	53
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:37:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	26302.71	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	26302.71	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	58440.03	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	58440.03	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	60698.89	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	60698.89	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	22941.78	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	22941.78	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	78587.71	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	78587.71	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	87483.88	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	87483.88	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	28046.61	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	28046.61	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	90217.30	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	90217.30	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	89090.95	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	89090.95	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	84534.92	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	84534.92	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	65952.89	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65952.89	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	65952.89	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65952.89	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11267.67	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11267.67	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14205.51	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14205.51	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:47 PM

Sample Name	J8395-FS(0)	**Injection Vial**	2
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:44:08	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.50	13C3-PFBS	302.0 / 99.0	12071.03	232.25
PFBS_2	298.9 / 99.0	1.50	13C3-PFBS	302.0 / 99.0	12071.03	232.25
PFHxA_1	313.0 / 269.0	1.82	13C5-PFHxA	318.0 / 273.0	19447.71	250.00
PFHxA_2	313.0 / 119.0	1.82	13C5-PFHxA	318.0 / 273.0	19447.71	250.00
PFHpA_1	363.0 / 319.0	2.24	13C4-PFHpA	367.0 / 322.0	27037.82	250.00
PFHpA_2	363.0 / 169.0	2.22	13C4-PFHpA	367.0 / 322.0	27037.82	250.00
PFHxS_1	399.0 / 80.0	2.26	13C3-PFHxS	402.0 / 99.0	16979.61	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	16979.61	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	33847.80	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	33847.80	250.00
PFNA_1	463.0 / 419.0	2.95	13C9-PFNA	472.0 / 427.0	46266.66	250.00
PFNA_2	463.0 / 219.0	2.95	13C9-PFNA	472.0 / 427.0	46266.66	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	19289.72	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	19289.72	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	68556.42	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	68556.42	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	70931.50	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	70931.50	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	83993.02	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	83993.02	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	66258.86	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66258.86	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	66258.86	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66258.86	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	12044.98	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	12044.98	250.00
NEtFOSAA_1	584.0 / 419.0	3.77	d5-EtFOSAA	589.0 / 419.0	15306.95	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	15306.95	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:52 PM

Sample Name	J8395-FS-D(3)	**Injection Vial**	3
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:55:00	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	28154.35	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	28154.35	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	77794.09	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	77794.09	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	84572.30	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	84572.30	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	22536.39	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	22536.39	236.50
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	77228.74	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	77228.74	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	82425.11	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	82425.11	250.00
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	26556.31	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	26556.31	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	84539.14	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	84539.14	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	80443.27	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	80443.27	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	87874.53	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	87874.53	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	66393.58	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66393.58	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	66393.58	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66393.58	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12052.45	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12052.45	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15634.61	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15634.61	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:55 PM

Sample Name	J8396-FS(0)	**Injection Vial**	4
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:05:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	30932.31	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	30932.31	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	82765.03	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	82765.03	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	86140.98	250.00
PFHpA_2	363.0 / 169.0	2.21	13C4-PFHpA	367.0 / 322.0	86140.98	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	24794.31	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	24794.31	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	80686.83	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	80686.83	250.00
PFNA_1	463.0 / 419.0	3.07	13C9-PFNA	472.0 / 427.0	82229.32	250.00
PFNA_2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	82229.32	250.00
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	29053.08	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	29053.08	239.25
PFDA_1	513.0 / 469.0	3.43	13C6-PFDA	519.0 / 474.0	105911.69	250.00
PFDA_2	513.0 / 219.0	3.43	13C6-PFDA	519.0 / 474.0	105911.69	250.00
PFUnA_1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	96506.62	250.00
PFUnA_2	563.0 / 269.0	3.75	13C7-PFUnA	570.0 / 525.0	96506.62	250.00
PFDoA_1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	100436.02	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	100436.02	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	70115.69	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70115.69	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	70115.69	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70115.69	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13009.62	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13009.62	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16806.15	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16806.15	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:59 PM

Sample Name	J8396-FS-D(3)	**Injection Vial**	5
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:16:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	39863.82	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	39863.82	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	77951.31	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	77951.31	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	82545.15	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	82545.15	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	26166.43	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	26166.43	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	86132.71	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	86132.71	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	84087.52	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	84087.52	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	26378.47	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	26378.47	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	92632.06	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	92632.06	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	92838.10	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	92838.10	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	86817.32	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	86817.32	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	71579.10	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71579.10	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	71579.10	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71579.10	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13648.75	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13648.75	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14653.42	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14653.42	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:41:03 PM

Sample Name	J8397-FS(0)	**Injection Vial**	6
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:27:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.52	13C3-PFBS	302.0 / 99.0	22952.57	232.25
PFBS_2	298.9 / 99.0	1.52	13C3-PFBS	302.0 / 99.0	22952.57	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	66057.25	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	66057.25	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	80845.01	250.00
PFHpA_2	363.0 / 169.0	2.19	13C4-PFHpA	367.0 / 322.0	80845.01	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25844.09	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25844.09	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	75449.02	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	75449.02	250.00
PFNA_1	463.0 / 419.0	2.95	13C9-PFNA	472.0 / 427.0	77175.34	250.00
PFNA_2	463.0 / 219.0	2.95	13C9-PFNA	472.0 / 427.0	77175.34	250.00
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	22382.87	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	22382.87	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	91465.16	250.00
PFDA_2	513.0 / 219.0	3.43	13C6-PFDA	519.0 / 474.0	91465.16	250.00
PFUnA_1	563.0 / 519.0	3.75	13C7-PFUnA	570.0 / 525.0	90017.22	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	90017.22	250.00
PFDoA_1	613.0 / 569.0	4.03	13C2-PFDoA	615.0 / 570.0	97590.29	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	97590.29	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	75719.96	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75719.96	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	75719.96	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75719.96	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12085.60	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12085.60	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15184.47	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15184.47	250.00

BATTELLE

Summary Internal Standard Report

Sample Name	J8397-FS-D(3)	**Injection Vial**	7
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:38:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	37100.82	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	37100.82	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	79010.80	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	79010.80	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	87637.74	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	87637.74	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	30046.51	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	30046.51	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	82197.97	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	82197.97	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	77701.74	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	77701.74	250.00
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	27804.61	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	27804.61	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	91519.26	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	91519.26	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	91322.47	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	91322.47	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	86335.89	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	86335.89	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	71913.27	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71913.27	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	71913.27	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71913.27	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12274.39	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12274.39	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13860.48	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13860.48	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:41:10 PM

Sample Name	J8398-FS(0)	**Injection Vial**	8
Sample ID	VC-AQ-FB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:49:21	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	25213.51	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	25213.51	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	58885.31	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	58885.31	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	64203.53	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	64203.53	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	20716.47	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	20716.47	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	79436.24	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	79436.24	250.00
PFNA_1	463.0 / 419.0	3.05	13C9-PFNA	472.0 / 427.0	75042.30	250.00
PFNA_2	463.0 / 219.0	3.25	13C9-PFNA	472.0 / 427.0	75042.30	250.00
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	23731.38	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	23731.38	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	88523.26	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	88523.26	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	88587.46	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	88587.46	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	85649.24	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	85649.24	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	67323.60	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	67323.60	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	67323.60	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	67323.60	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12986.84	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12986.84	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13601.48	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13601.48	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:41:14 PM

Sample Name	J8399-FS(0)	**Injection Vial**	11
Sample ID	VC-AQ-EB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:21:57	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.83	13C3-PFBS	302.0 / 99.0	27515.37	232.25
PFBS_2	298.9 / 99.0	1.83	13C3-PFBS	302.0 / 99.0	27515.37	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	63461.38	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	63461.38	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	65688.87	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	65688.87	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	23806.58	236.50
PFHxS_2	399.0 / 99.0	2.26	13C3-PFHxS	402.0 / 99.0	23806.58	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	87274.65	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	87274.65	250.00
PFNA_1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	78240.46	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	78240.46	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	24101.70	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24101.70	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	94129.63	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	94129.63	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	89148.31	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	89148.31	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	92772.11	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	92772.11	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	81164.21	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	81164.21	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	81164.21	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	81164.21	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13215.93	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13215.93	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15221.90	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15221.90	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:41:18 PM

Sample Name	J8400-FS(0)	**Injection Vial**	12
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:32:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.51	13C3-PFBS	302.0 / 99.0	17917.26	232.25
PFBS_2	298.9 / 99.0	1.51	13C3-PFBS	302.0 / 99.0	17917.26	232.25
PFHxA_1	313.0 / 269.0	1.83	13C5-PFHxA	318.0 / 273.0	51264.77	250.00
PFHxA_2	313.0 / 119.0	1.83	13C5-PFHxA	318.0 / 273.0	51264.77	250.00
PFHpA_1	363.0 / 319.0	2.24	13C4-PFHpA	367.0 / 322.0	57047.07	250.00
PFHpA_2	363.0 / 169.0	2.19	13C4-PFHpA	367.0 / 322.0	57047.07	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	20752.96	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	20752.96	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	53029.43	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	53029.43	250.00
PFNA_1	463.0 / 419.0	2.95	13C9-PFNA	472.0 / 427.0	48126.55	250.00
PFNA_2	463.0 / 219.0	2.94	13C9-PFNA	472.0 / 427.0	48126.55	250.00
PFOS_1	499.0 / 80.0	2.97	13C8-PFOS	507.0 / 99.0	14327.84	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	14327.84	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	79571.39	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	79571.39	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	95257.56	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	95257.56	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	95141.26	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	95141.26	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	74436.47	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74436.47	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	74436.47	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74436.47	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12540.31	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12540.31	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16613.49	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16613.49	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:41:24 PM

Sample Name	J8400-FS-D(3)	**Injection Vial**	13
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:43:40	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	36118.08	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	36118.08	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	81418.68	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	81418.68	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	80856.90	250.00
PFHpA_2	363.0 / 169.0	2.20	13C4-PFHpA	367.0 / 322.0	80856.90	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	26085.81	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	26085.81	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	79302.09	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	79302.09	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	74022.81	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	74022.81	250.00
PFOS_1	499.0 / 80.0	3.04	13C8-PFOS	507.0 / 99.0	24201.27	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24201.27	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	94403.31	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	94403.31	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	87330.78	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	87330.78	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	88864.22	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	88864.22	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	70634.51	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70634.51	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	70634.51	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70634.51	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14119.10	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14119.10	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16332.48	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16332.48	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:41:28 PM

Sample Name	J8400-FS-D(5)	**Injection Vial**	14
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:54:32	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	34936.78	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	34936.78	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	67826.66	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	67826.66	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	78525.74	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	78525.74	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25469.30	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25469.30	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	82529.18	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	82529.18	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	81168.09	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	81168.09	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	24301.52	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24301.52	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	90050.00	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	90050.00	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	89686.97	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	89686.97	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	88822.45	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	88822.45	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	70220.72	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70220.72	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	70220.72	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70220.72	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	15563.68	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	15563.68	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14497.85	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14497.85	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:00:36 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	83522.57	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	27916.23	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	27916.23	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	75584.96	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	75584.96	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	75584.96	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	75584.96	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	83522.57	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	83522.57	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	83522.57	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	27916.23	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	27916.23	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	27916.23	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:00:40 PM

Sample Name	CR890PB-FS(0)	**Injection Vial**	10
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:28:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	81980.66	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28173.91	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28173.91	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	75358.77	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	75358.77	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	75358.77	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	75358.77	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	81980.66	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	81980.66	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	81980.66	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	28173.91	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28173.91	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	28173.91	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:00:44 PM

Sample Name	CR891LCS-FS(0)	**Injection Vial**	11
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:39:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	87862.21	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26308.42	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26308.42	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	73398.41	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	73398.41	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	73398.41	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	73398.41	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	87862.21	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	87862.21	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	87862.21	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26308.42	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	26308.42	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	26308.42	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:00:52 PM

Sample Name	J8358-FS-D(3)	**Injection Vial**	13
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:00:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	91318.22	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	19856.39	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	19856.39	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	82922.99	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	82922.99	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	82922.99	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	82922.99	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	91318.22	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	91318.22	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	91318.22	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	19856.39	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	19856.39	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	19856.39	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:00:56 PM

Sample Name	J8358-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:11:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	91463.80	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	25990.82	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	25990.82	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	78477.04	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	78477.04	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	78477.04	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	78477.04	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	91463.80	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	91463.80	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	91463.80	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	25990.82	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	25990.82	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	25990.82	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:00 PM

Sample Name	J8358-FS-D(7)	**Injection Vial**	15
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:22:34	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	89807.35	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	27508.69	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	27508.69	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	83322.04	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	83322.04	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	83322.04	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	83322.04	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	89807.35	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	89807.35	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	89807.35	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	27508.69	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	27508.69	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	27508.69	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:04 PM

Sample Name	J8359-FS(0)	**Injection Vial**	16
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:33:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	82942.61	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26261.37	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26261.37	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	86867.21	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	86867.21	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	86867.21	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	86867.21	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	82942.61	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	82942.61	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	82942.61	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26261.37	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	26261.37	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	26261.37	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:07 PM

Sample Name	J8359-FS-D(3)	**Injection Vial**	17
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:44:17	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	89762.13	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	27094.03	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	27094.03	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	77434.82	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	77434.82	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	77434.82	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	77434.82	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	89762.13	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	89762.13	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	89762.13	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	27094.03	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	27094.03	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	27094.03	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:11 PM

Sample Name	J8359-FS-D(5)	**Injection Vial**	18
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:55:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	99630.58	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28328.66	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28328.66	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	86458.60	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	86458.60	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	86458.60	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	86458.60	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	99630.58	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	99630.58	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	99630.58	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	28328.66	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28328.66	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	28328.66	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	J8359-FS-D(7)	**Injection Vial**	19
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:06:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	91935.67	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28665.42	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28665.42	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	84005.58	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	84005.58	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	84005.58	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	84005.58	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	91935.67	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	91935.67	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	91935.67	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	28665.42	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28665.42	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	28665.42	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:19 PM

Sample Name	J8368-FS(0)	**Injection Vial**	22
Sample ID	VC-SO-FB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:38:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	87426.28	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	27801.13	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	27801.13	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	79989.58	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	79989.58	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	79989.58	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	79989.58	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	87426.28	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	87426.28	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	87426.28	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	27801.13	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	27801.13	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	27801.13	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	J8369-FS(0)	**Injection Vial**	23
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:49:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	101775.34	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	21278.47	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	21278.47	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	70037.32	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	70037.32	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	70037.32	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	70037.32	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	101775.34	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	101775.34	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	101775.34	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	21278.47	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	21278.47	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	21278.47	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:26 PM

Sample Name	J8370-FS(0)	**Injection Vial**	24
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:00:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	81641.95	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	23814.23	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	23814.23	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	73370.50	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	73370.50	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	73370.50	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	73370.50	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	81641.95	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	81641.95	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	81641.95	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	23814.23	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	23814.23	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	23814.23	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:30 PM

Sample Name	J8370-FS-D(3)	**Injection Vial**	25
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:11:23	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	88454.92	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26829.04	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26829.04	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	82319.73	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	82319.73	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	82319.73	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	82319.73	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	88454.92	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	88454.92	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	88454.92	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26829.04	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	26829.04	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	26829.04	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:34 PM

Sample Name	J8370-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:22:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	89504.09	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29375.02	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29375.02	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	82770.06	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	82770.06	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	82770.06	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	82770.06	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	89504.09	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	89504.09	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	89504.09	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	29375.02	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	29375.02	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	29375.02	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:42 PM

Sample Name	J8371-FS(0)	**Injection Vial**	28
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:43:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	84702.95	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	19418.39	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	19418.39	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	79699.68	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	79699.68	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	79699.68	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	79699.68	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	84702.95	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	84702.95	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	84702.95	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	19418.39	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	19418.39	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	19418.39	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:46 PM

Sample Name	J8371-FS-D(3)	**Injection Vial**	29
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:54:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	105943.47	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29294.88	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29294.88	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	93357.70	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	93357.70	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	93357.70	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	93357.70	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	105943.47	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	105943.47	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	105943.47	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	29294.88	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29294.88	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	29294.88	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:50 PM

Sample Name	J8371-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:05:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	88960.00	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28380.87	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28380.87	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	79830.44	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	79830.44	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	79830.44	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	79830.44	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	88960.00	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	88960.00	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	88960.00	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	28380.87	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	28380.87	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	28380.87	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:53 PM

Sample Name	J8371-FS-D(7)	**Injection Vial**	31
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:16:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	98979.27	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29252.61	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29252.61	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	83134.65	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	83134.65	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	83134.65	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	83134.65	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	98979.27	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	98979.27	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	98979.27	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	29252.61	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	29252.61	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	29252.61	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:01:57 PM

Sample Name	J8372-FS(0)	**Injection Vial**	33
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:49:16	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	80072.42	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	14874.36	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	14874.36	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	80360.79	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	80360.79	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	80360.79	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	80360.79	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	80072.42	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	80072.42	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	80072.42	250.00
13C3-PFBS	302.0 / 99.0	1.50	13C4-PFOS	503.0 / 99.0	14874.36	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	14874.36	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	14874.36	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:01 PM

Sample Name	J8372-FS-D(3)	**Injection Vial**	34
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:00:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	87508.86	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	24626.31	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	24626.31	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	82251.73	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	82251.73	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	82251.73	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	82251.73	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	87508.86	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	87508.86	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	87508.86	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	24626.31	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	24626.31	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	24626.31	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:06 PM

Sample Name	J8372-FS-D(5)	**Injection Vial**	35
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:11:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	85047.91	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	23592.20	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	23592.20	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	73070.02	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	73070.02	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	73070.02	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	73070.02	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	85047.91	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	85047.91	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	85047.91	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	23592.20	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	23592.20	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	23592.20	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:09 PM

Sample Name	J8372-FS-D(7)	**Injection Vial**	36
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:21:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	92249.60	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	24993.88	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	24993.88	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	81611.69	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	81611.69	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	81611.69	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	81611.69	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	92249.60	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	92249.60	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	92249.60	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	24993.88	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	24993.88	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	24993.88	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:13 PM

Sample Name	J8382-FS(0)	**Injection Vial**	37
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:32:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	84988.05	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	22226.42	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	22226.42	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	71511.69	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	71511.69	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	71511.69	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	71511.69	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	84988.05	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	84988.05	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	84988.05	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	22226.42	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	22226.42	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	22226.42	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:17 PM

Sample Name	J8382-FS-D(3)	**Injection Vial**	38
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:43:42	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	94823.77	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29211.46	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29211.46	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	76516.48	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	76516.48	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	76516.48	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	76516.48	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	94823.77	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	94823.77	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	94823.77	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	29211.46	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29211.46	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	29211.46	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:21 PM

Sample Name	J8383-FS(0)	**Injection Vial**	39
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:54:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	90401.08	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	14933.02	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	14933.02	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	78444.89	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	78444.89	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	78444.89	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	78444.89	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	90401.08	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	90401.08	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	90401.08	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	14933.02	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	14933.02	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	14933.02	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:24 PM

Sample Name	J8383-FS-D(3)	**Injection Vial**	40
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:05:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	95386.67	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	20662.38	239.25
d5-EtFOSAA	589.0 / 419.0	3.71	13C4-PFOS	503.0 / 99.0	20662.38	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	80497.30	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	80497.30	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	80497.30	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	80497.30	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	95386.67	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	95386.67	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	95386.67	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	20662.38	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	20662.38	239.25
13C8-PFOS	507.0 / 99.0	3.03	13C4-PFOS	503.0 / 99.0	20662.38	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:28 PM

Sample Name	J8383-FS-D(5)	**Injection Vial**	41
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:16:22	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	94872.08	250.00
d3-MeFOSAA	573.0 / 419.0	3.55	13C4-PFOS	503.0 / 99.0	26938.85	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26938.85	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	82630.21	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	82630.21	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	82630.21	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	82630.21	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	94872.08	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	94872.08	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	94872.08	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26938.85	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	26938.85	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	26938.85	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:32 PM

Sample Name	J8383-FS-D(7)	**Injection Vial**	42
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:27:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	94568.61	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26242.69	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26242.69	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	82671.03	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	82671.03	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	82671.03	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	82671.03	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	94568.61	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	94568.61	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	94568.61	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26242.69	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	26242.69	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	26242.69	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:35 PM

Sample Name	J8384-FS(0)	**Injection Vial**	44
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:59:56	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	84160.87	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	12421.72	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	12421.72	239.25
13C5-PFHxA	318.0 / 273.0	1.82	13C2-PFOA	415.0 / 370.0	79890.54	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	79890.54	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	79890.54	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	79890.54	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	84160.87	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	84160.87	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	84160.87	250.00
13C3-PFBS	302.0 / 99.0	1.50	13C4-PFOS	503.0 / 99.0	12421.72	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	12421.72	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	12421.72	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:39 PM

Sample Name	J8384-FS-D(3)	**Injection Vial**	45
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:10:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	91960.58	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	19182.65	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	19182.65	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	77470.58	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	77470.58	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	77470.58	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	77470.58	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	91960.58	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	91960.58	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	91960.58	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	19182.65	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	19182.65	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	19182.65	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:47 PM

Sample Name	J8384-FS-D(7)	**Injection Vial**	47
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:32:33	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	95654.20	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28582.40	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28582.40	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	85178.25	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	85178.25	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	85178.25	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	85178.25	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	95654.20	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	95654.20	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	95654.20	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	28582.40	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	28582.40	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	28582.40	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:51 PM

Sample Name	J8384-FS-D(9)	**Injection Vial**	48
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:43:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	92520.68	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	27591.04	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	27591.04	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	76618.37	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	76618.37	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	76618.37	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	76618.37	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	92520.68	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	92520.68	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	92520.68	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	27591.04	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	27591.04	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	27591.04	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:55 PM

Sample Name	J8385-FS(0)	**Injection Vial**	49
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:54:20	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	82529.95	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	9437.99	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	9437.99	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	66758.94	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	66758.94	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	66758.94	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	66758.94	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	82529.95	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	82529.95	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	82529.95	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	9437.99	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	9437.99	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	9437.99	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:02:59 PM

Sample Name	J8385-FS-D(3)	**Injection Vial**	50
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:05:13	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	89354.13	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	24649.32	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	24649.32	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	74122.29	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	74122.29	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	74122.29	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	74122.29	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	89354.13	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	89354.13	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	89354.13	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	24649.32	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	24649.32	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	24649.32	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:02 PM

Sample Name	J8385-FS-D(5)	**Injection Vial**	51
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:16:05	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	84284.27	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	23605.10	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	23605.10	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	74053.34	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	74053.34	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	74053.34	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	74053.34	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	84284.27	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	84284.27	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	84284.27	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	23605.10	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	23605.10	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	23605.10	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:06 PM

Sample Name	J8385-FS-D(7)	**Injection Vial**	52
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:26:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	92168.90	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	24637.45	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	24637.45	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	77581.50	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	77581.50	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	77581.50	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	77581.50	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	92168.90	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	92168.90	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	92168.90	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	24637.45	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	24637.45	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	24637.45	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:09 PM

Sample Name	J8385-FS-D(9)	**Injection Vial**	53
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:37:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	87672.59	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26779.18	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26779.18	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	73195.56	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	73195.56	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	73195.56	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	73195.56	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	87672.59	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	87672.59	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	87672.59	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26779.18	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	26779.18	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	26779.18	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:13 PM

Sample Name	J8395-FS(0)	**Injection Vial**	2
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:44:08	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.06	13C2-PFDA	515.0 / 470.0	57053.14	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	17635.00	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	17635.00	239.25
13C5-PFHxA	318.0 / 273.0	1.81	13C2-PFOA	415.0 / 370.0	51093.20	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	51093.20	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	51093.20	250.00
13C9-PFNA	472.0 / 427.0	3.06	13C2-PFOA	415.0 / 370.0	51093.20	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	57053.14	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	57053.14	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	57053.14	250.00
13C3-PFBS	302.0 / 99.0	1.48	13C4-PFOS	503.0 / 99.0	17635.00	239.25
13C3-PFHxS	402.0 / 99.0	2.25	13C4-PFOS	503.0 / 99.0	17635.00	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	17635.00	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	J8395-FS-D(3)	**Injection Vial**	3
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:55:00	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	89728.94	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	26854.32	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	26854.32	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	79986.89	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	79986.89	250.00
13C8-PFOA	421.0 / 376.0	2.67	13C2-PFOA	415.0 / 370.0	79986.89	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	79986.89	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	89728.94	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	89728.94	250.00
13C2-PFTeDA	715.0 / 670.0	4.52	13C2-PFDA	515.0 / 470.0	89728.94	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	26854.32	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	26854.32	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	26854.32	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:22 PM

Sample Name	J8396-FS(0)	**Injection Vial**	4
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:05:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	101177.05	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	23645.68	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	23645.68	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	90050.08	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	90050.08	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	90050.08	250.00
13C9-PFNA	472.0 / 427.0	3.06	13C2-PFOA	415.0 / 370.0	90050.08	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	101177.05	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	101177.05	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	101177.05	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	23645.68	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	23645.68	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	23645.68	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:25 PM

Sample Name	J8396-FS-D(3)	**Injection Vial**	5
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:16:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	87155.36	250.00
d3-MeFOSAA	573.0 / 419.0	3.58	13C4-PFOS	503.0 / 99.0	28421.21	239.25
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	28421.21	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	75198.32	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	75198.32	250.00
13C8-PFOA	421.0 / 376.0	2.67	13C2-PFOA	415.0 / 370.0	75198.32	250.00
13C9-PFNA	472.0 / 427.0	3.06	13C2-PFOA	415.0 / 370.0	75198.32	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	87155.36	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	87155.36	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	87155.36	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	28421.21	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	28421.21	239.25
13C8-PFOS	507.0 / 99.0	3.06	13C4-PFOS	503.0 / 99.0	28421.21	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:29 PM

Sample Name	J8397-FS(0)	**Injection Vial**	6
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:27:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	80164.83	250.00
d3-MeFOSAA	573.0 / 419.0	3.58	13C4-PFOS	503.0 / 99.0	21357.48	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	21357.48	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	89901.53	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	89901.53	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	89901.53	250.00
13C9-PFNA	472.0 / 427.0	3.06	13C2-PFOA	415.0 / 370.0	89901.53	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	80164.83	250.00
13C7-PFUnA	570.0 / 525.0	3.73	13C2-PFDA	515.0 / 470.0	80164.83	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	80164.83	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	21357.48	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	21357.48	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	21357.48	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:33 PM

Sample Name	J8397-FS-D(3)	**Injection Vial**	7
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:38:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	91839.79	250.00
d3-MeFOSAA	573.0 / 419.0	3.58	13C4-PFOS	503.0 / 99.0	28046.81	239.25
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	28046.81	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	81817.69	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	81817.69	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	81817.69	250.00
13C9-PFNA	472.0 / 427.0	3.06	13C2-PFOA	415.0 / 370.0	81817.69	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	91839.79	250.00
13C7-PFUnA	570.0 / 525.0	3.73	13C2-PFDA	515.0 / 470.0	91839.79	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	91839.79	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	28046.81	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28046.81	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	28046.81	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:37 PM

Sample Name	J8398-FS(0)	**Injection Vial**	8
Sample ID	VC-AQ-FB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:49:21	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.02	13C2-PFDA	515.0 / 470.0	83752.67	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	24647.29	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	24647.29	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	74617.66	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	74617.66	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	74617.66	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	74617.66	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	83752.67	250.00
13C7-PFUnA	570.0 / 525.0	3.73	13C2-PFDA	515.0 / 470.0	83752.67	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	83752.67	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	24647.29	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	24647.29	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	24647.29	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:41 PM

Sample Name	J8399-FS(0)	**Injection Vial**	11
Sample ID	VC-AQ-EB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:21:57	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.02	13C2-PFDA	515.0 / 470.0	86086.84	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	26189.14	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	26189.14	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	74528.82	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	74528.82	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	74528.82	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	74528.82	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	86086.84	250.00
13C7-PFUnA	570.0 / 525.0	3.73	13C2-PFDA	515.0 / 470.0	86086.84	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	86086.84	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	26189.14	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	26189.14	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	26189.14	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:45 PM

Sample Name	J8400-FS(0)	**Injection Vial**	12
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:32:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.02	13C2-PFDA	515.0 / 470.0	76798.41	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	13398.97	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	13398.97	239.25
13C5-PFHxA	318.0 / 273.0	1.82	13C2-PFOA	415.0 / 370.0	83302.06	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	83302.06	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	83302.06	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	83302.06	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	76798.41	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	76798.41	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	76798.41	250.00
13C3-PFBS	302.0 / 99.0	1.50	13C4-PFOS	503.0 / 99.0	13398.97	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	13398.97	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	13398.97	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:49 PM

Sample Name	J8400-FS-D(3)	**Injection Vial**	13
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:43:40	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.02	13C2-PFDA	515.0 / 470.0	88033.37	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	23985.56	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	23985.56	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	75454.46	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	75454.46	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	75454.46	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	75454.46	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	88033.37	250.00
13C7-PFUnA	570.0 / 525.0	3.73	13C2-PFDA	515.0 / 470.0	88033.37	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	88033.37	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	23985.56	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	23985.56	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	23985.56	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:03:53 PM

Sample Name	J8400-FS-D(5)	**Injection Vial**	14
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:54:32	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.02	13C2-PFDA	515.0 / 470.0	90754.87	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	25506.67	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	25506.67	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	78179.94	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	78179.94	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	78179.94	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	78179.94	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	90754.87	250.00
13C7-PFUnA	570.0 / 525.0	3.73	13C2-PFDA	515.0 / 470.0	90754.87	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	90754.87	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	25506.67	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	25506.67	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	25506.67	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:50:24 PM

Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:04:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	58188.68	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	58188.68	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	22837.25	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	22837.25	236.50
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	26640.32	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	26640.32	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	76454.81	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	76454.81	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:50:27 PM

Sample Name	J8369-FS-D(3)	**Injection Vial**	5
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:37:10	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	61400.51	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	61400.51	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	25522.20	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	25522.20	236.50
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	27941.59	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	27941.59	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	86197.36	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	86197.36	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:50:32 PM

Sample Name	J8395-FS-D(5)	**Injection Vial**	6
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:48:02	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	76054.50	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	76054.50	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	24484.85	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	24484.85	236.50
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	24300.77	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	24300.77	239.25
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	83289.25	250.00
PFOA_2	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	83289.25	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:50:36 PM

Sample Name	J8400-FS-D(7)	**Injection Vial**	7
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:58:54	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	61068.84	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	61068.84	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	24586.32	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	24586.32	236.50
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	28617.67	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	28617.67	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	84253.47	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	84253.47	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:25:42 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	25201.92	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	25201.92	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	61987.66	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	61987.66	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	70438.43	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	70438.43	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	24683.15	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	24683.15	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	88535.23	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	88535.23	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	100138.19	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	100138.19	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	26769.68	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	26769.68	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	97258.51	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	97258.51	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	88898.52	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	88898.52	250.00
PFDoA_1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	91698.47	250.00
PFDoA_2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	91698.47	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	70451.22	250.00
PFTrDA_2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	70451.22	250.00
PFTeDA_1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	70451.22	250.00
PFTeDA_2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	70451.22	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	16454.46	250.00
NMeFOSAA_2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	16454.46	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	17612.55	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17612.55	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:25:47 PM

Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	22650.61	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	22650.61	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	53978.91	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	53978.91	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	59454.32	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	59454.32	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	20402.34	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	20402.34	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	73559.14	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	73559.14	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	82966.73	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	82966.73	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	27675.45	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	27675.45	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	81246.25	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	81246.25	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	77126.81	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	77126.81	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	83378.86	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	83378.86	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	68651.72	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68651.72	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	68651.72	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68651.72	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	9065.50	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	9065.50	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	11404.63	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	11404.63	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:25:55 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	8
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:32:58	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	32956.86	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	32956.86	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	65957.42	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	65957.42	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	76070.80	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	76070.80	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	23213.75	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	23213.75	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	84986.65	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	84986.65	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	90214.45	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	90214.45	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	24900.59	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	24900.59	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	94228.08	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	94228.08	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	86097.07	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	86097.07	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	99999.42	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	99999.42	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	82194.23	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	82194.23	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	82194.23	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	82194.23	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11891.39	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11891.39	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13476.73	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13476.73	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:25:59 PM

Sample Name	J8358-FS(0)	**Injection Vial**	9
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:43:49	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.55	13C3-PFBS	302.0 / 99.0	35656.69	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	35656.69	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	64115.35	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	64115.35	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	72809.89	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	72809.89	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	19572.59	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	19572.59	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	58263.49	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	58263.49	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	31496.42	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	31496.42	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	9169.35	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	9169.35	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	72677.14	250.00
PFDA_2	513.0 / 219.0	3.30	13C6-PFDA	519.0 / 474.0	72677.14	250.00
PFUnA_1	563.0 / 519.0	3.68	13C7-PFUnA	570.0 / 525.0	86318.36	250.00
PFUnA_2	563.0 / 269.0	3.57	13C7-PFUnA	570.0 / 525.0	86318.36	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	94951.90	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	94951.90	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	85100.32	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	85100.32	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	85100.32	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	85100.32	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13097.35	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13097.35	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13328.67	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13328.67	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:04 PM

Sample Name	J8400-FS-D(9)	**Injection Vial**	10
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:05:33	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	26485.28	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	26485.28	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	50980.10	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	50980.10	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	61072.90	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	61072.90	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	19411.80	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	19411.80	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	72144.43	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	72144.43	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	80002.10	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	80002.10	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	23742.41	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	23742.41	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	77290.79	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	77290.79	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	73532.65	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	73532.65	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	80932.76	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	80932.76	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	66812.48	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66812.48	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	66812.48	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66812.48	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	9682.96	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	9682.96	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	11221.93	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	11221.93	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:08 PM

Sample Name	J8371-FS-D(9)	**Injection Vial**	11
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:16:26	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	28588.38	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	28588.38	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	51291.74	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	51291.74	250.00
PFHpA_1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	62046.68	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	62046.68	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	18125.64	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	18125.64	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	70763.56	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	70763.56	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	70056.24	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	70056.24	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	22521.28	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	22521.28	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	77235.20	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	77235.20	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	71567.16	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	71567.16	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	77541.54	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	77541.54	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	65325.54	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65325.54	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	65325.54	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65325.54	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	10310.98	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	10310.98	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	10975.23	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	10975.23	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:00:28 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	96280.28	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	29371.12	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	29371.12	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	96280.28	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	96280.28	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	96280.28	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	29371.12	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	29371.12	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	29371.12	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.08	13C2-PFDA	515.0 / 470.0	83787.58	250.00
d3-MeFOSAA	573.0 / 419.0	3.64	13C4-PFOS	503.0 / 99.0	28447.31	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	28447.31	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	68811.37	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	68811.37	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	68811.37	250.00
13C9-PFNA	472.0 / 427.0	3.12	13C2-PFOA	415.0 / 370.0	68811.37	250.00
13C6-PFDA	519.0 / 474.0	3.48	13C2-PFDA	515.0 / 470.0	83787.58	250.00
13C7-PFUnA	570.0 / 525.0	3.80	13C2-PFDA	515.0 / 470.0	83787.58	250.00
13C2-PFTeDA	715.0 / 670.0	4.56	13C2-PFDA	515.0 / 470.0	83787.58	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	28447.31	239.25
13C3-PFHxS	402.0 / 99.0	2.33	13C4-PFOS	503.0 / 99.0	28447.31	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	28447.31	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:02:42 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	8
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:32:58	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	91723.20	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	20386.63	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	20386.63	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	77964.34	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	77964.34	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	77964.34	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	77964.34	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	91723.20	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	91723.20	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	91723.20	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	20386.63	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	20386.63	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	20386.63	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:02:46 PM

Sample Name	J8358-FS(0)	**Injection Vial**	9
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:43:49	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	61731.56	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	7533.04	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	7533.04	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	82652.46	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	82652.46	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	82652.46	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	82652.46	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	61731.56	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	61731.56	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	61731.56	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	7533.04	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	7533.04	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	7533.04	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:02:50 PM

Sample Name	J8400-FS-D(9)	**Injection Vial**	10
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:05:33	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	91136.79	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	25791.26	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	25791.26	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	79720.72	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	79720.72	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	79720.72	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	79720.72	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	91136.79	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	91136.79	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	91136.79	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	25791.26	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	25791.26	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	25791.26	239.25

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 5:02:54 PM

Sample Name	J8371-FS-D(9)	**Injection Vial**	11
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:16:26	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	96517.35	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	27997.73	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	27997.73	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	81365.26	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	81365.26	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	81365.26	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	81365.26	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	96517.35	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	96517.35	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	96517.35	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	27997.73	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	27997.73	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	27997.73	239.25

Chromatograms

BATTELLE

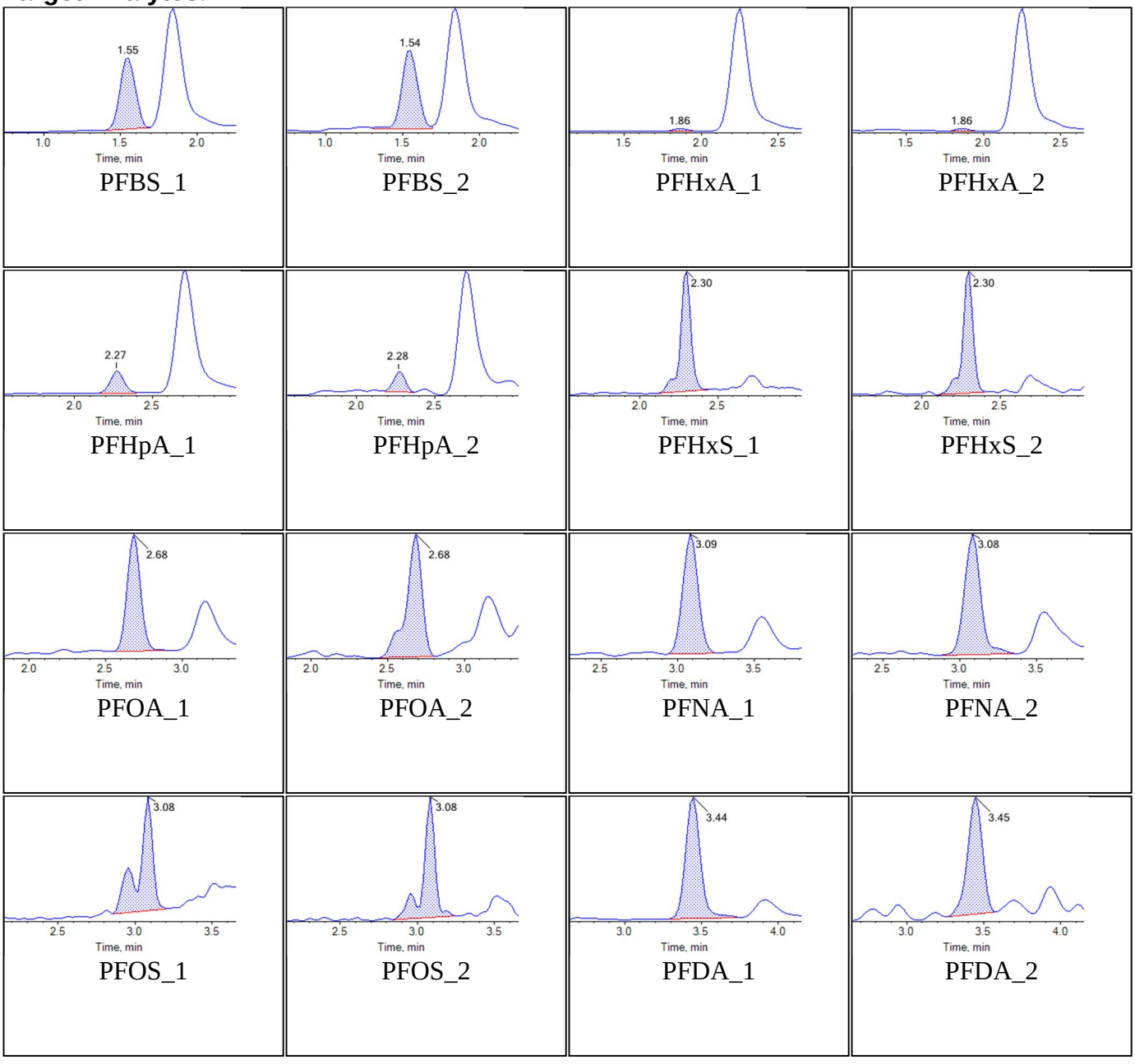
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:11:54 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

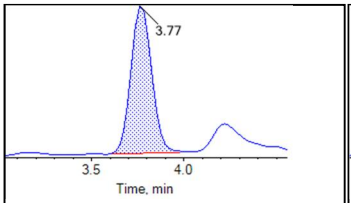
Target Analytes:



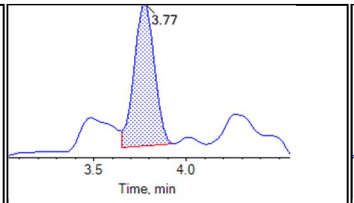
BATTELLE

Chromatogram Report

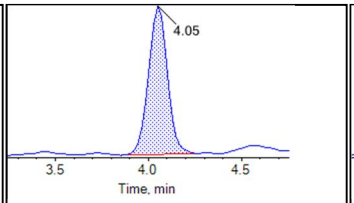
Created with Analyst Reporter
Printed: 23/10/2018 4:11:54 PM



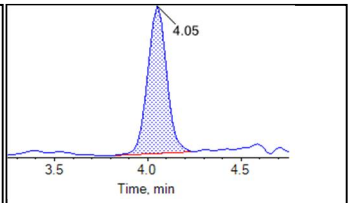
PFUnA_1



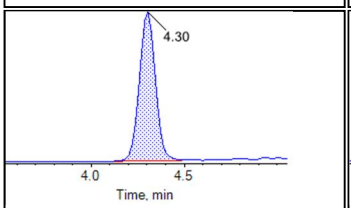
PFUnA_2



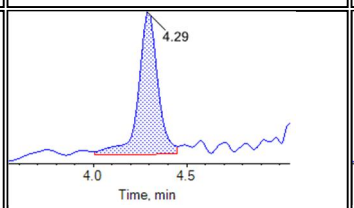
PFDoA_1



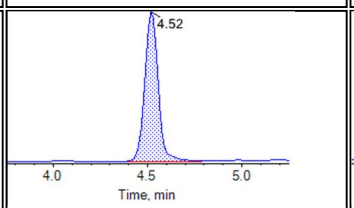
PFDoA_2



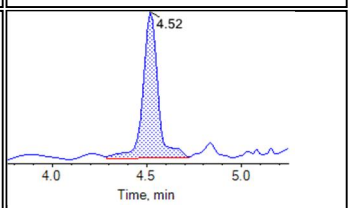
PFTrDA_1



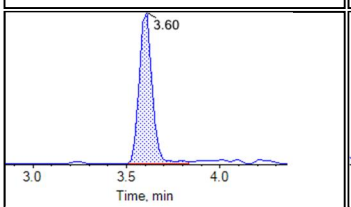
PFTrDA_2



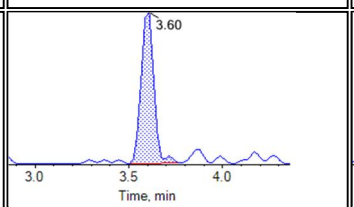
PFTeDA_1



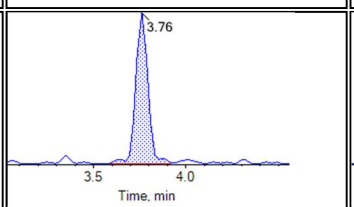
PFTeDA_2



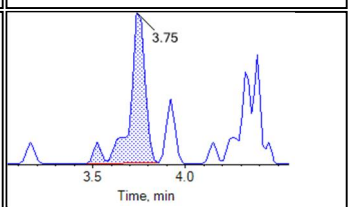
NMeFOSAA_1



NMeFOSAA_2

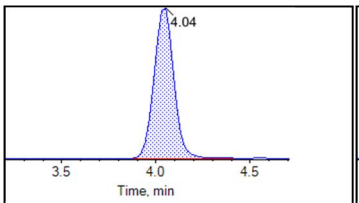


NEtFOSAA_1

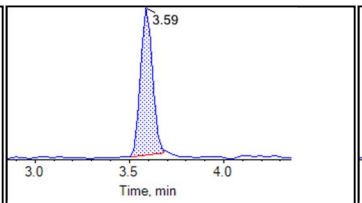


NEtFOSAA_2

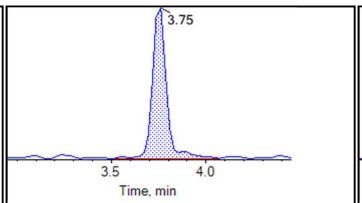
Internal Standards:



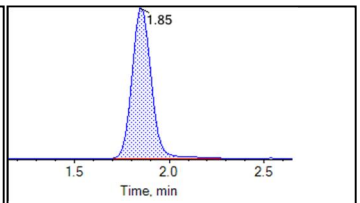
13C2-PFDoA



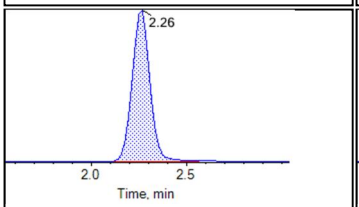
d3-MeFOSAA



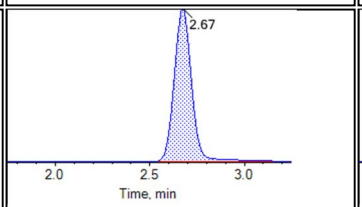
d5-EtFOSAA



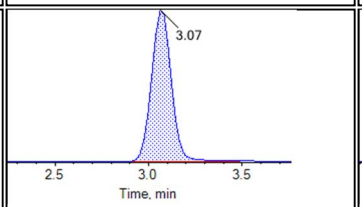
13C5-PFHxA



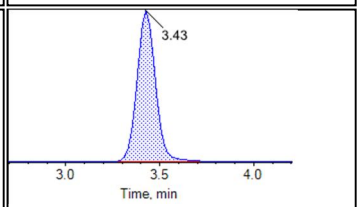
13C4-PFHpA



13C8-PFOA



13C9-PFNA

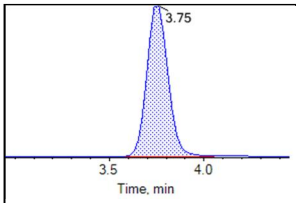


13C6-PFDA

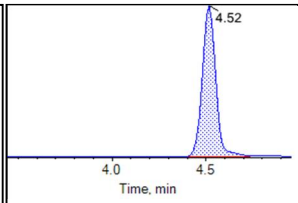
BATTELLE

Chromatogram Report

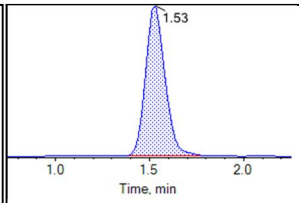
Created with Analyst Reporter
Printed: 23/10/2018 4:11:54 PM



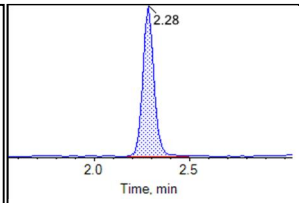
13C7-PFUnA



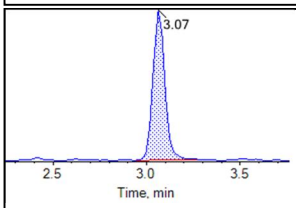
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

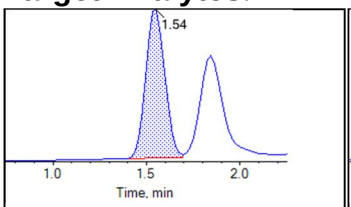
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:11:59 PM

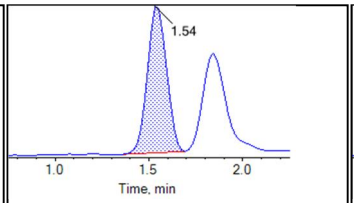
Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

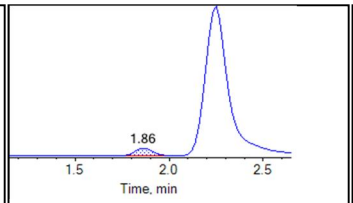
Target Analytes:



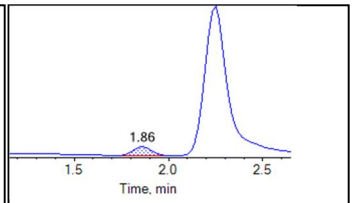
PFBS_1



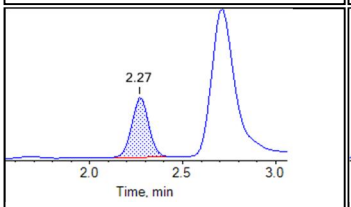
PFBS_2



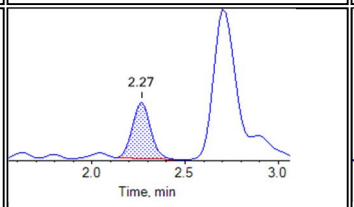
PFHxA_1



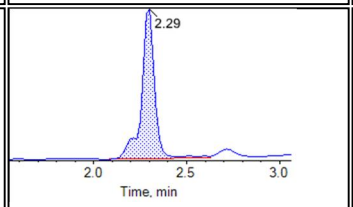
PFHxA_2



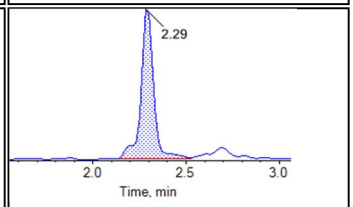
PFHpA_1



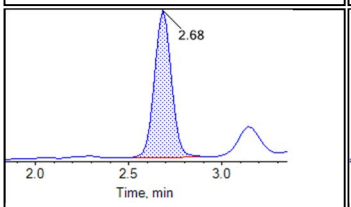
PFHpA_2



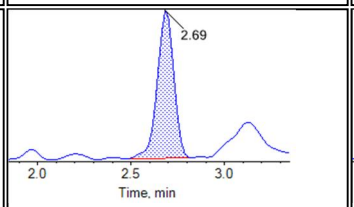
PFHxS_1



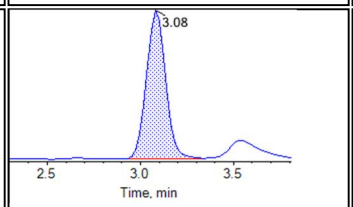
PFHxS_2



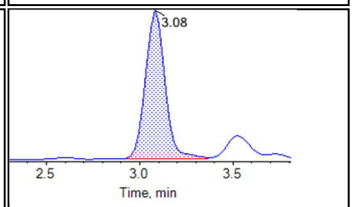
PFOA_1



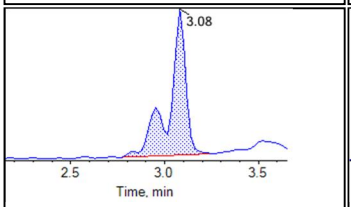
PFOA_2



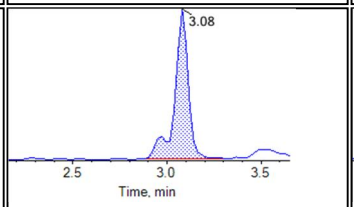
PFNA_1



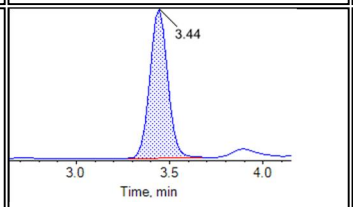
PFNA_2



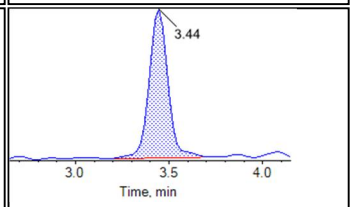
PFOS_1



PFOS_2



PFDA_1

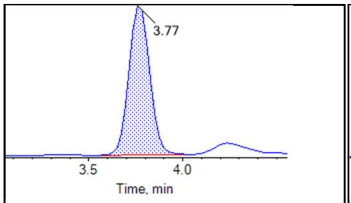


PFDA_2

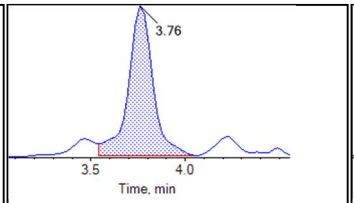
BATTELLE

Chromatogram Report

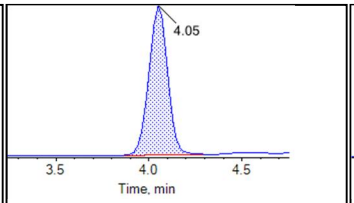
Created with Analyst Reporter
Printed: 23/10/2018 4:11:59 PM



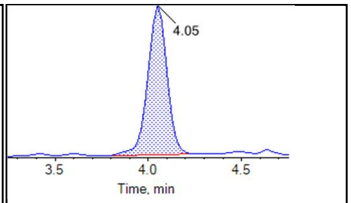
PFUnA_1



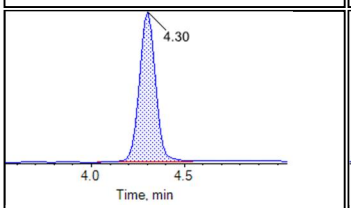
PFUnA_2



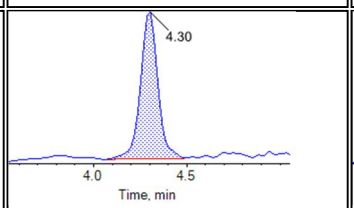
PFDoA_1



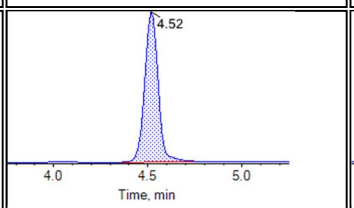
PFDoA_2



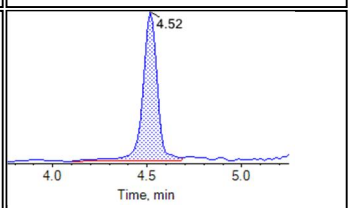
PFTrDA_1



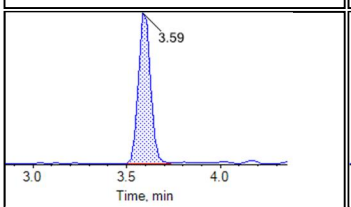
PFTrDA_2



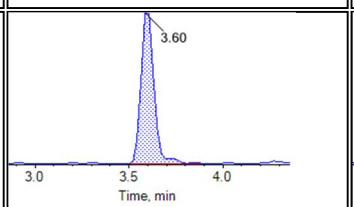
PFTeDA_1



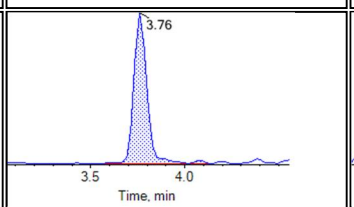
PFTeDA_2



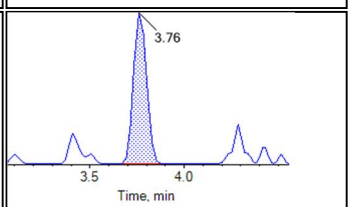
NMeFOSAA_1



NMeFOSAA_2

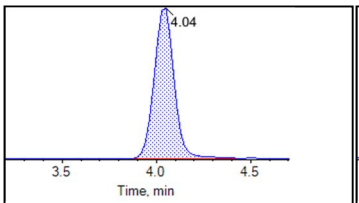


NEtFOSAA_1

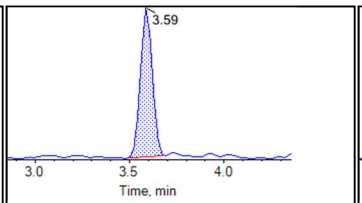


NEtFOSAA_2

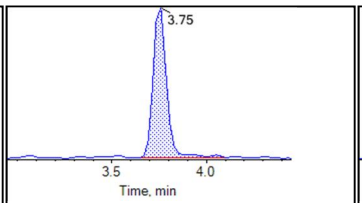
Internal Standards:



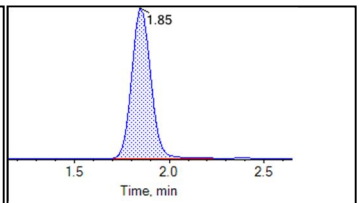
13C2-PFDoA



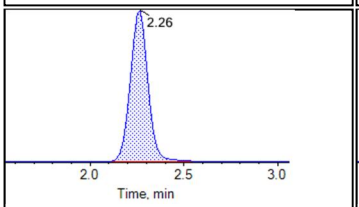
d3-MeFOSAA



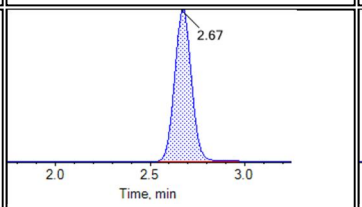
d5-EtFOSAA



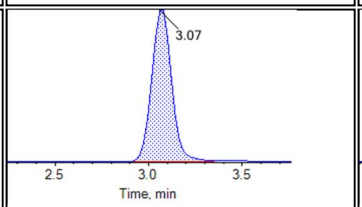
13C5-PFHxA



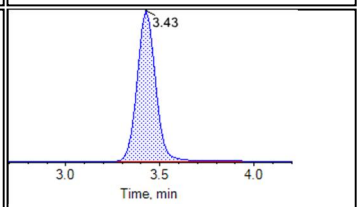
13C4-PFHpA



13C8-PFOA



13C9-PFNA

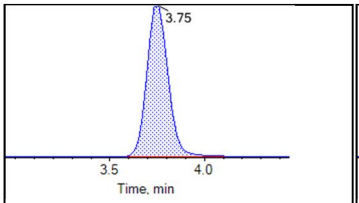


13C6-PFDA

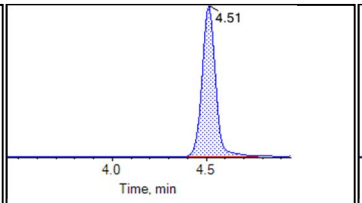
BATTELLE

Chromatogram Report

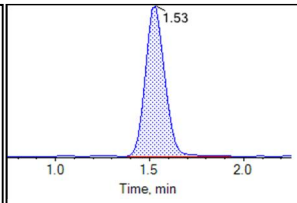
Created with Analyst Reporter
Printed: 23/10/2018 4:11:59 PM



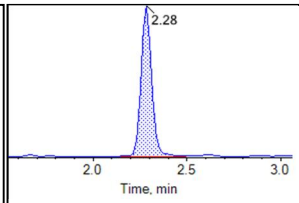
13C7-PFUnA



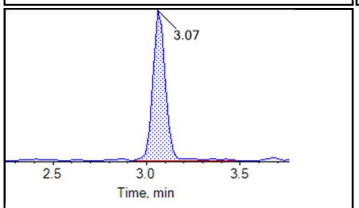
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

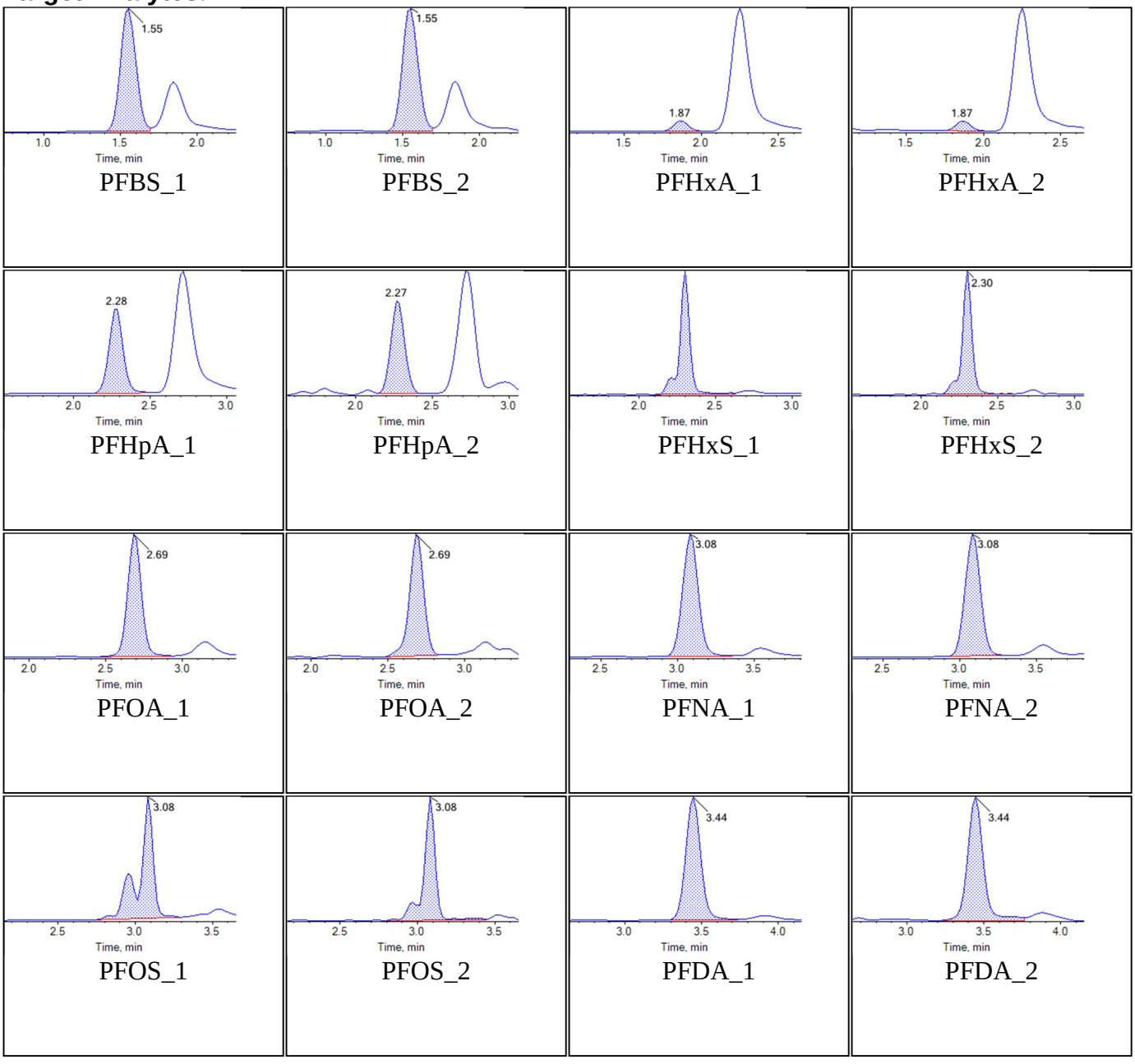
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:05 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

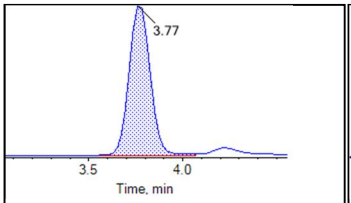
Target Analytes:



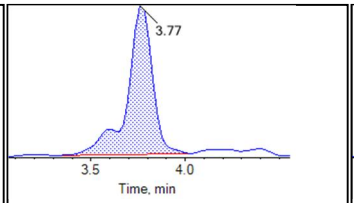
BATTELLE

Chromatogram Report

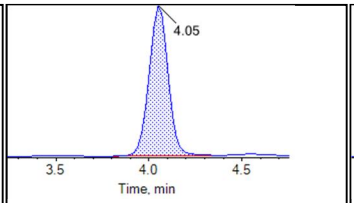
Created with Analyst Reporter
Printed: 23/10/2018 4:12:05 PM



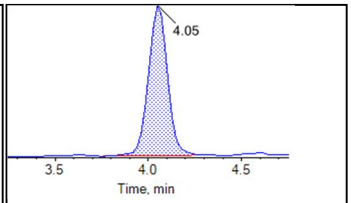
PFUnA_1



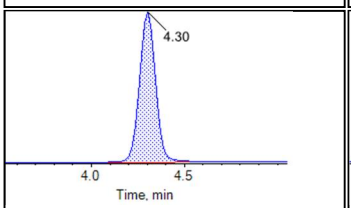
PFUnA_2



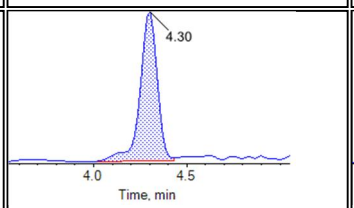
PFDoA_1



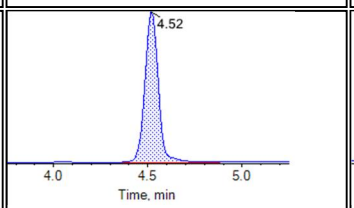
PFDoA_2



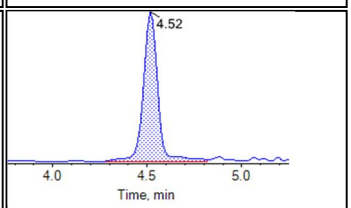
PFTrDA_1



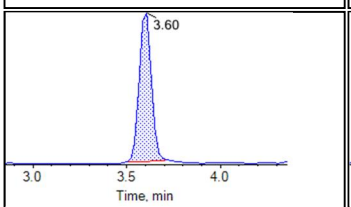
PFTrDA_2



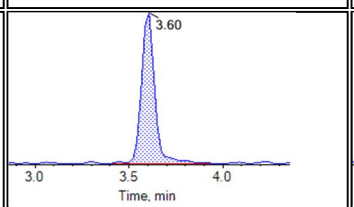
PFTeDA_1



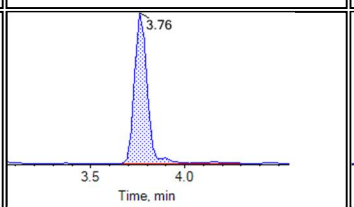
PFTeDA_2



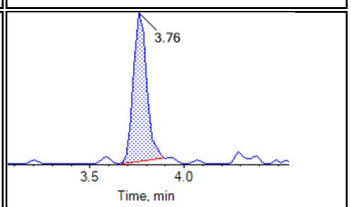
NMeFOSAA_1



NMeFOSAA_2

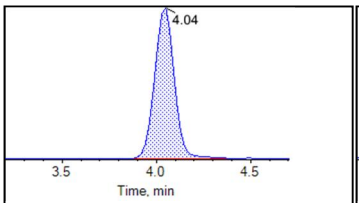


NEtFOSAA_1

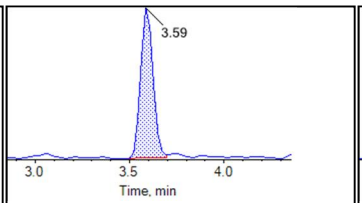


NEtFOSAA_2

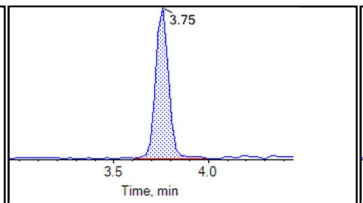
Internal Standards:



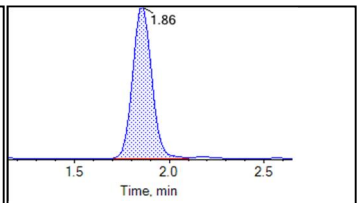
13C2-PFDoA



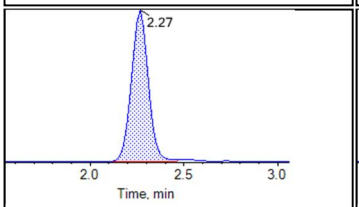
d3-MeFOSAA



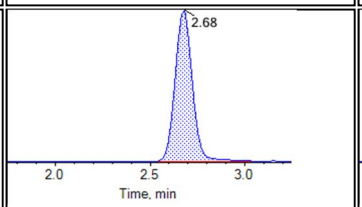
d5-EtFOSAA



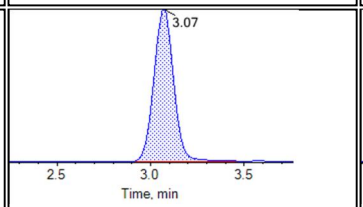
13C5-PFHxA



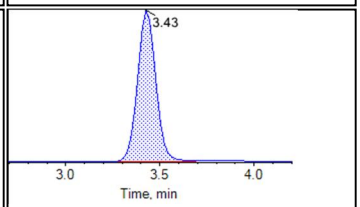
13C4-PFHpA



13C8-PFOA



13C9-PFNA

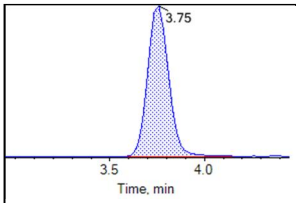


13C6-PFDA

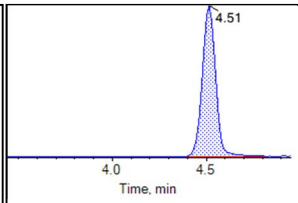
BATTELLE

Chromatogram Report

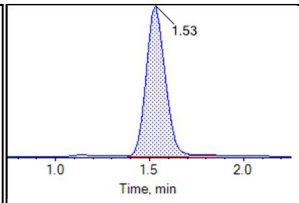
Created with Analyst Reporter
Printed: 23/10/2018 4:12:05 PM



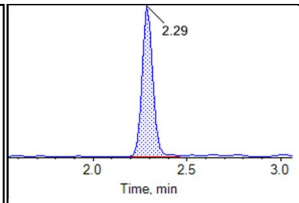
13C7-PFUnA



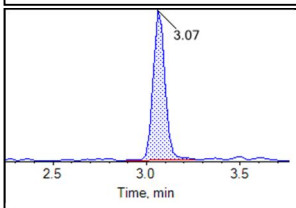
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

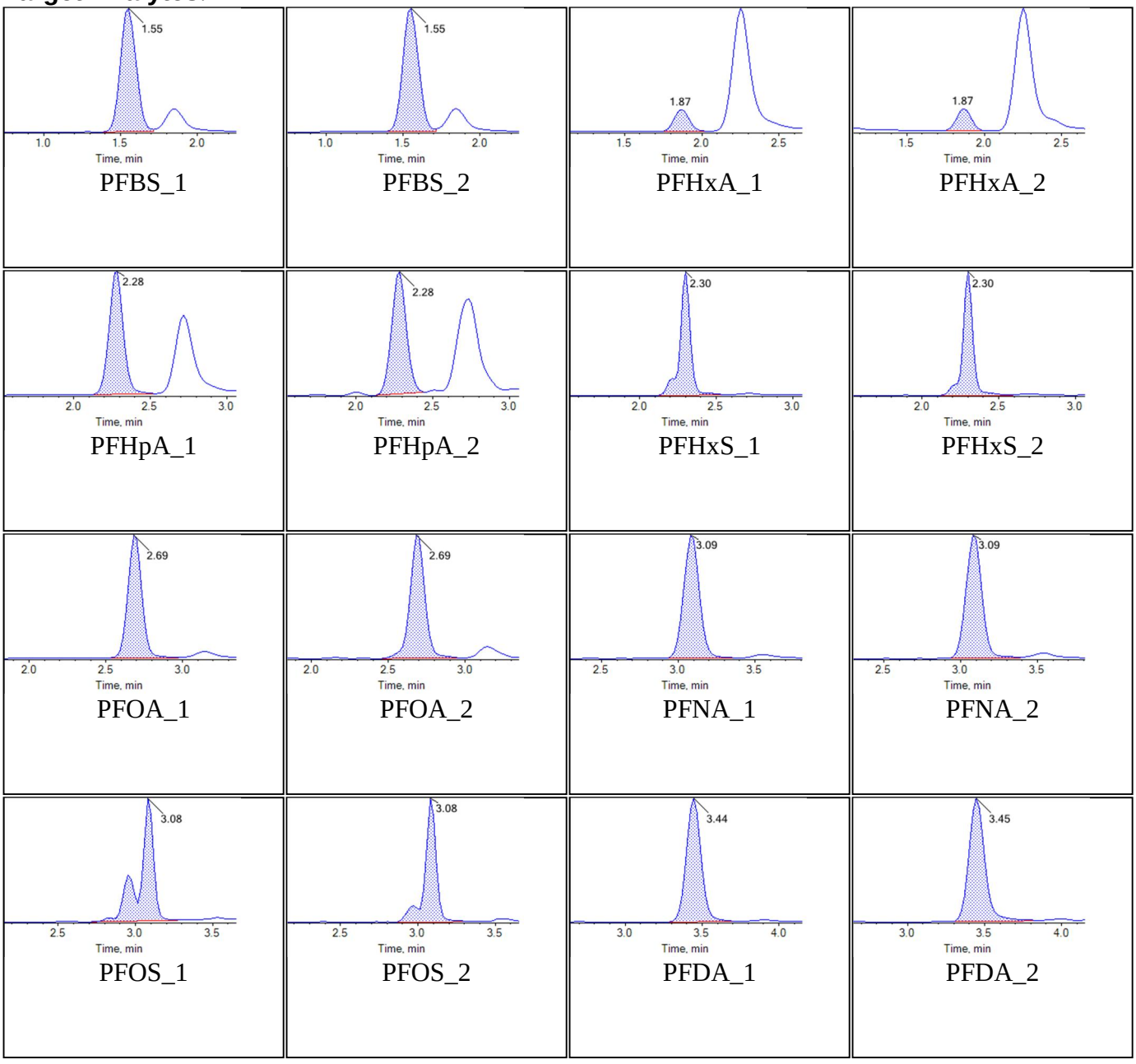
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:11 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

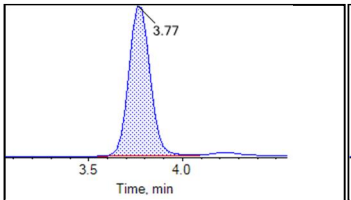
Target Analytes:



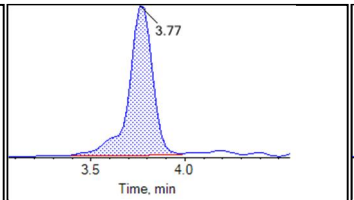
BATTELLE

Chromatogram Report

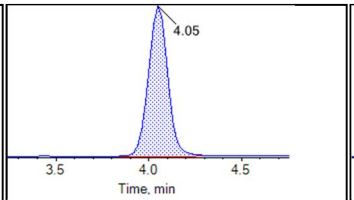
Created with Analyst Reporter
Printed: 23/10/2018 4:12:11 PM



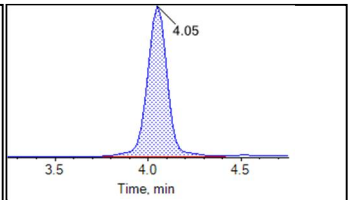
PFUnA_1



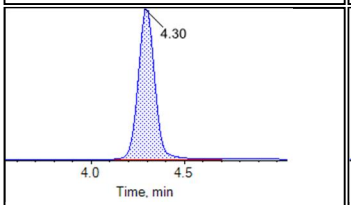
PFUnA_2



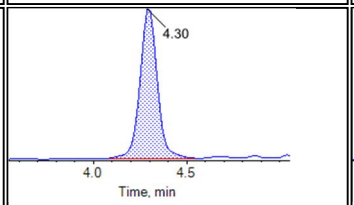
PFDoA_1



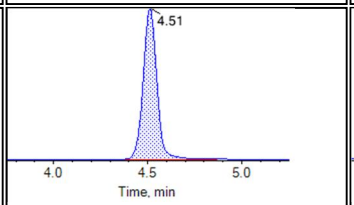
PFDoA_2



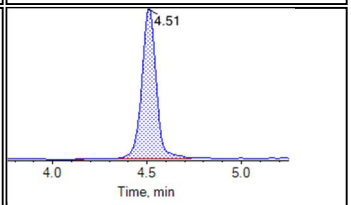
PFTrDA_1



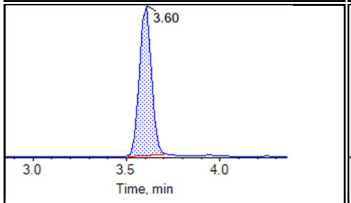
PFTrDA_2



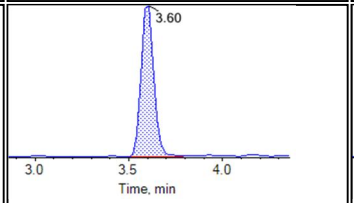
PFTeDA_1



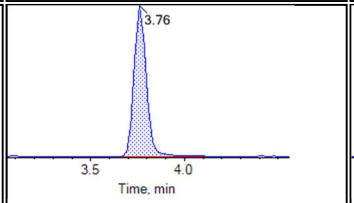
PFTeDA_2



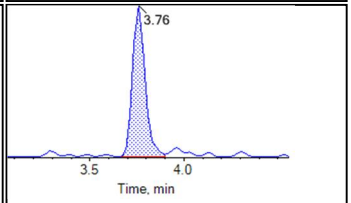
NMeFOSAA_1



NMeFOSAA_2

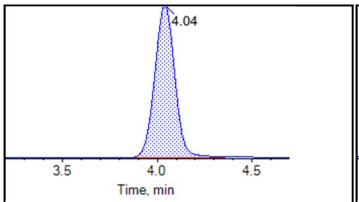


NEtFOSAA_1

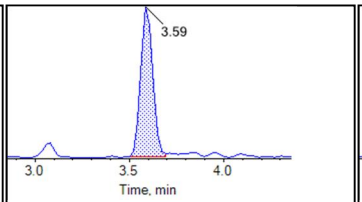


NEtFOSAA_2

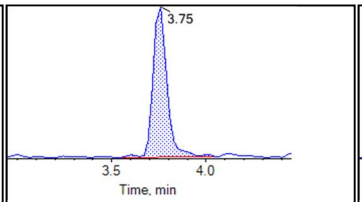
Internal Standards:



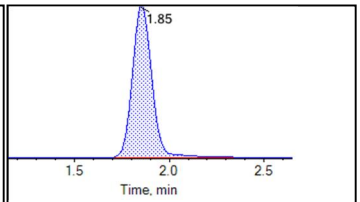
13C2-PFDoA



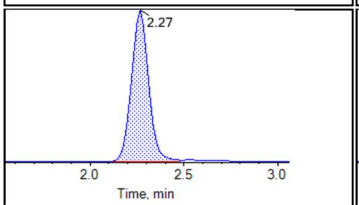
d3-MeFOSAA



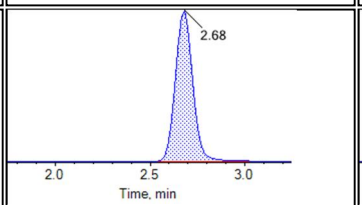
d5-EtFOSAA



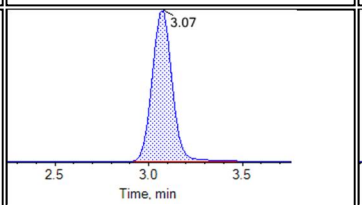
13C5-PFHxA



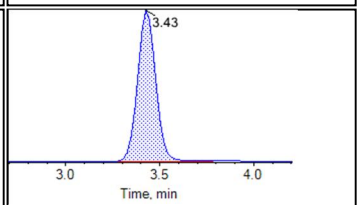
13C4-PFHpA



13C8-PFOA



13C9-PFNA

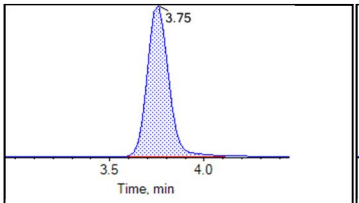


13C6-PFDA

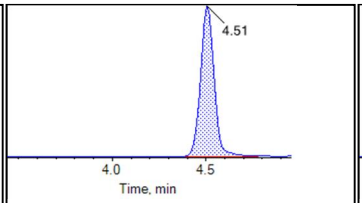
BATTELLE

Chromatogram Report

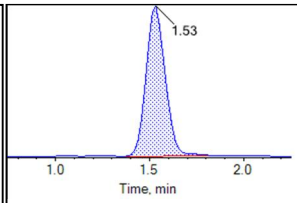
Created with Analyst Reporter
Printed: 23/10/2018 4:12:11 PM



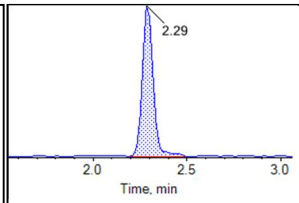
13C7-PFUnA



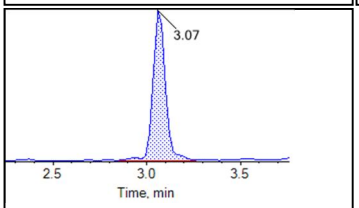
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

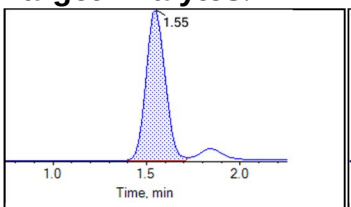
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:16 PM

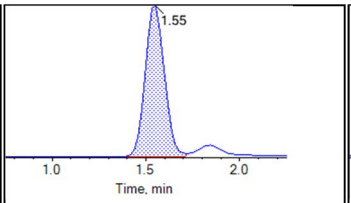
Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

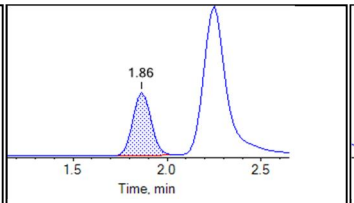
Target Analytes:



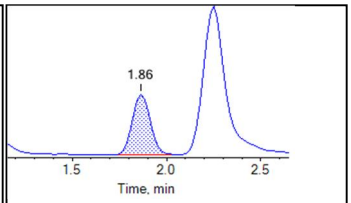
PFBS_1



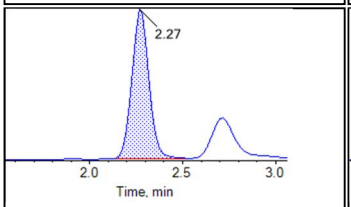
PFBS_2



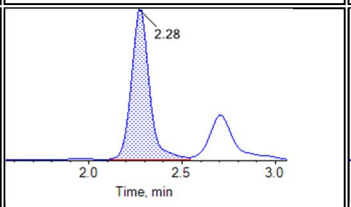
PFHxA_1



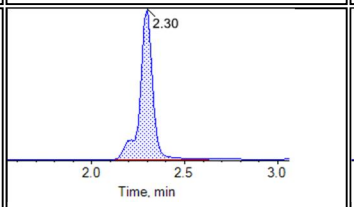
PFHxA_2



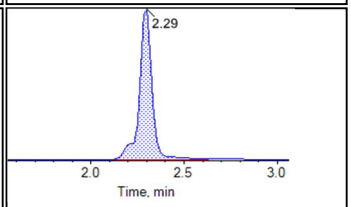
PFHpA_1



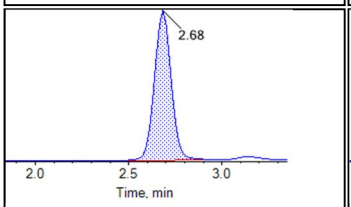
PFHpA_2



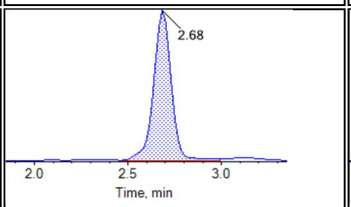
PFHxS_1



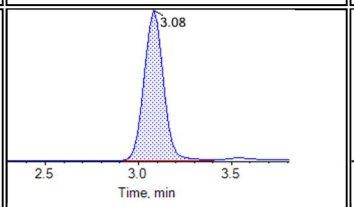
PFHxS_2



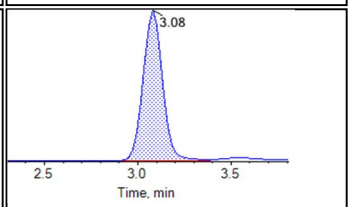
PFOA_1



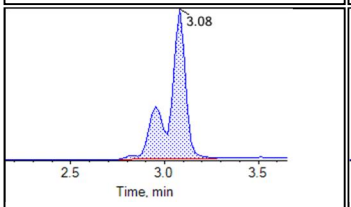
PFOA_2



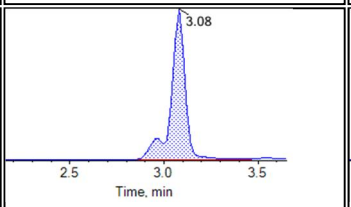
PFNA_1



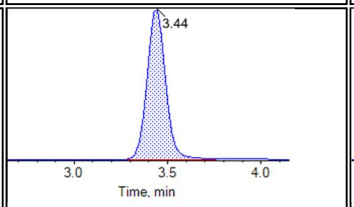
PFNA_2



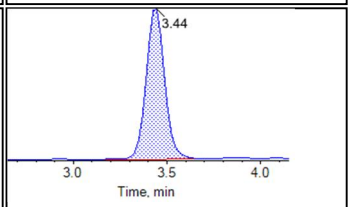
PFOS_1



PFOS_2



PFDA_1

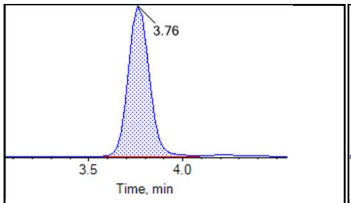


PFDA_2

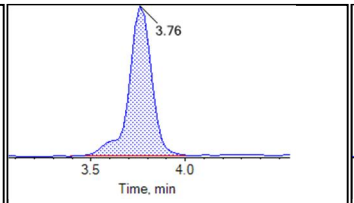
BATTELLE

Chromatogram Report

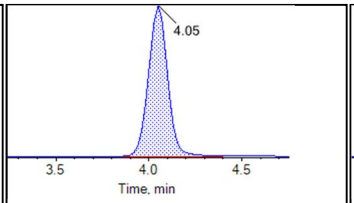
Created with Analyst Reporter
Printed: 23/10/2018 4:12:16 PM



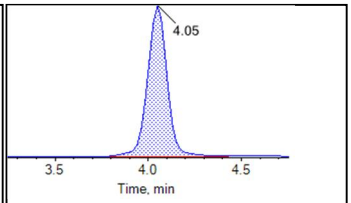
PFUnA_1



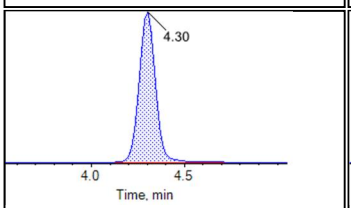
PFUnA_2



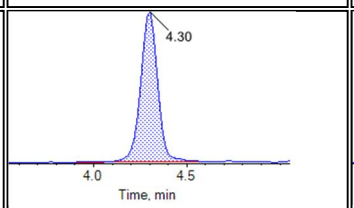
PFDoA_1



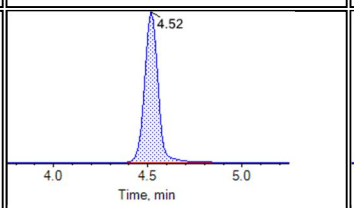
PFDoA_2



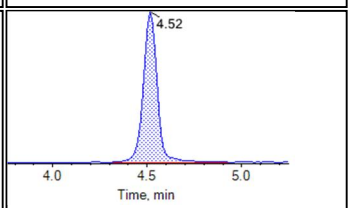
PFTrDA_1



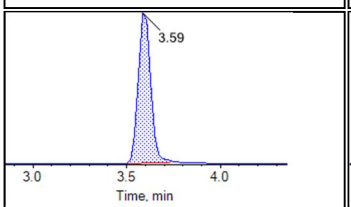
PFTrDA_2



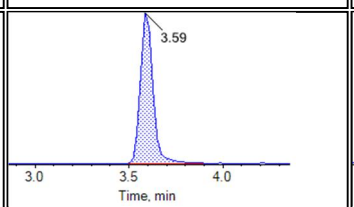
PFTeDA_1



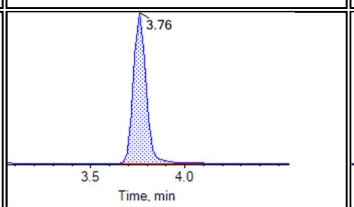
PFTeDA_2



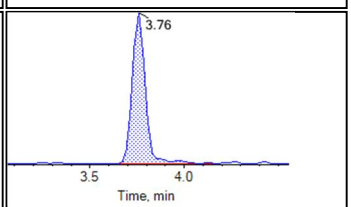
NMeFOSAA_1



NMeFOSAA_2

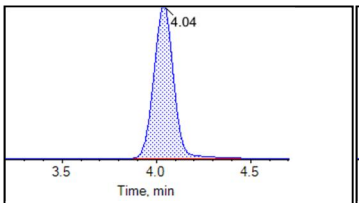


NEtFOSAA_1

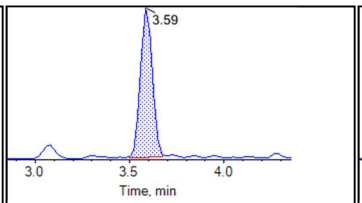


NEtFOSAA_2

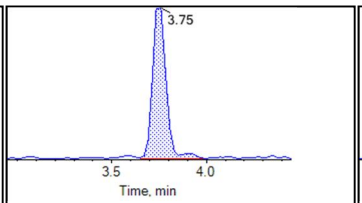
Internal Standards:



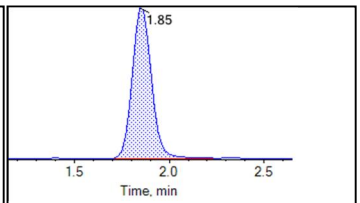
13C2-PFDoA



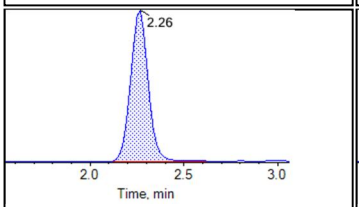
d3-MeFOSAA



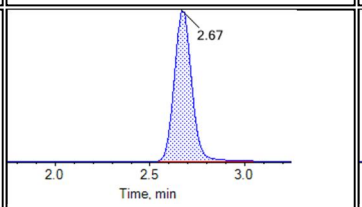
d5-EtFOSAA



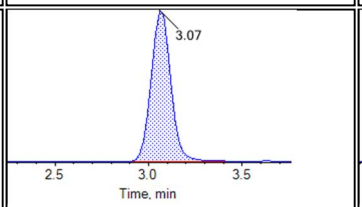
13C5-PFHxA



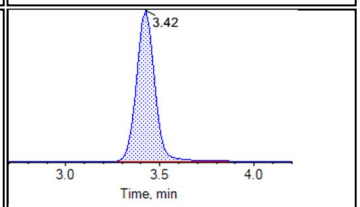
13C4-PFHpA



13C8-PFOA



13C9-PFNA

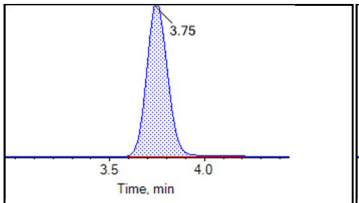


13C6-PFDA

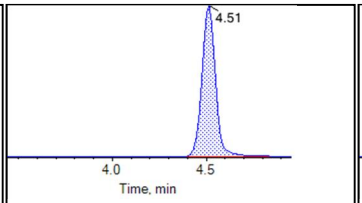
BATTELLE

Chromatogram Report

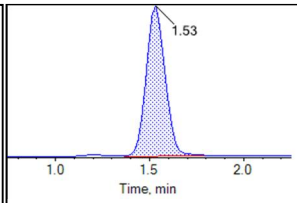
Created with Analyst Reporter
Printed: 23/10/2018 4:12:16 PM



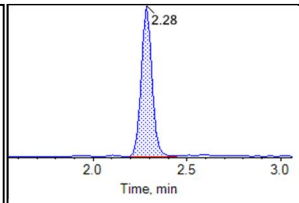
13C7-PFUnA



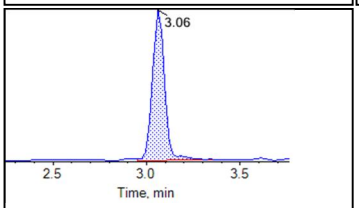
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

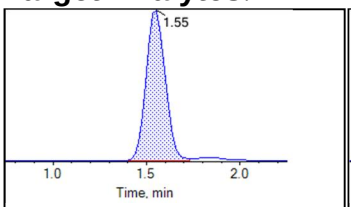
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:22 PM

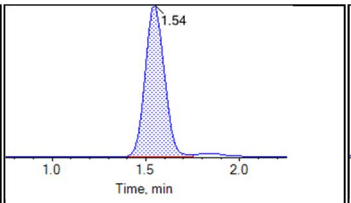
Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

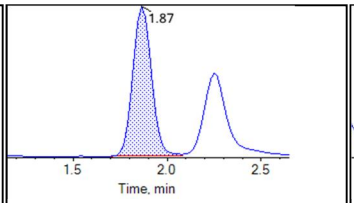
Target Analytes:



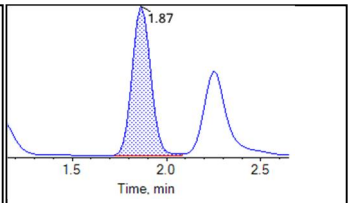
PFBS_1



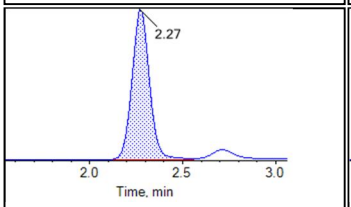
PFBS_2



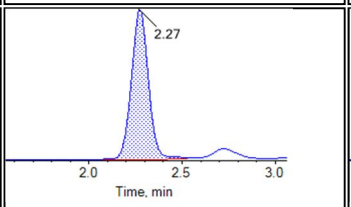
PFHxA_1



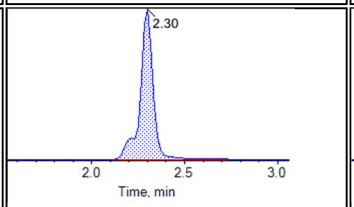
PFHxA_2



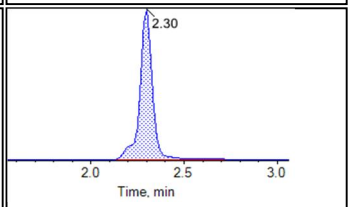
PFHpA_1



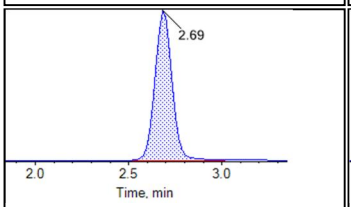
PFHpA_2



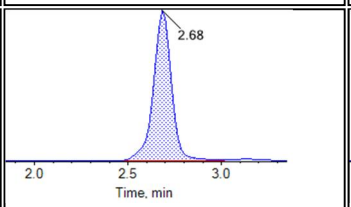
PFHxS_1



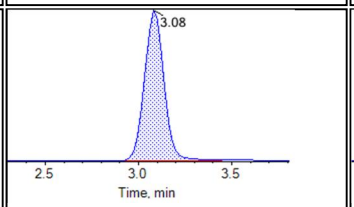
PFHxS_2



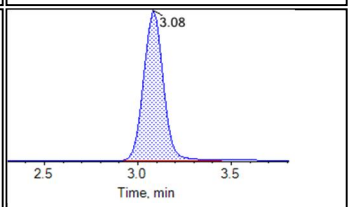
PFOA_1



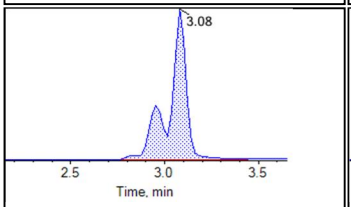
PFOA_2



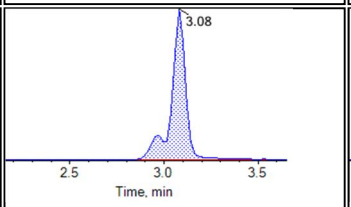
PFNA_1



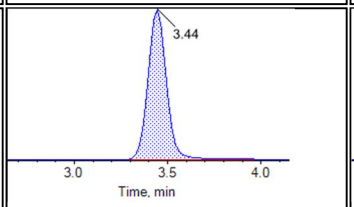
PFNA_2



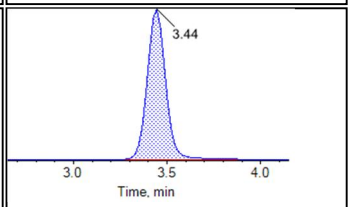
PFOS_1



PFOS_2



PFDA_1

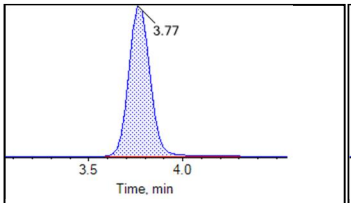


PFDA_2

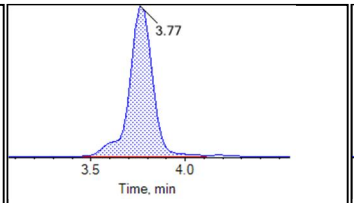
BATTELLE

Chromatogram Report

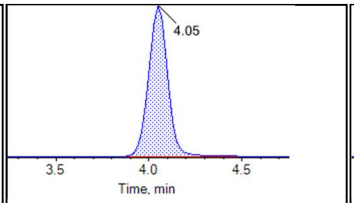
Created with Analyst Reporter
Printed: 23/10/2018 4:12:22 PM



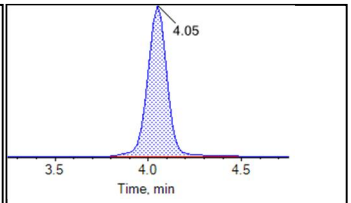
PFUnA_1



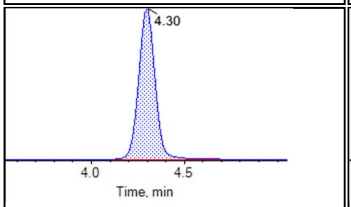
PFUnA_2



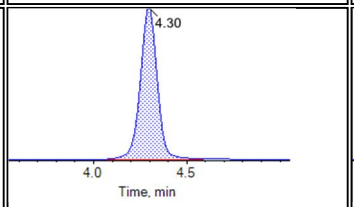
PFDoA_1



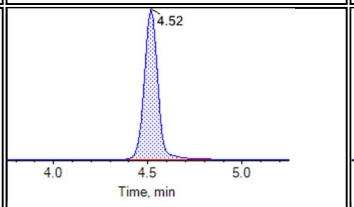
PFDoA_2



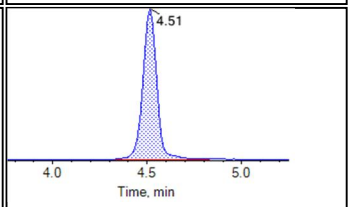
PFTrDA_1



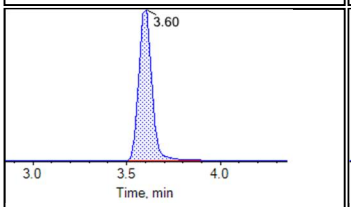
PFTrDA_2



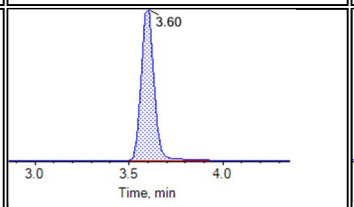
PFTeDA_1



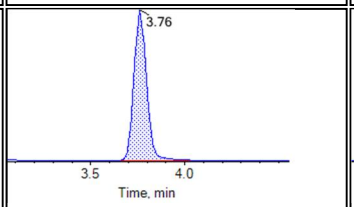
PFTeDA_2



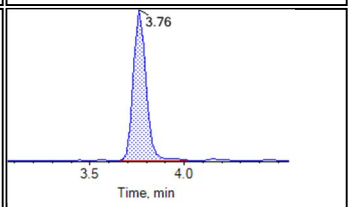
NMeFOSAA_1



NMeFOSAA_2

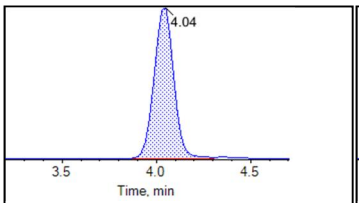


NEtFOSAA_1

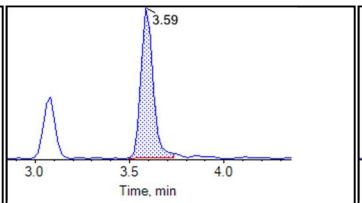


NEtFOSAA_2

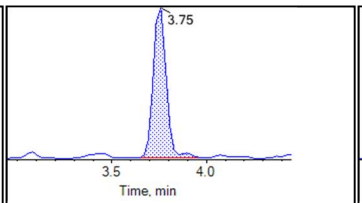
Internal Standards:



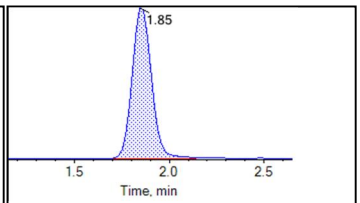
13C2-PFDoA



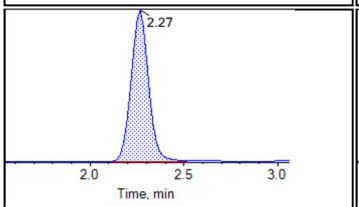
d3-MeFOSAA



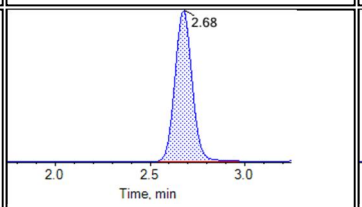
d5-EtFOSAA



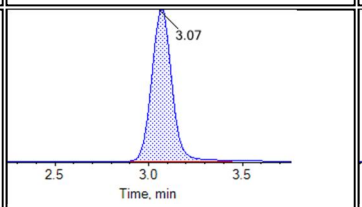
13C5-PFHxA



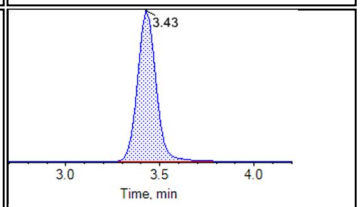
13C4-PFHpA



13C8-PFOA



13C9-PFNA

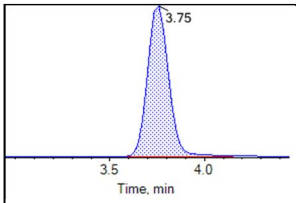


13C6-PFDA

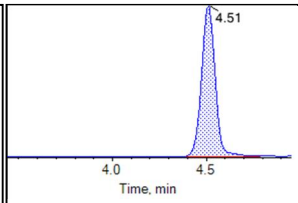
BATTELLE

Chromatogram Report

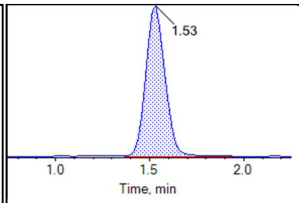
Created with Analyst Reporter
Printed: 23/10/2018 4:12:22 PM



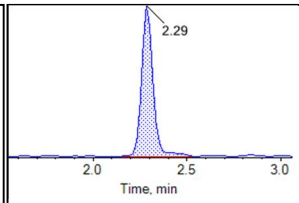
13C7-PFUnA



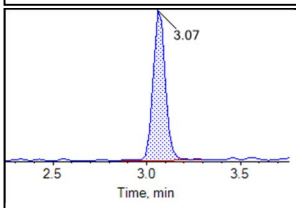
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

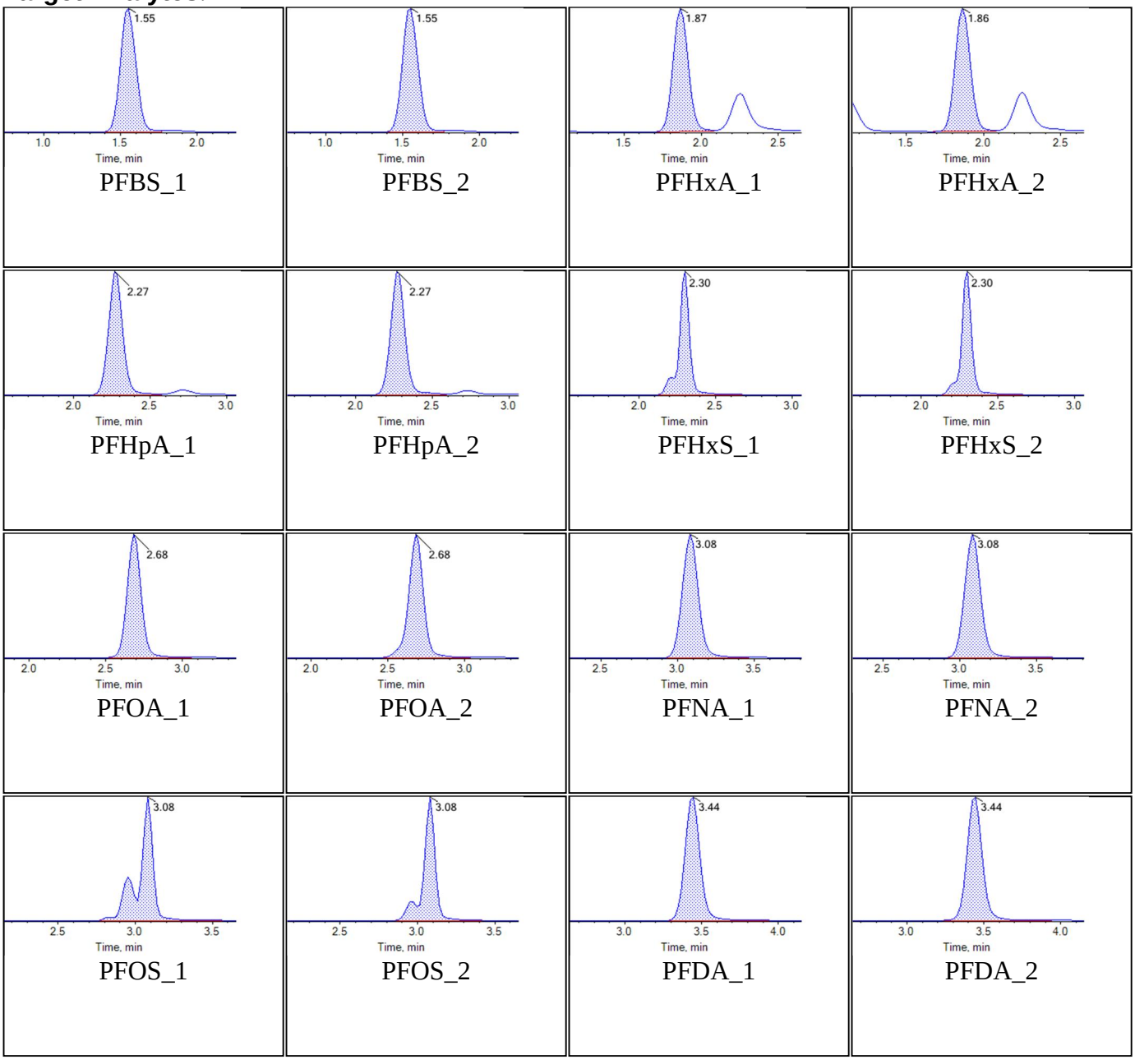
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:27 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

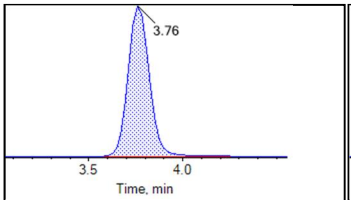
Target Analytes:



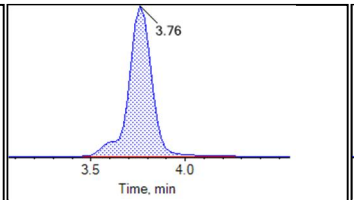
BATTELLE

Chromatogram Report

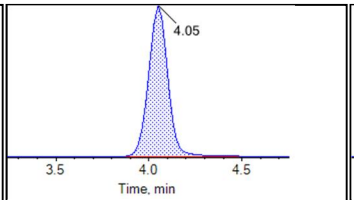
Created with Analyst Reporter
Printed: 23/10/2018 4:12:27 PM



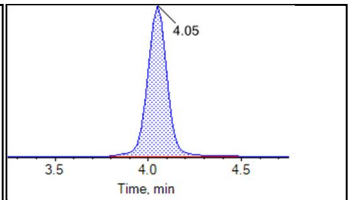
PFUnA_1



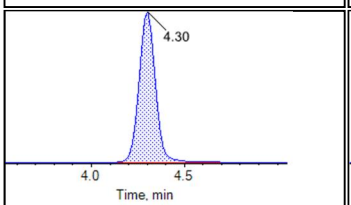
PFUnA_2



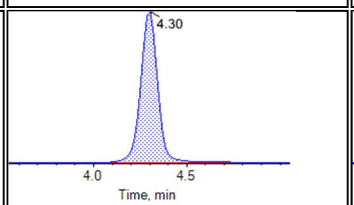
PFDoA_1



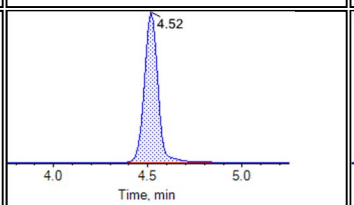
PFDoA_2



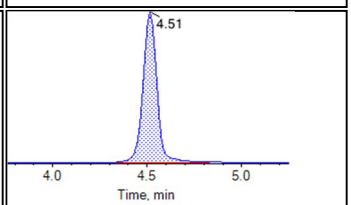
PFTrDA_1



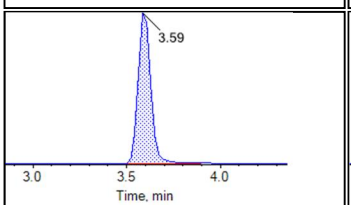
PFTrDA_2



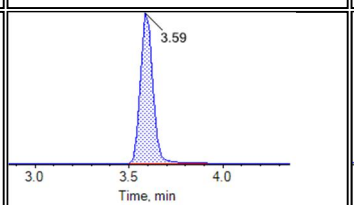
PFTeDA_1



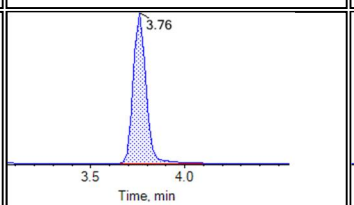
PFTeDA_2



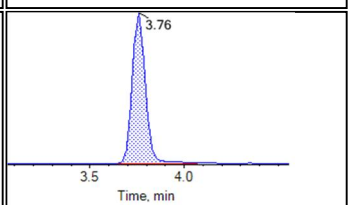
NMeFOSAA_1



NMeFOSAA_2

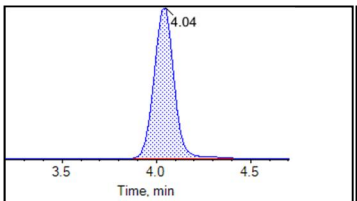


NEtFOSAA_1

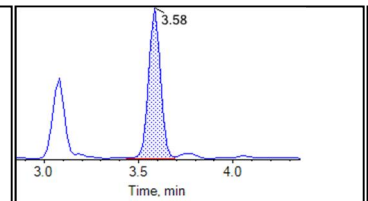


NEtFOSAA_2

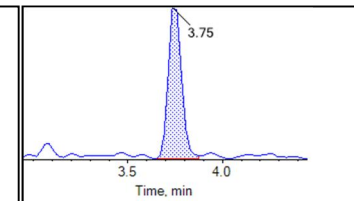
Internal Standards:



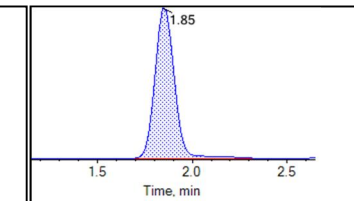
13C2-PFDoA



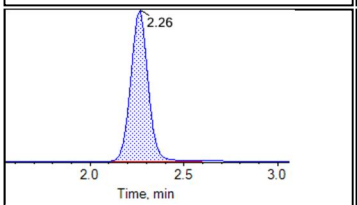
d3-MeFOSAA



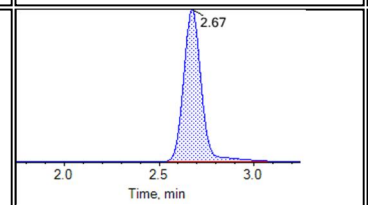
d5-EtFOSAA



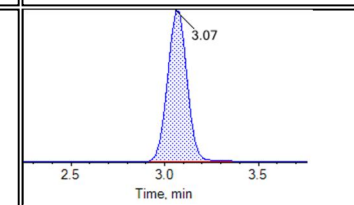
13C5-PFHxA



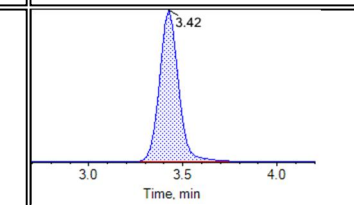
13C4-PFHpA



13C8-PFOA



13C9-PFNA

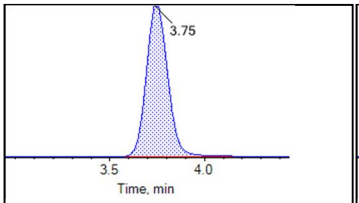


13C6-PFDA

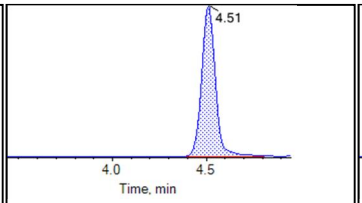
BATTELLE

Chromatogram Report

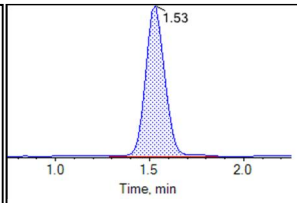
Created with Analyst Reporter
Printed: 23/10/2018 4:12:27 PM



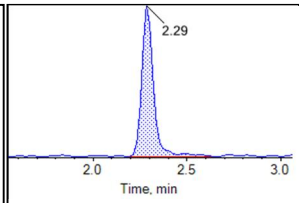
13C7-PFUnA



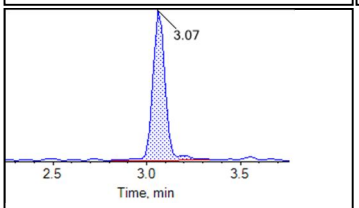
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

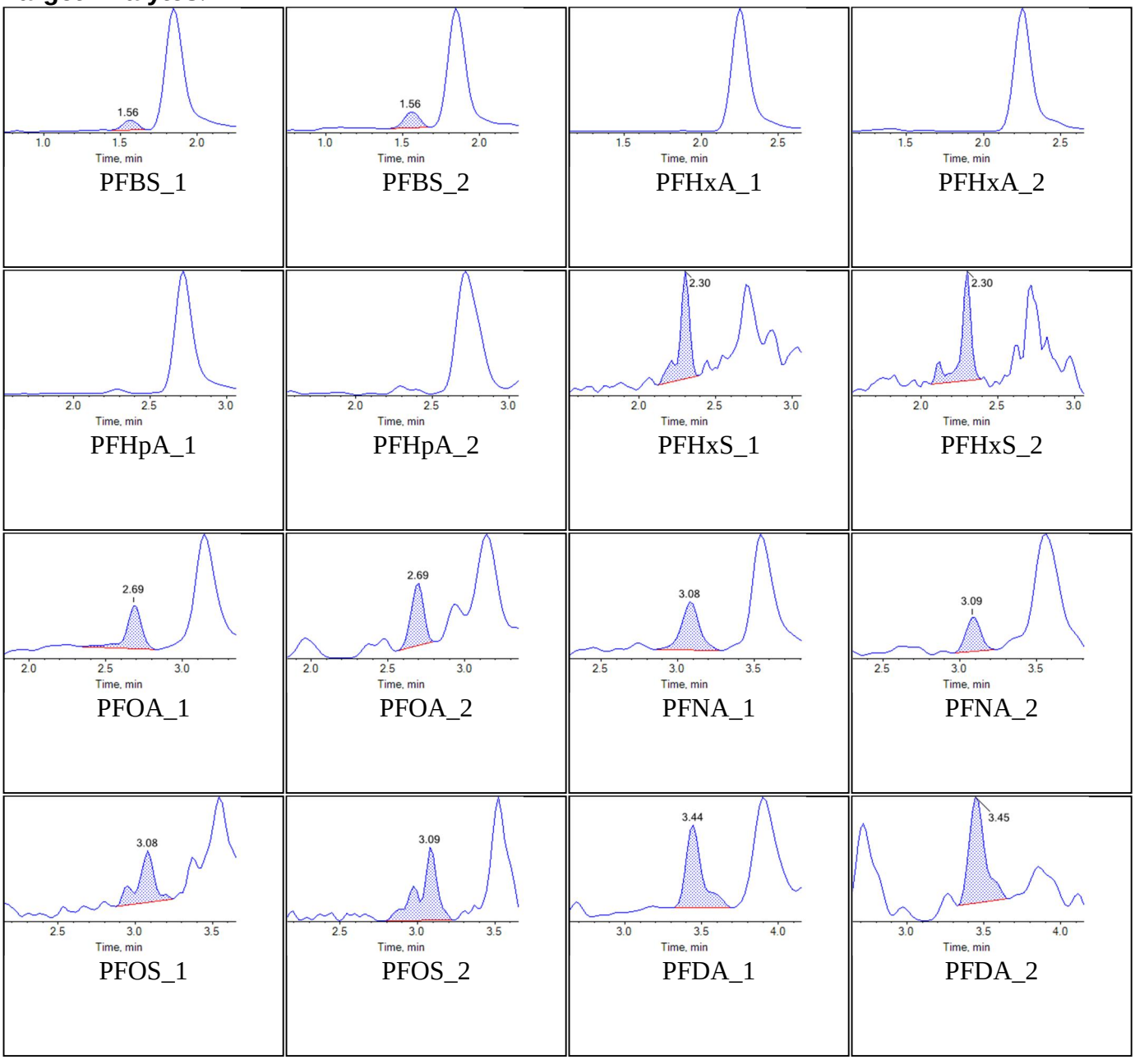
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:33 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

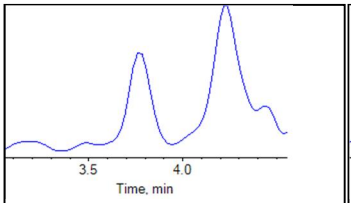
Target Analytes:



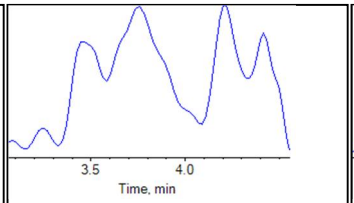
BATTELLE

Chromatogram Report

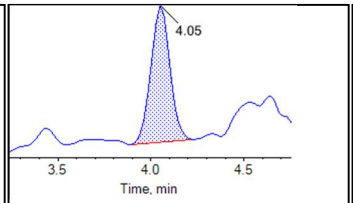
Created with Analyst Reporter
Printed: 23/10/2018 4:12:33 PM



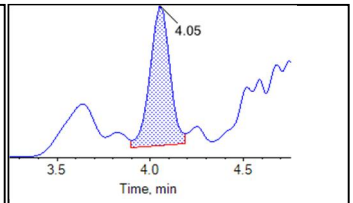
PFUnA_1



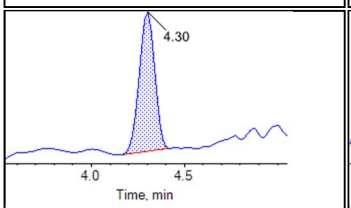
PFUnA_2



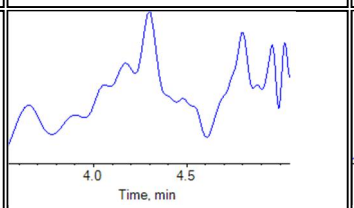
PFDoA_1



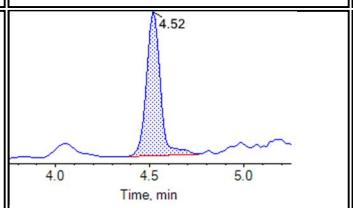
PFDoA_2



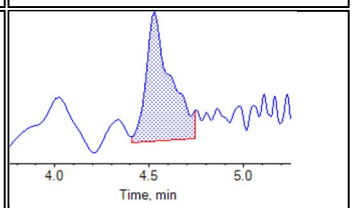
PFTrDA_1



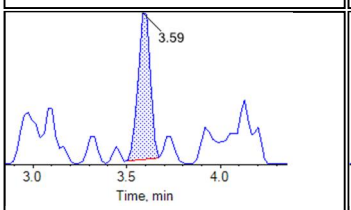
PFTrDA_2



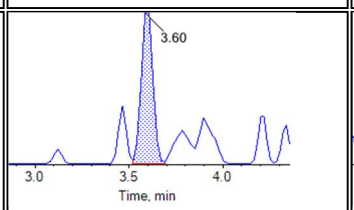
PFTeDA_1



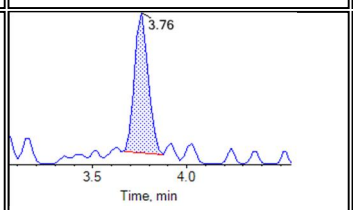
PFTeDA_2



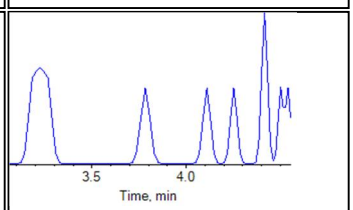
NMeFOSAA_1



NMeFOSAA_2

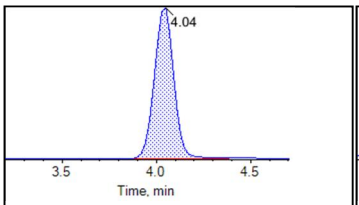


NEtFOSAA_1

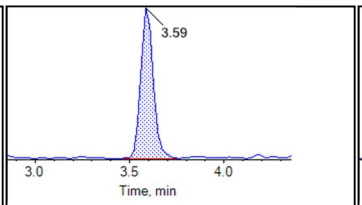


NEtFOSAA_2

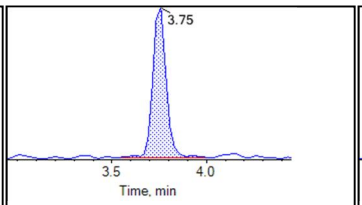
Internal Standards:



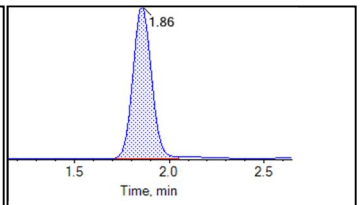
13C2-PFDoA



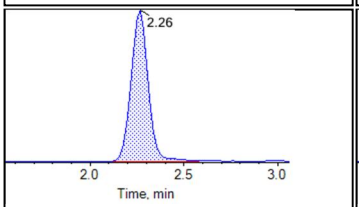
d3-MeFOSAA



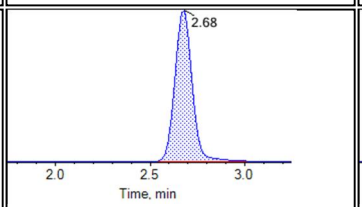
d5-EtFOSAA



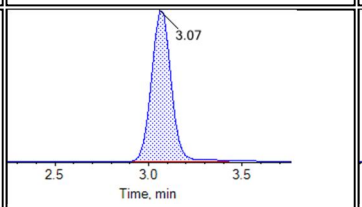
13C5-PFHxA



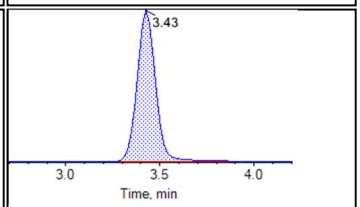
13C4-PFHpA



13C8-PFOA



13C9-PFNA

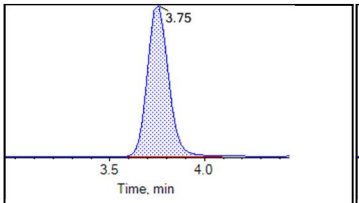


13C6-PFDA

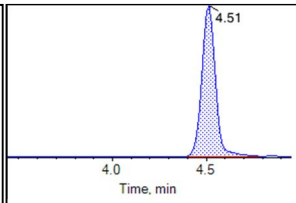
BATTELLE

Chromatogram Report

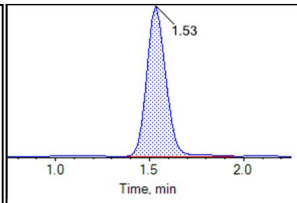
Created with Analyst Reporter
Printed: 23/10/2018 4:12:33 PM



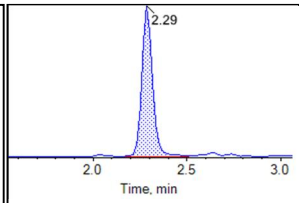
13C7-PFUnA



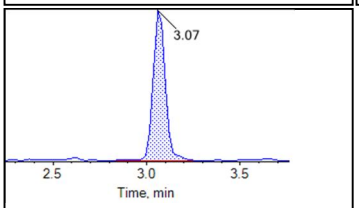
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

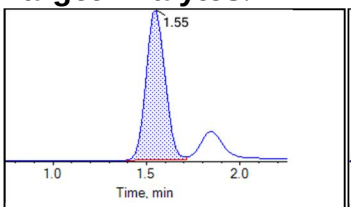
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:39 PM

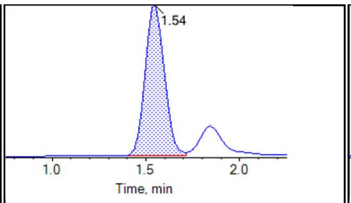
Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

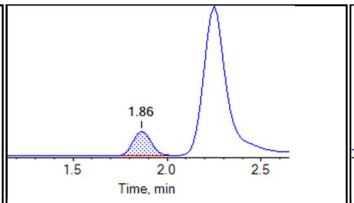
Target Analytes:



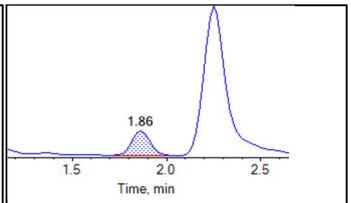
PFBS_1



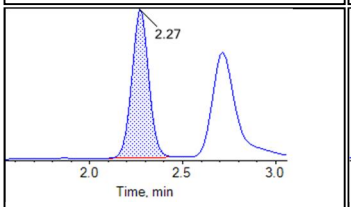
PFBS_2



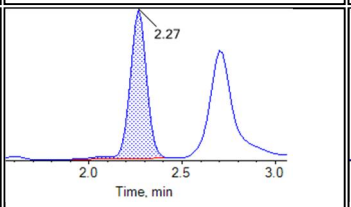
PFHxA_1



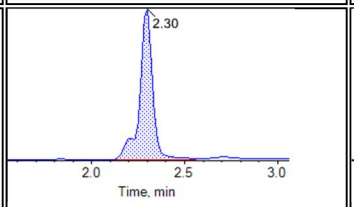
PFHxA_2



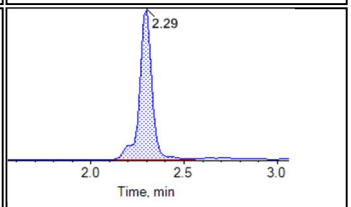
PFHpA_1



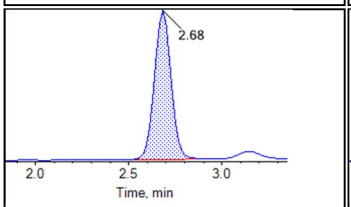
PFHpA_2



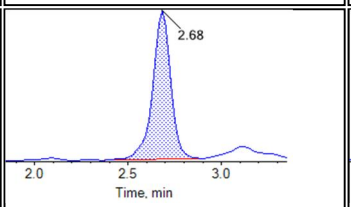
PFHxS_1



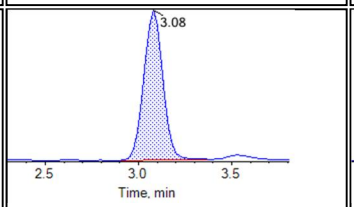
PFHxS_2



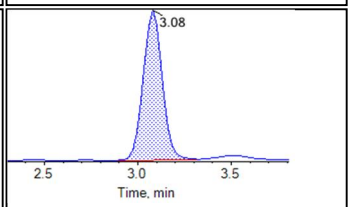
PFOA_1



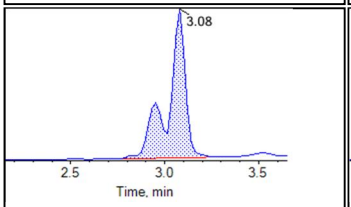
PFOA_2



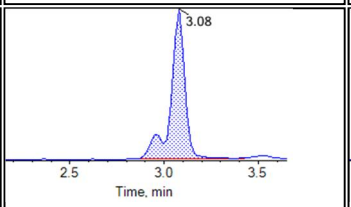
PFNA_1



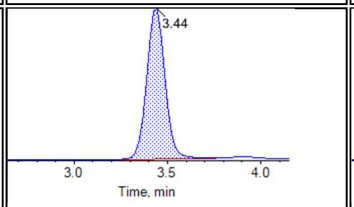
PFNA_2



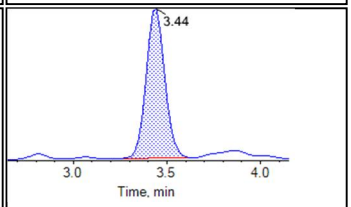
PFOS_1



PFOS_2



PFDA_1

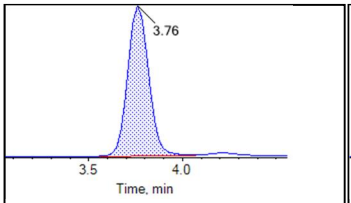


PFDA_2

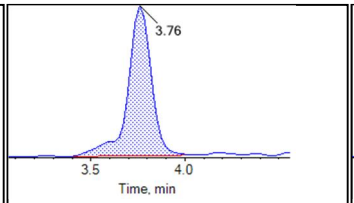
BATTELLE

Chromatogram Report

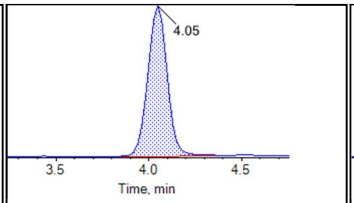
Created with Analyst Reporter
Printed: 23/10/2018 4:12:39 PM



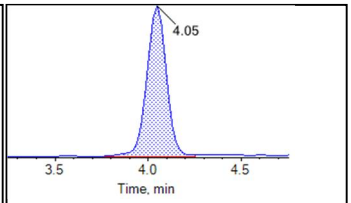
PFUnA_1



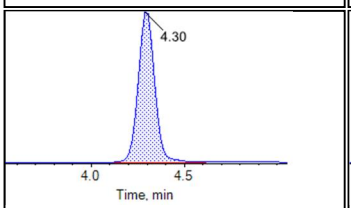
PFUnA_2



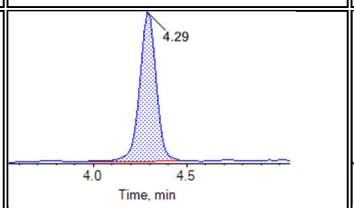
PFDoA_1



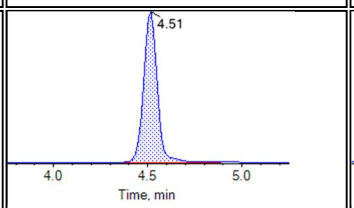
PFDoA_2



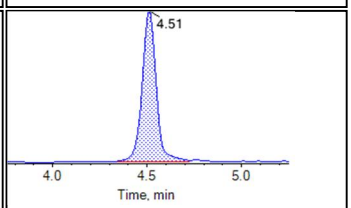
PFTrDA_1



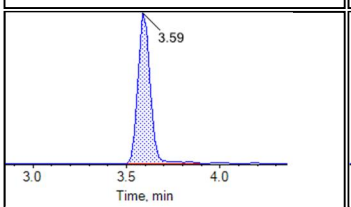
PFTrDA_2



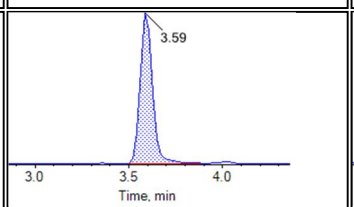
PFTeDA_1



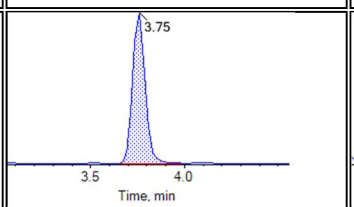
PFTeDA_2



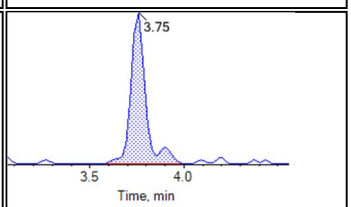
NMeFOSAA_1



NMeFOSAA_2

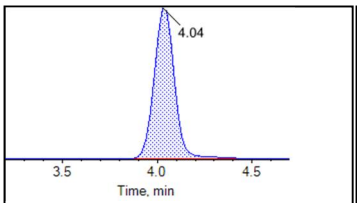


NEtFOSAA_1

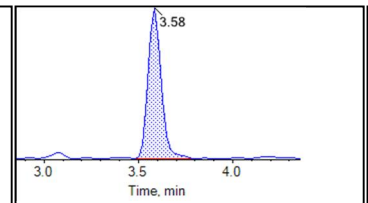


NEtFOSAA_2

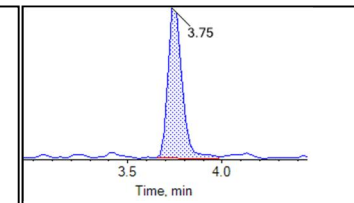
Internal Standards:



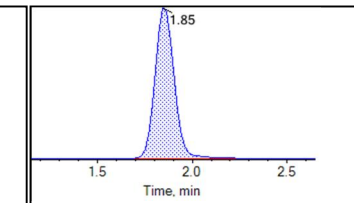
13C2-PFDoA



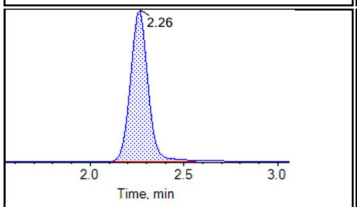
d3-MeFOSAA



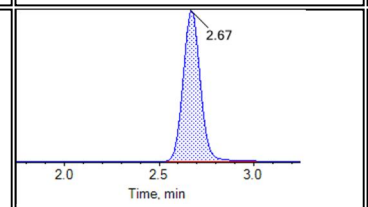
d5-EtFOSAA



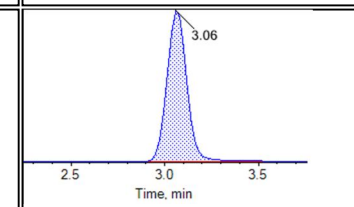
13C5-PFHxA



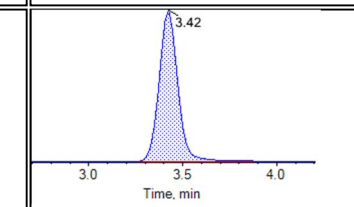
13C4-PFHpA



13C8-PFOA



13C9-PFNA

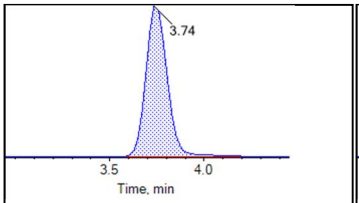


13C6-PFDA

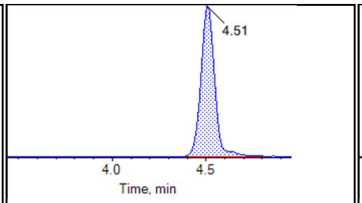
BATTELLE

Chromatogram Report

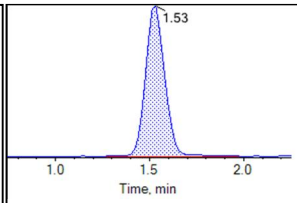
Created with Analyst Reporter
Printed: 23/10/2018 4:12:39 PM



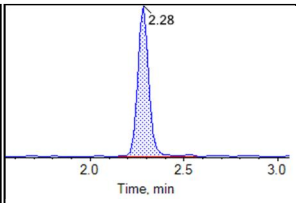
13C7-PFUnA



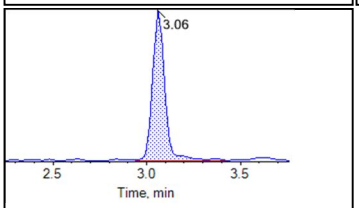
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

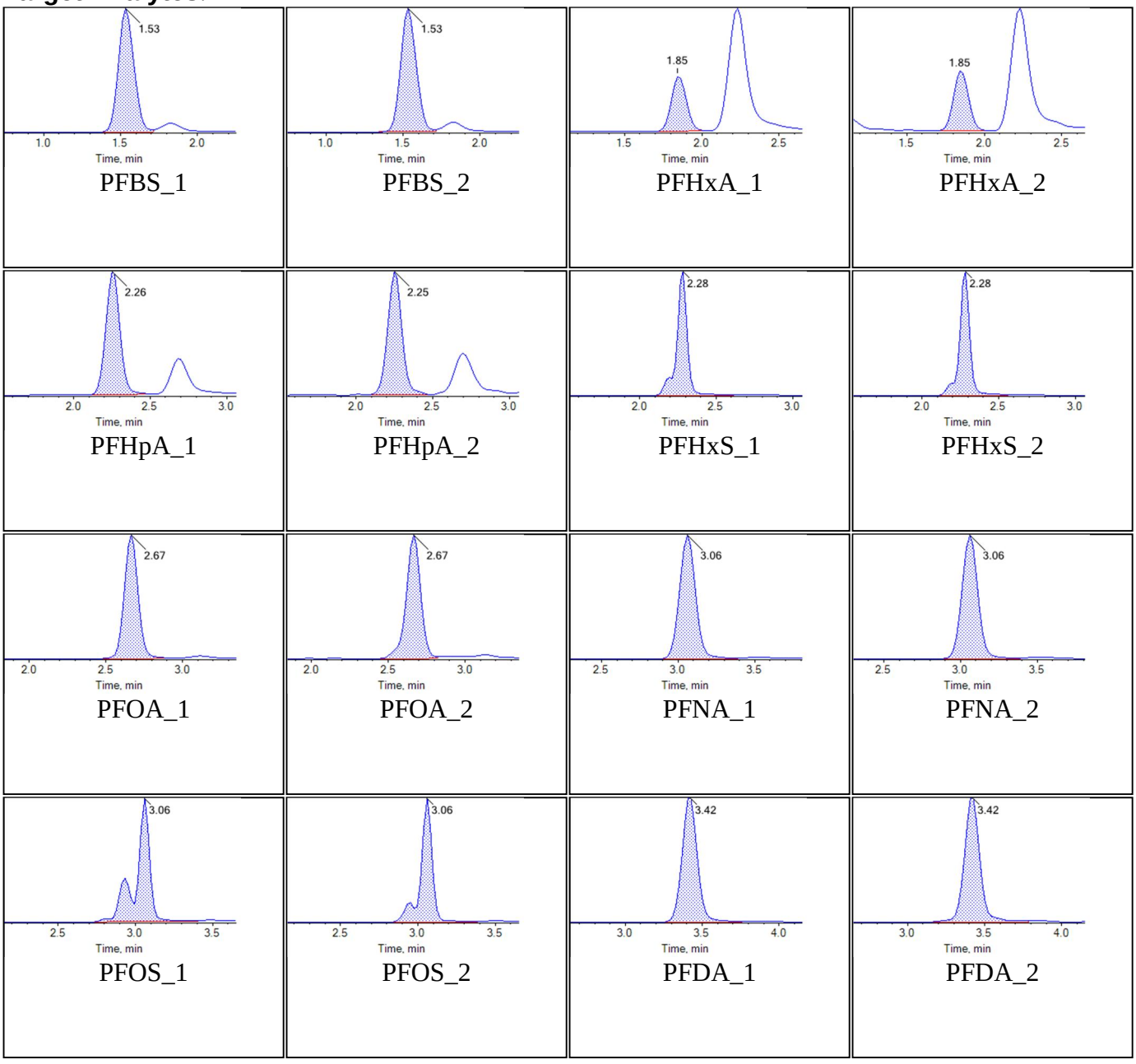
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:44 PM

Sample Name	KB77 CCV	**Injection Vial**	8
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:06:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

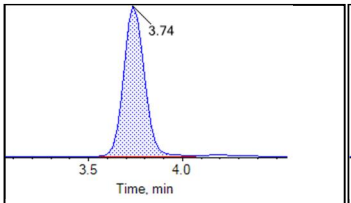
Target Analytes:



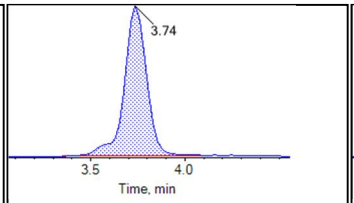
BATTELLE

Chromatogram Report

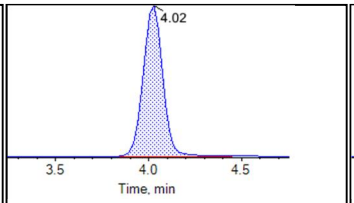
Created with Analyst Reporter
Printed: 23/10/2018 4:12:44 PM



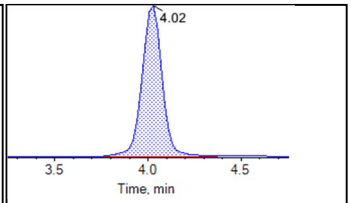
PFUnA_1



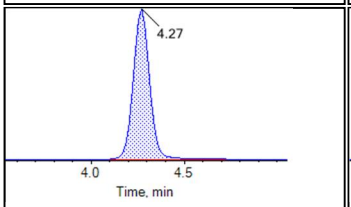
PFUnA_2



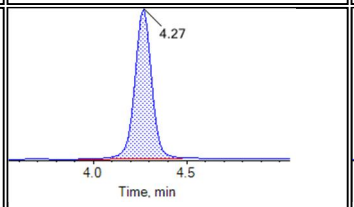
PFDoA_1



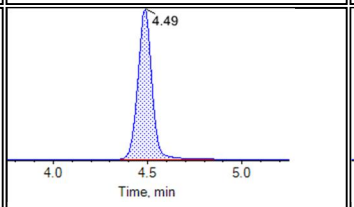
PFDoA_2



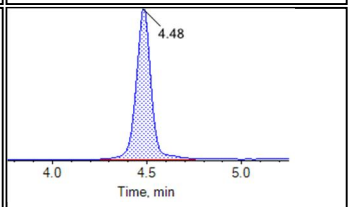
PFTrDA_1



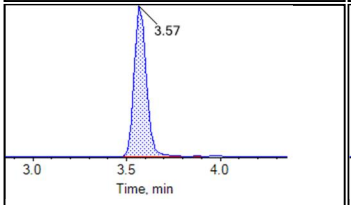
PFTrDA_2



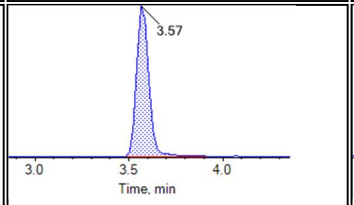
PFTeDA_1



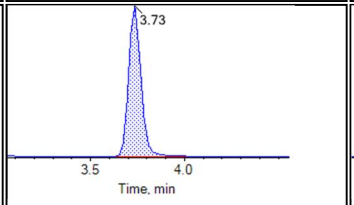
PFTeDA_2



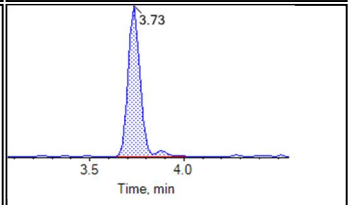
NMeFOSAA_1



NMeFOSAA_2

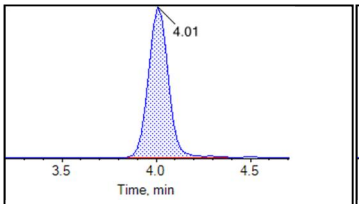


NEtFOSAA_1

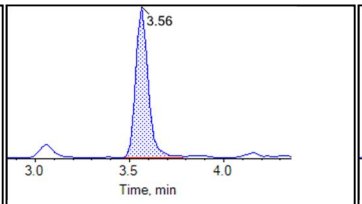


NEtFOSAA_2

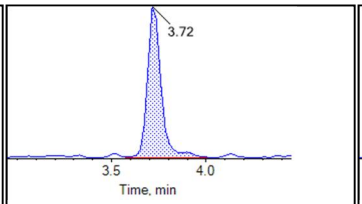
Internal Standards:



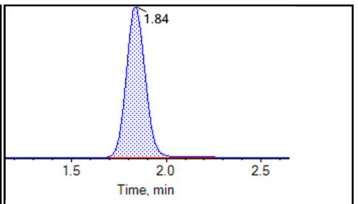
13C2-PFDoA



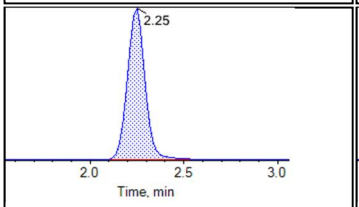
d3-MeFOSAA



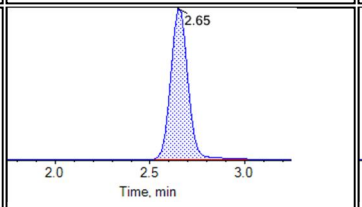
d5-EtFOSAA



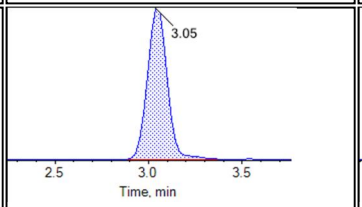
13C5-PFHxA



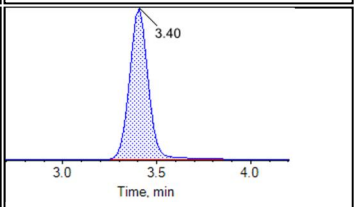
13C4-PFHpA



13C8-PFOA



13C9-PFNA

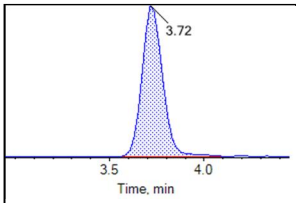


13C6-PFDA

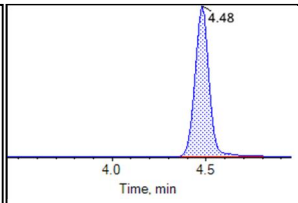
BATTELLE

Chromatogram Report

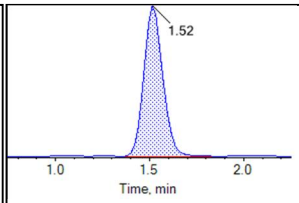
Created with Analyst Reporter
Printed: 23/10/2018 4:12:44 PM



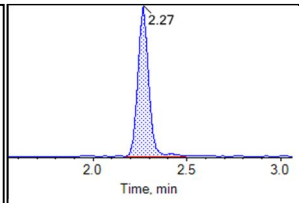
13C7-PFUnA



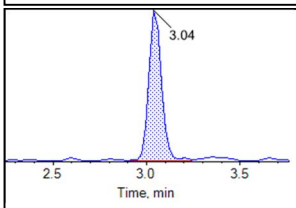
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

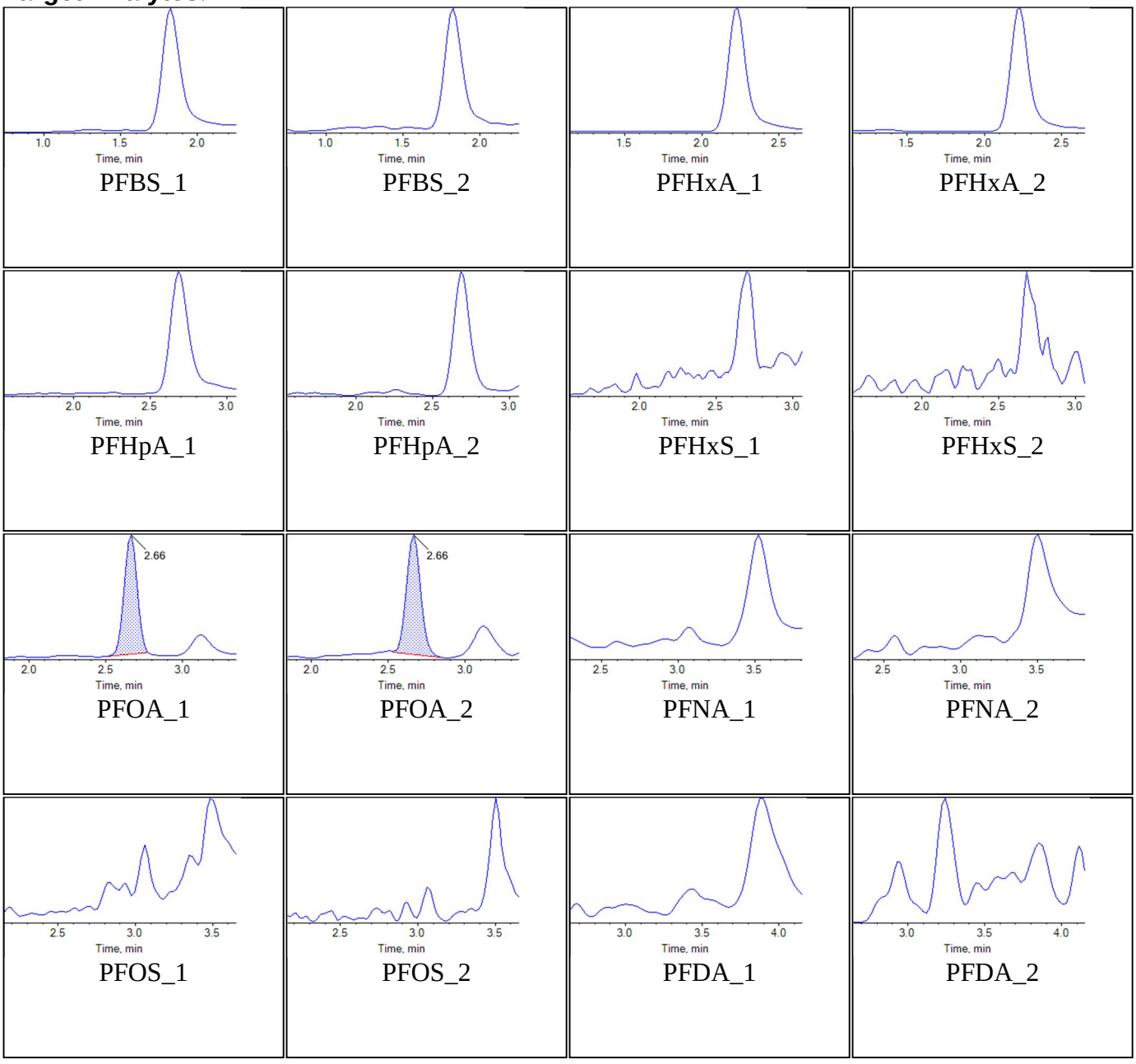
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:49 PM

Sample Name	CR890PB-FS(0)	**Injection Vial**	10
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:28:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

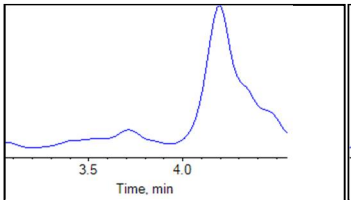
Target Analytes:



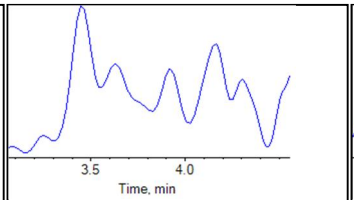
BATTELLE

Chromatogram Report

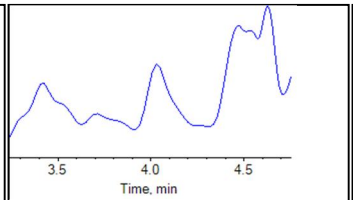
Created with Analyst Reporter
Printed: 23/10/2018 4:12:49 PM



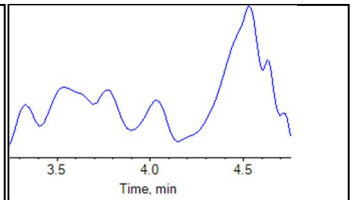
PFUnA_1



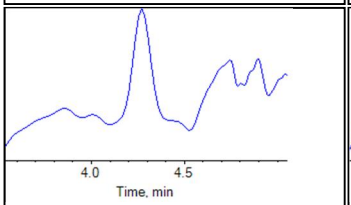
PFUnA_2



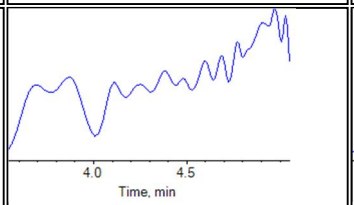
PFDoA_1



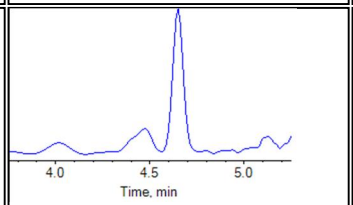
PFDoA_2



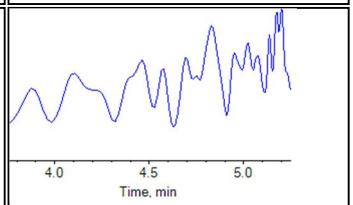
PFTrDA_1



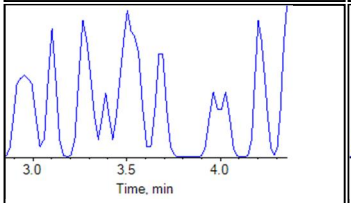
PFTrDA_2



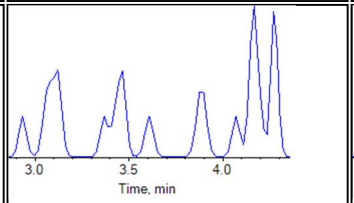
PFTeDA_1



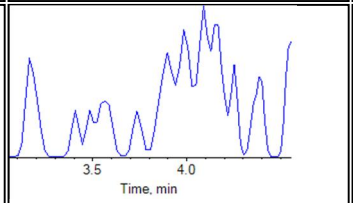
PFTeDA_2



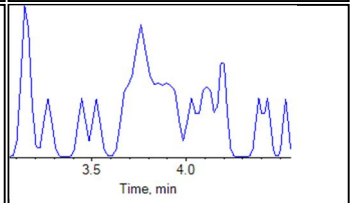
NMeFOSAA_1



NMeFOSAA_2

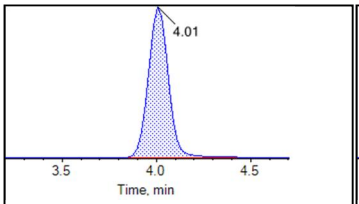


NEtFOSAA_1

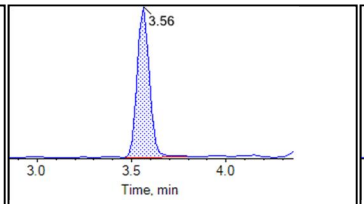


NEtFOSAA_2

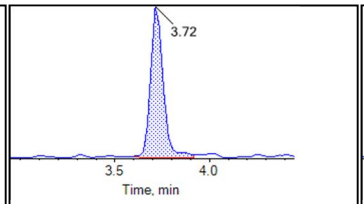
Internal Standards:



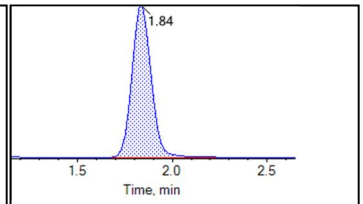
13C2-PFDoA



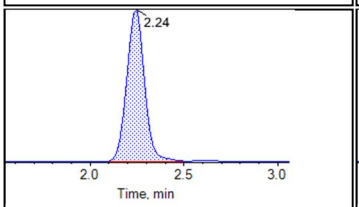
d3-MeFOSAA



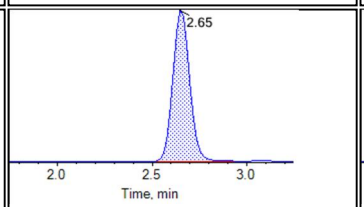
d5-EtFOSAA



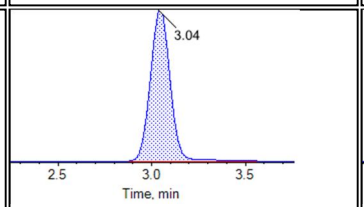
13C5-PFHxA



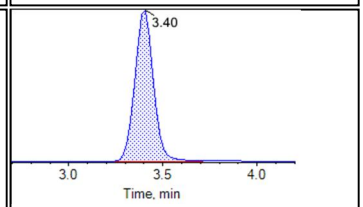
13C4-PFHpA



13C8-PFOA



13C9-PFNA

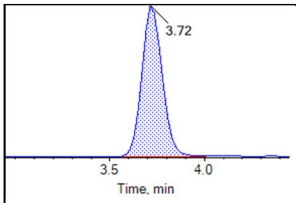


13C6-PFDA

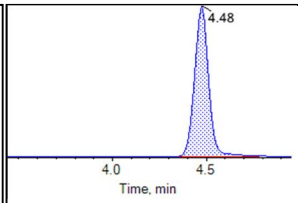
BATTELLE

Chromatogram Report

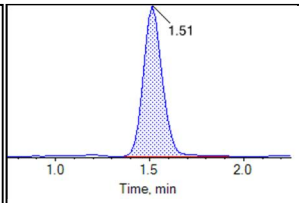
Created with Analyst Reporter
Printed: 23/10/2018 4:12:49 PM



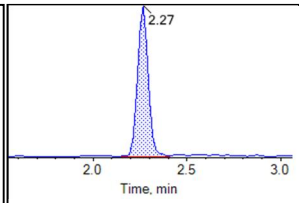
13C7-PFUnA



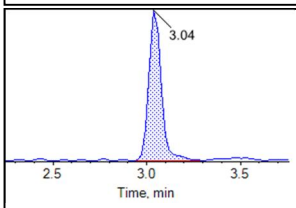
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

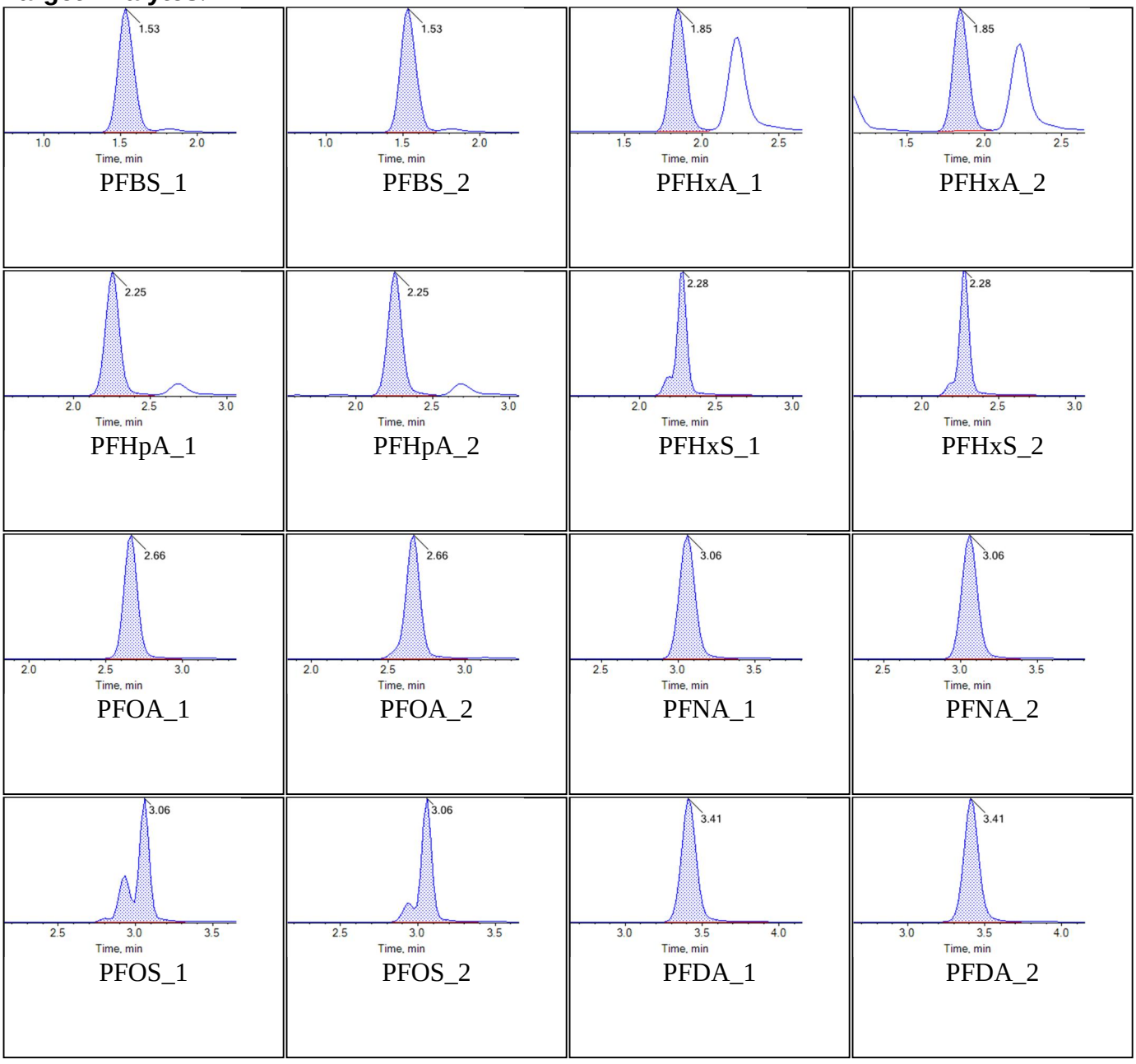
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:54 PM

Sample Name	CR891LCS-FS(0)	**Injection Vial**	11
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:39:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

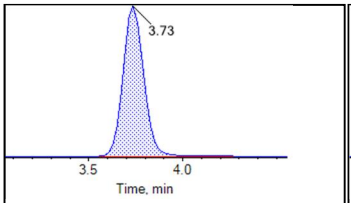
Target Analytes:



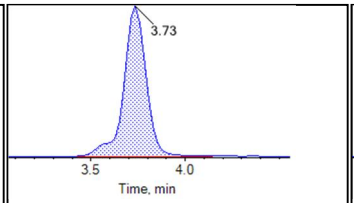
BATTELLE

Chromatogram Report

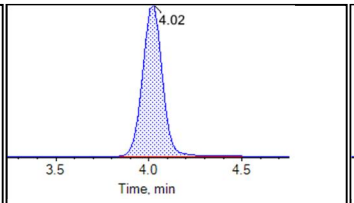
Created with Analyst Reporter
Printed: 23/10/2018 4:12:54 PM



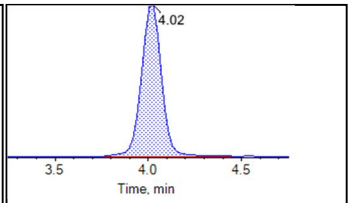
PFUnA_1



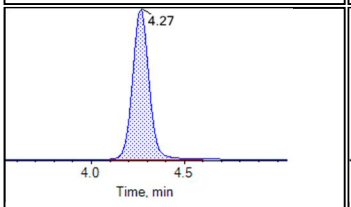
PFUnA_2



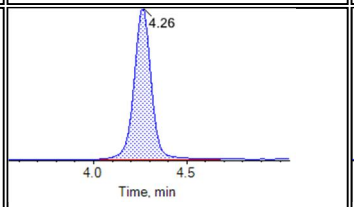
PFDoA_1



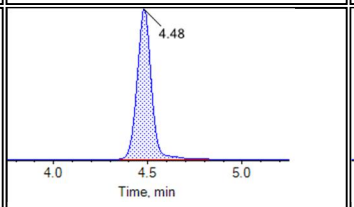
PFDoA_2



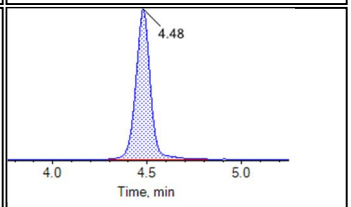
PFTrDA_1



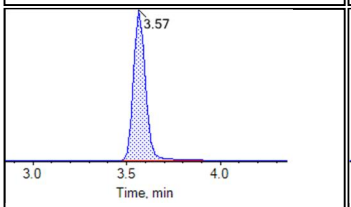
PFTrDA_2



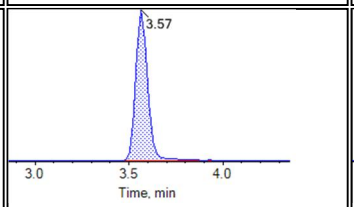
PFTeDA_1



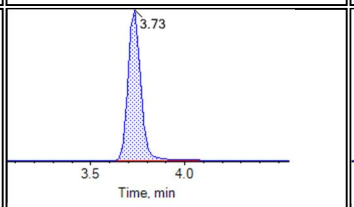
PFTeDA_2



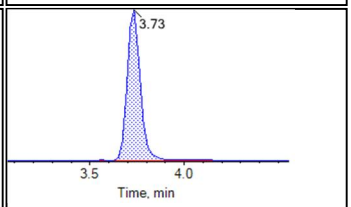
NMeFOSAA_1



NMeFOSAA_2

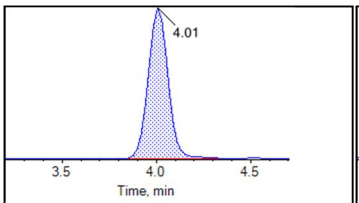


NEtFOSAA_1

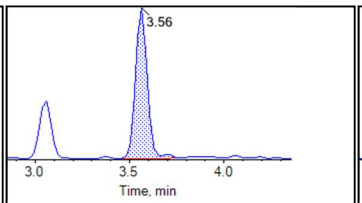


NEtFOSAA_2

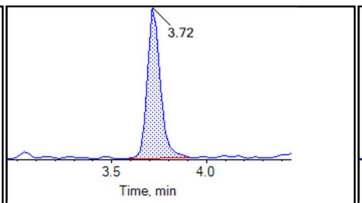
Internal Standards:



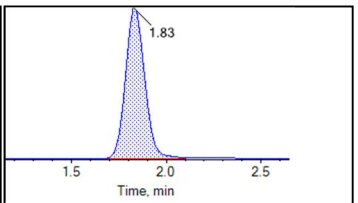
13C2-PFDoA



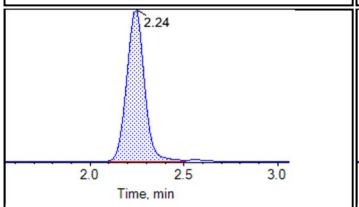
d3-MeFOSAA



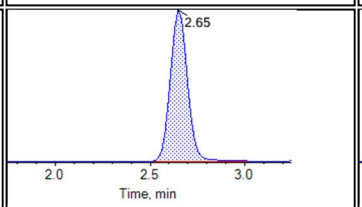
d5-EtFOSAA



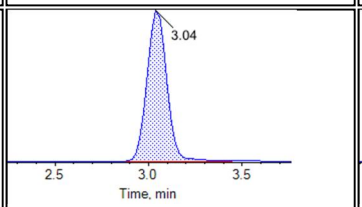
13C5-PFHxA



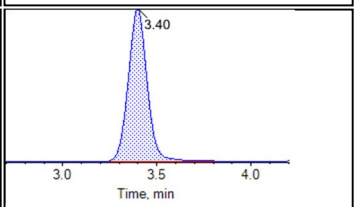
13C4-PFHpA



13C8-PFOA



13C9-PFNA

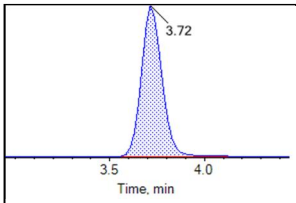


13C6-PFDA

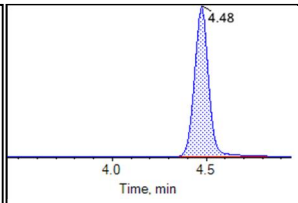
BATTELLE

Chromatogram Report

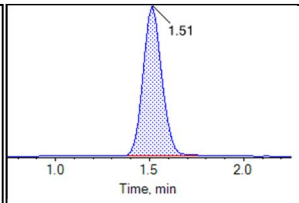
Created with Analyst Reporter
Printed: 23/10/2018 4:12:54 PM



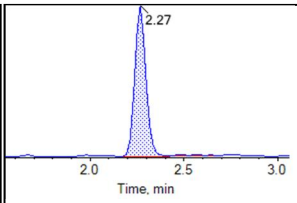
13C7-PFUnA



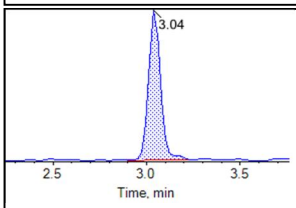
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

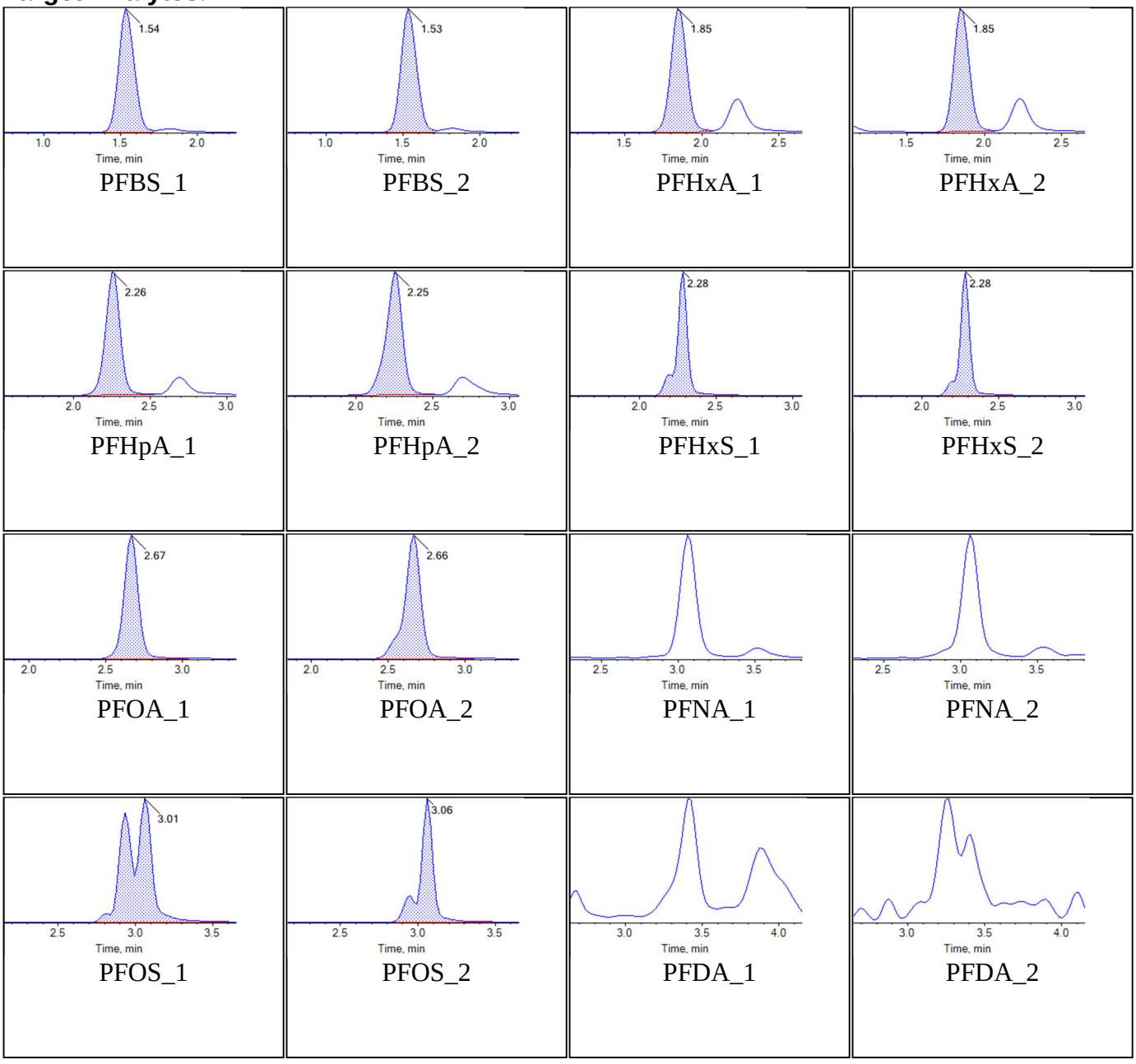
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:13:04 PM

Sample Name	J8358-FS-D(3)	**Injection Vial**	13
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:00:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

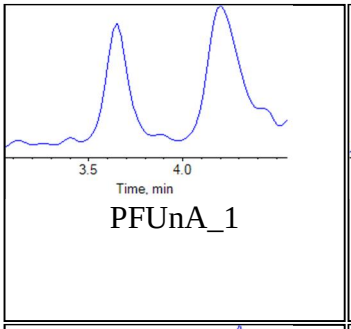
Target Analytes:



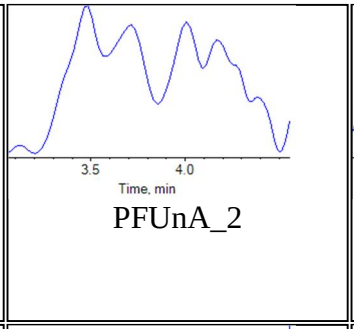
BATTELLE

Chromatogram Report

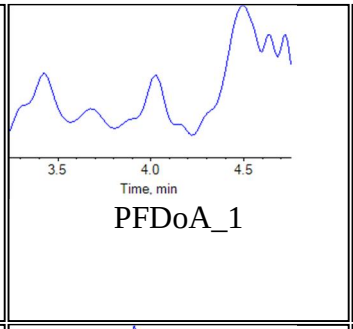
Created with Analyst Reporter
Printed: 23/10/2018 4:13:04 PM



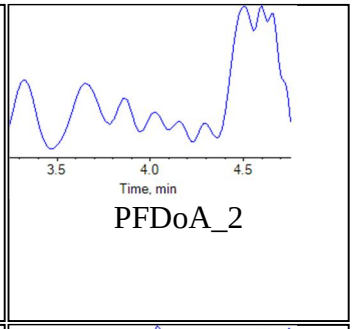
PFUnA_1



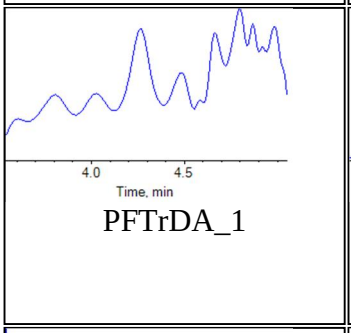
PFUnA_2



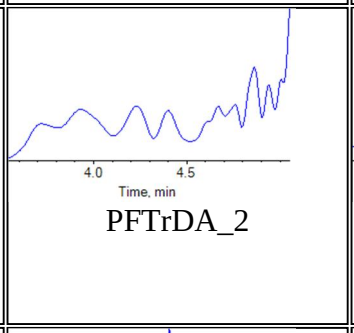
PFDoA_1



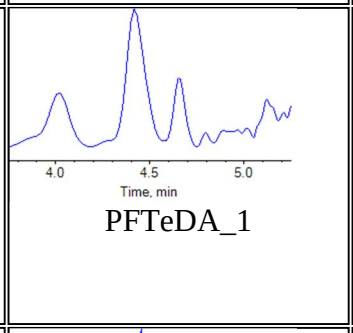
PFDoA_2



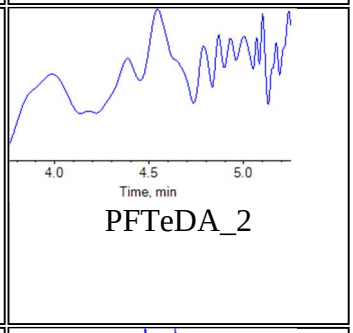
PFTrDA_1



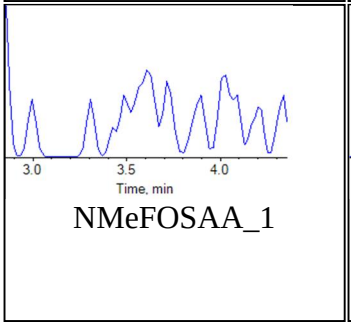
PFTrDA_2



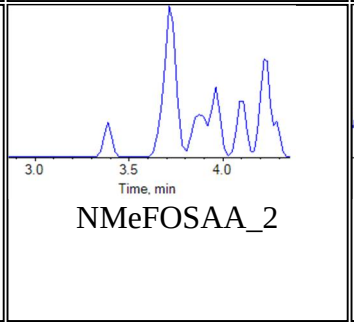
PFTeDA_1



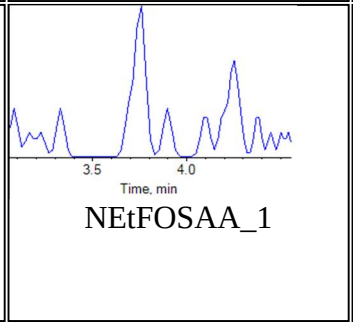
PFTeDA_2



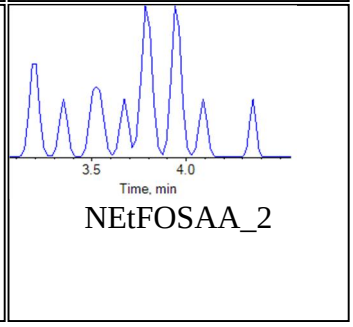
NMeFOSAA_1



NMeFOSAA_2

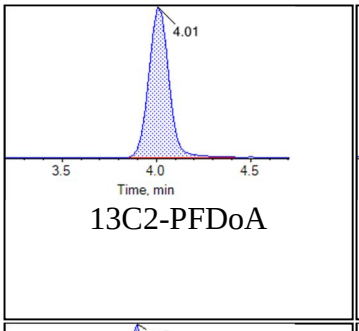


NEtFOSAA_1

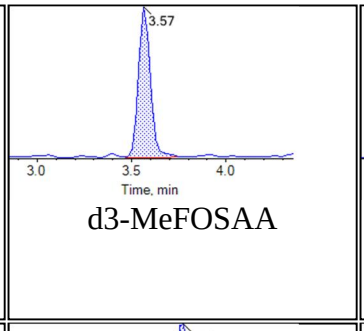


NEtFOSAA_2

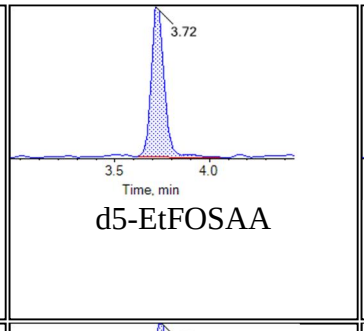
Internal Standards:



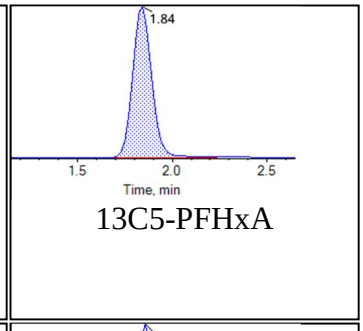
13C2-PFDoA



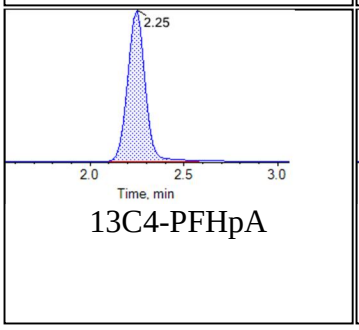
d3-MeFOSAA



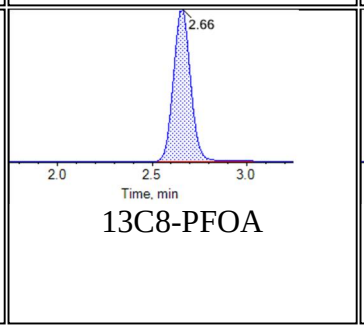
d5-EtFOSAA



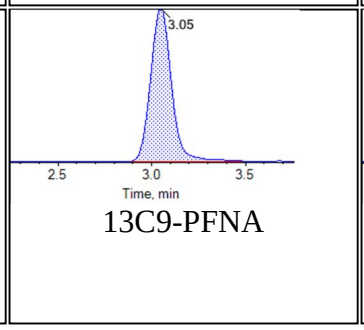
13C5-PFHxA



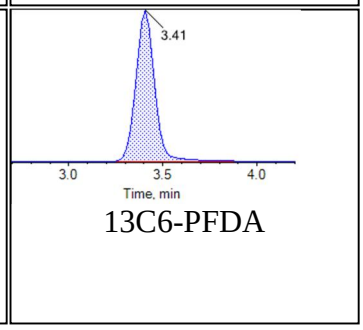
13C4-PFHpA



13C8-PFOA



13C9-PFNA

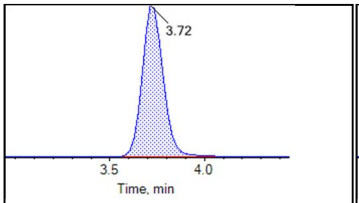


13C6-PFDA

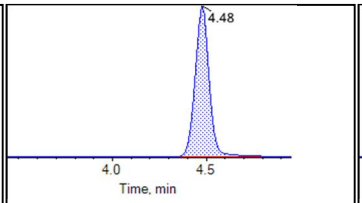
BATTELLE

Chromatogram Report

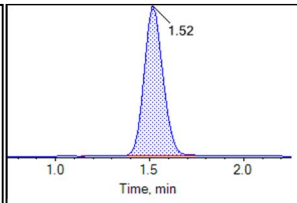
Created with Analyst Reporter
Printed: 23/10/2018 4:13:04 PM



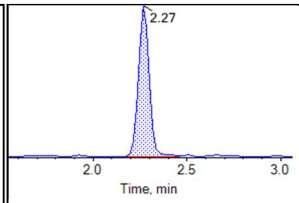
13C7-PFUnA



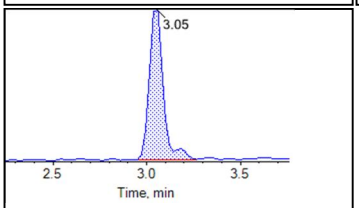
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

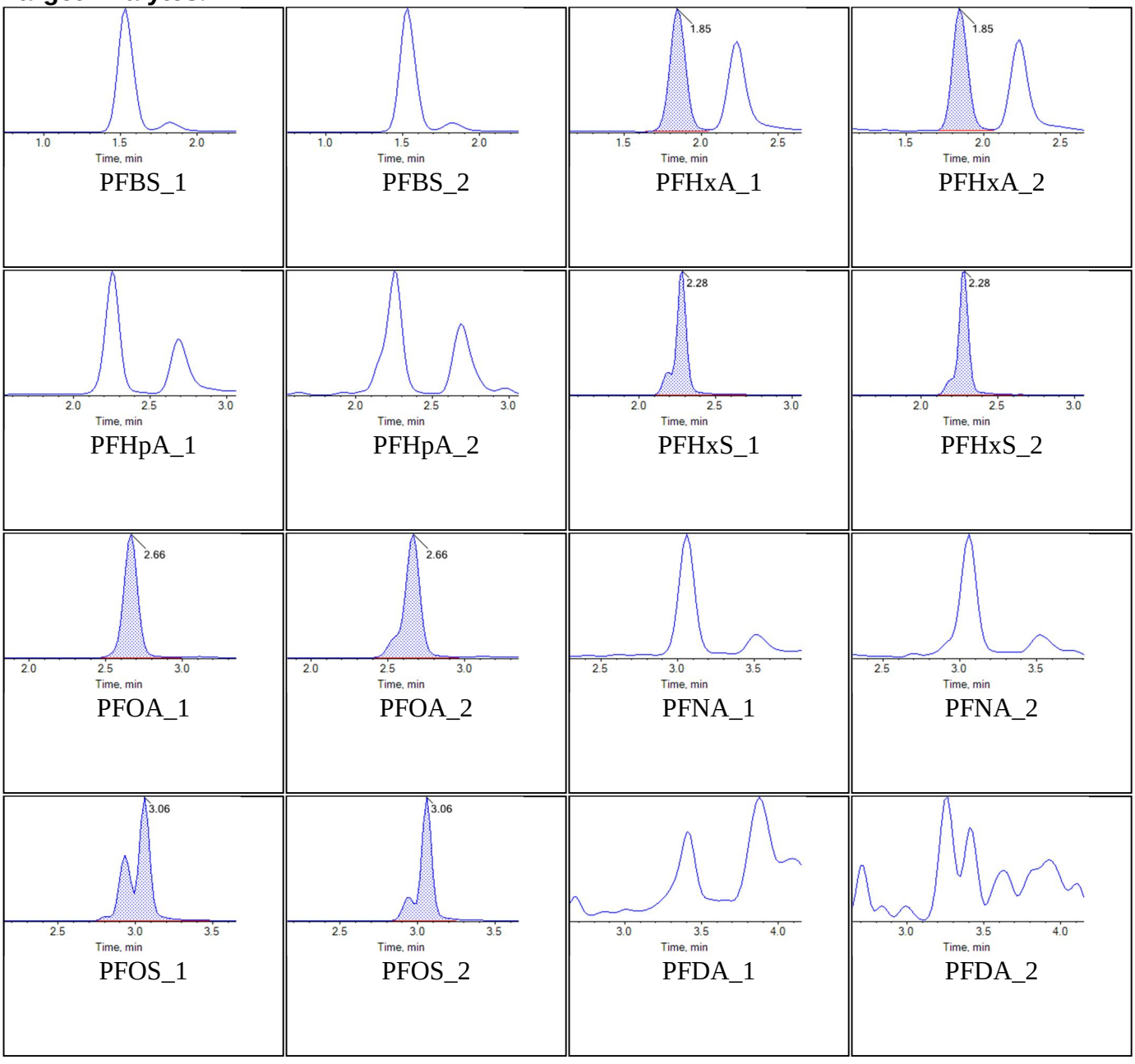
Chromatogram Report

Created with Analyst Reporter
Printed: 26/10/2018 10:54:17 AM

Sample Name	J8358-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:11:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

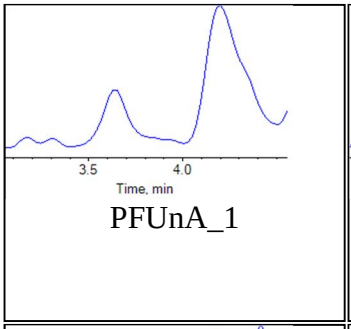
Target Analytes:



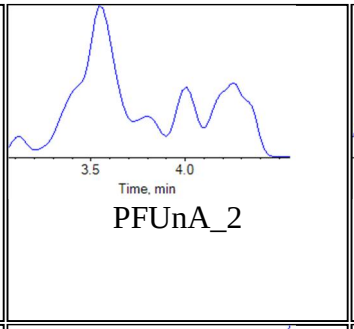
BATTELLE

Chromatogram Report

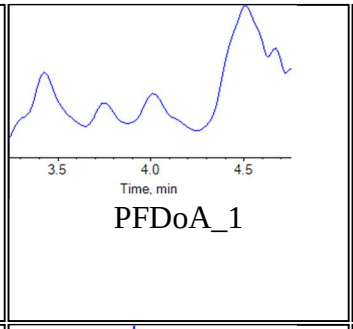
Created with Analyst Reporter
Printed: 26/10/2018 10:54:17 AM



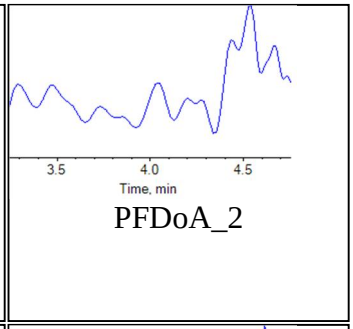
PFUnA_1



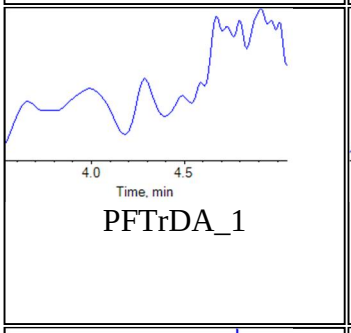
PFUnA_2



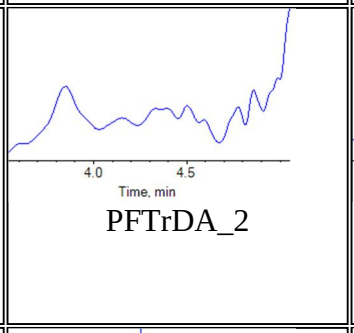
PFDoA_1



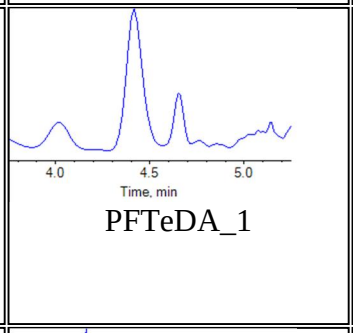
PFDoA_2



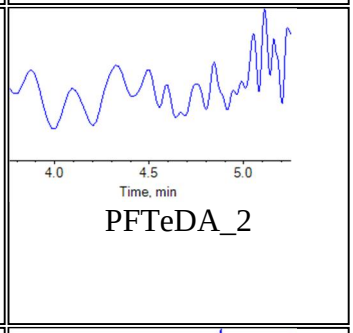
PFTrDA_1



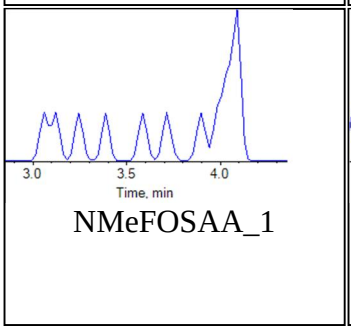
PFTrDA_2



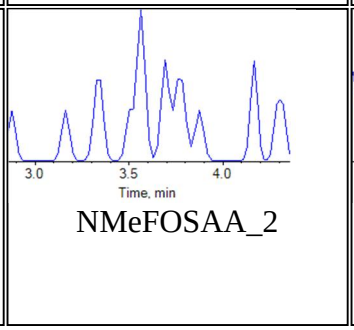
PFTeDA_1



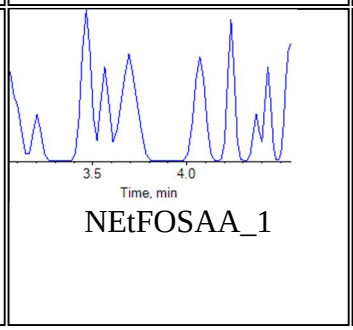
PFTeDA_2



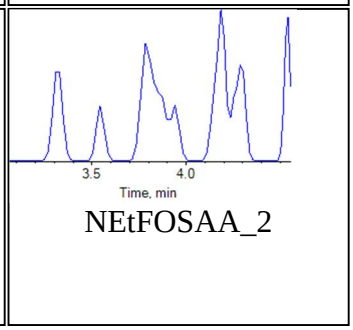
NMeFOSAA_1



NMeFOSAA_2

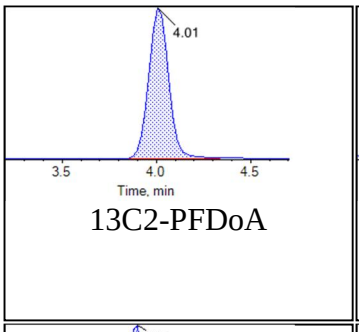


NEtFOSAA_1

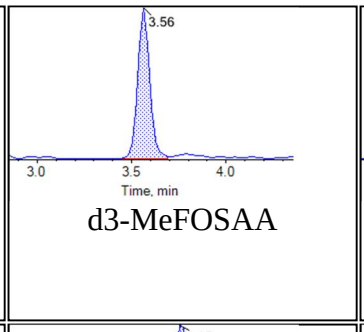


NEtFOSAA_2

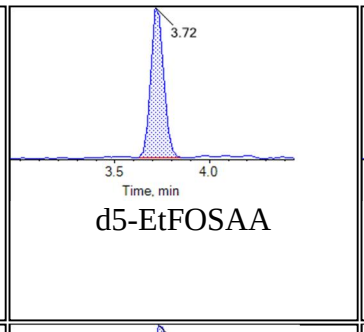
Internal Standards:



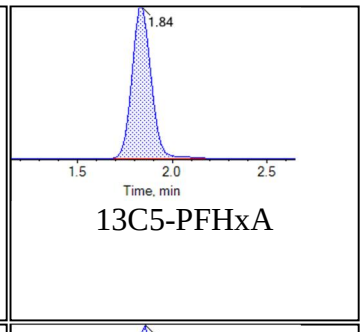
13C2-PFDoA



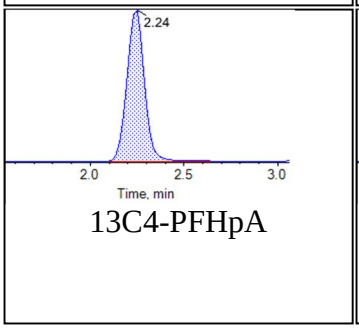
d3-MeFOSAA



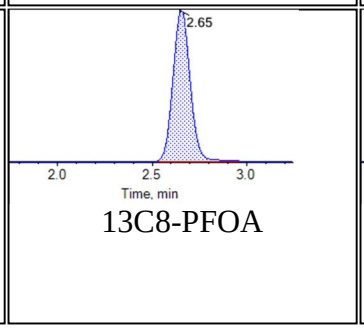
d5-EtFOSAA



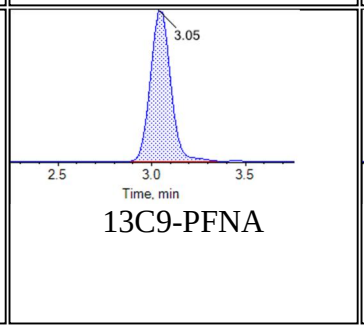
13C5-PFHxA



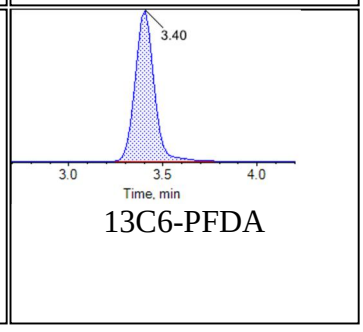
13C4-PFHpA



13C8-PFOA



13C9-PFNA

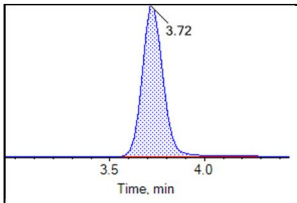


13C6-PFDA

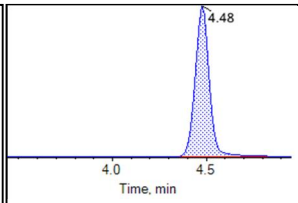
BATTELLE

Chromatogram Report

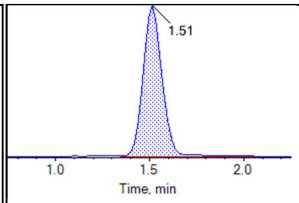
Created with Analyst Reporter
Printed: 26/10/2018 10:54:17 AM



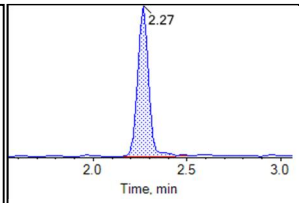
13C7-PFUnA



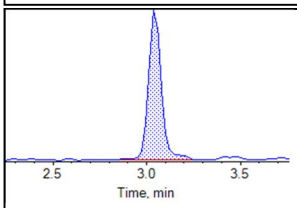
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

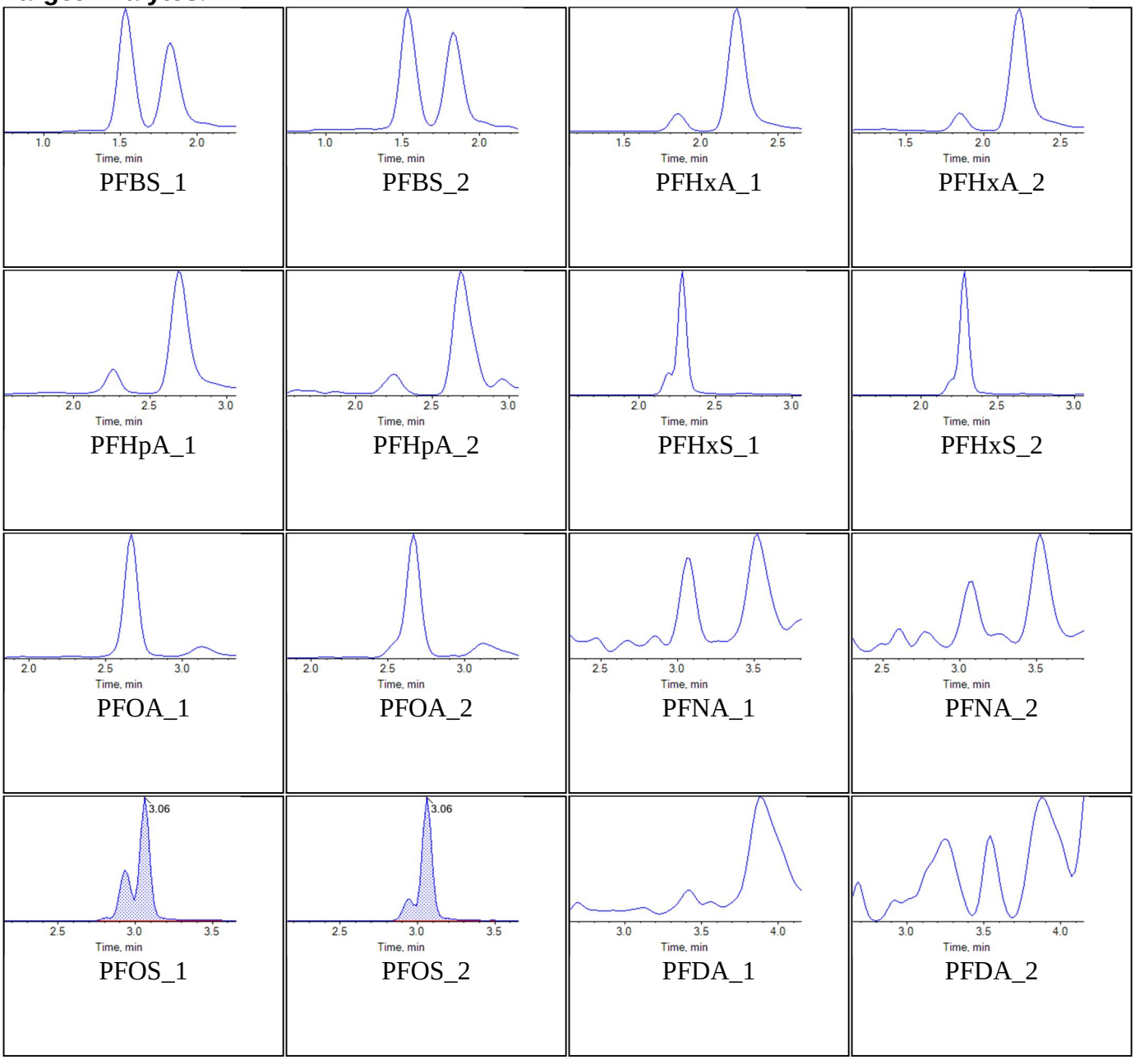
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:13:15 PM

Sample Name	J8358-FS-D(7)	**Injection Vial**	15
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:22:34	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

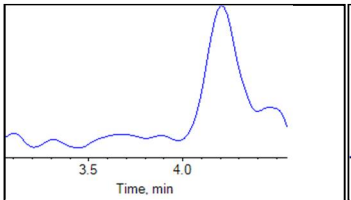
Target Analytes:



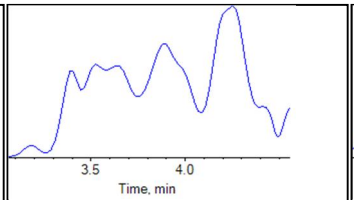
BATTELLE

Chromatogram Report

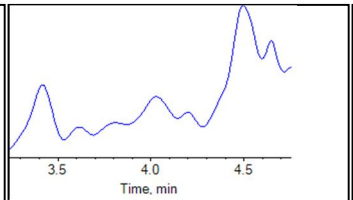
Created with Analyst Reporter
Printed: 23/10/2018 4:13:15 PM



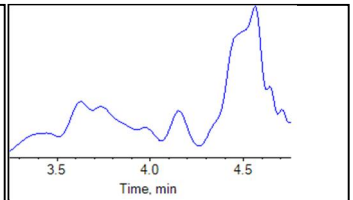
PFUnA_1



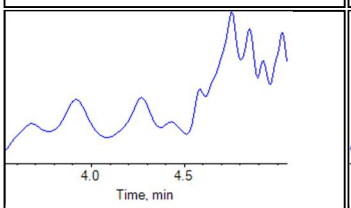
PFUnA_2



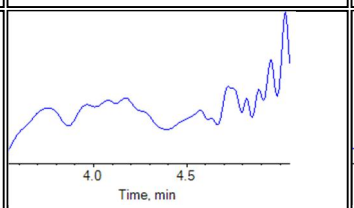
PFDoA_1



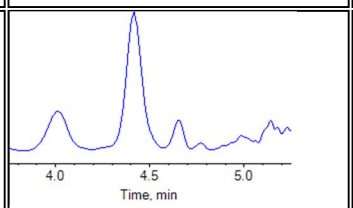
PFDoA_2



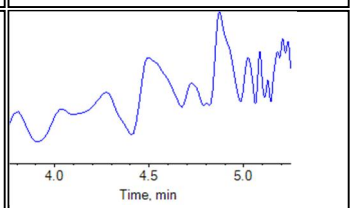
PFTrDA_1



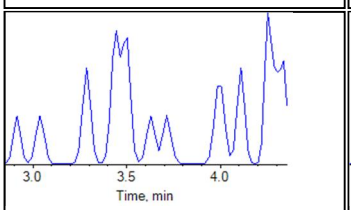
PFTrDA_2



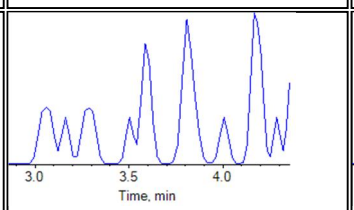
PFTeDA_1



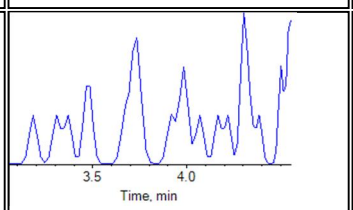
PFTeDA_2



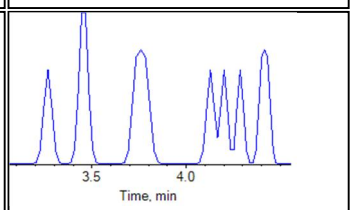
NMeFOSAA_1



NMeFOSAA_2

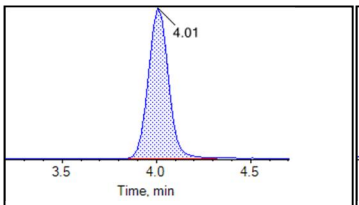


NEtFOSAA_1

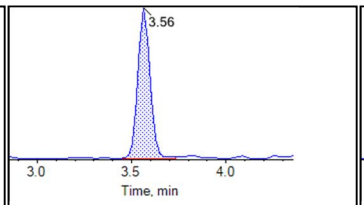


NEtFOSAA_2

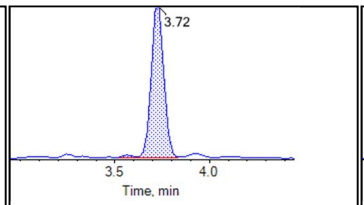
Internal Standards:



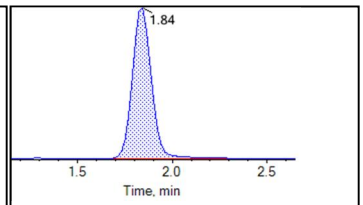
13C2-PFDoA



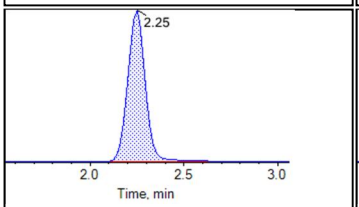
d3-MeFOSAA



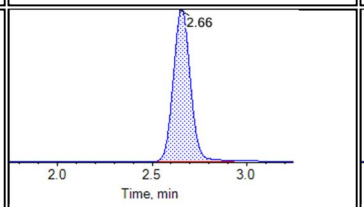
d5-EtFOSAA



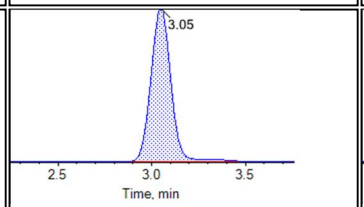
13C5-PFHxA



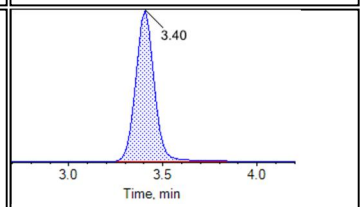
13C4-PFHpA



13C8-PFOA



13C9-PFNA

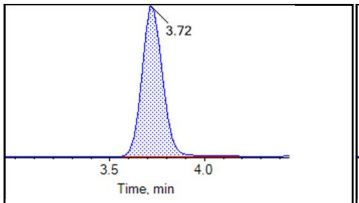


13C6-PFDA

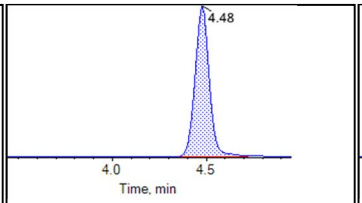
BATTELLE

Chromatogram Report

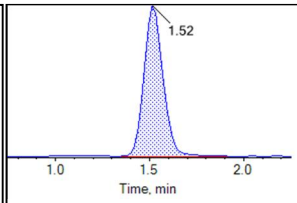
Created with Analyst Reporter
Printed: 23/10/2018 4:13:15 PM



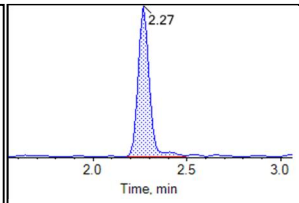
13C7-PFUnA



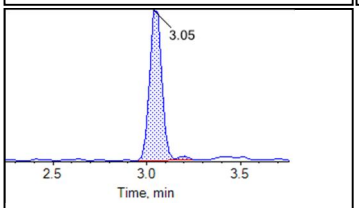
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

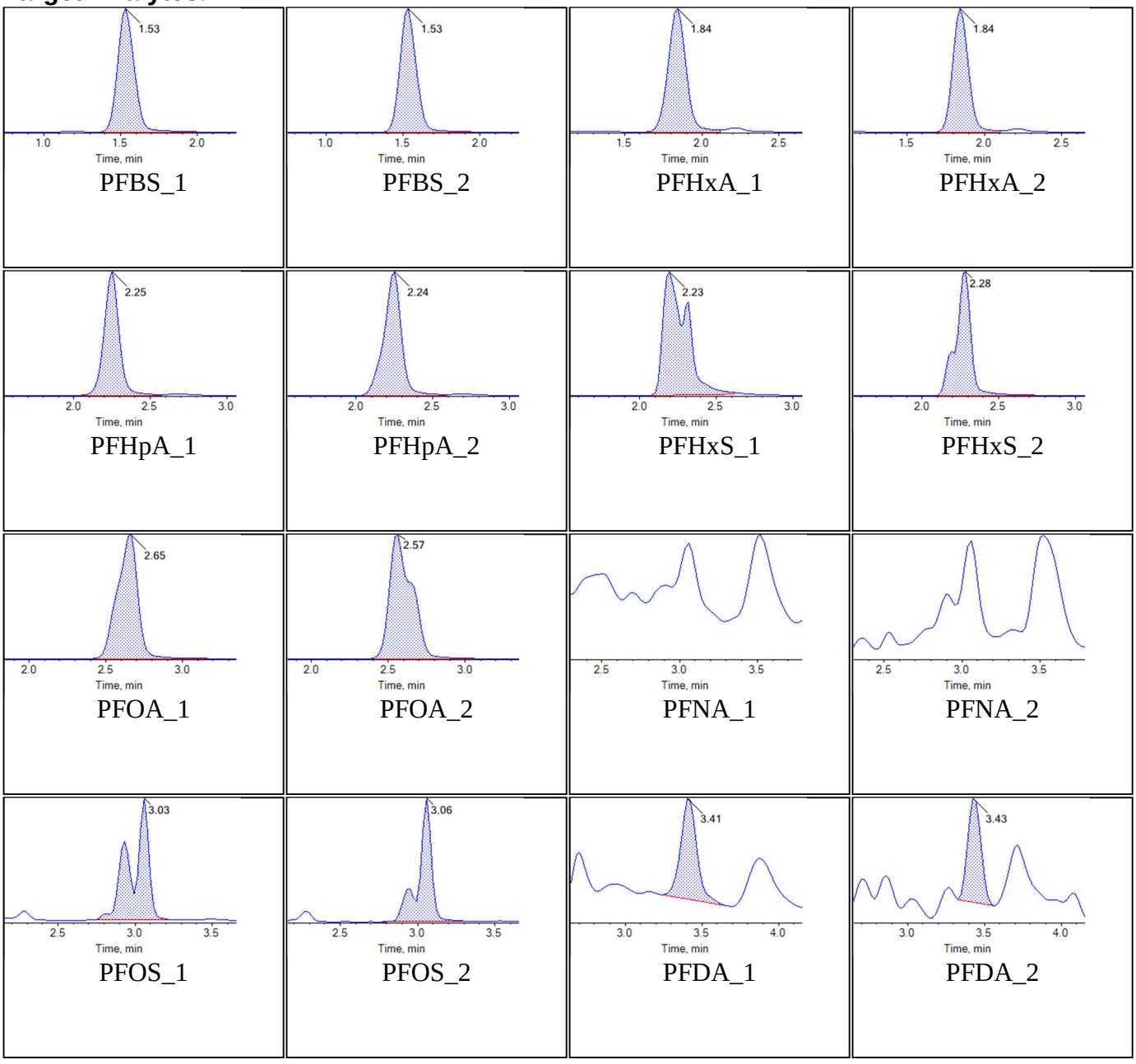
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:13:21 PM

Sample Name	J8359-FS(0)	**Injection Vial**	16
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:33:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

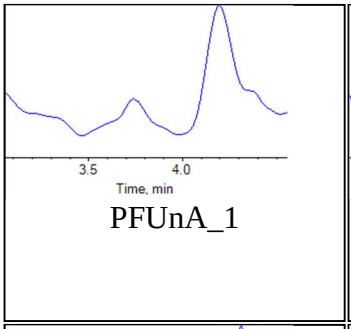
Target Analytes:



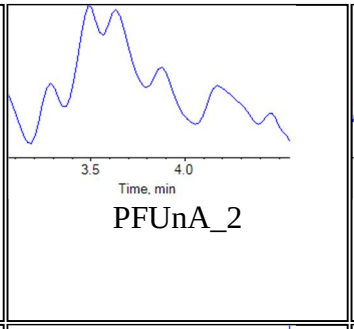
BATTELLE

Chromatogram Report

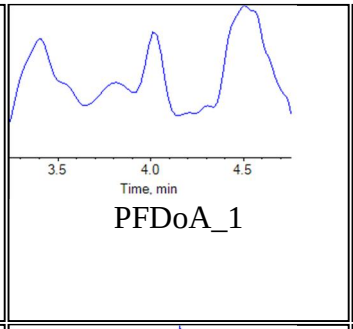
Created with Analyst Reporter
Printed: 23/10/2018 4:13:21 PM



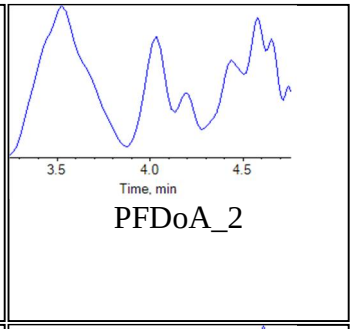
PFUnA_1



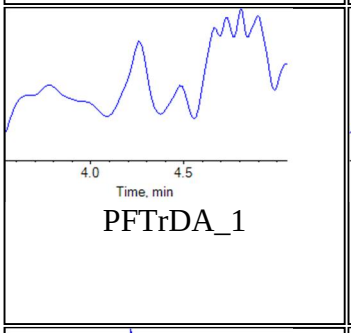
PFUnA_2



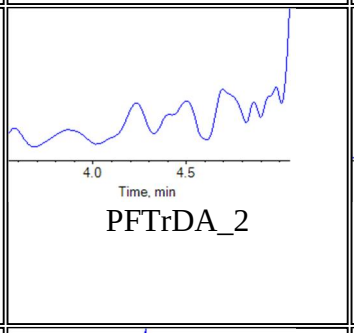
PFDoA_1



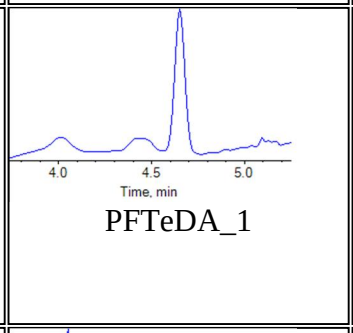
PFDoA_2



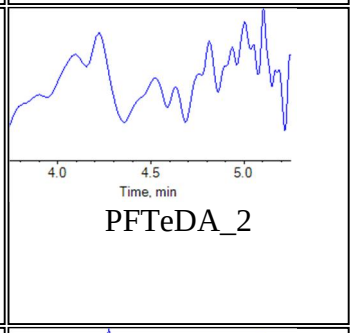
PFTrDA_1



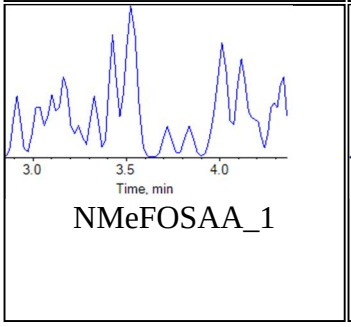
PFTrDA_2



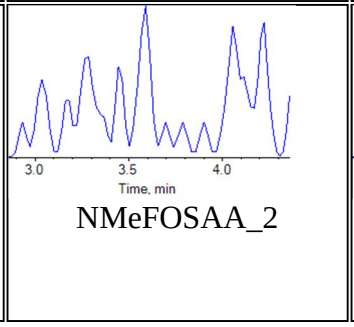
PFTeDA_1



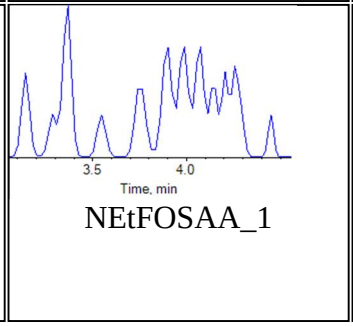
PFTeDA_2



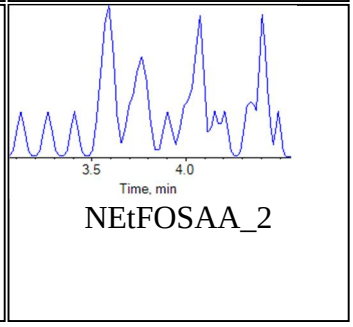
NMeFOSAA_1



NMeFOSAA_2

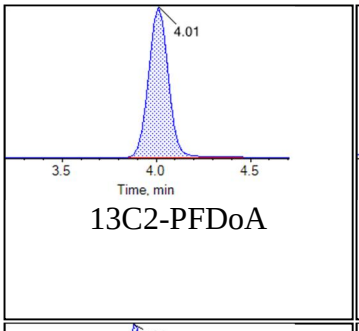


NEtFOSAA_1

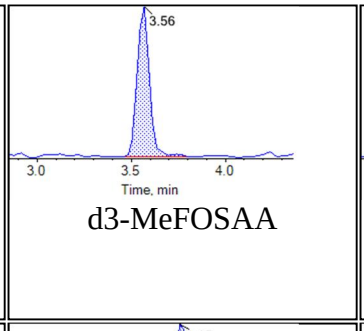


NEtFOSAA_2

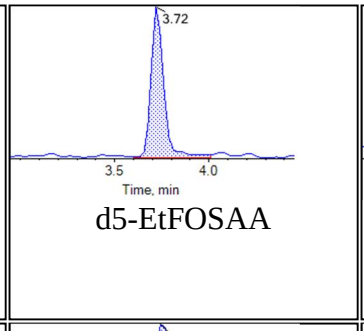
Internal Standards:



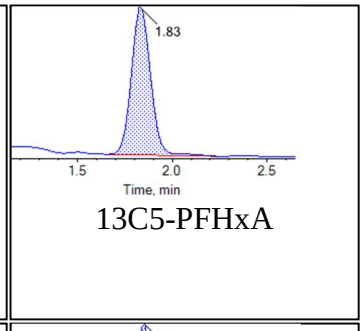
13C2-PFDoA



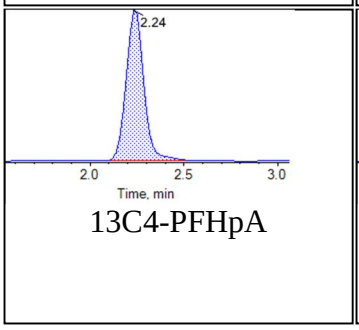
d3-MeFOSAA



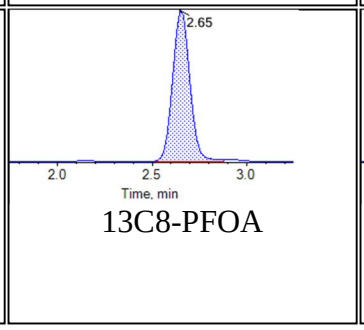
d5-EtFOSAA



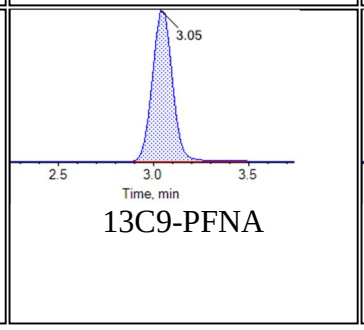
13C5-PFHxA



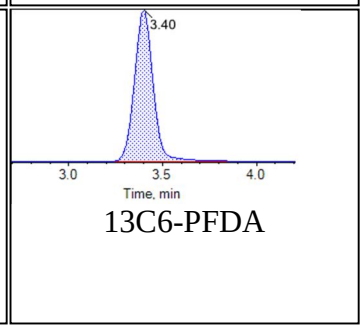
13C4-PFHpA



13C8-PFOA



13C9-PFNA

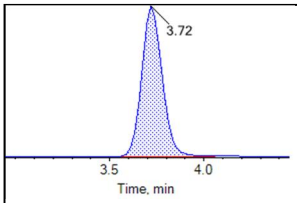


13C6-PFDA

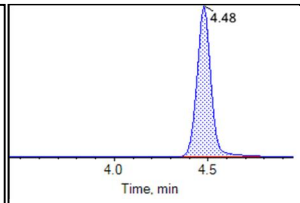
BATTELLE

Chromatogram Report

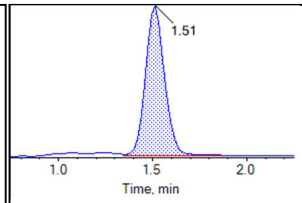
Created with Analyst Reporter
Printed: 23/10/2018 4:13:21 PM



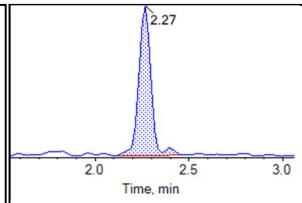
13C7-PFUnA



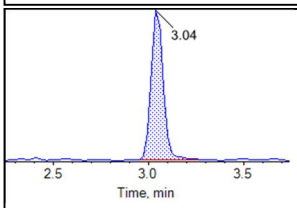
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

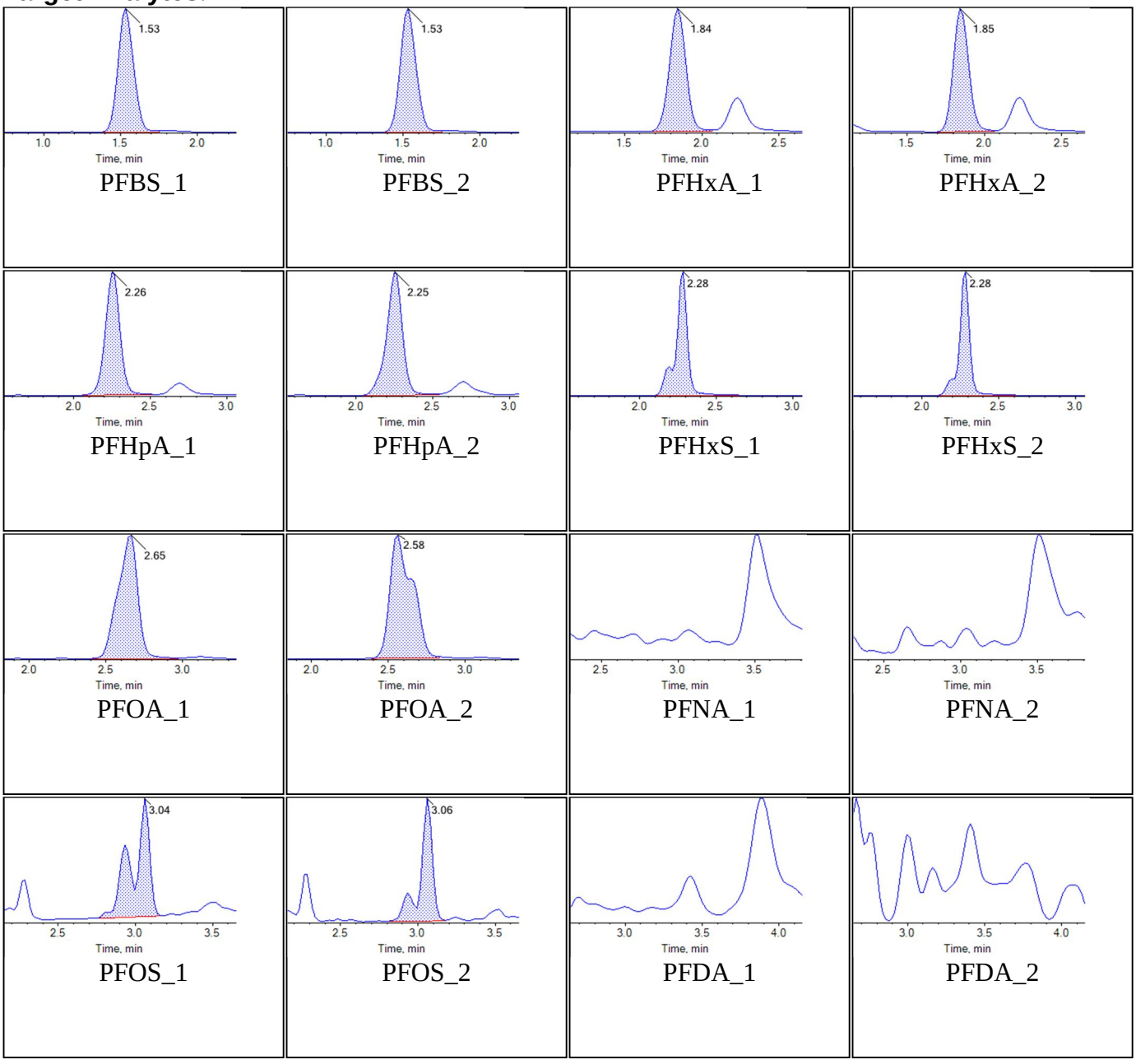
Chromatogram Report

Created with Analyst Reporter
Printed: 26/10/2018 10:54:21 AM

Sample Name	J8359-FS-D(3)	**Injection Vial**	17
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:44:17	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

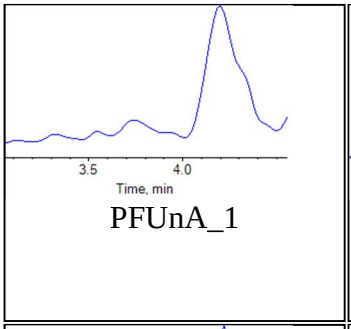
Target Analytes:



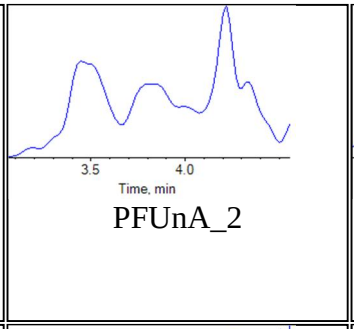
BATTELLE

Chromatogram Report

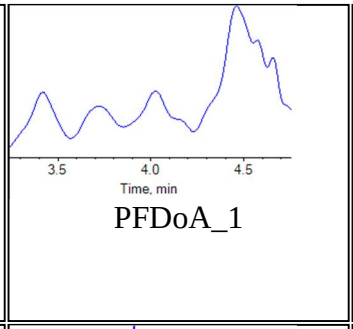
Created with Analyst Reporter
Printed: 26/10/2018 10:54:21 AM



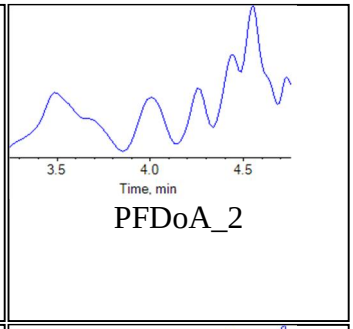
PFUnA_1



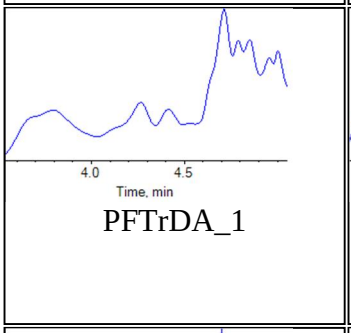
PFUnA_2



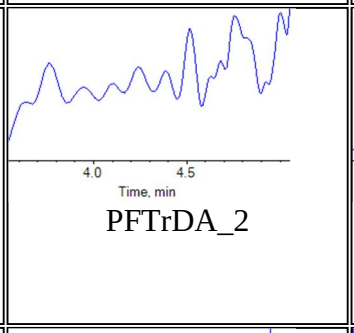
PFDoA_1



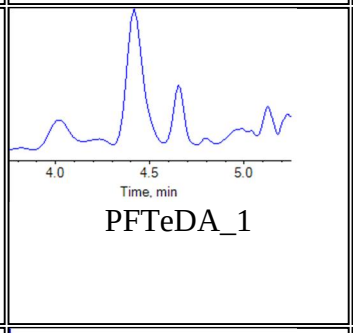
PFDoA_2



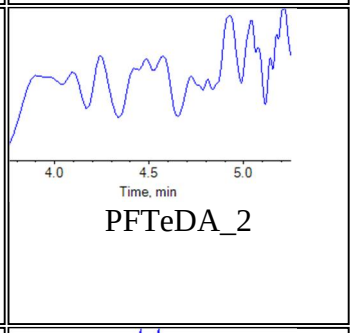
PFTrDA_1



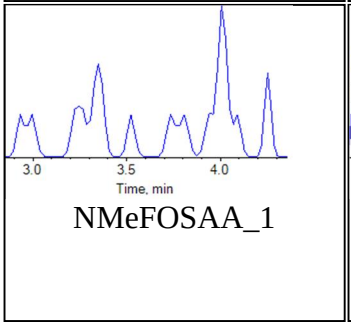
PFTrDA_2



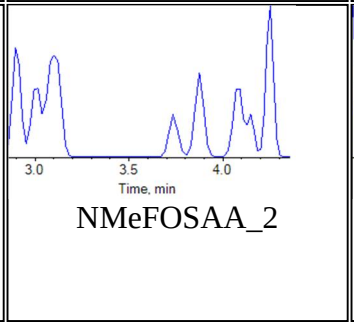
PFTeDA_1



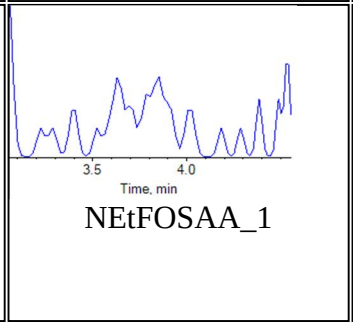
PFTeDA_2



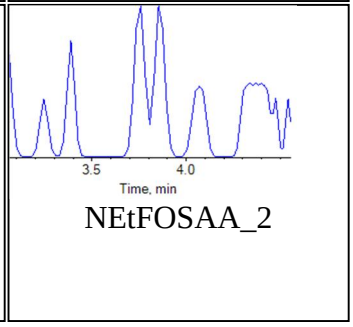
NMeFOSAA_1



NMeFOSAA_2

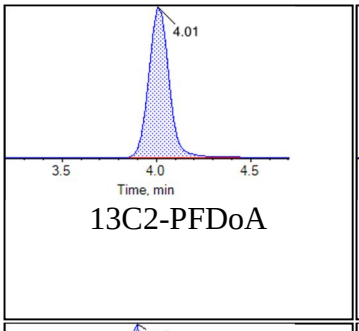


NEtFOSAA_1

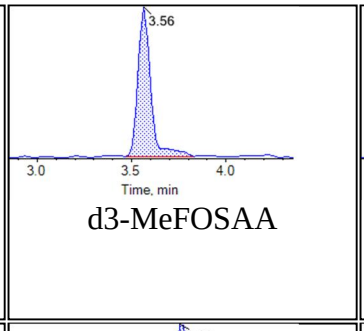


NEtFOSAA_2

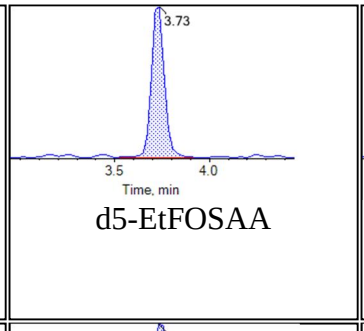
Internal Standards:



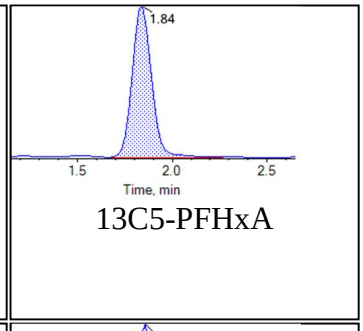
13C2-PFDoA



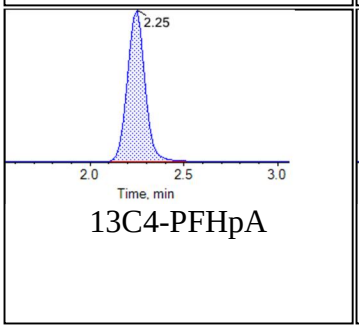
d3-MeFOSAA



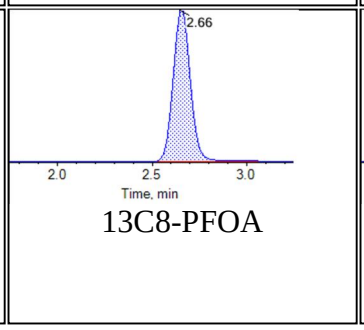
d5-EtFOSAA



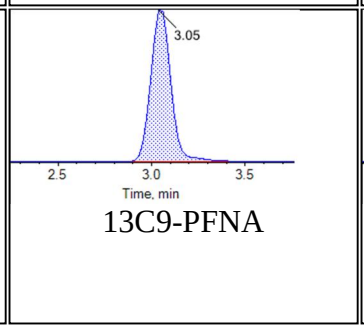
13C5-PFHxA



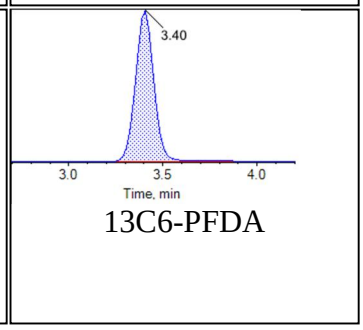
13C4-PFHpA



13C8-PFOA



13C9-PFNA

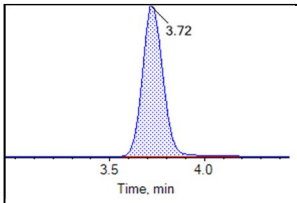


13C6-PFDA

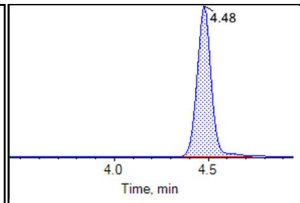
BATTELLE

Chromatogram Report

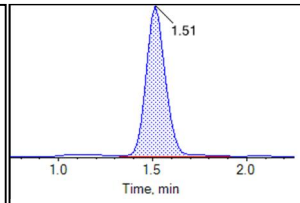
Created with Analyst Reporter
Printed: 26/10/2018 10:54:21 AM



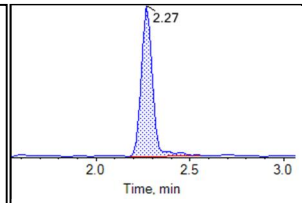
13C7-PFUnA



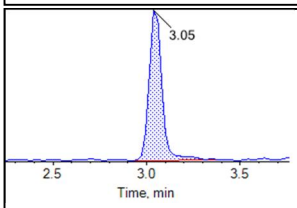
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

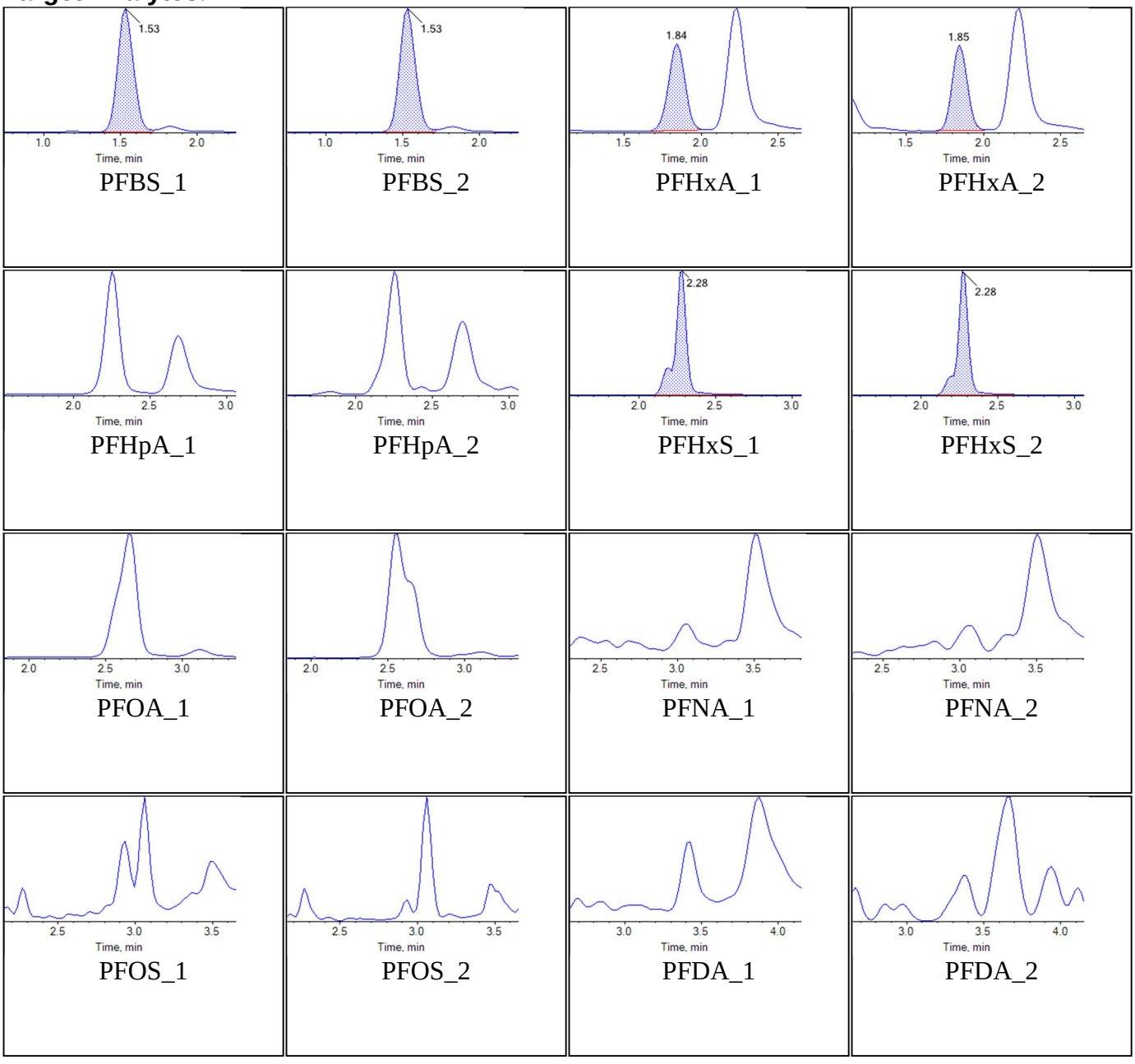
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:13:36 PM

Sample Name	J8359-FS-D(5)	**Injection Vial**	18
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:55:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

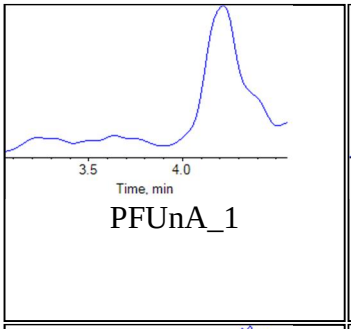
Target Analytes:



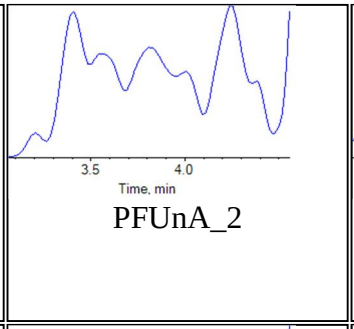
BATTELLE

Chromatogram Report

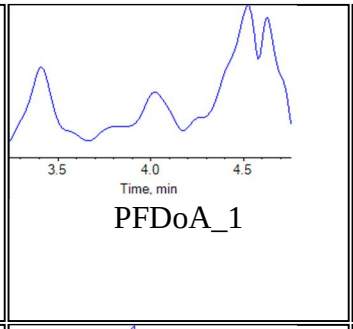
Created with Analyst Reporter
Printed: 23/10/2018 4:13:36 PM



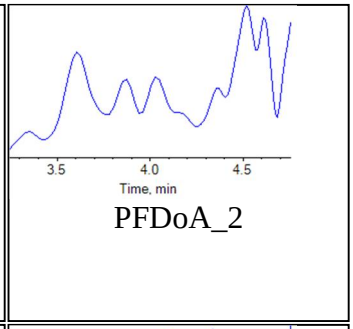
PFUnA_1



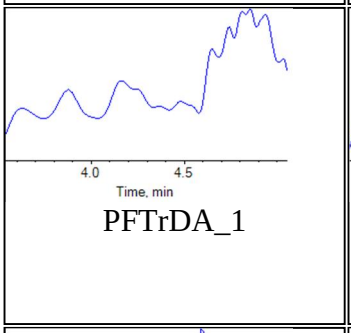
PFUnA_2



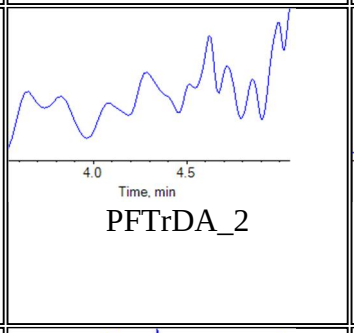
PFDoA_1



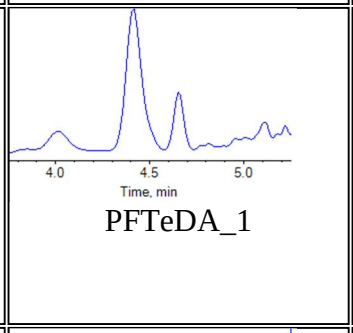
PFDoA_2



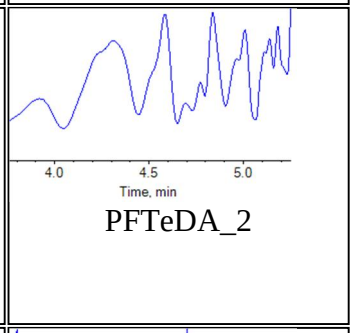
PFTrDA_1



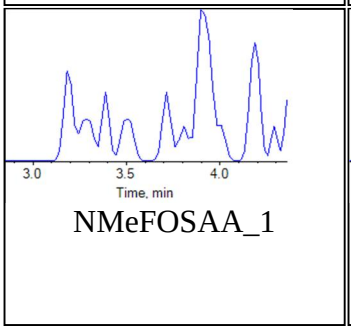
PFTrDA_2



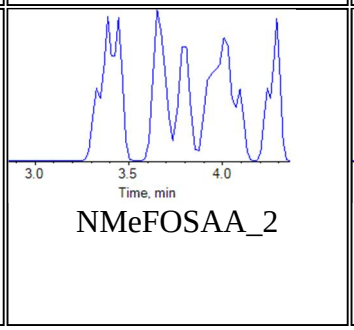
PFTeDA_1



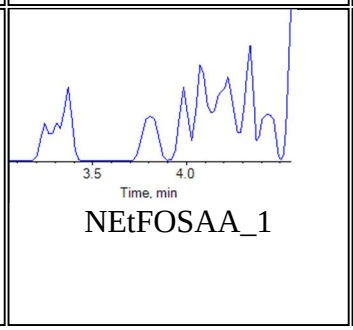
PFTeDA_2



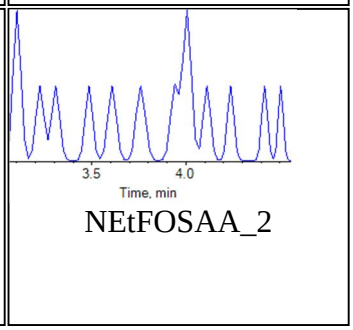
NMeFOSAA_1



NMeFOSAA_2

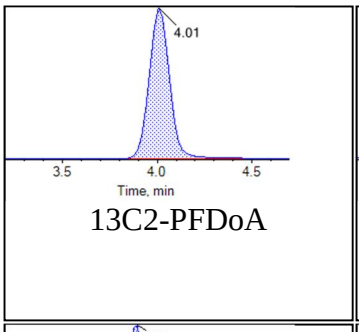


NEtFOSAA_1

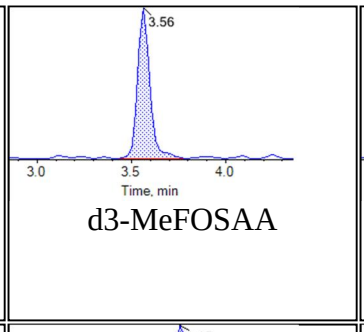


NEtFOSAA_2

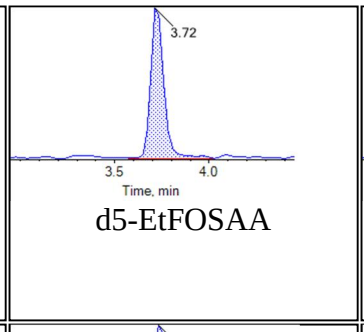
Internal Standards:



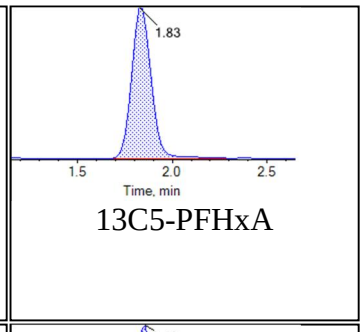
13C2-PFDoA



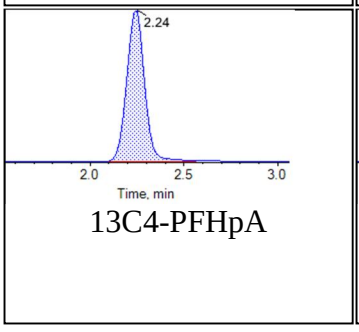
d3-MeFOSAA



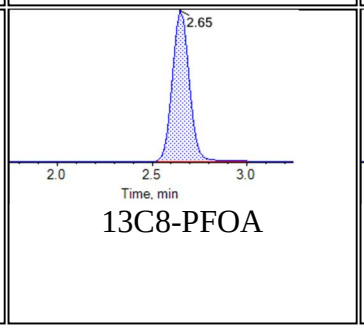
d5-EtFOSAA



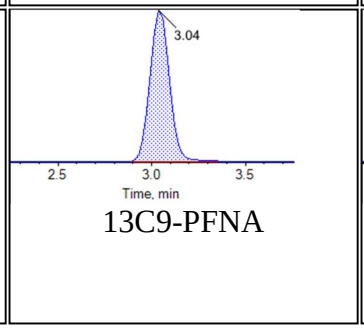
13C5-PFHxA



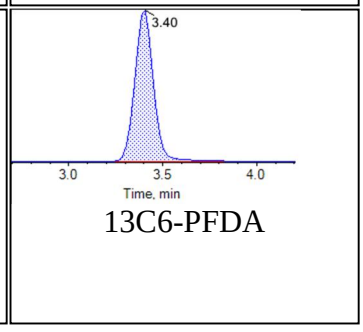
13C4-PFHpA



13C8-PFOA



13C9-PFNA

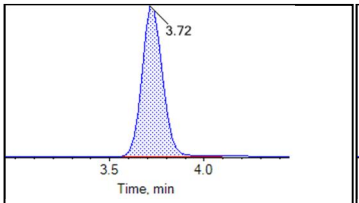


13C6-PFDA

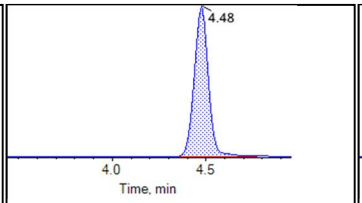
BATTELLE

Chromatogram Report

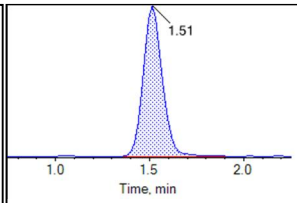
Created with Analyst Reporter
Printed: 23/10/2018 4:13:36 PM



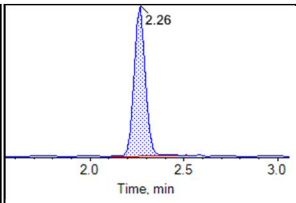
13C7-PFUnA



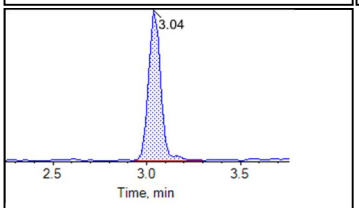
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

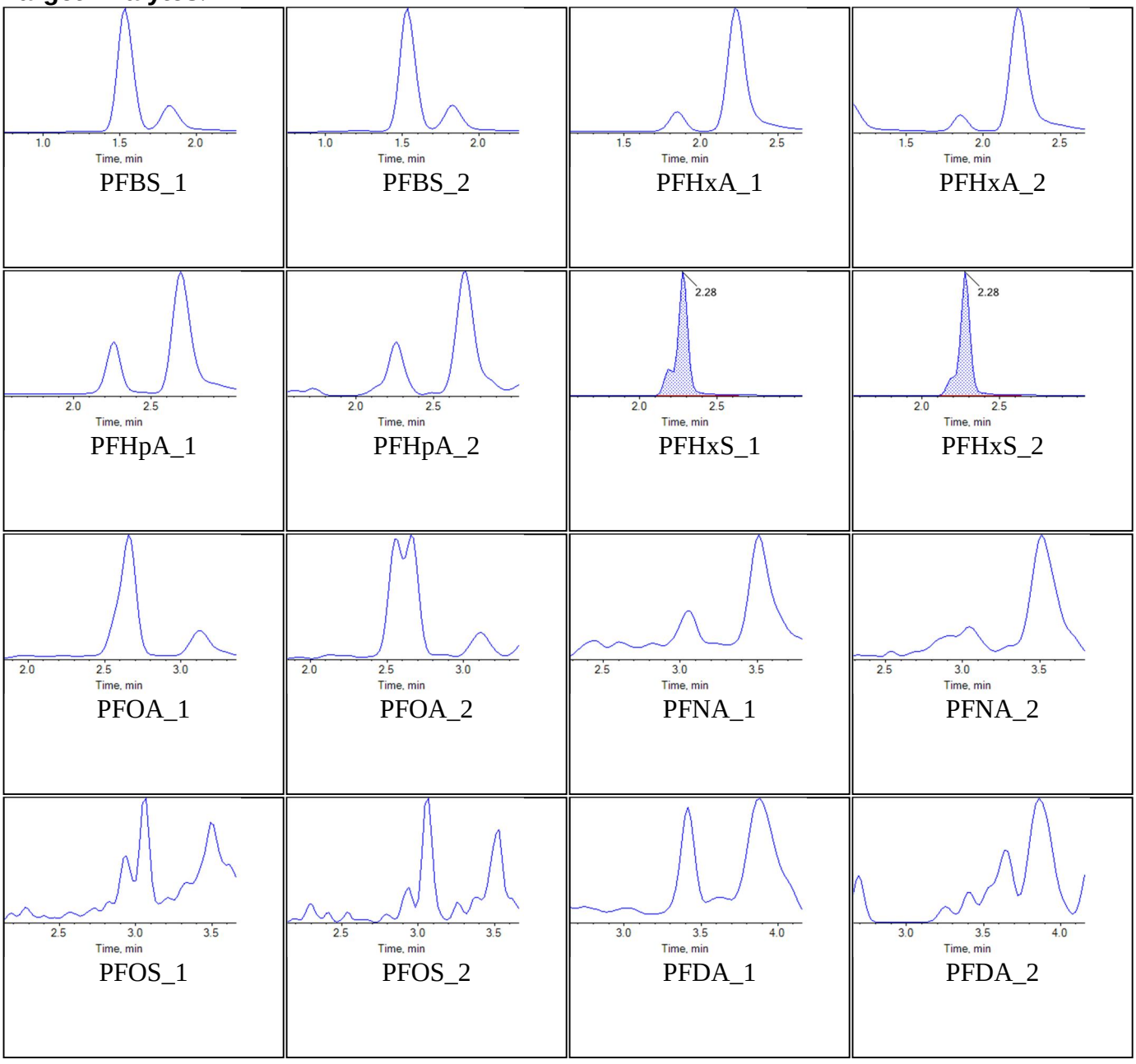
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:13:41 PM

Sample Name	J8359-FS-D(7)	**Injection Vial**	19
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:06:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

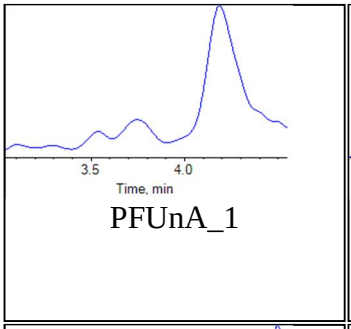
Target Analytes:



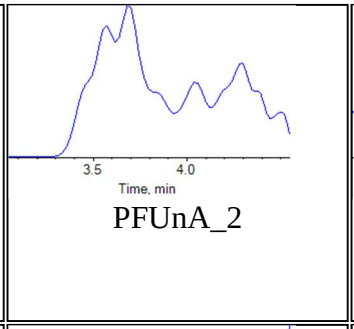
BATTELLE

Chromatogram Report

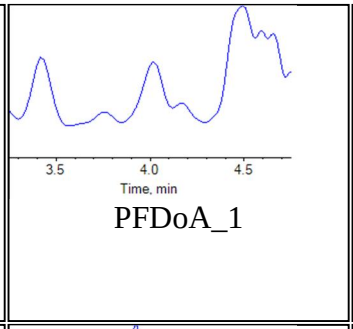
Created with Analyst Reporter
Printed: 23/10/2018 4:13:41 PM



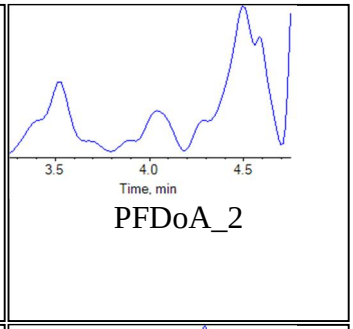
PFUnA_1



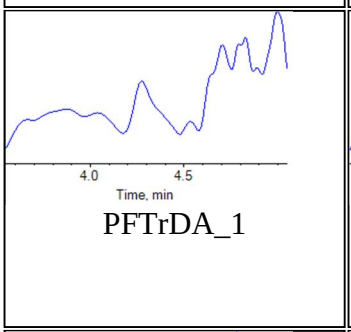
PFUnA_2



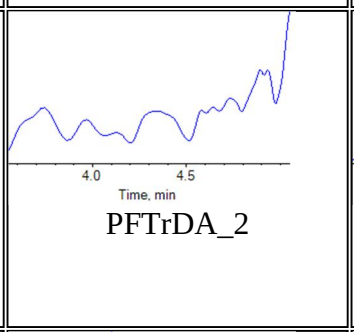
PFDoA_1



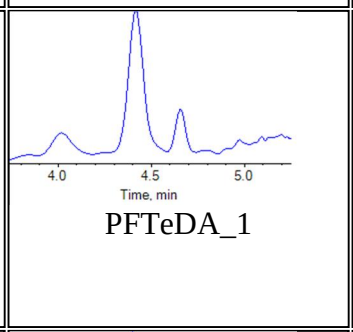
PFDoA_2



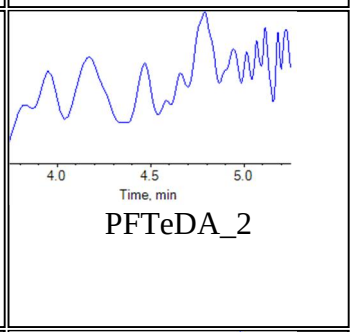
PFTrDA_1



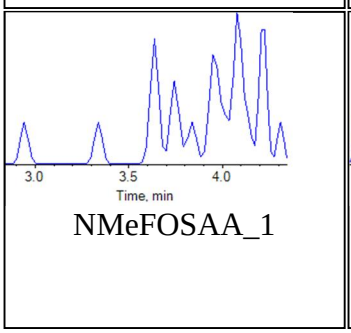
PFTrDA_2



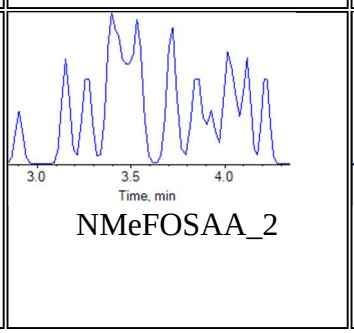
PFTeDA_1



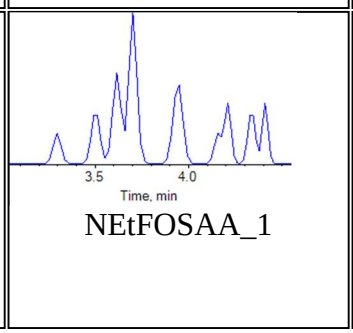
PFTeDA_2



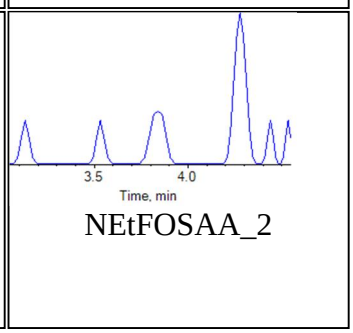
NMeFOSAA_1



NMeFOSAA_2

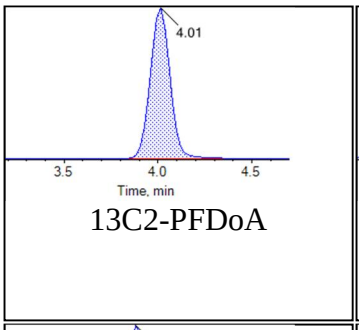


NEtFOSAA_1

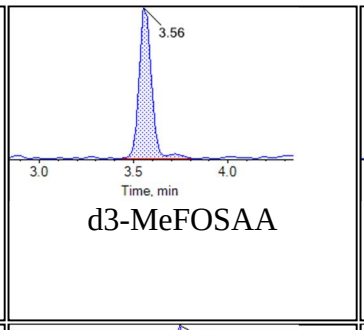


NEtFOSAA_2

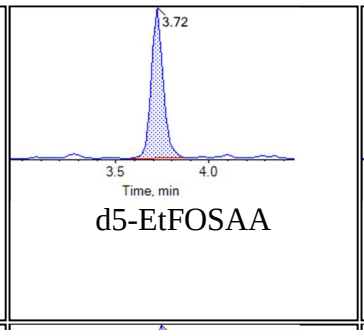
Internal Standards:



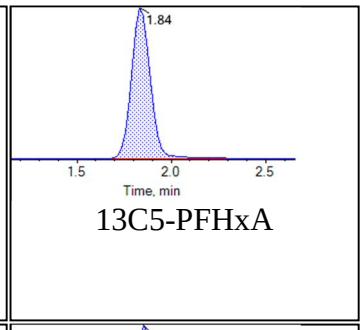
13C2-PFDoA



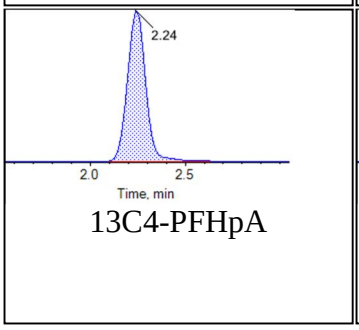
d3-MeFOSAA



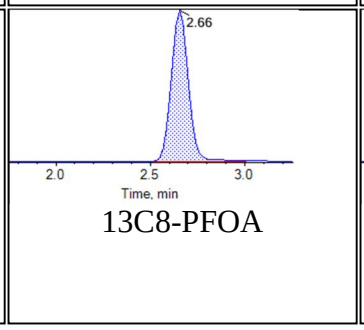
d5-EtFOSAA



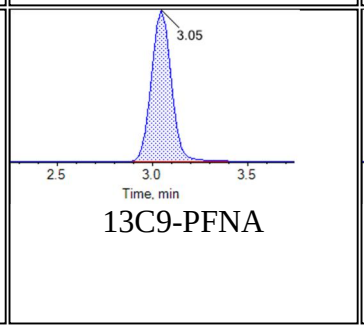
13C5-PFHxA



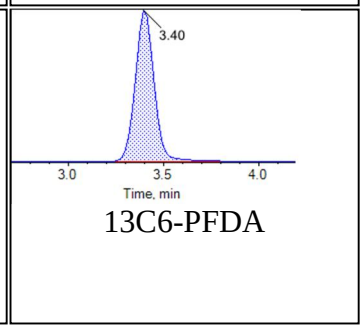
13C4-PFHpA



13C8-PFOA



13C9-PFNA

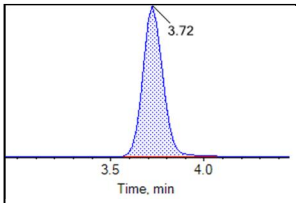


13C6-PFDA

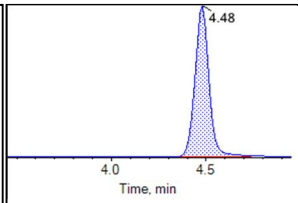
BATTELLE

Chromatogram Report

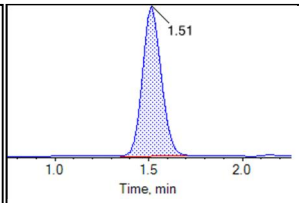
Created with Analyst Reporter
Printed: 23/10/2018 4:13:41 PM



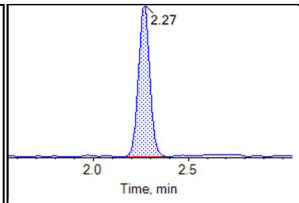
13C7-PFUnA



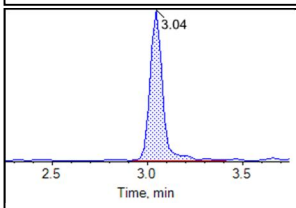
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

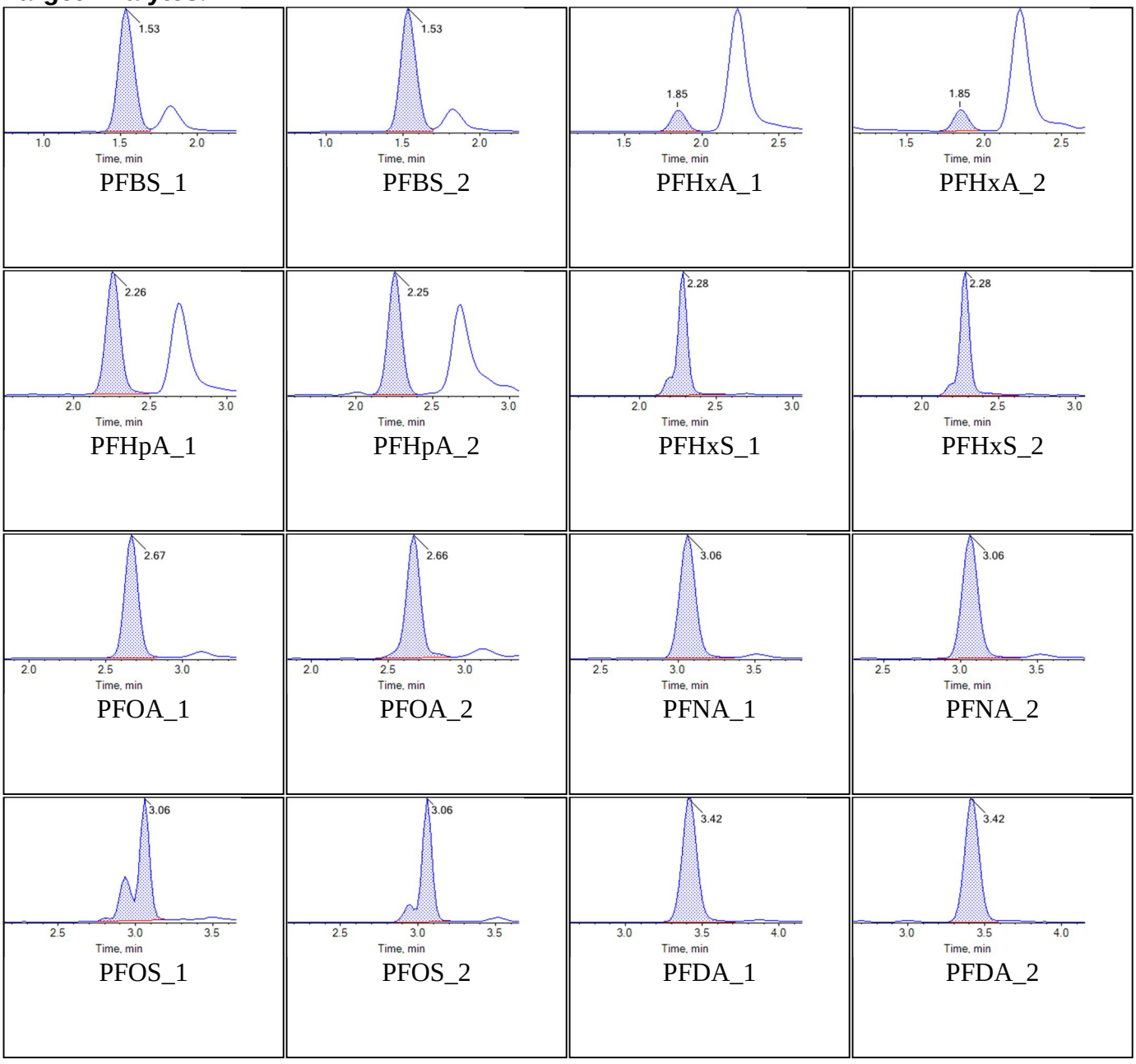
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:13:46 PM

Sample Name	KB76 CCV	**Injection Vial**	20
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:16:58	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

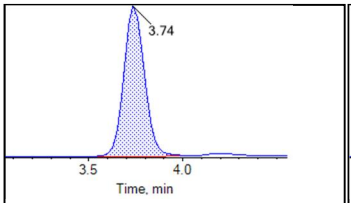
Target Analytes:



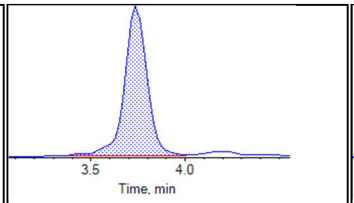
BATTELLE

Chromatogram Report

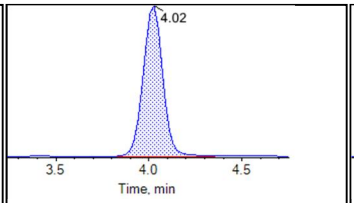
Created with Analyst Reporter
Printed: 23/10/2018 4:13:46 PM



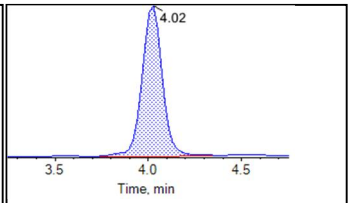
PFUnA_1



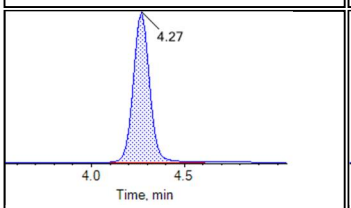
PFUnA_2



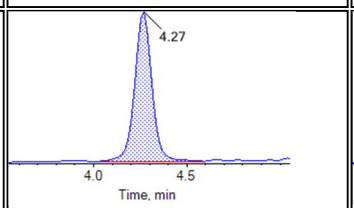
PFDoA_1



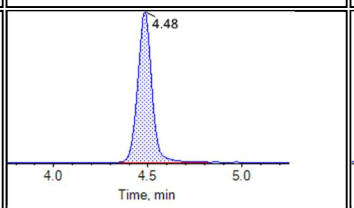
PFDoA_2



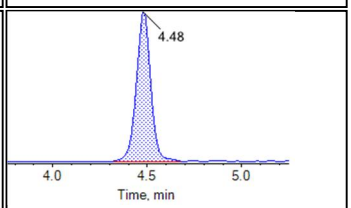
PFTrDA_1



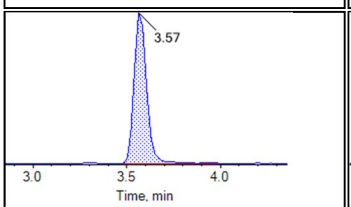
PFTrDA_2



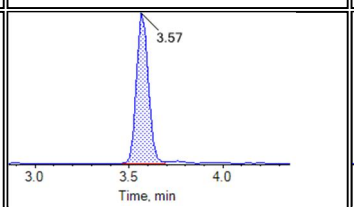
PFTeDA_1



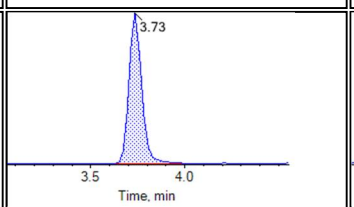
PFTeDA_2



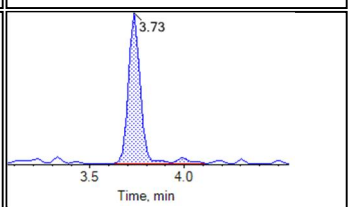
NMeFOSAA_1



NMeFOSAA_2

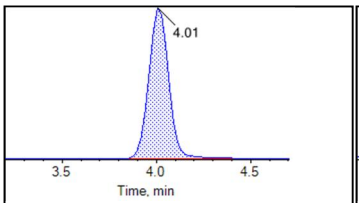


NEtFOSAA_1

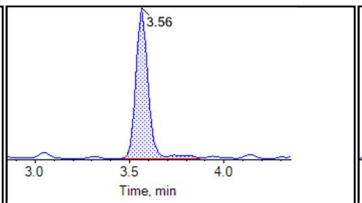


NEtFOSAA_2

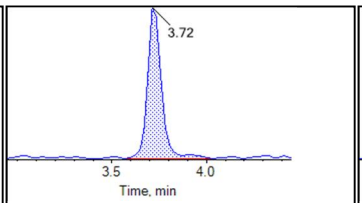
Internal Standards:



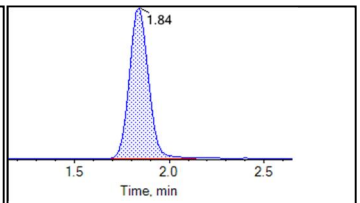
13C2-PFDoA



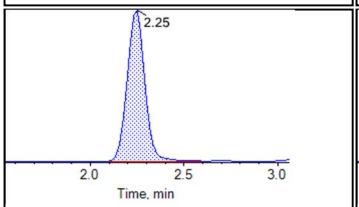
d3-MeFOSAA



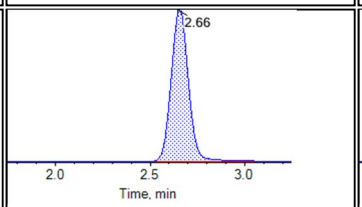
d5-EtFOSAA



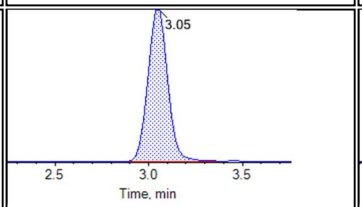
13C5-PFHxA



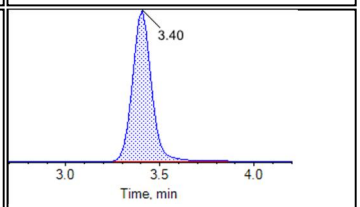
13C4-PFHpA



13C8-PFOA



13C9-PFNA

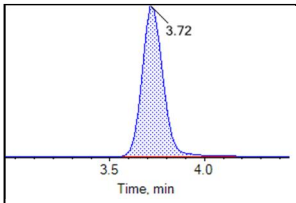


13C6-PFDA

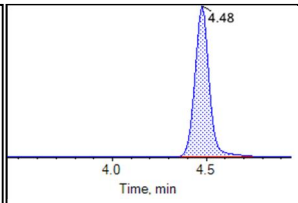
BATTELLE

Chromatogram Report

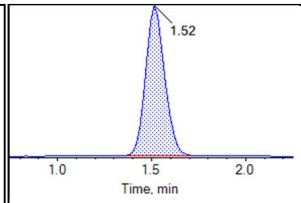
Created with Analyst Reporter
Printed: 23/10/2018 4:13:46 PM



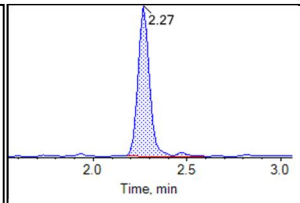
13C7-PFUnA



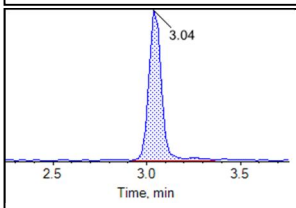
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

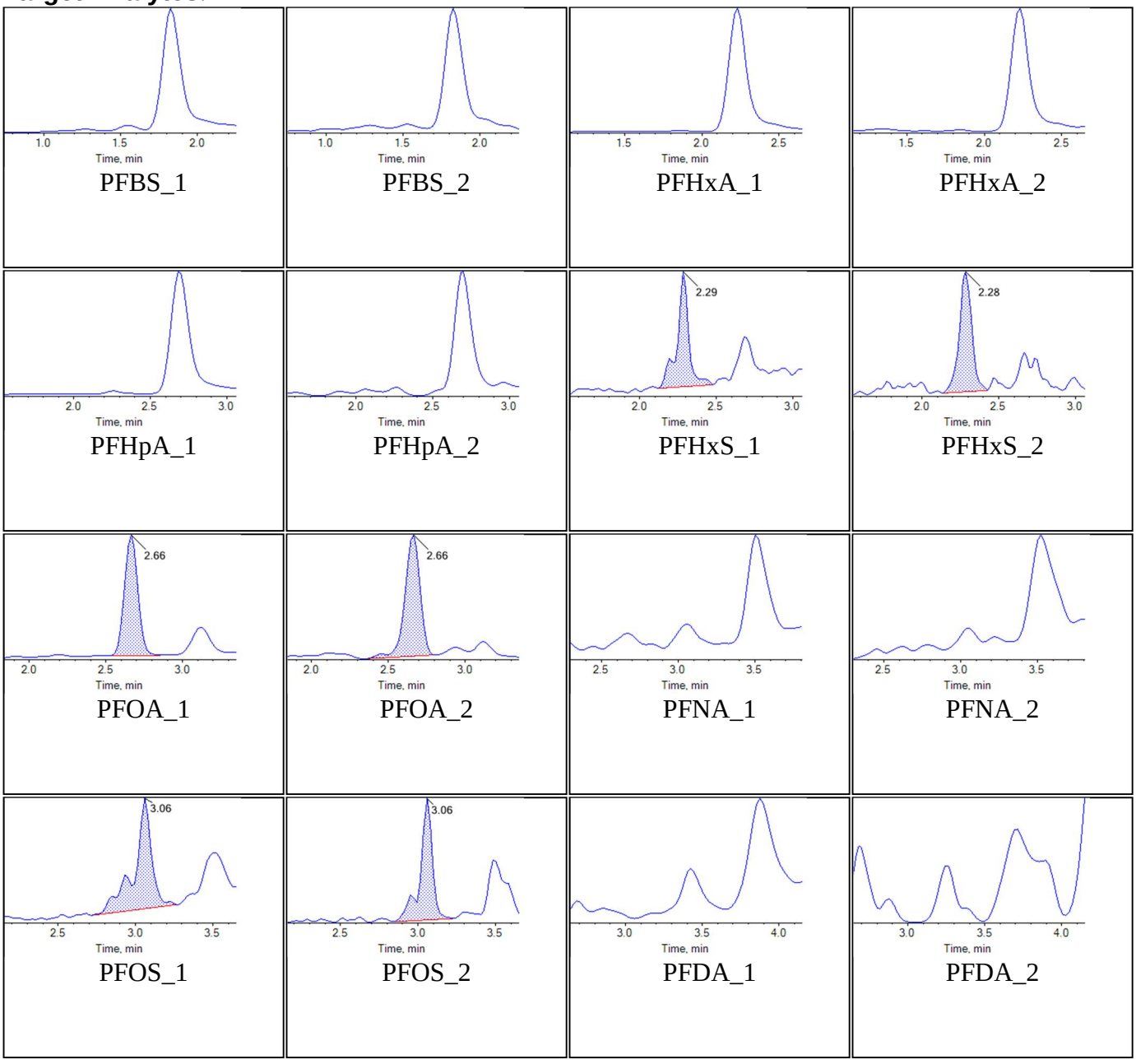
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:13:51 PM

Sample Name	J8368-FS(0)	**Injection Vial**	22
Sample ID	VC-SO-FB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:38:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

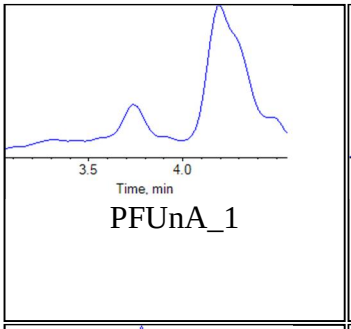
Target Analytes:



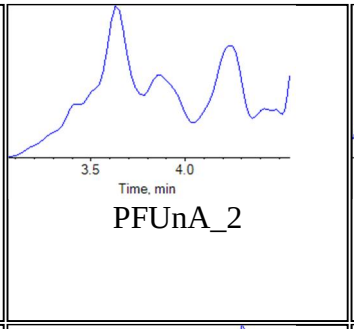
BATTELLE

Chromatogram Report

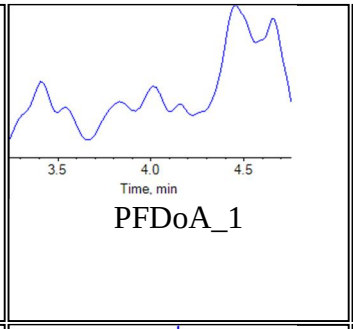
Created with Analyst Reporter
Printed: 23/10/2018 4:13:51 PM



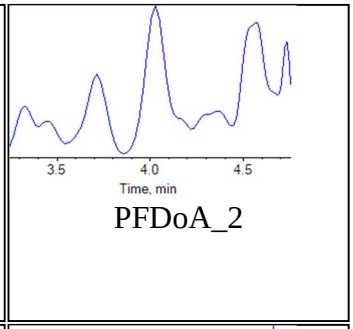
PFUnA_1



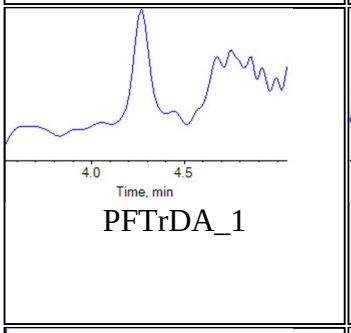
PFUnA_2



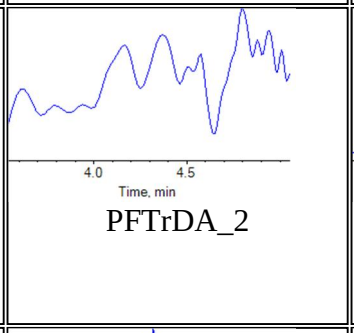
PFDoA_1



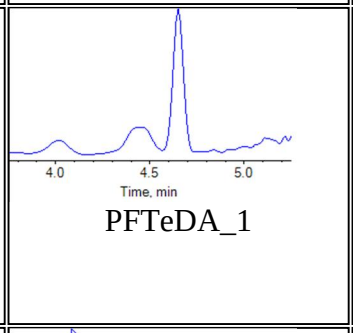
PFDoA_2



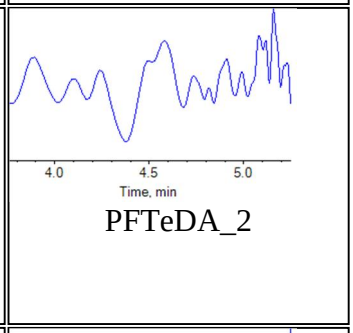
PFTrDA_1



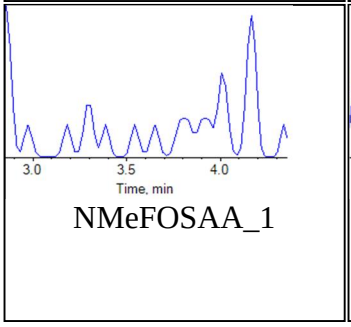
PFTrDA_2



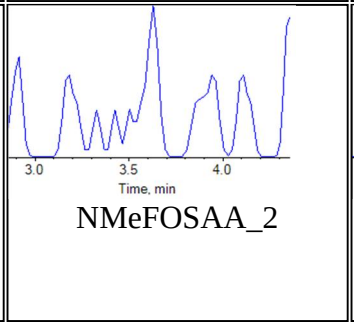
PFTeDA_1



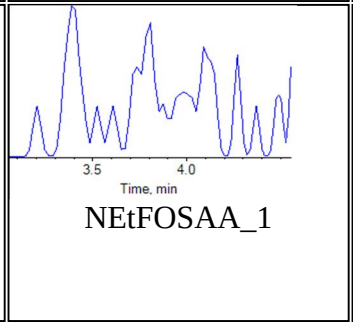
PFTeDA_2



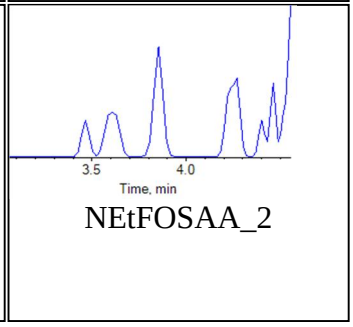
NMeFOSAA_1



NMeFOSAA_2

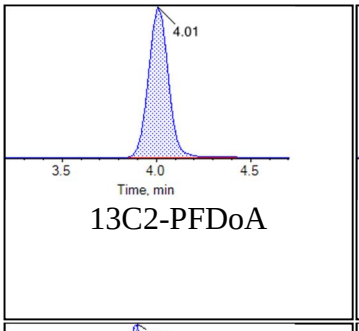


NEtFOSAA_1

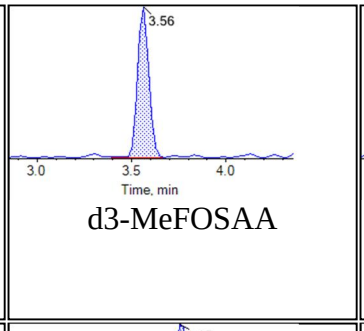


NEtFOSAA_2

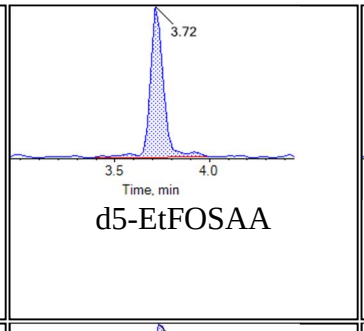
Internal Standards:



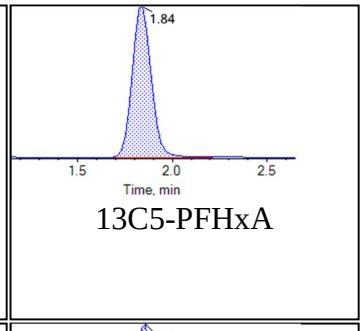
13C2-PFDoA



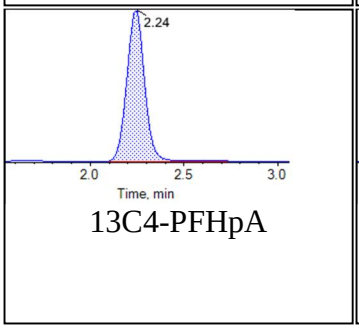
d3-MeFOSAA



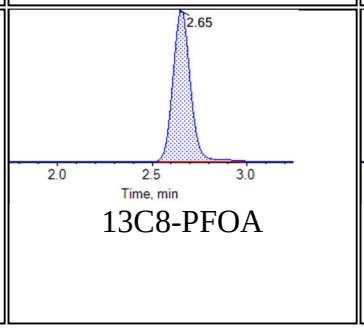
d5-EtFOSAA



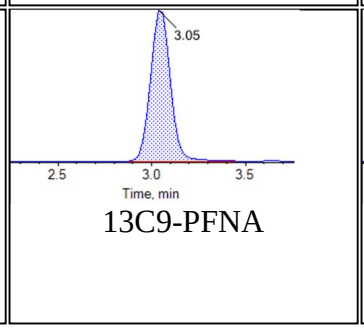
13C5-PFHxA



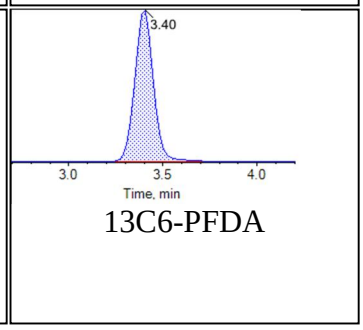
13C4-PFHpA



13C8-PFOA



13C9-PFNA

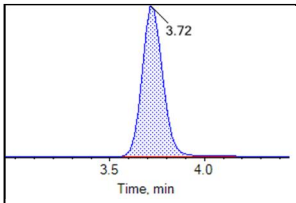


13C6-PFDA

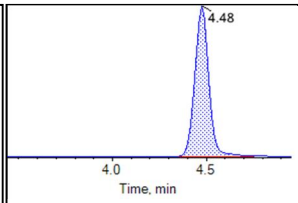
BATTELLE

Chromatogram Report

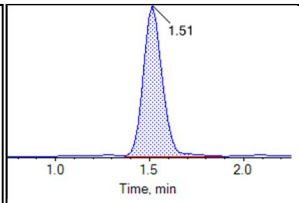
Created with Analyst Reporter
Printed: 23/10/2018 4:13:51 PM



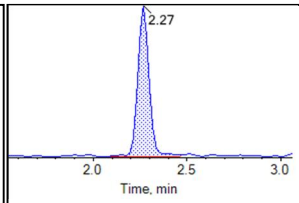
13C7-PFUnA



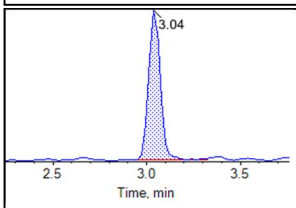
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

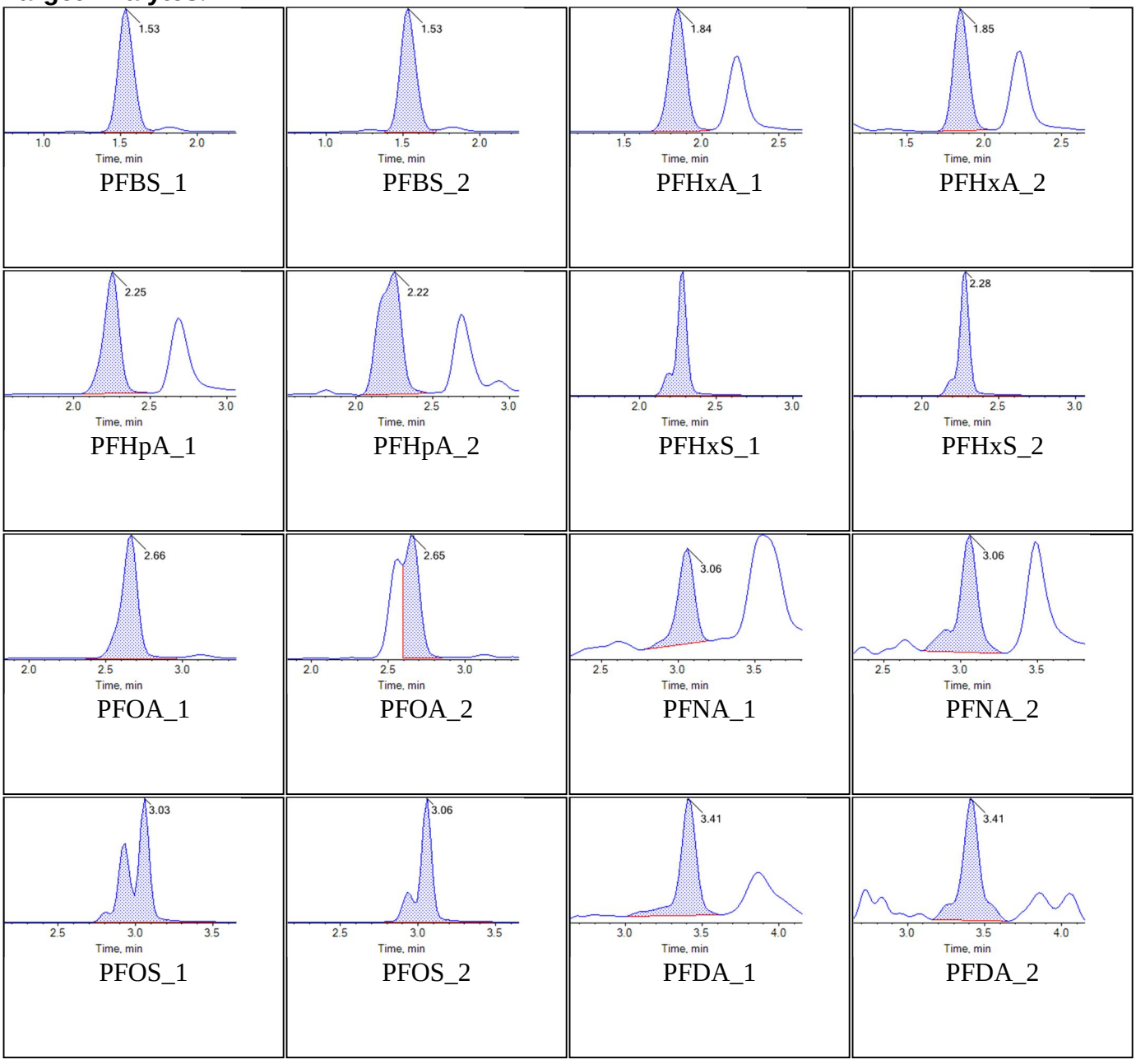
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:13:56 PM

Sample Name	J8369-FS(0)	**Injection Vial**	23
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:49:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

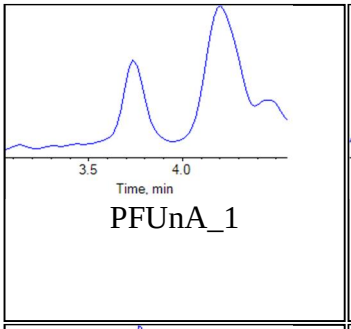
Target Analytes:



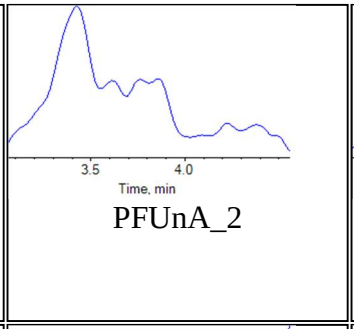
BATTELLE

Chromatogram Report

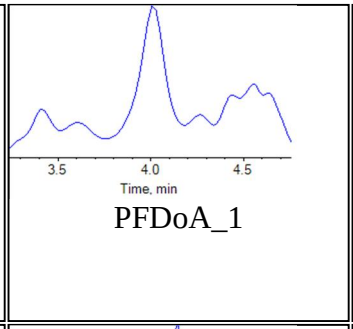
Created with Analyst Reporter
Printed: 23/10/2018 4:13:56 PM



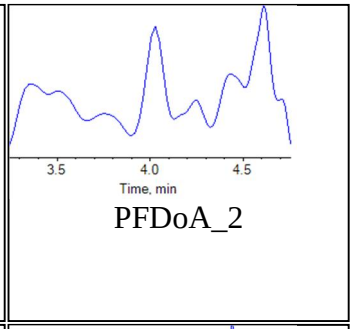
PFUnA_1



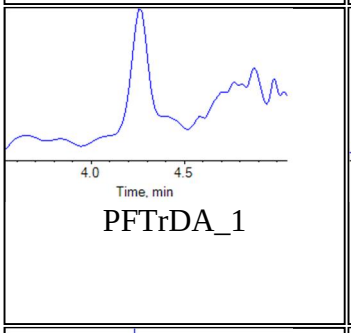
PFUnA_2



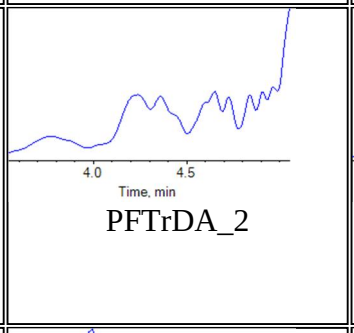
PFDoA_1



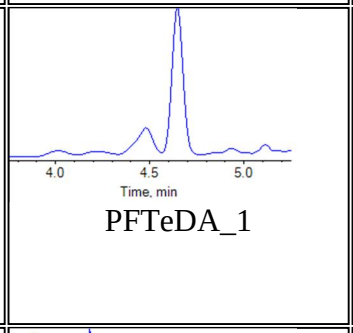
PFDoA_2



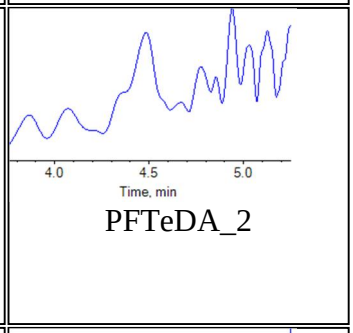
PFTrDA_1



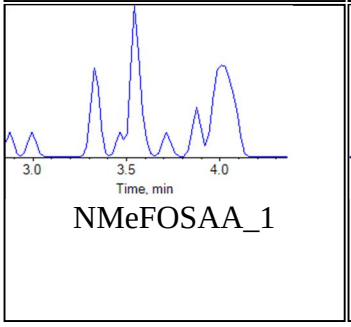
PFTrDA_2



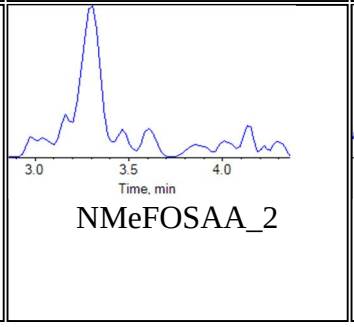
PFTeDA_1



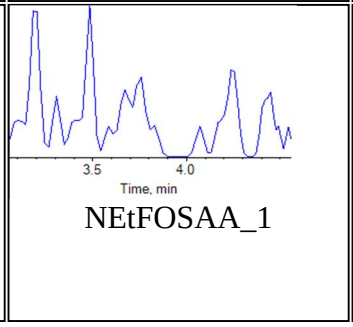
PFTeDA_2



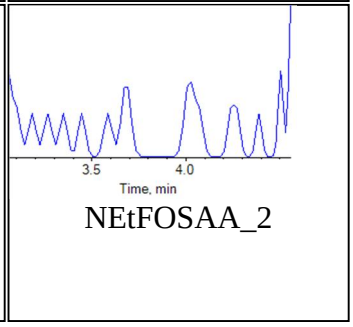
NMeFOSAA_1



NMeFOSAA_2

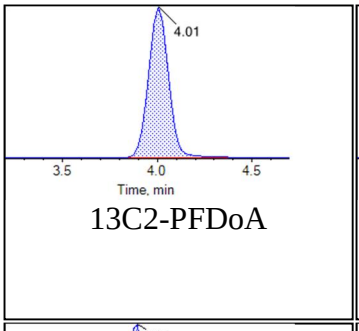


NEtFOSAA_1

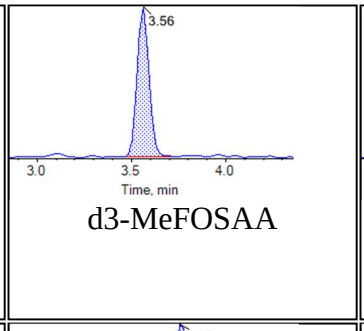


NEtFOSAA_2

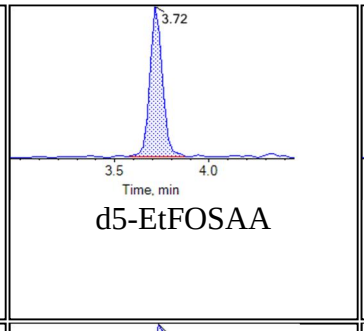
Internal Standards:



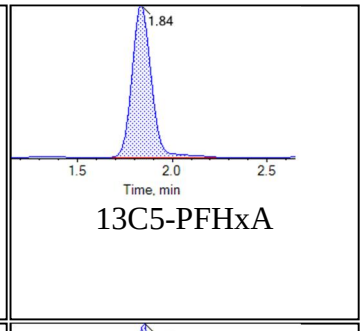
13C2-PFDoA



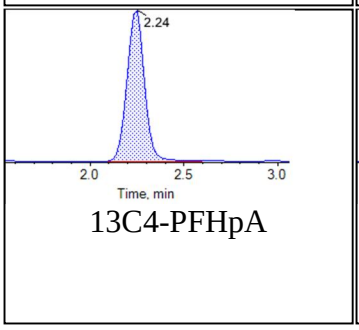
d3-MeFOSAA



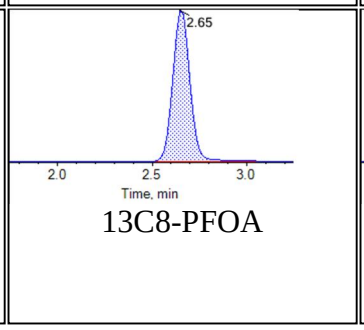
d5-EtFOSAA



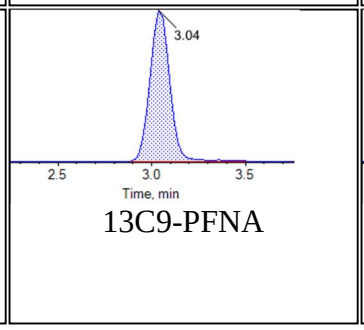
13C5-PFHxA



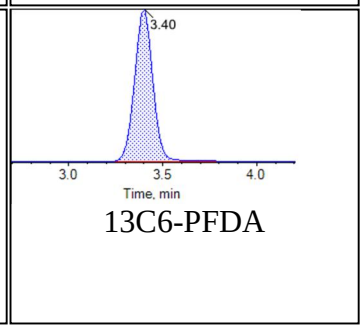
13C4-PFHpA



13C8-PFOA



13C9-PFNA

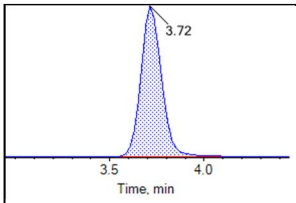


13C6-PFDA

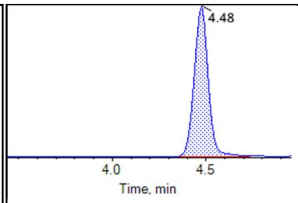
BATTELLE

Chromatogram Report

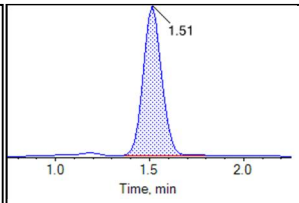
Created with Analyst Reporter
Printed: 23/10/2018 4:13:56 PM



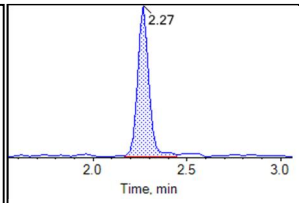
13C7-PFUnA



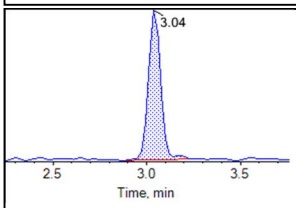
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

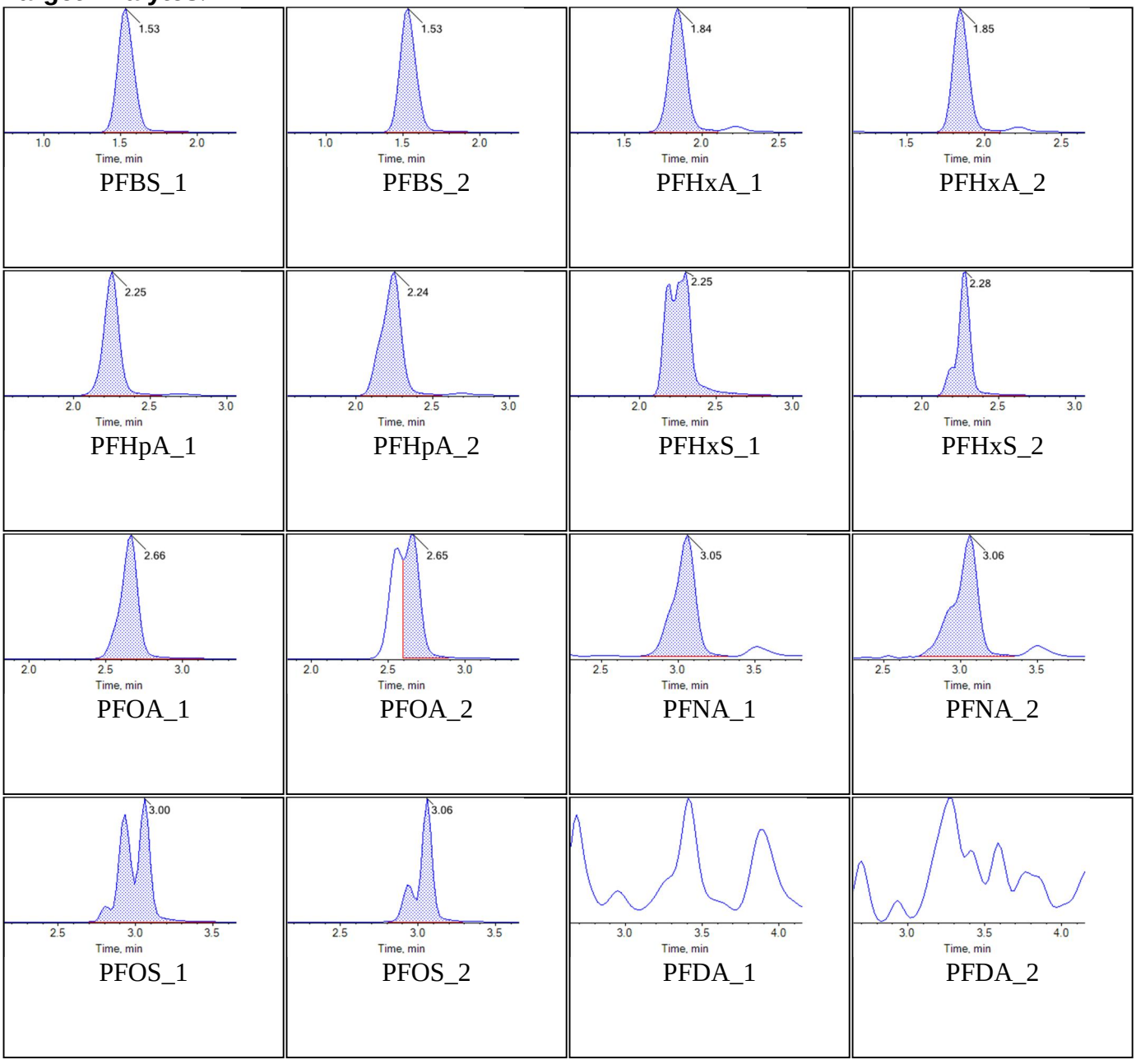
Chromatogram Report

Created with Analyst Reporter
Printed: 26/10/2018 10:54:26 AM

Sample Name	J8370-FS(0)	**Injection Vial**	24
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:00:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

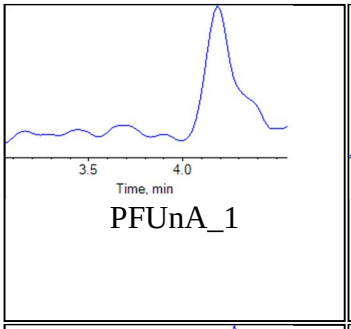
Target Analytes:



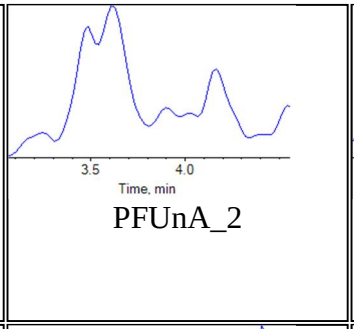
BATTELLE

Chromatogram Report

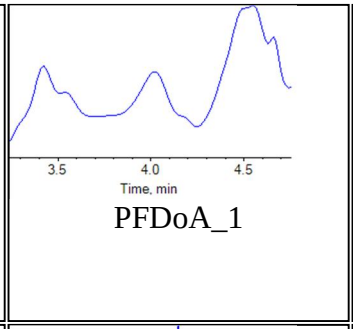
Created with Analyst Reporter
Printed: 26/10/2018 10:54:26 AM



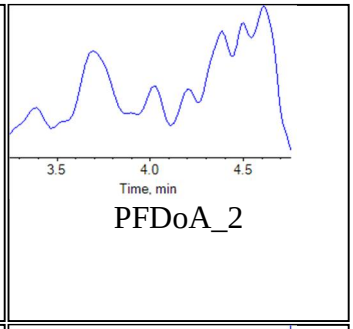
PFUnA_1



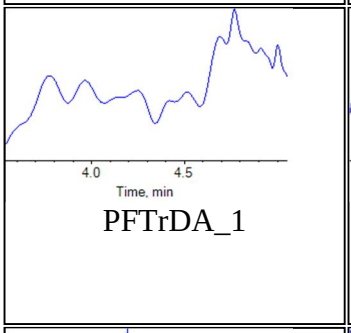
PFUnA_2



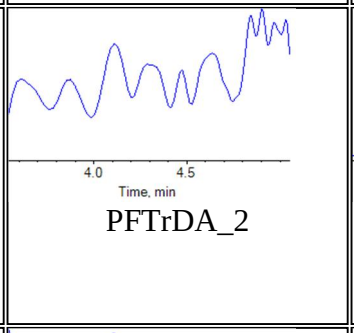
PFDoA_1



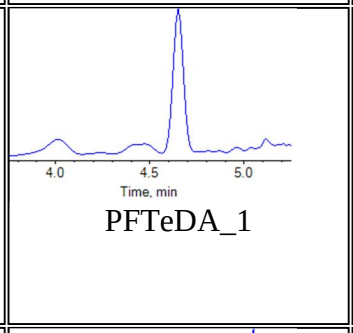
PFDoA_2



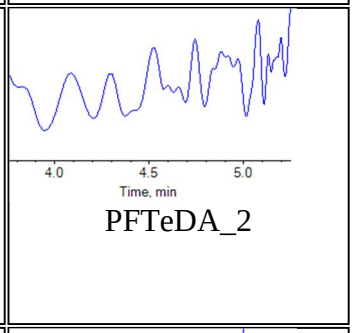
PFTrDA_1



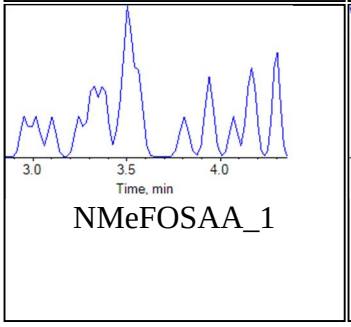
PFTrDA_2



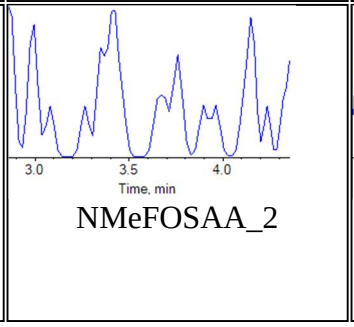
PFTeDA_1



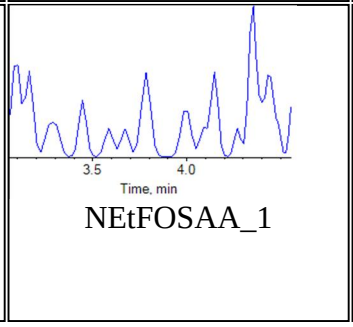
PFTeDA_2



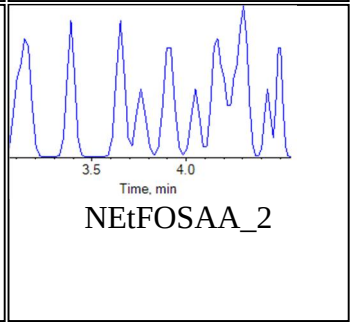
NMeFOSAA_1



NMeFOSAA_2

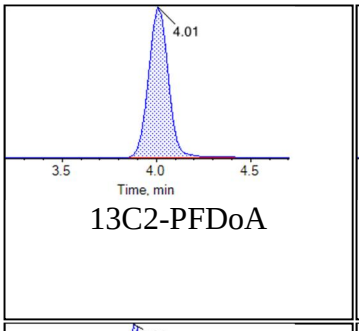


NEtFOSAA_1

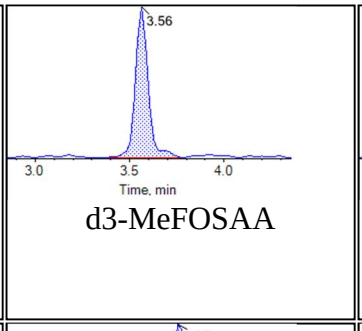


NEtFOSAA_2

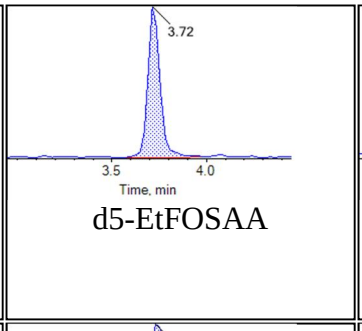
Internal Standards:



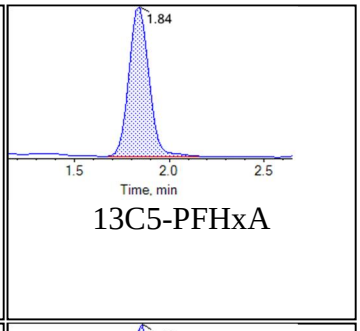
13C2-PFDoA



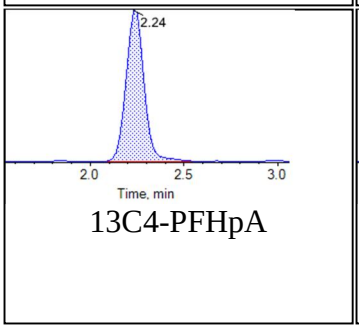
d3-MeFOSAA



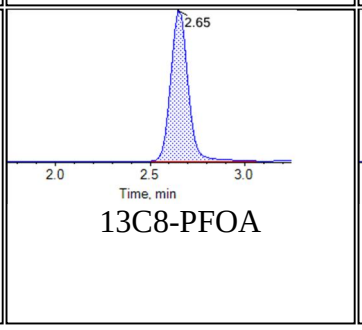
d5-EtFOSAA



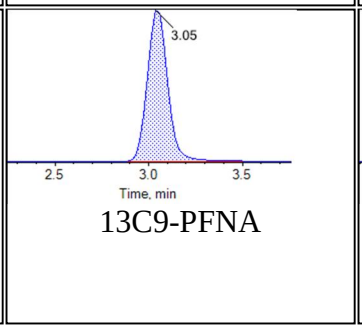
13C5-PFHxA



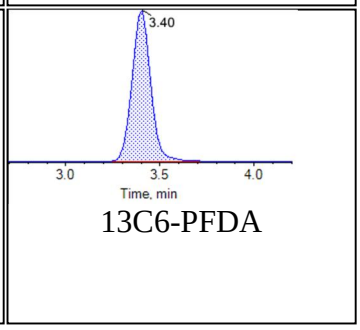
13C4-PFHpA



13C8-PFOA



13C9-PFNA

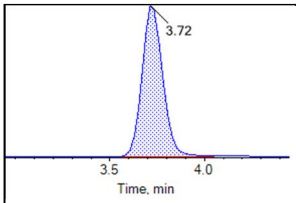


13C6-PFDA

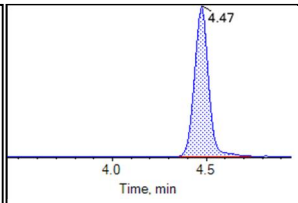
BATTELLE

Chromatogram Report

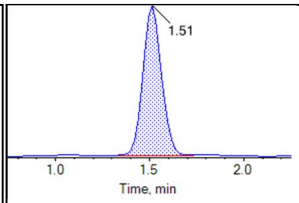
Created with Analyst Reporter
Printed: 26/10/2018 10:54:26 AM



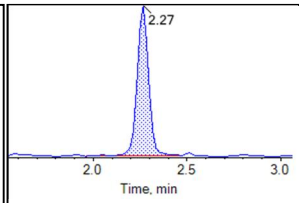
13C7-PFUnA



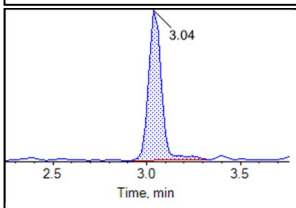
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

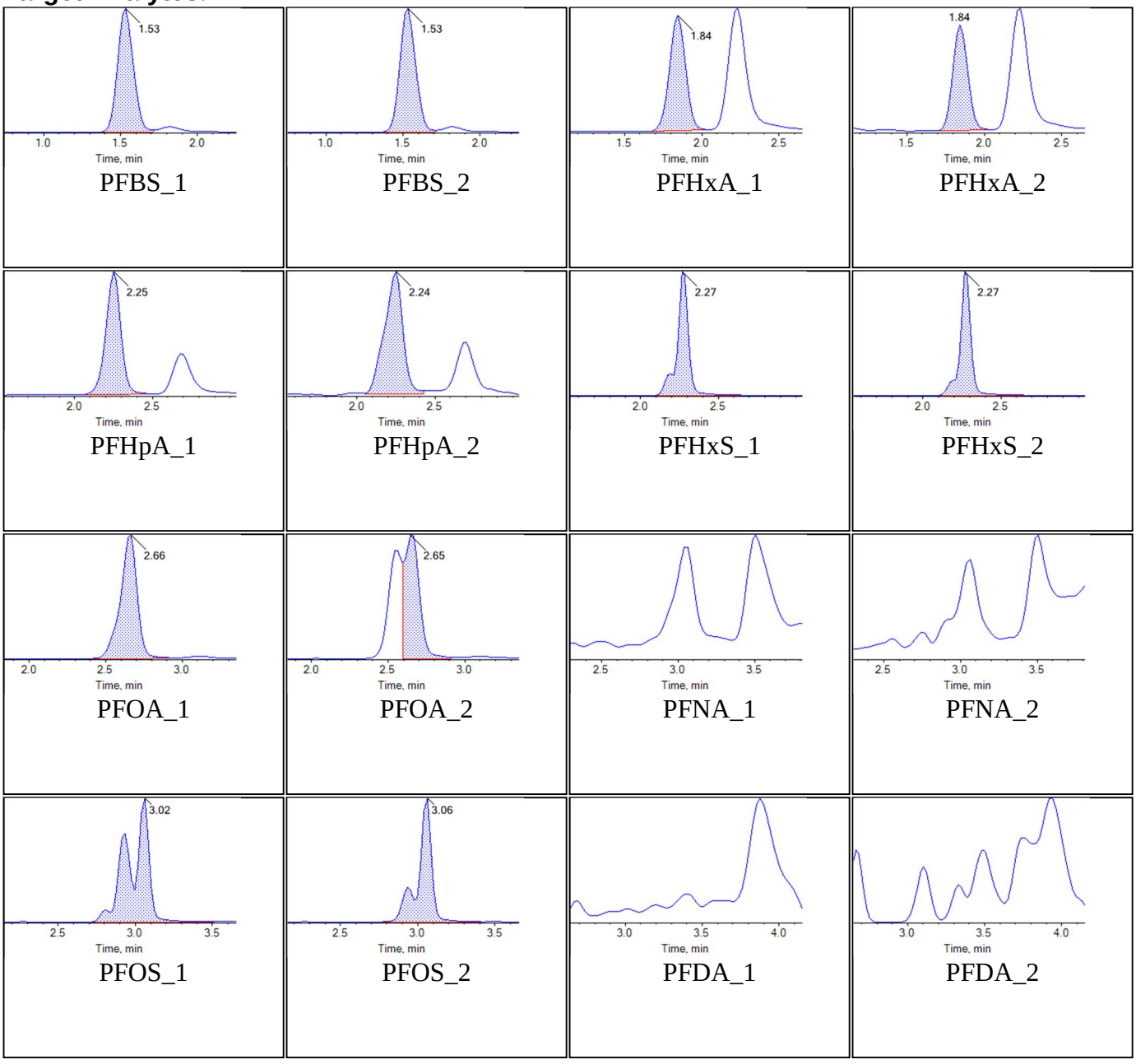
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:14:07 PM

Sample Name	J8370-FS-D(3)	**Injection Vial**	25
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:11:23	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

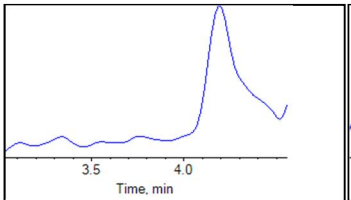
Target Analytes:



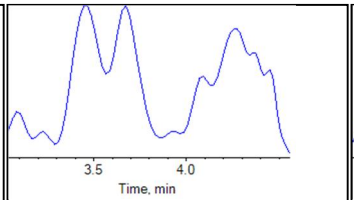
BATTELLE

Chromatogram Report

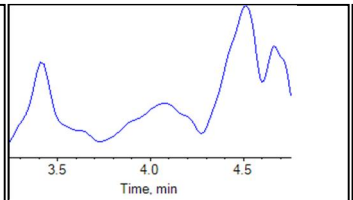
Created with Analyst Reporter
Printed: 23/10/2018 4:14:07 PM



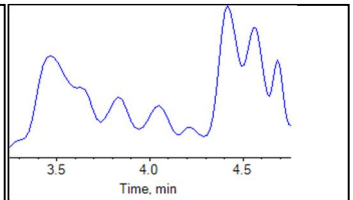
PFUnA_1



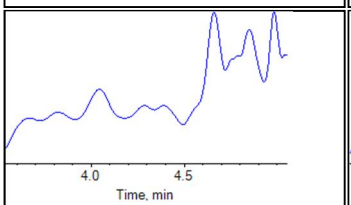
PFUnA_2



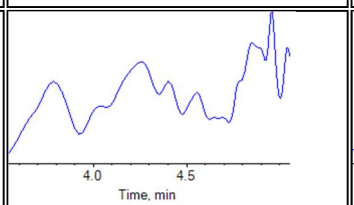
PFDoA_1



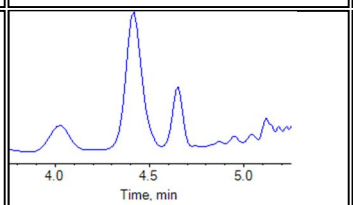
PFDoA_2



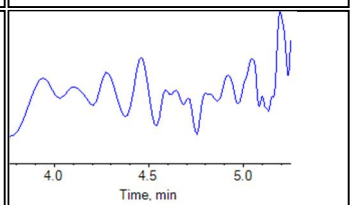
PFTrDA_1



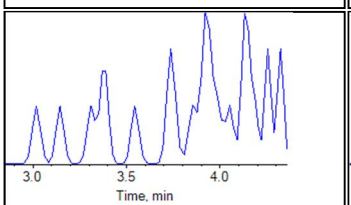
PFTrDA_2



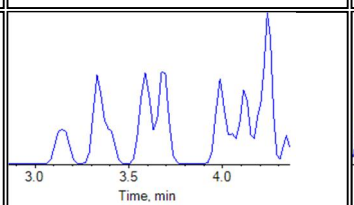
PFTeDA_1



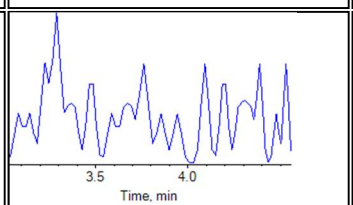
PFTeDA_2



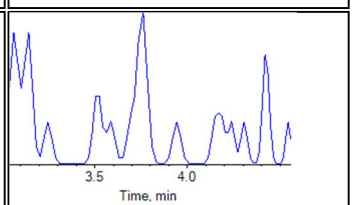
NMeFOSAA_1



NMeFOSAA_2

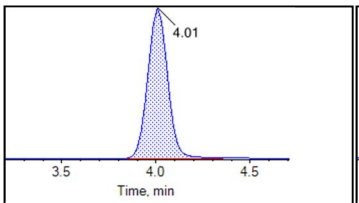


NEtFOSAA_1

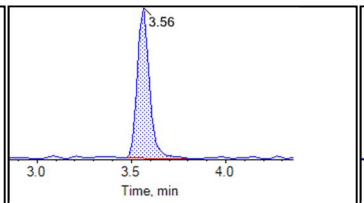


NEtFOSAA_2

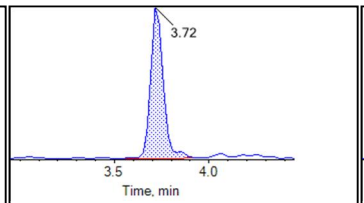
Internal Standards:



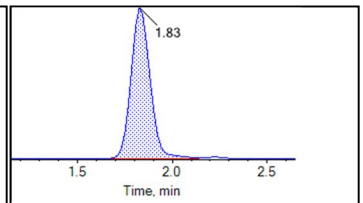
13C2-PFDoA



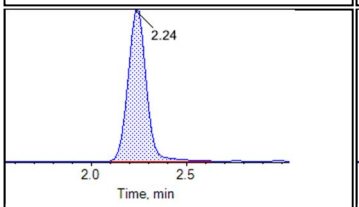
d3-MeFOSAA



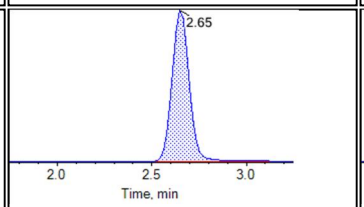
d5-EtFOSAA



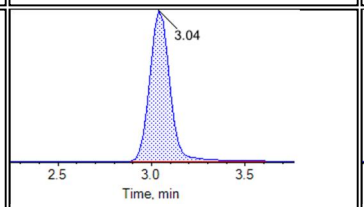
13C5-PFHxA



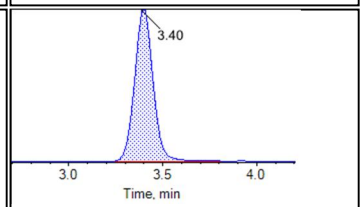
13C4-PFHpA



13C8-PFOA



13C9-PFNA

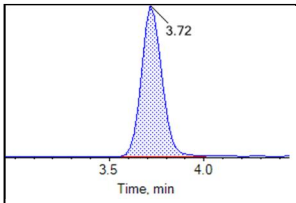


13C6-PFDA

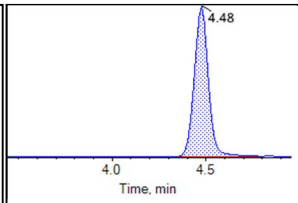
BATTELLE

Chromatogram Report

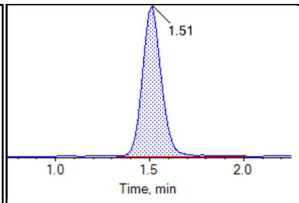
Created with Analyst Reporter
Printed: 23/10/2018 4:14:07 PM



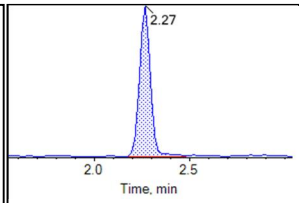
13C7-PFUnA



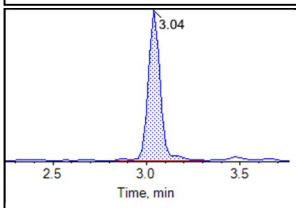
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

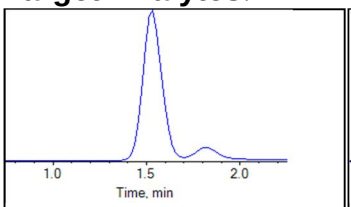
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:14:12 PM

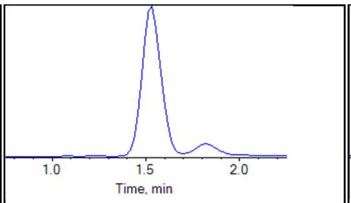
Sample Name	J8370-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:22:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

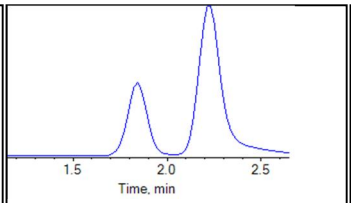
Target Analytes:



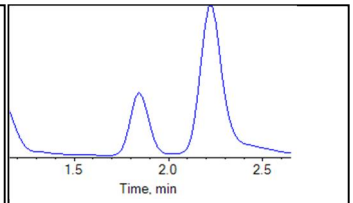
PFBS_1



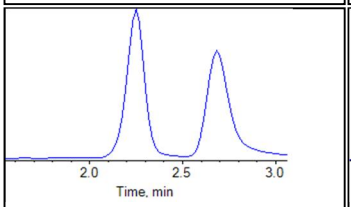
PFBS_2



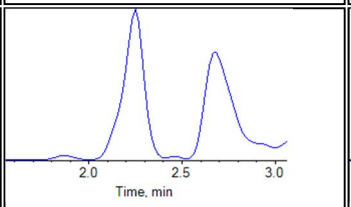
PFHxA_1



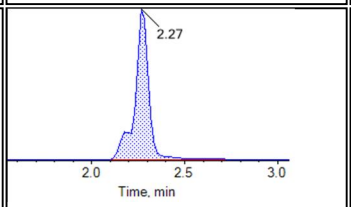
PFHxA_2



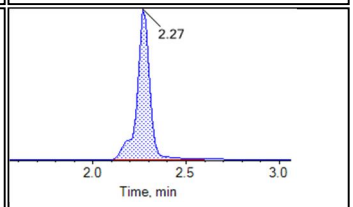
PFHpA_1



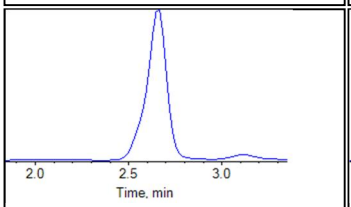
PFHpA_2



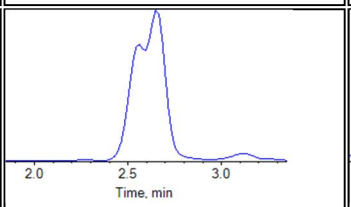
PFHxS_1



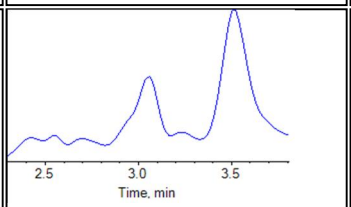
PFHxS_2



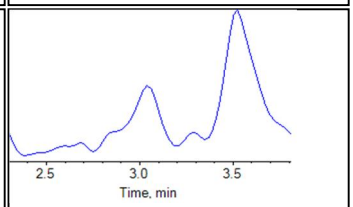
PFOA_1



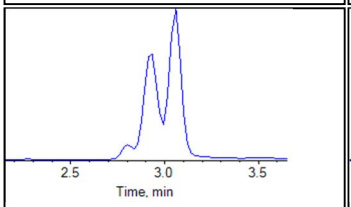
PFOA_2



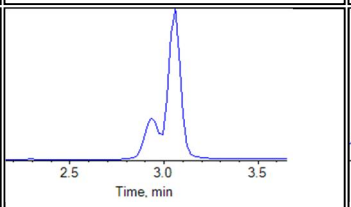
PFNA_1



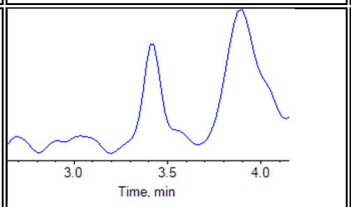
PFNA_2



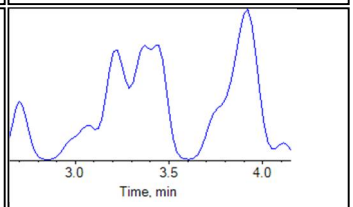
PFOS_1



PFOS_2



PFDA_1

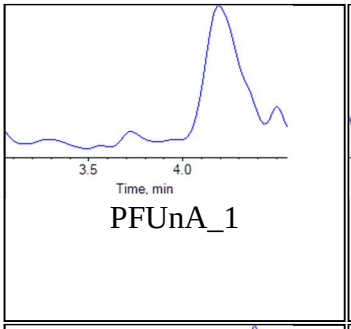


PFDA_2

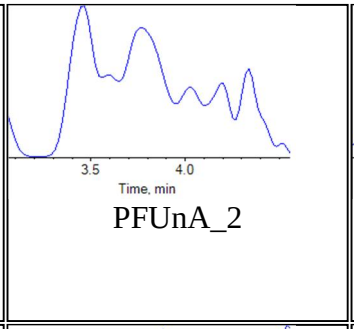
BATTELLE

Chromatogram Report

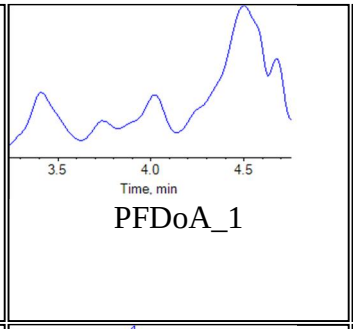
Created with Analyst Reporter
Printed: 23/10/2018 4:14:12 PM



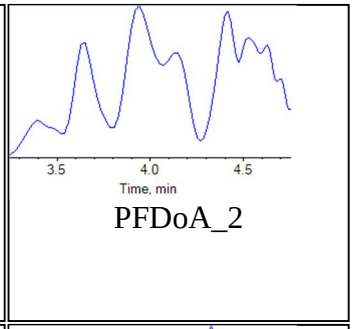
PFUnA_1



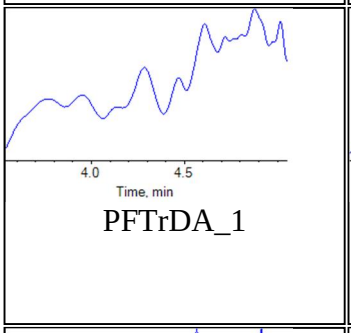
PFUnA_2



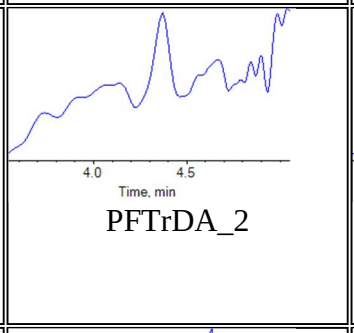
PFDoA_1



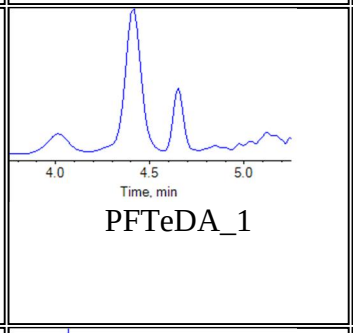
PFDoA_2



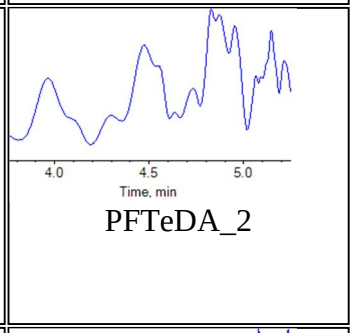
PFTrDA_1



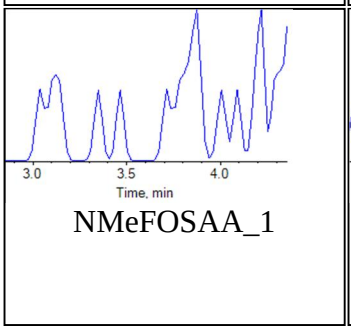
PFTrDA_2



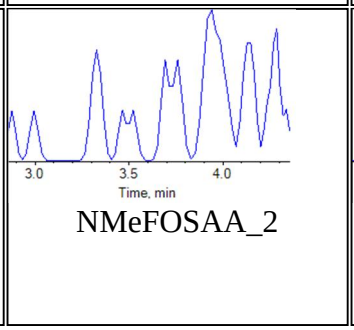
PFTeDA_1



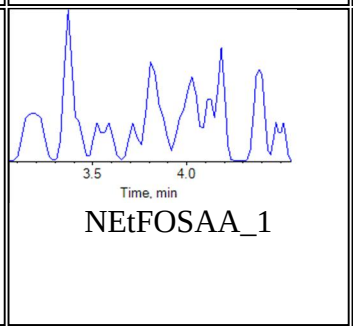
PFTeDA_2



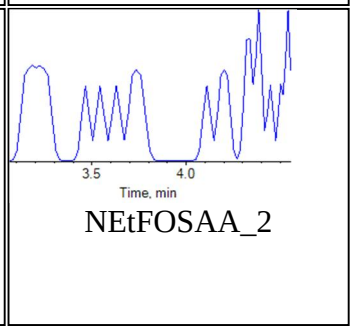
NMeFOSAA_1



NMeFOSAA_2

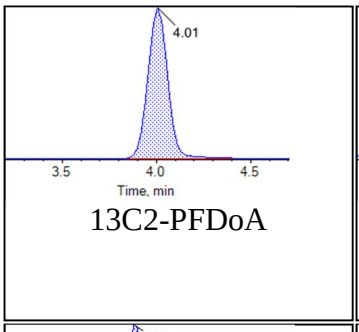


NEtFOSAA_1

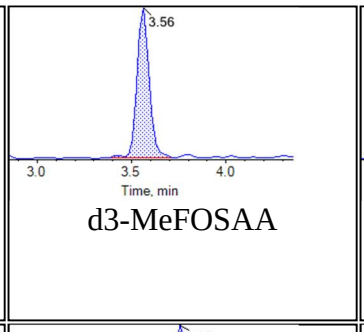


NEtFOSAA_2

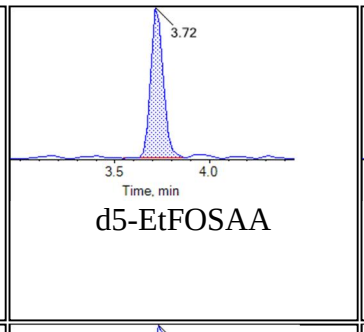
Internal Standards:



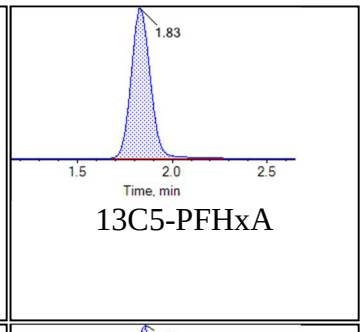
13C2-PFDoA



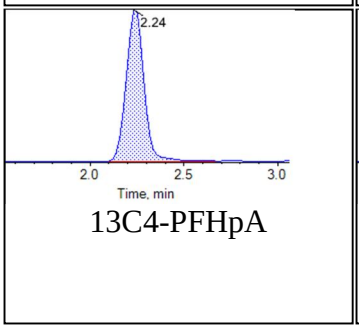
d3-MeFOSAA



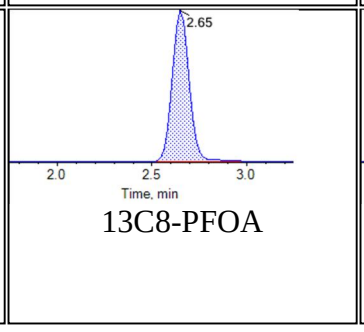
d5-EtFOSAA



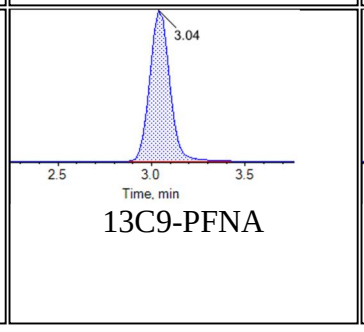
13C5-PFHxA



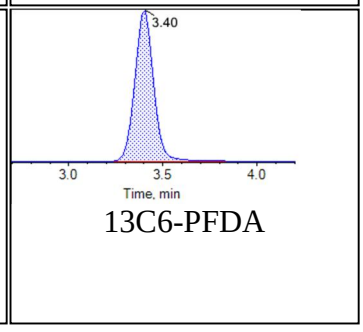
13C4-PFHpA



13C8-PFOA



13C9-PFNA

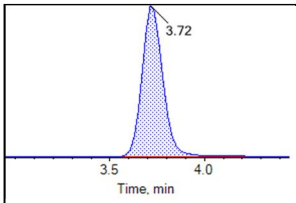


13C6-PFDA

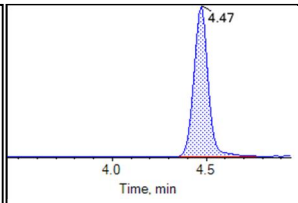
BATTELLE

Chromatogram Report

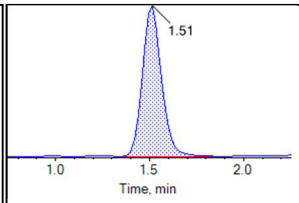
Created with Analyst Reporter
Printed: 23/10/2018 4:14:12 PM



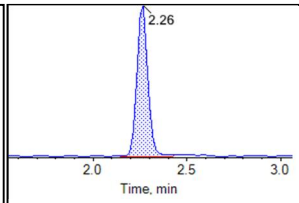
13C7-PFUnA



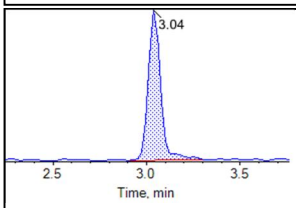
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

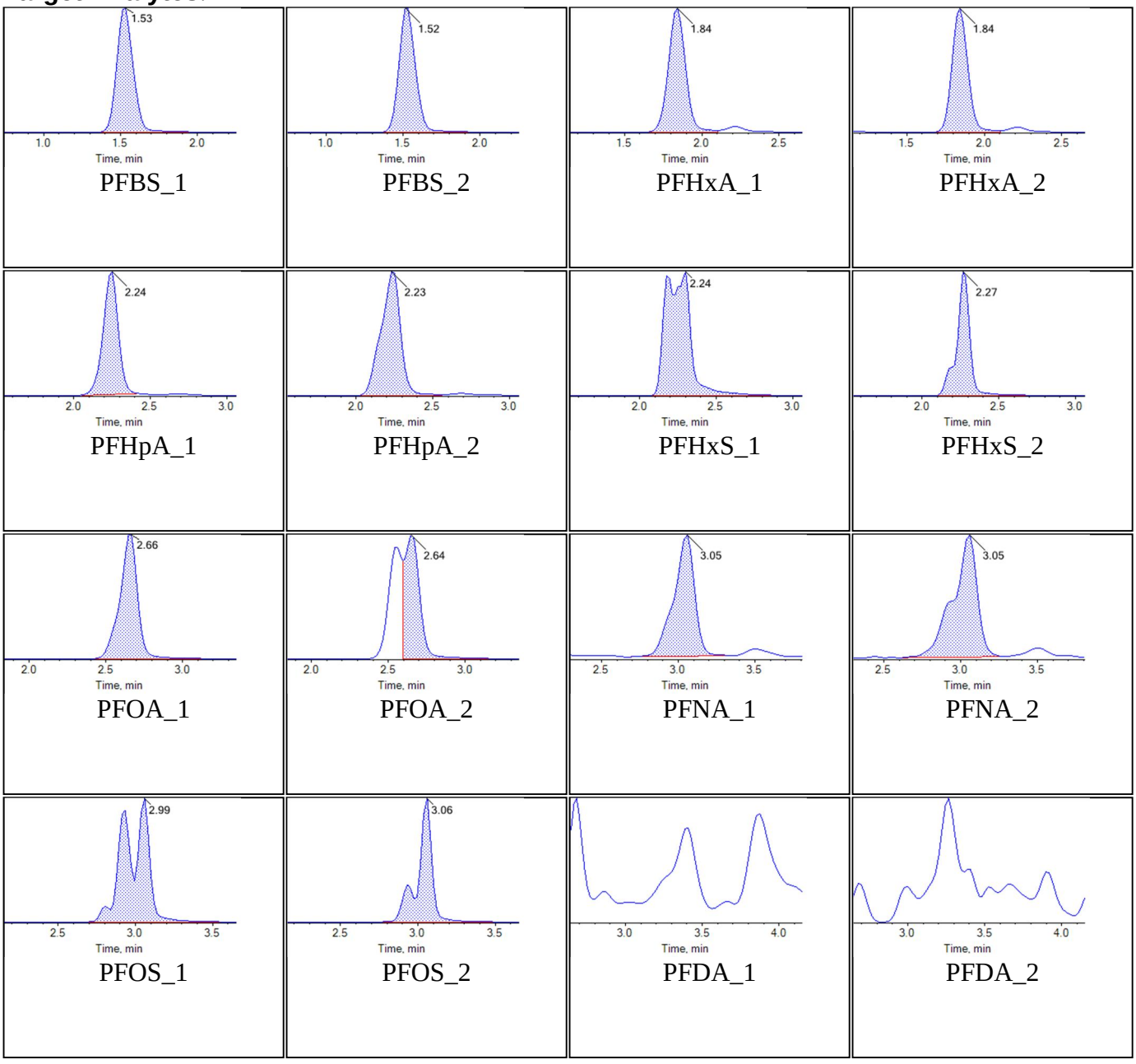
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:14:22 PM

Sample Name	J8371-FS(0)	**Injection Vial**	28
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:43:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

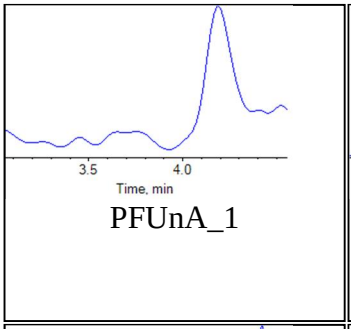
Target Analytes:



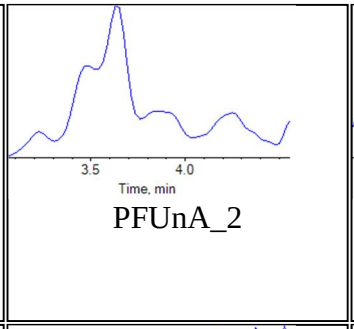
BATTELLE

Chromatogram Report

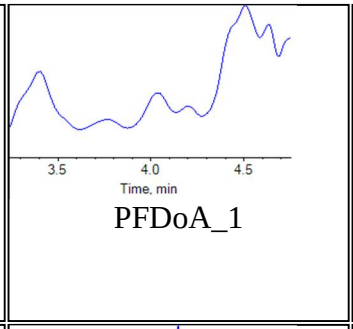
Created with Analyst Reporter
Printed: 23/10/2018 4:14:22 PM



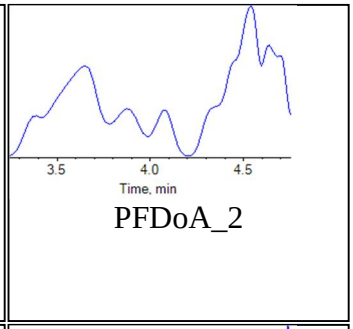
PFUnA_1



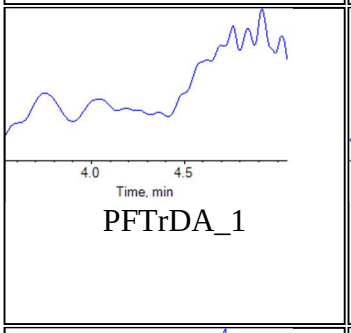
PFUnA_2



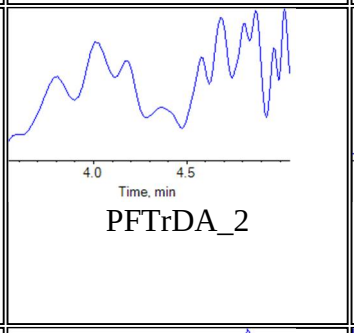
PFDoA_1



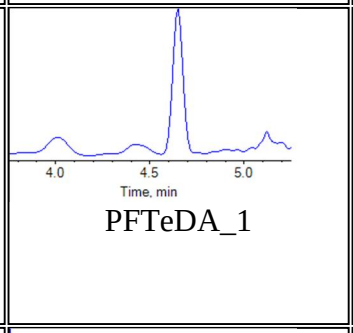
PFDoA_2



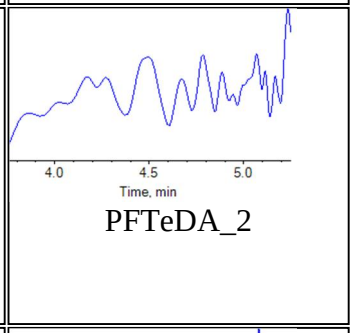
PFTrDA_1



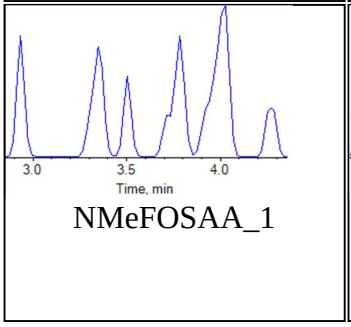
PFTrDA_2



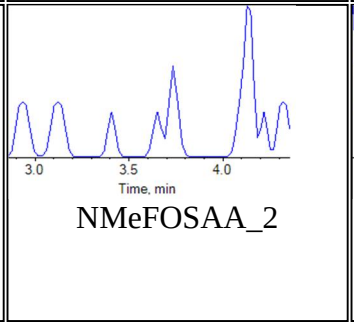
PFTeDA_1



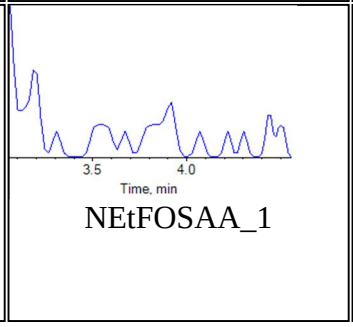
PFTeDA_2



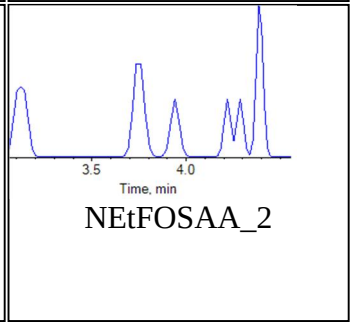
NMeFOSAA_1



NMeFOSAA_2

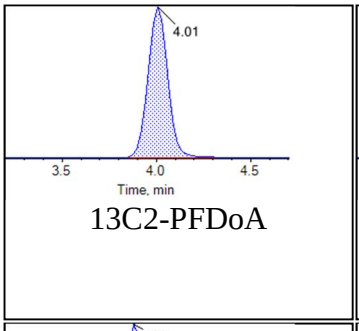


NEtFOSAA_1

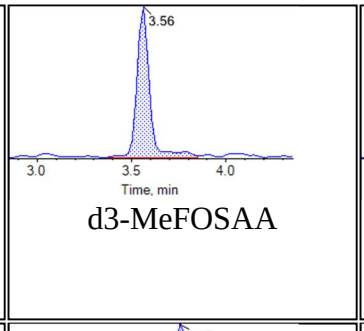


NEtFOSAA_2

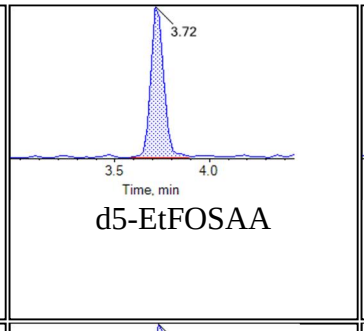
Internal Standards:



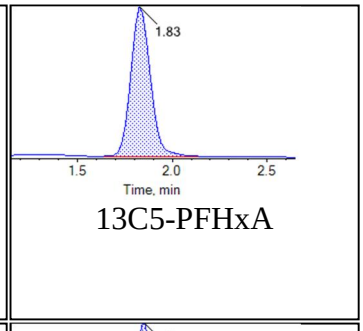
13C2-PFDoA



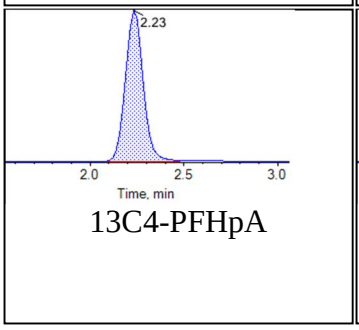
d3-MeFOSAA



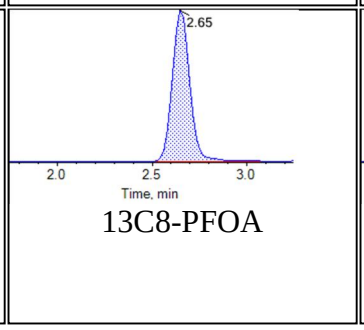
d5-EtFOSAA



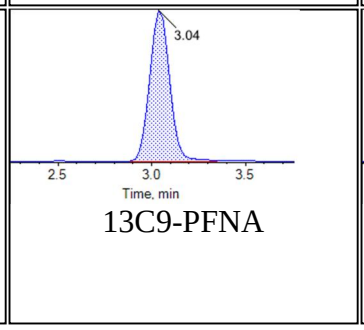
13C5-PFHxA



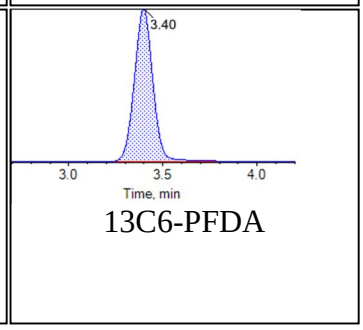
13C4-PFHpA



13C8-PFOA



13C9-PFNA

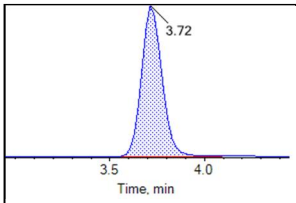


13C6-PFDA

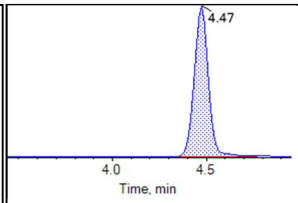
BATTELLE

Chromatogram Report

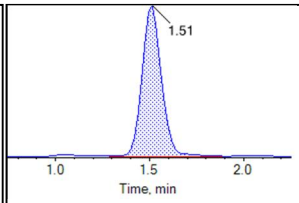
Created with Analyst Reporter
Printed: 23/10/2018 4:14:22 PM



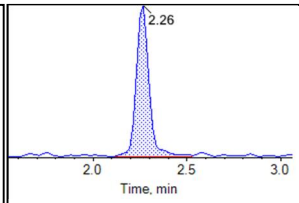
13C7-PFUnA



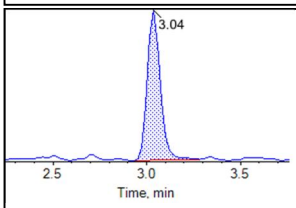
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

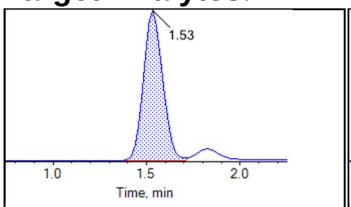
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:14:28 PM

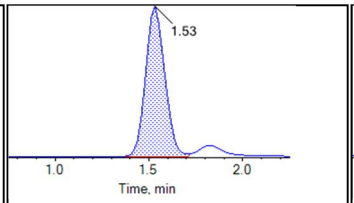
Sample Name	J8371-FS-D(3)	**Injection Vial**	29
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:54:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

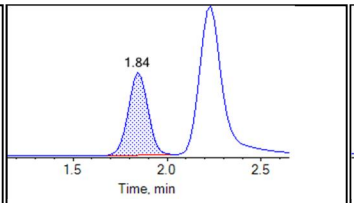
Target Analytes:



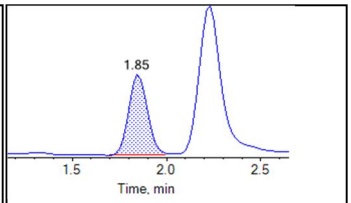
PFBS_1



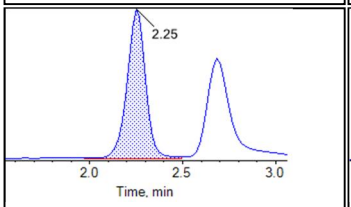
PFBS_2



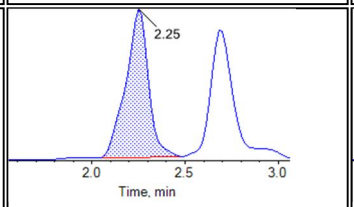
PFHxA_1



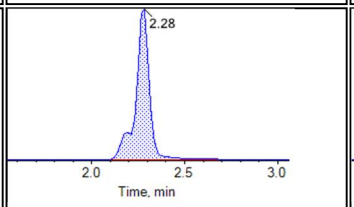
PFHxA_2



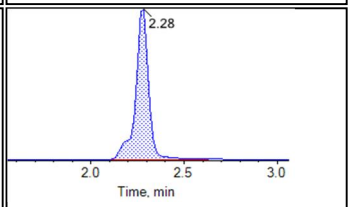
PFHpA_1



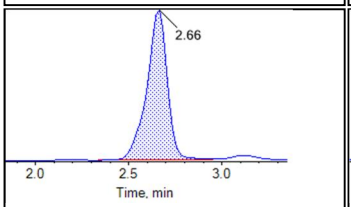
PFHpA_2



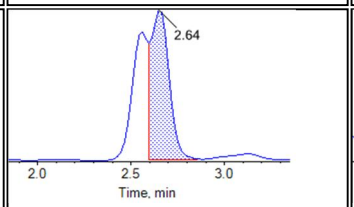
PFHxS_1



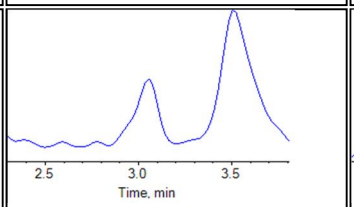
PFHxS_2



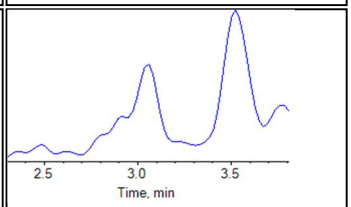
PFOA_1



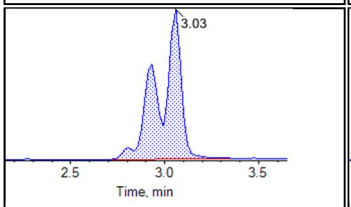
PFOA_2



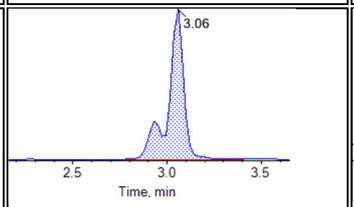
PFNA_1



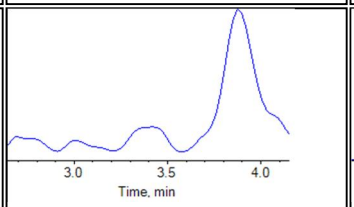
PFNA_2



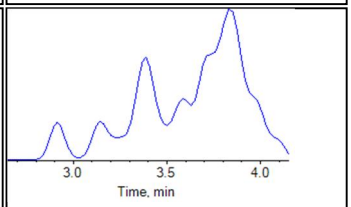
PFOS_1



PFOS_2



PFDA_1

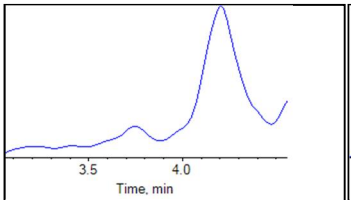


PFDA_2

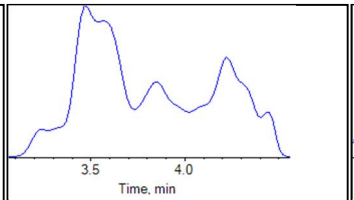
BATTELLE

Chromatogram Report

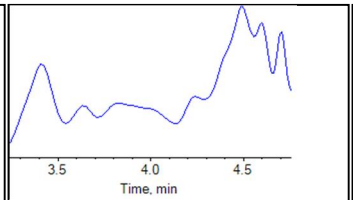
Created with Analyst Reporter
Printed: 23/10/2018 4:14:28 PM



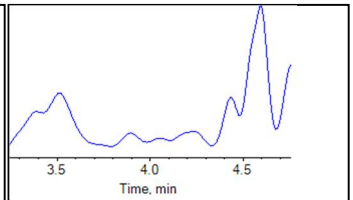
PFUnA_1



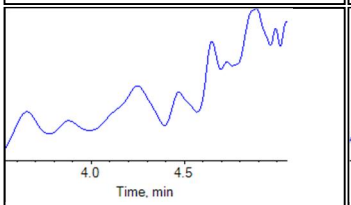
PFUnA_2



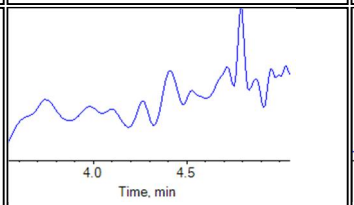
PFDoA_1



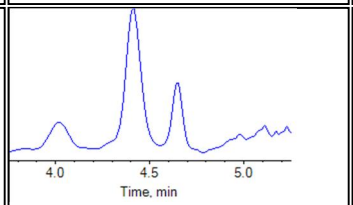
PFDoA_2



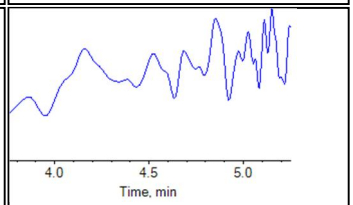
PFTrDA_1



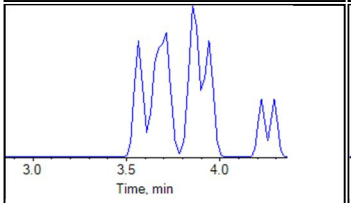
PFTrDA_2



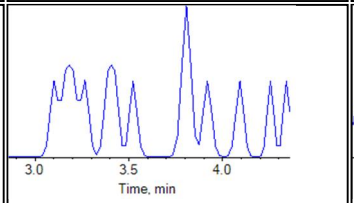
PFTeDA_1



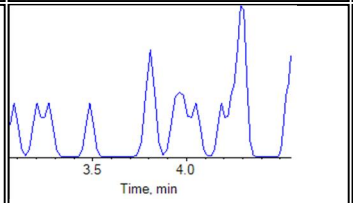
PFTeDA_2



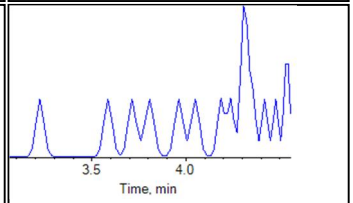
NMeFOSAA_1



NMeFOSAA_2

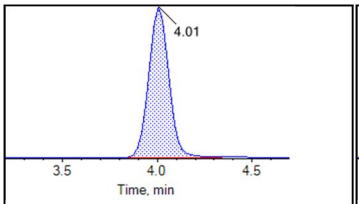


NEtFOSAA_1

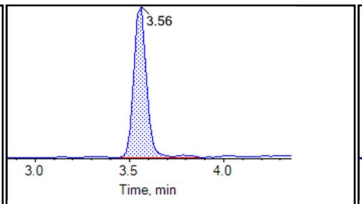


NEtFOSAA_2

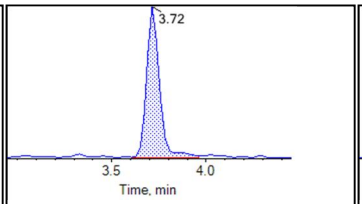
Internal Standards:



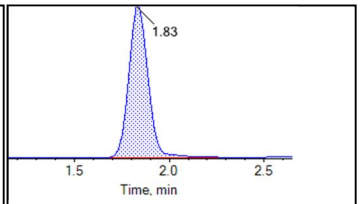
13C2-PFDoA



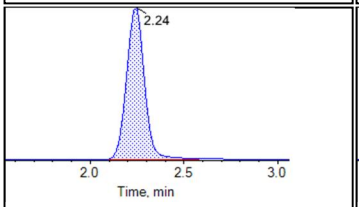
d3-MeFOSAA



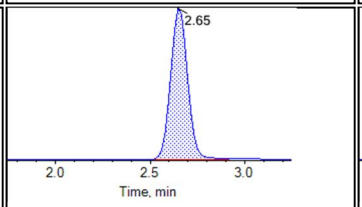
d5-EtFOSAA



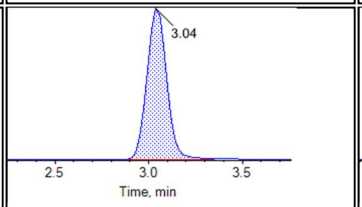
13C5-PFHxA



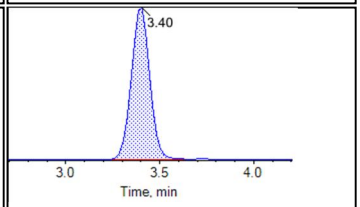
13C4-PFHpA



13C8-PFOA



13C9-PFNA

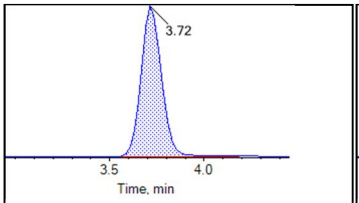


13C6-PFDA

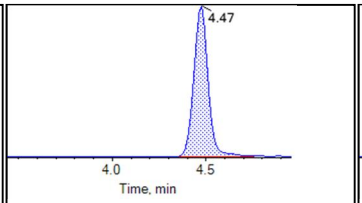
BATTELLE

Chromatogram Report

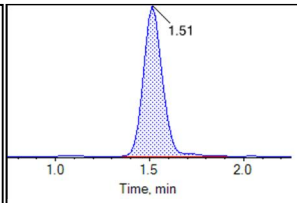
Created with Analyst Reporter
Printed: 23/10/2018 4:14:28 PM



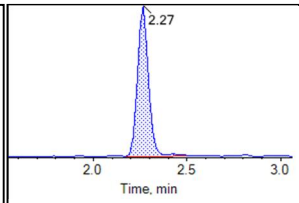
13C7-PFUnA



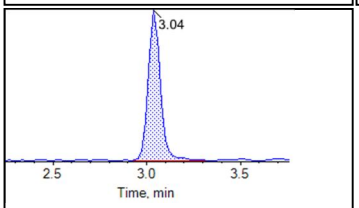
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

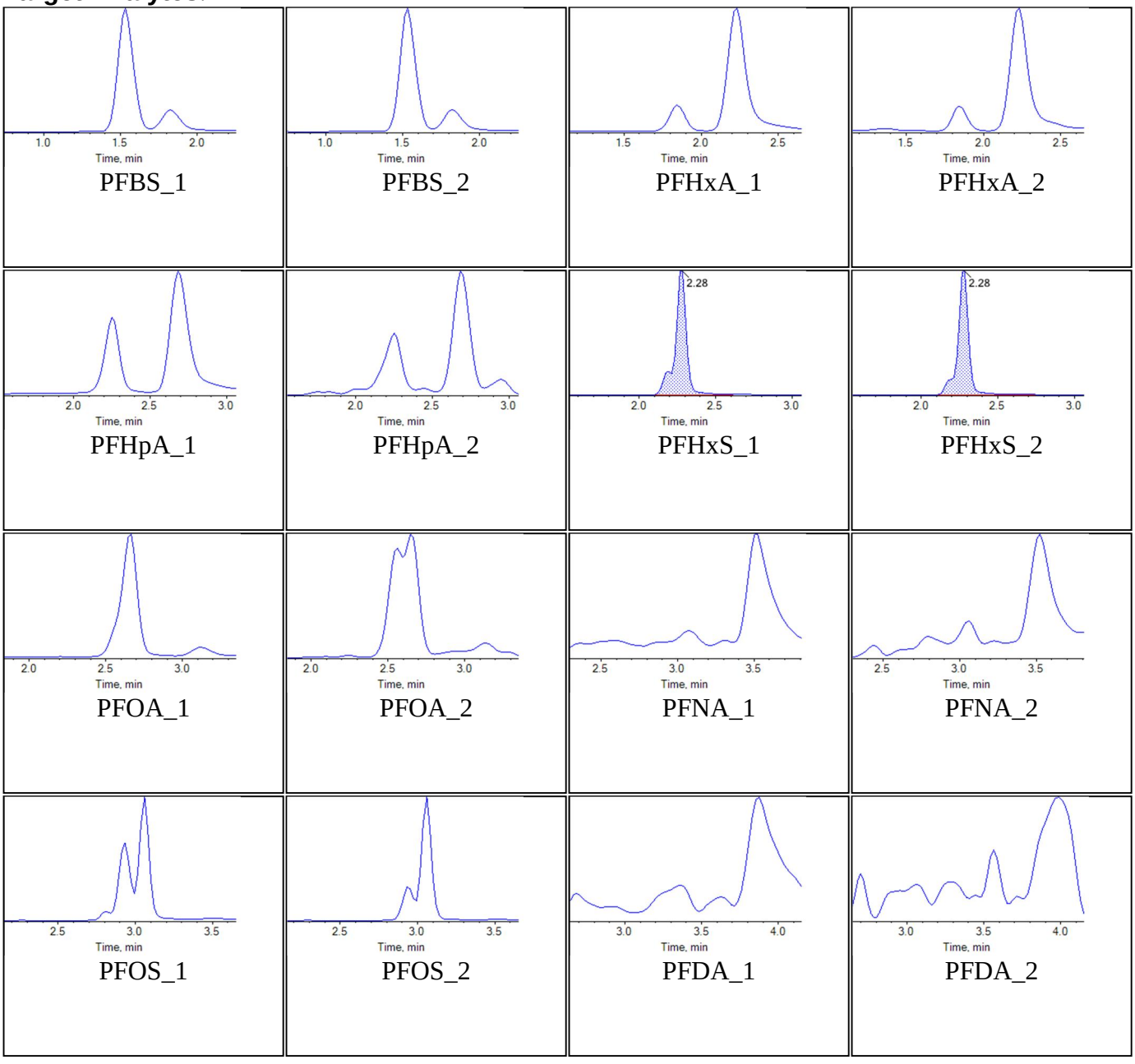
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:14:33 PM

Sample Name	J8371-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:05:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

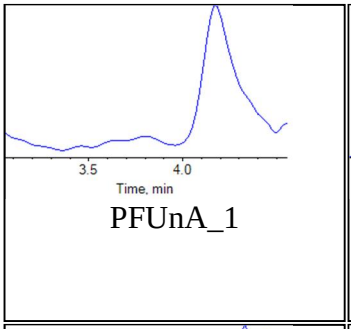
Target Analytes:



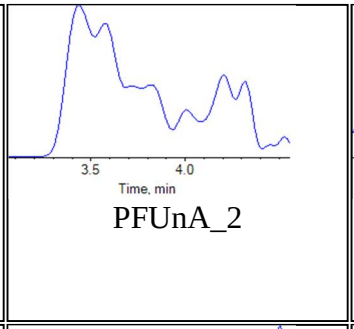
BATTELLE

Chromatogram Report

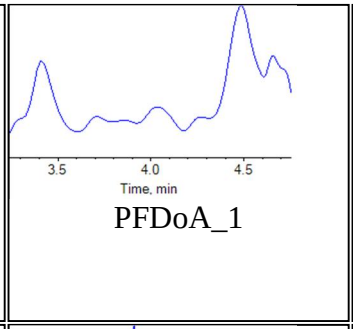
Created with Analyst Reporter
Printed: 23/10/2018 4:14:33 PM



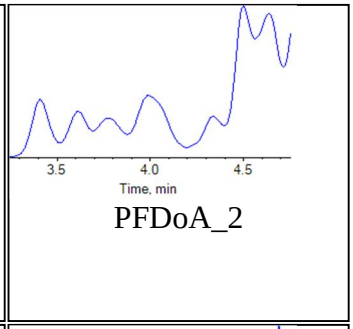
PFUnA_1



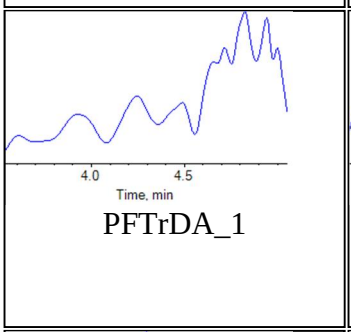
PFUnA_2



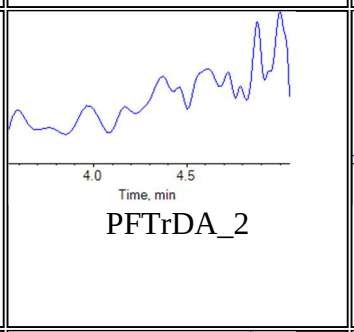
PFDoA_1



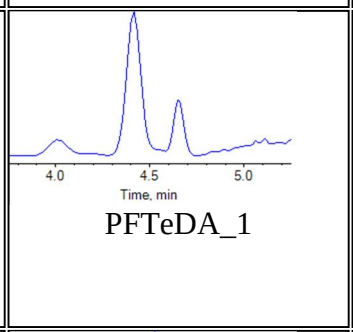
PFDoA_2



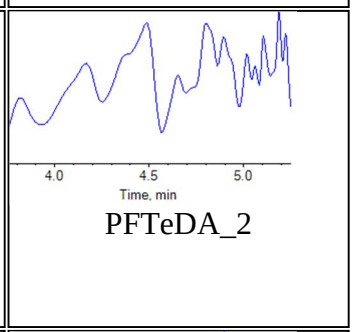
PFTrDA_1



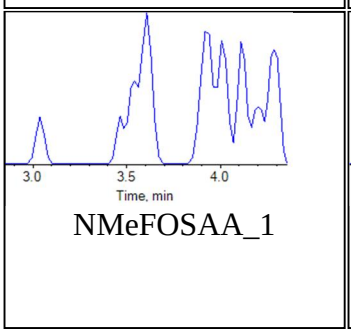
PFTrDA_2



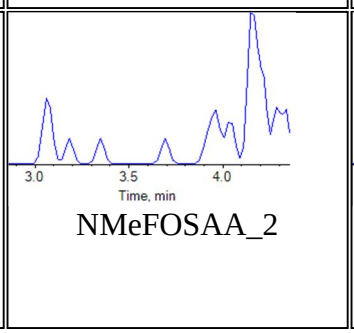
PFTeDA_1



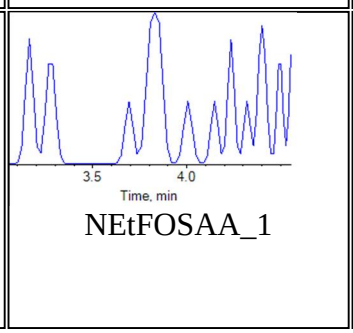
PFTeDA_2



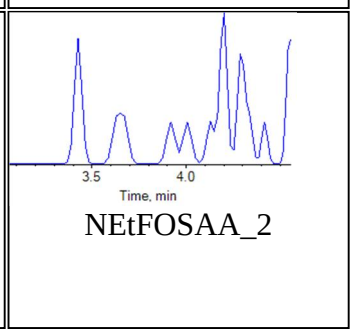
NMeFOSAA_1



NMeFOSAA_2

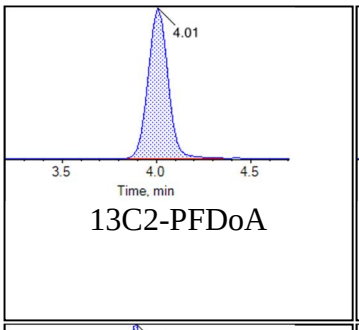


NEtFOSAA_1

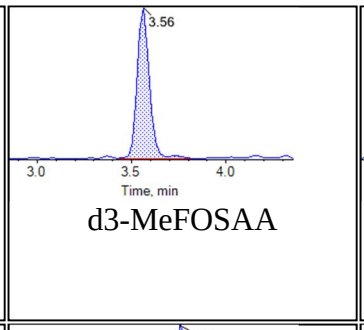


NEtFOSAA_2

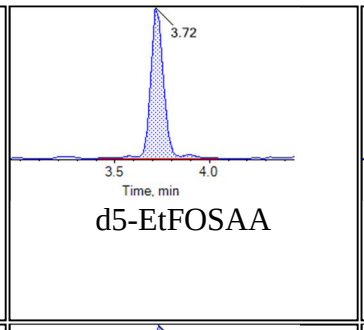
Internal Standards:



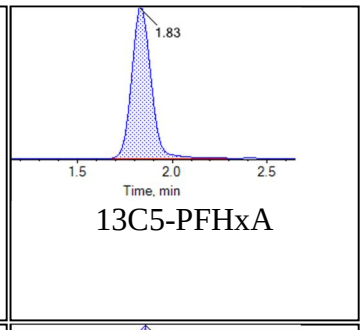
13C2-PFDoA



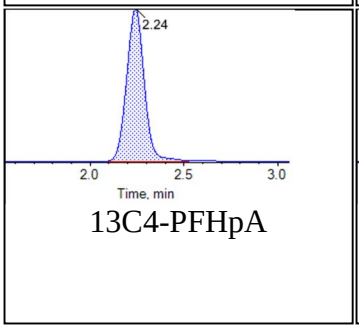
d3-MeFOSAA



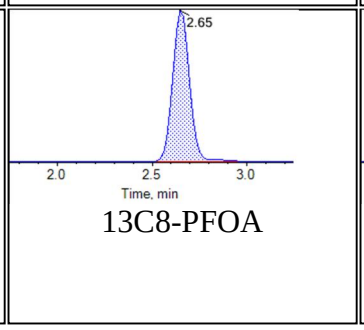
d5-EtFOSAA



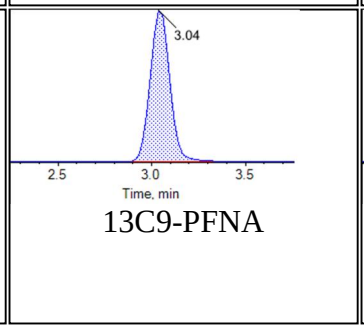
13C5-PFHxA



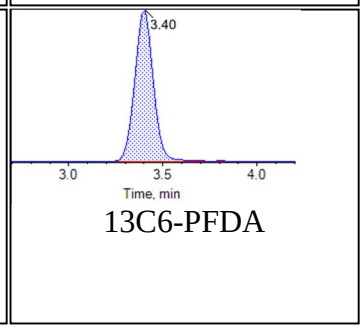
13C4-PFHpA



13C8-PFOA



13C9-PFNA

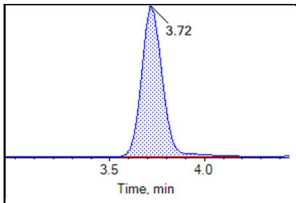


13C6-PFDA

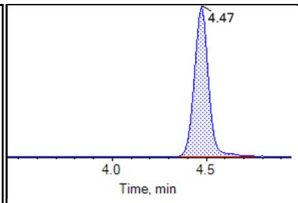
BATTELLE

Chromatogram Report

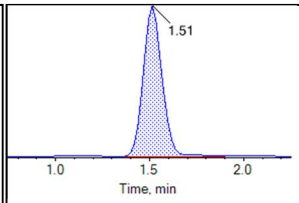
Created with Analyst Reporter
Printed: 23/10/2018 4:14:33 PM



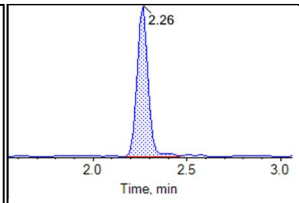
13C7-PFUnA



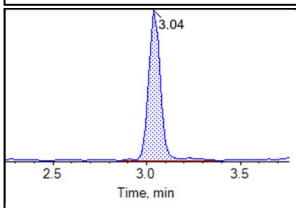
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

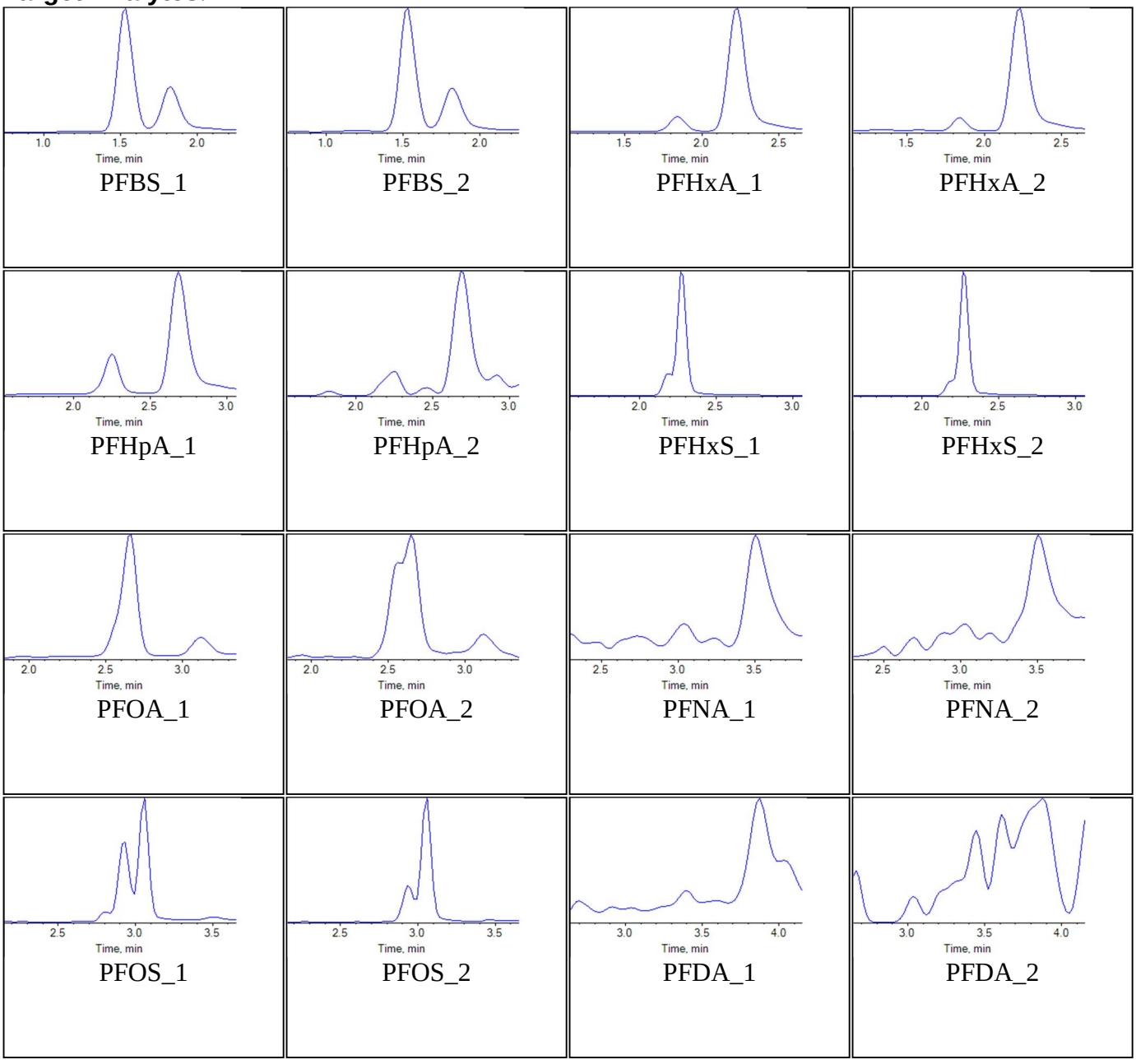
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:14:38 PM

Sample Name	J8371-FS-D(7)	**Injection Vial**	31
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:16:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

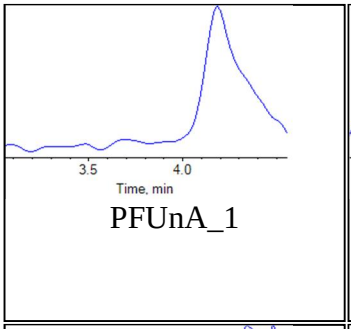
Target Analytes:



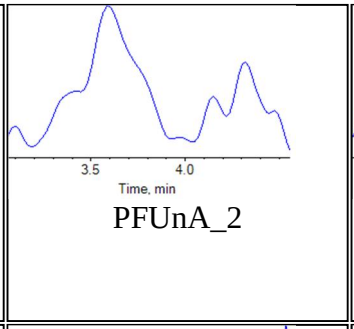
BATTELLE

Chromatogram Report

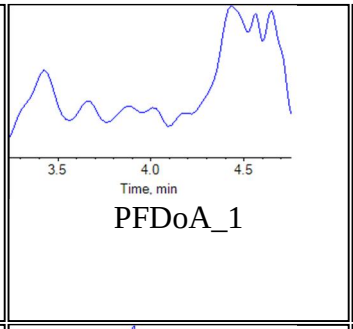
Created with Analyst Reporter
Printed: 23/10/2018 4:14:38 PM



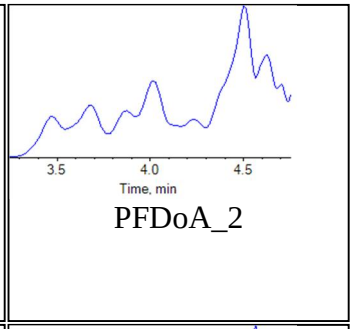
PFUnA_1



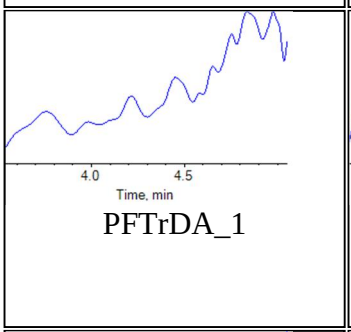
PFUnA_2



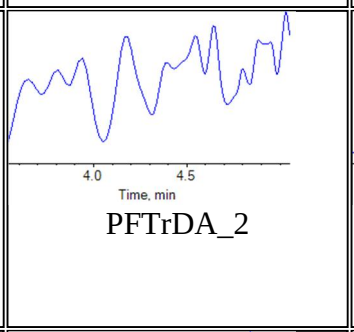
PFDoA_1



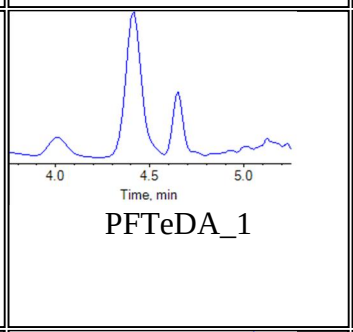
PFDoA_2



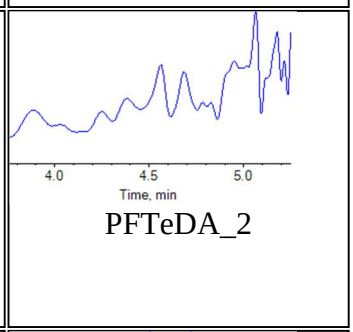
PFTrDA_1



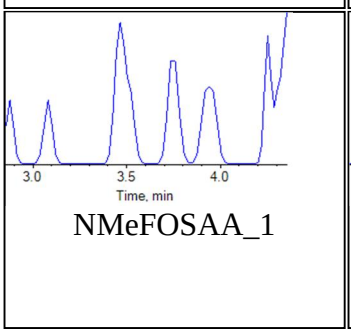
PFTrDA_2



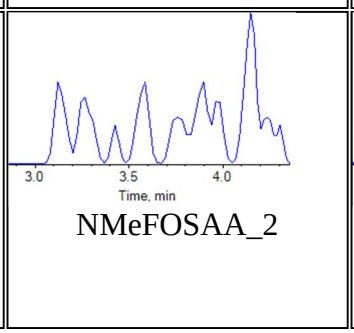
PFTeDA_1



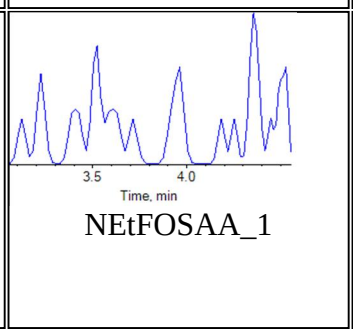
PFTeDA_2



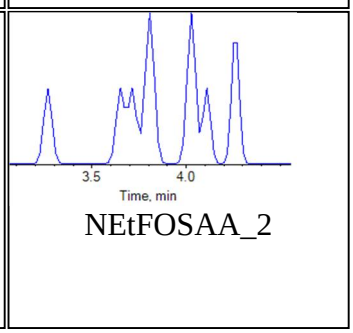
NMeFOSAA_1



NMeFOSAA_2

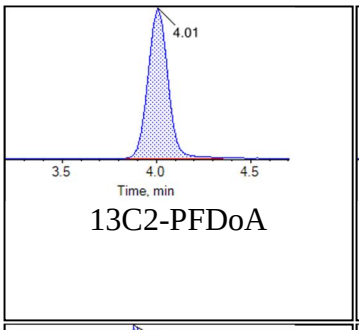


NEtFOSAA_1

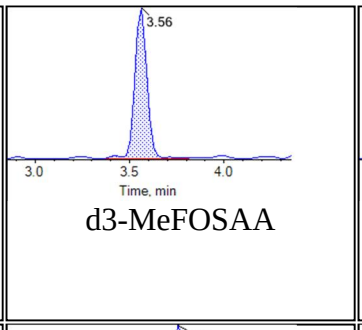


NEtFOSAA_2

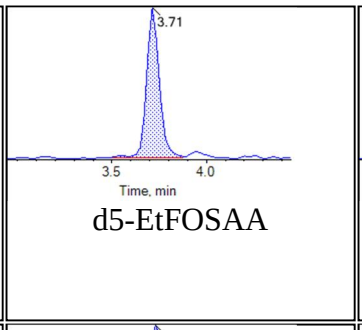
Internal Standards:



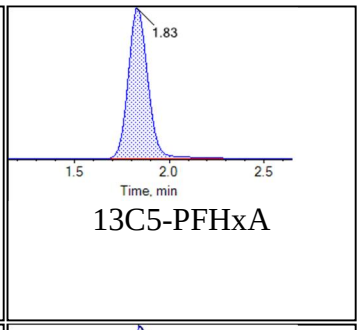
13C2-PFDoA



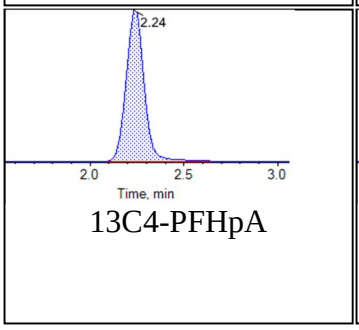
d3-MeFOSAA



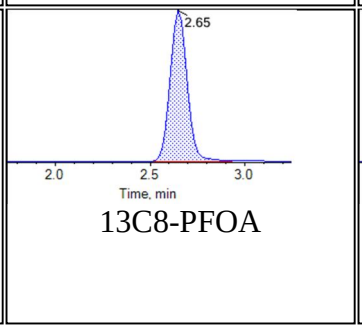
d5-EtFOSAA



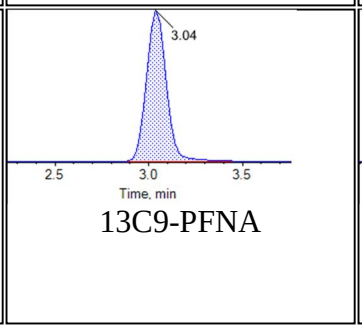
13C5-PFHxA



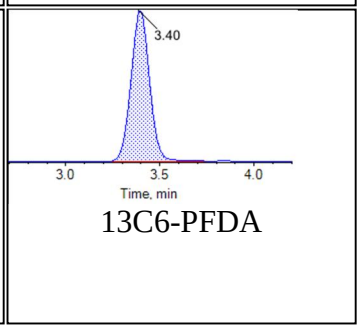
13C4-PFHpA



13C8-PFOA



13C9-PFNA

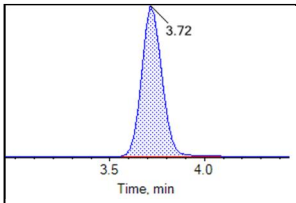


13C6-PFDA

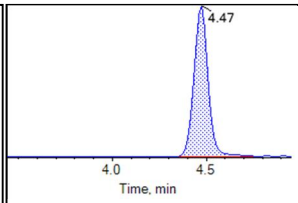
BATTELLE

Chromatogram Report

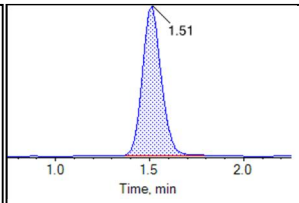
Created with Analyst Reporter
Printed: 23/10/2018 4:14:38 PM



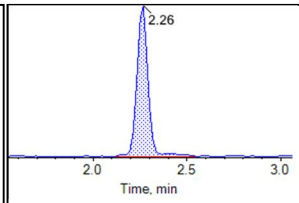
13C7-PFUnA



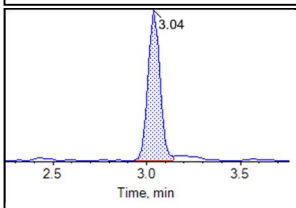
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

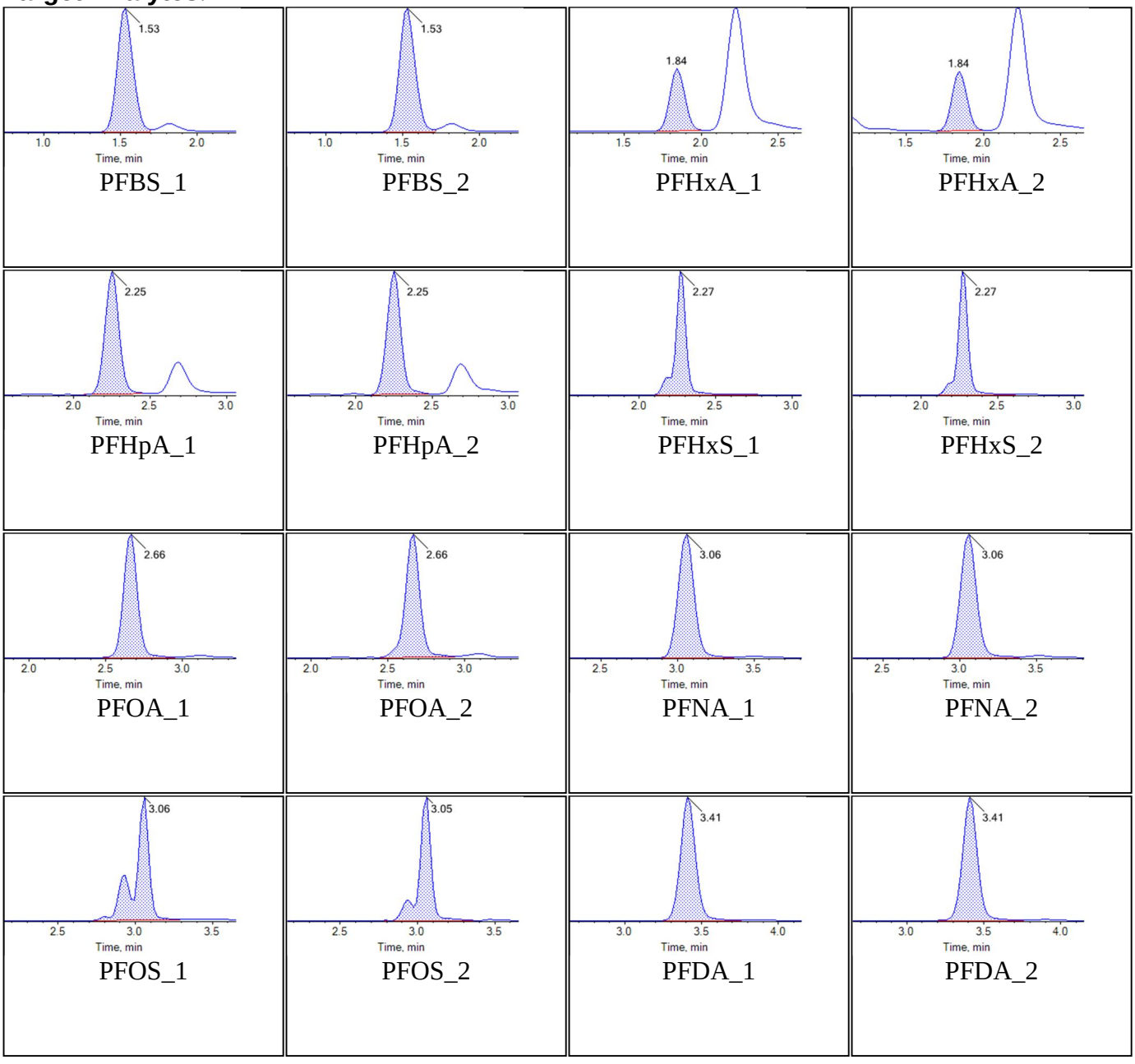
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:14:43 PM

Sample Name	KB77 CCV	**Injection Vial**	32
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:27:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

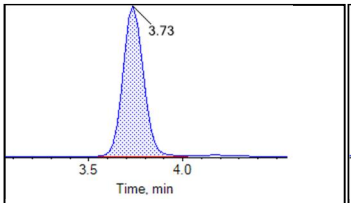
Target Analytes:



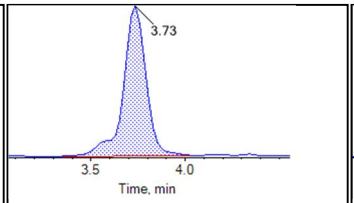
BATTELLE

Chromatogram Report

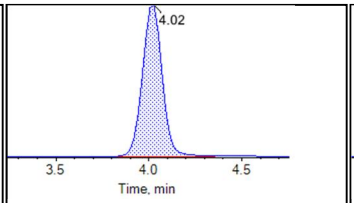
Created with Analyst Reporter
Printed: 23/10/2018 4:14:43 PM



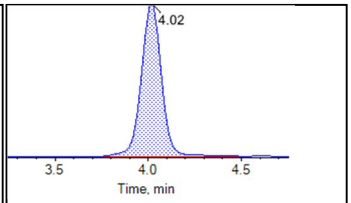
PFUnA_1



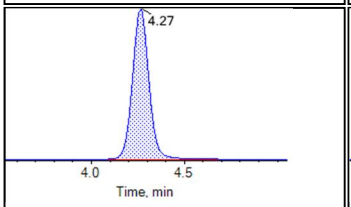
PFUnA_2



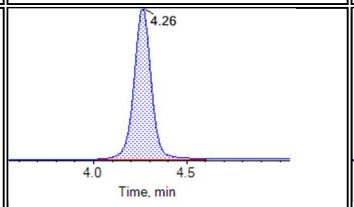
PFDoA_1



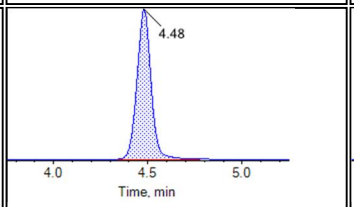
PFDoA_2



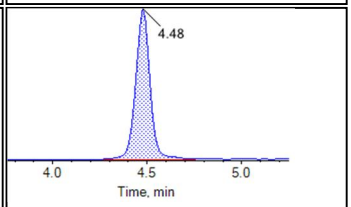
PFTrDA_1



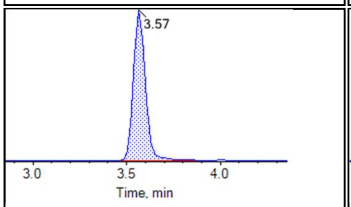
PFTrDA_2



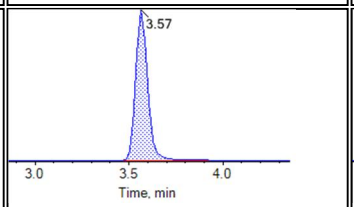
PFTeDA_1



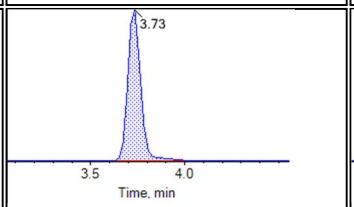
PFTeDA_2



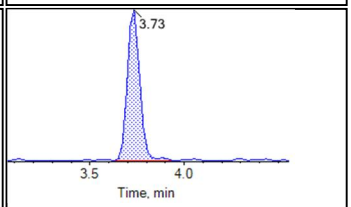
NMeFOSAA_1



NMeFOSAA_2

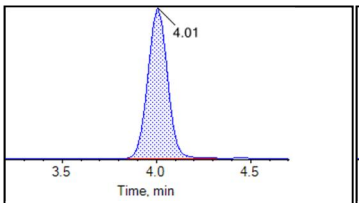


NEtFOSAA_1

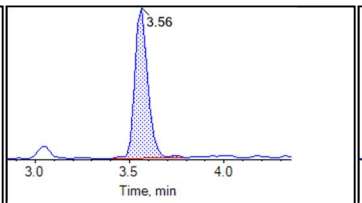


NEtFOSAA_2

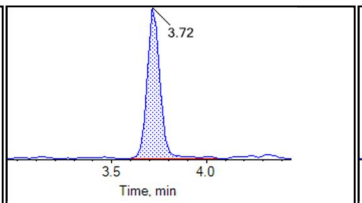
Internal Standards:



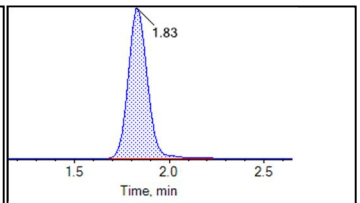
13C2-PFDoA



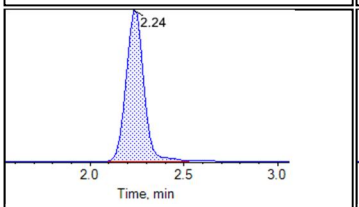
d3-MeFOSAA



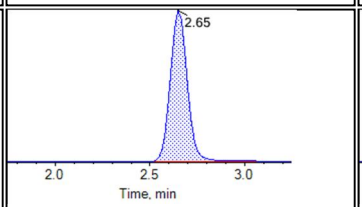
d5-EtFOSAA



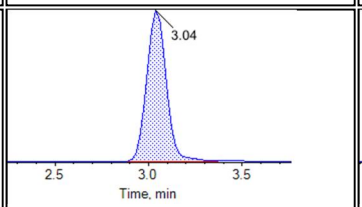
13C5-PFHxA



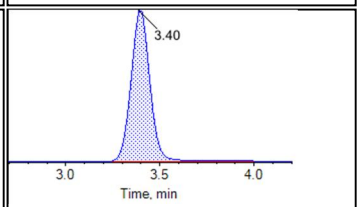
13C4-PFHpA



13C8-PFOA



13C9-PFNA

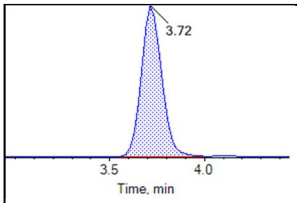


13C6-PFDA

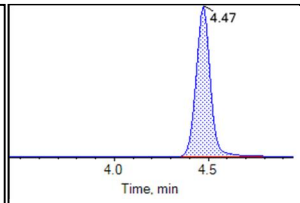
BATTELLE

Chromatogram Report

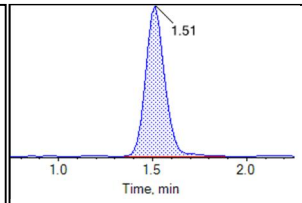
Created with Analyst Reporter
Printed: 23/10/2018 4:14:43 PM



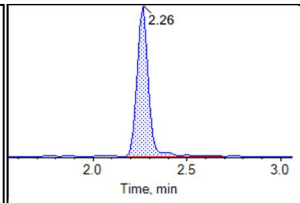
13C7-PFUnA



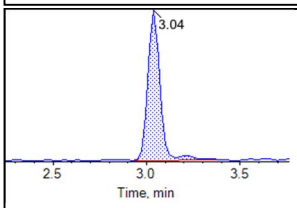
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

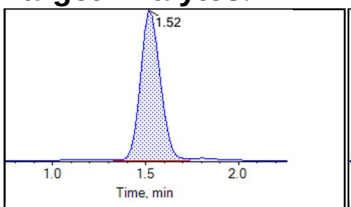
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:14:50 PM

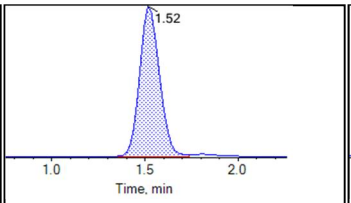
Sample Name	J8372-FS(0)	**Injection Vial**	33
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:49:16	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

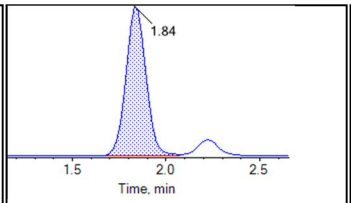
Target Analytes:



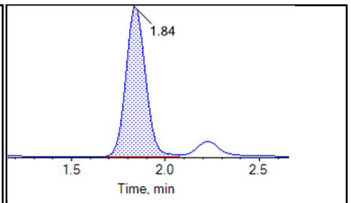
PFBS_1



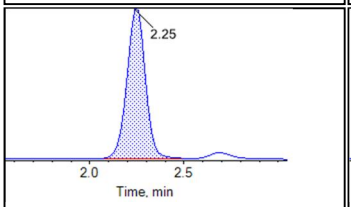
PFBS_2



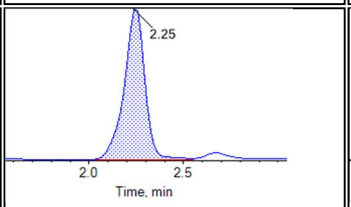
PFHxA_1



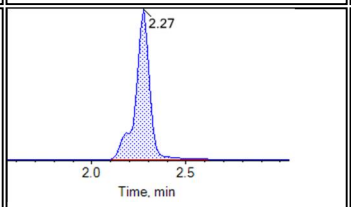
PFHxA_2



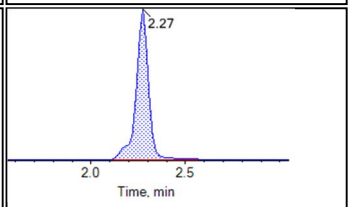
PFHpA_1



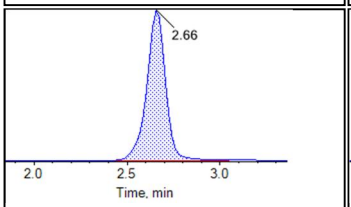
PFHpA_2



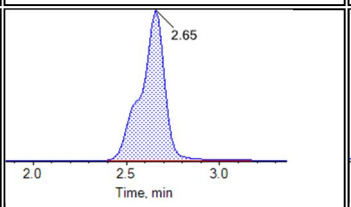
PFHxS_1



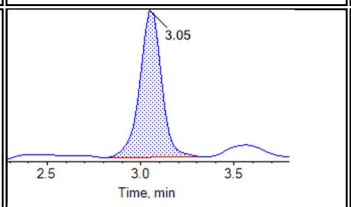
PFHxS_2



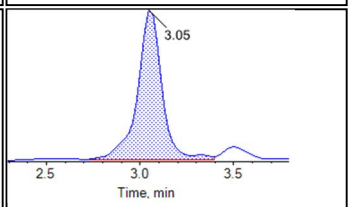
PFOA_1



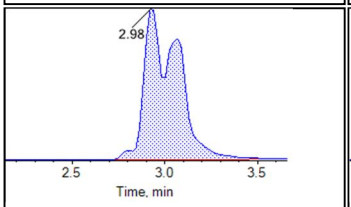
PFOA_2



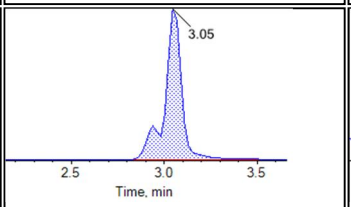
PFNA_1



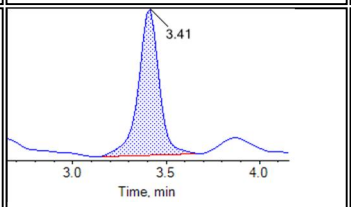
PFNA_2



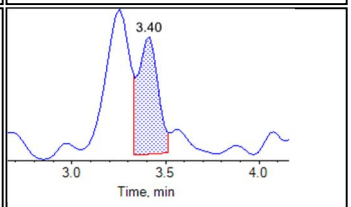
PFOS_1



PFOS_2



PFDA_1

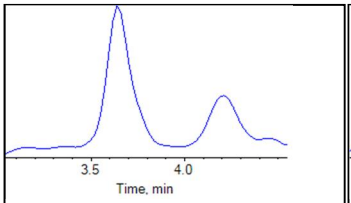


PFDA_2

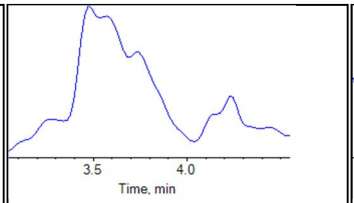
BATTELLE

Chromatogram Report

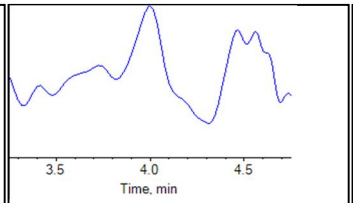
Created with Analyst Reporter
Printed: 23/10/2018 4:14:50 PM



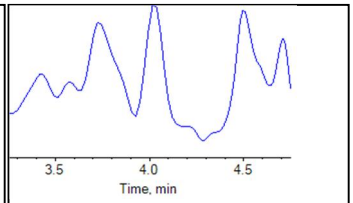
PFUnA_1



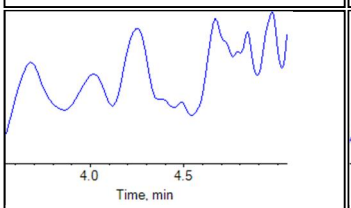
PFUnA_2



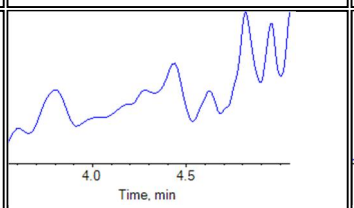
PFDoA_1



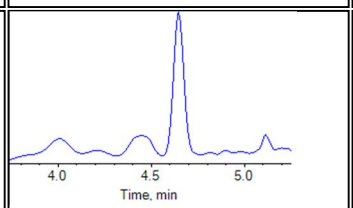
PFDoA_2



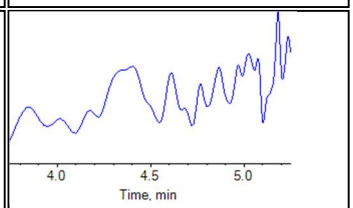
PFTrDA_1



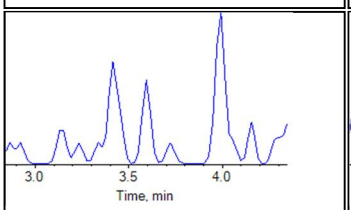
PFTrDA_2



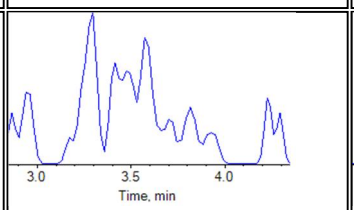
PFTeDA_1



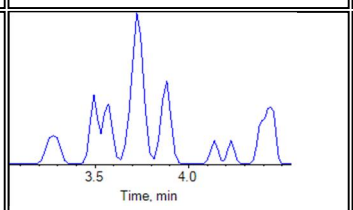
PFTeDA_2



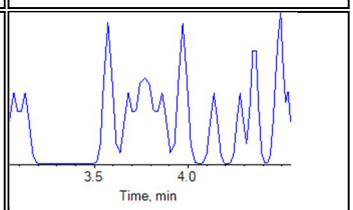
NMeFOSAA_1



NMeFOSAA_2

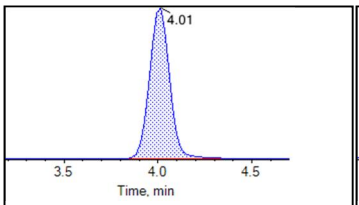


NEtFOSAA_1

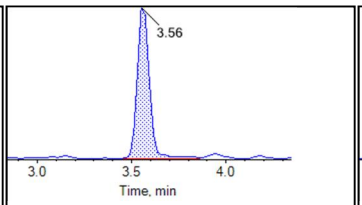


NEtFOSAA_2

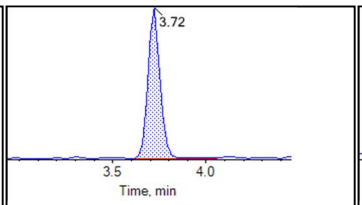
Internal Standards:



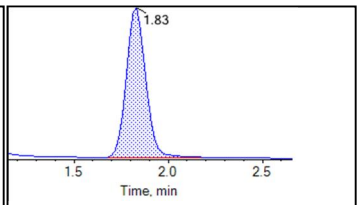
13C2-PFDoA



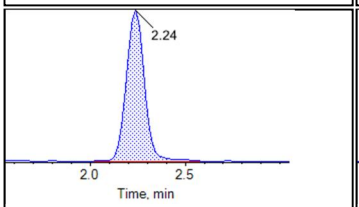
d3-MeFOSAA



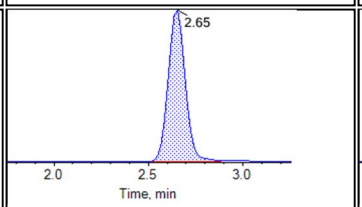
d5-EtFOSAA



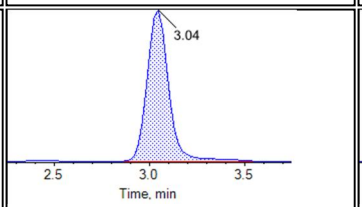
13C5-PFHxA



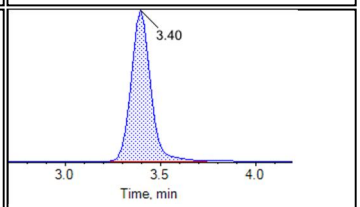
13C4-PFHpA



13C8-PFOA



13C9-PFNA

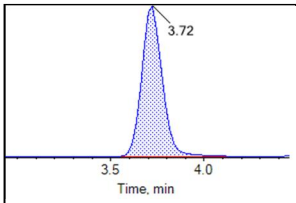


13C6-PFDA

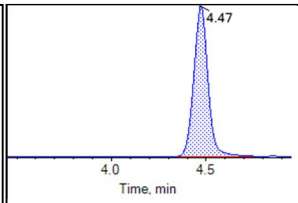
BATTELLE

Chromatogram Report

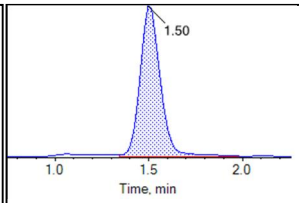
Created with Analyst Reporter
Printed: 23/10/2018 4:14:50 PM



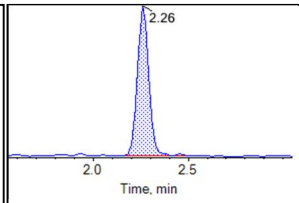
13C7-PFUnA



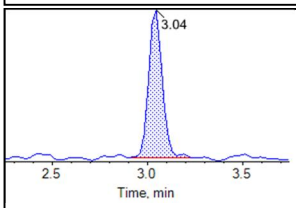
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

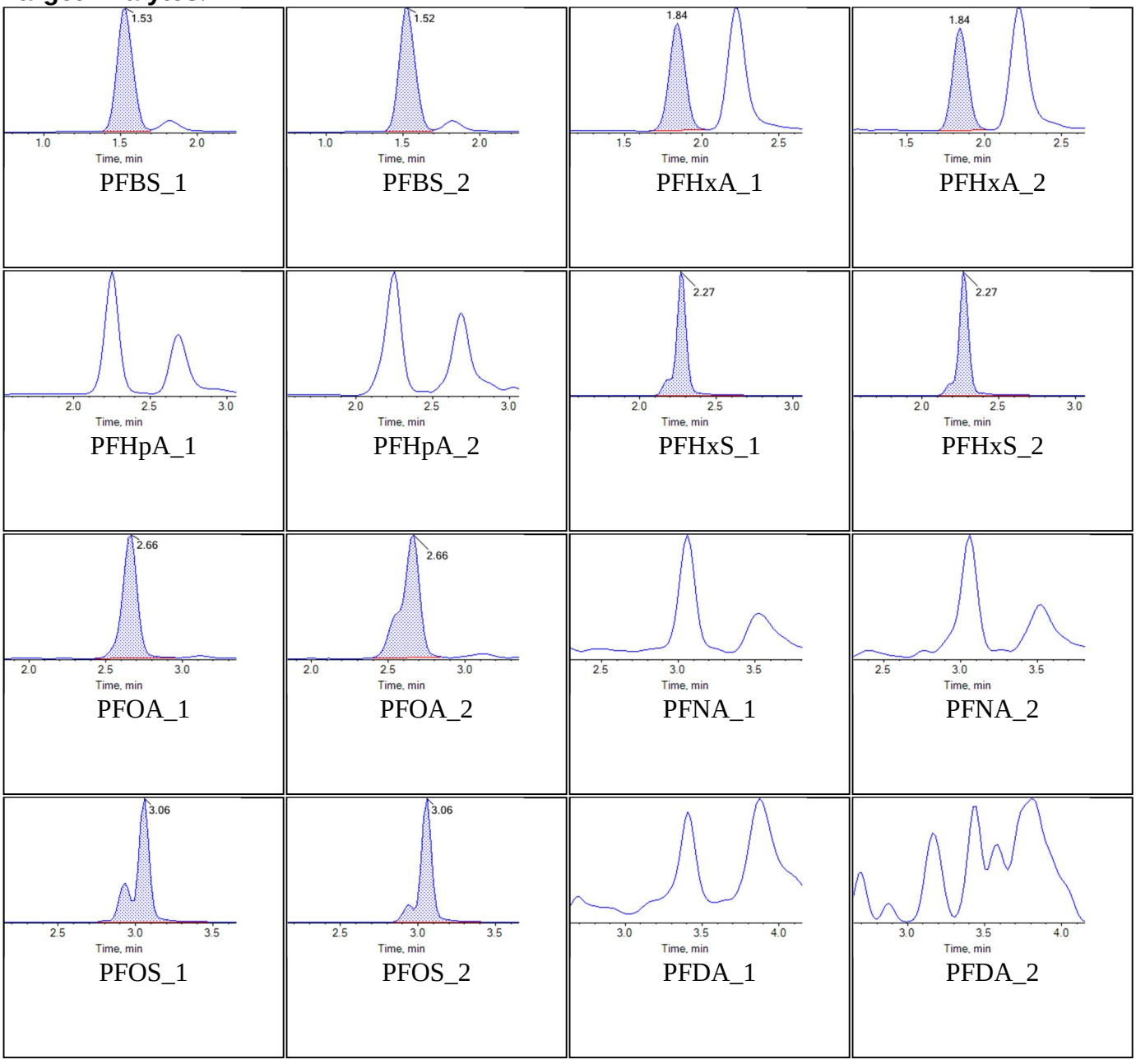
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:14:55 PM

Sample Name	J8372-FS-D(3)	**Injection Vial**	34
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:00:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

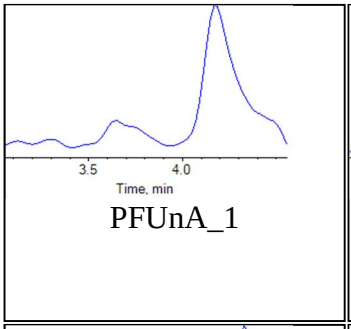
Target Analytes:



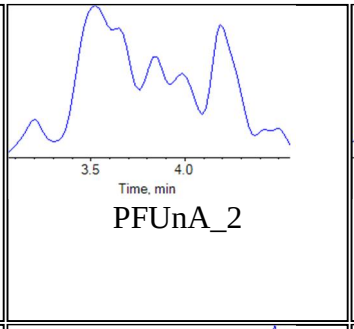
BATTELLE

Chromatogram Report

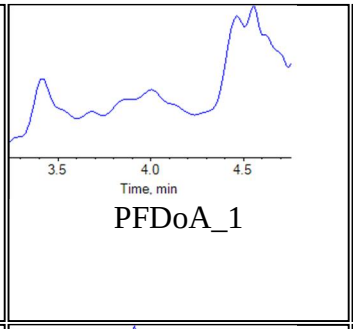
Created with Analyst Reporter
Printed: 23/10/2018 4:14:55 PM



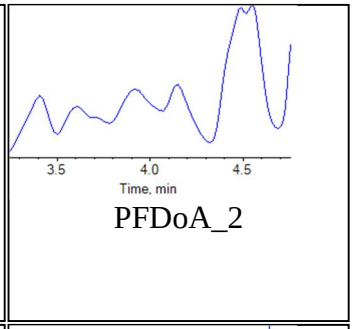
PFUnA_1



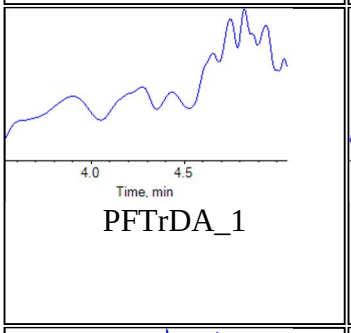
PFUnA_2



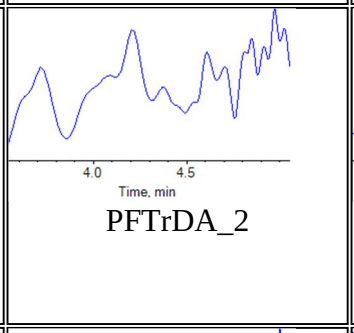
PFDoA_1



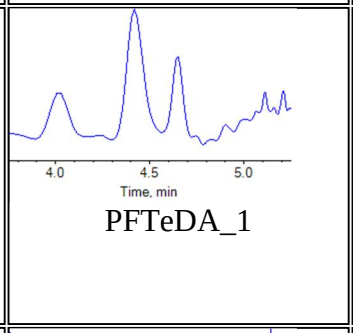
PFDoA_2



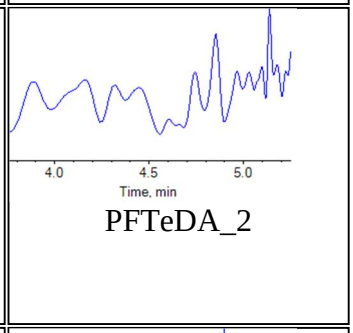
PFTrDA_1



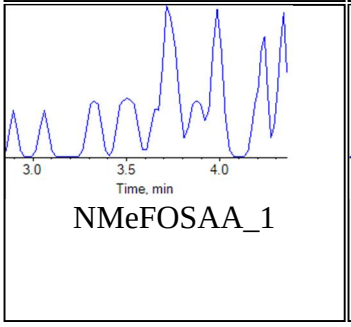
PFTrDA_2



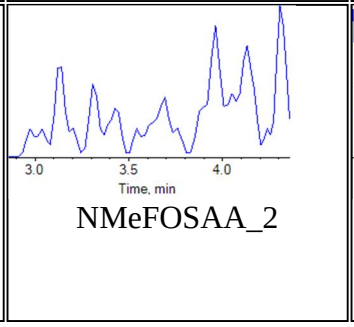
PFTeDA_1



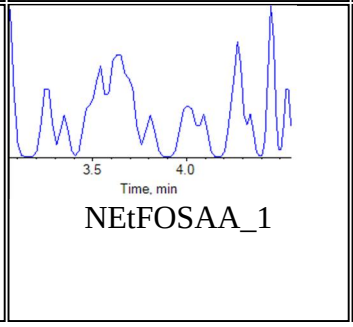
PFTeDA_2



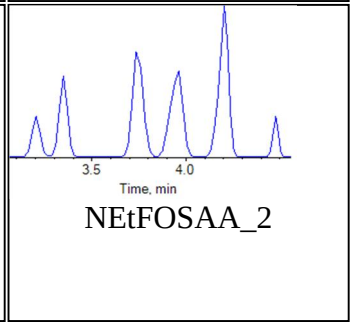
NMeFOSAA_1



NMeFOSAA_2

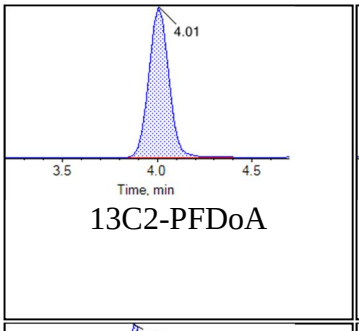


NEtFOSAA_1

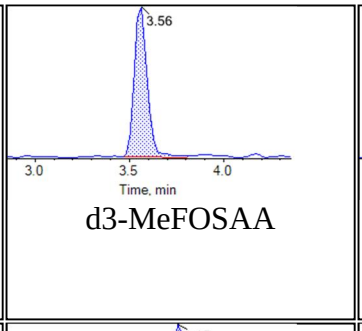


NEtFOSAA_2

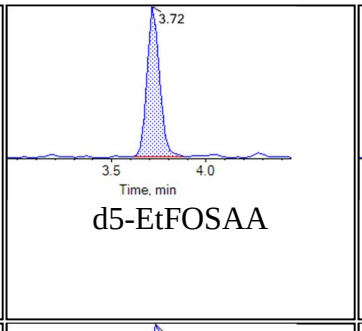
Internal Standards:



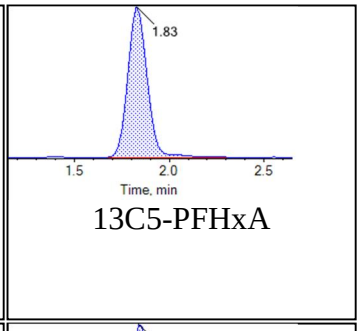
13C2-PFDoA



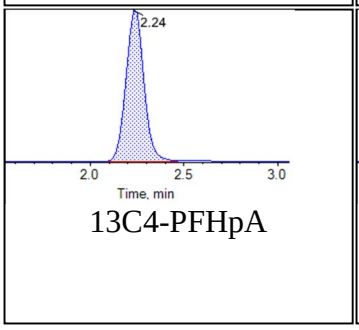
d3-MeFOSAA



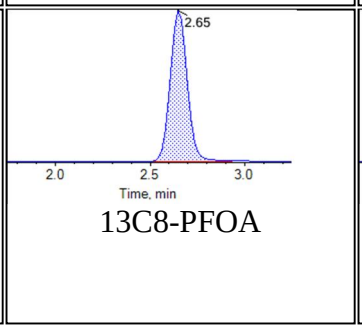
d5-EtFOSAA



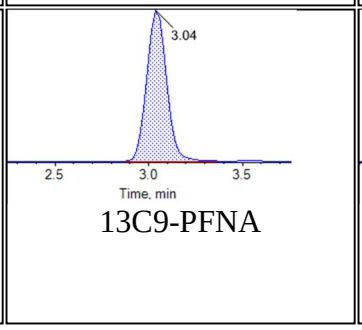
13C5-PFHxA



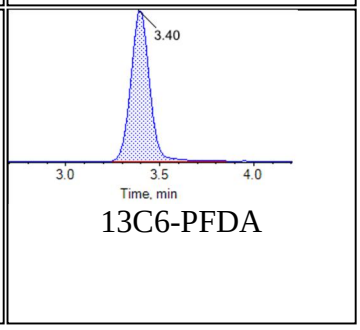
13C4-PFHpA



13C8-PFOA



13C9-PFNA

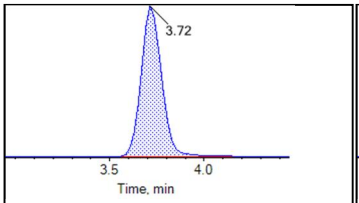


13C6-PFDA

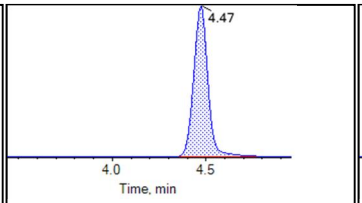
BATTELLE

Chromatogram Report

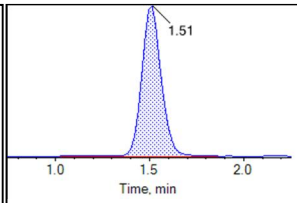
Created with Analyst Reporter
Printed: 23/10/2018 4:14:55 PM



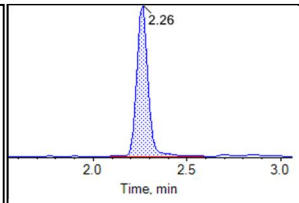
13C7-PFUnA



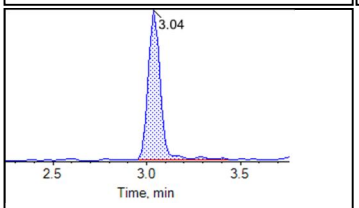
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

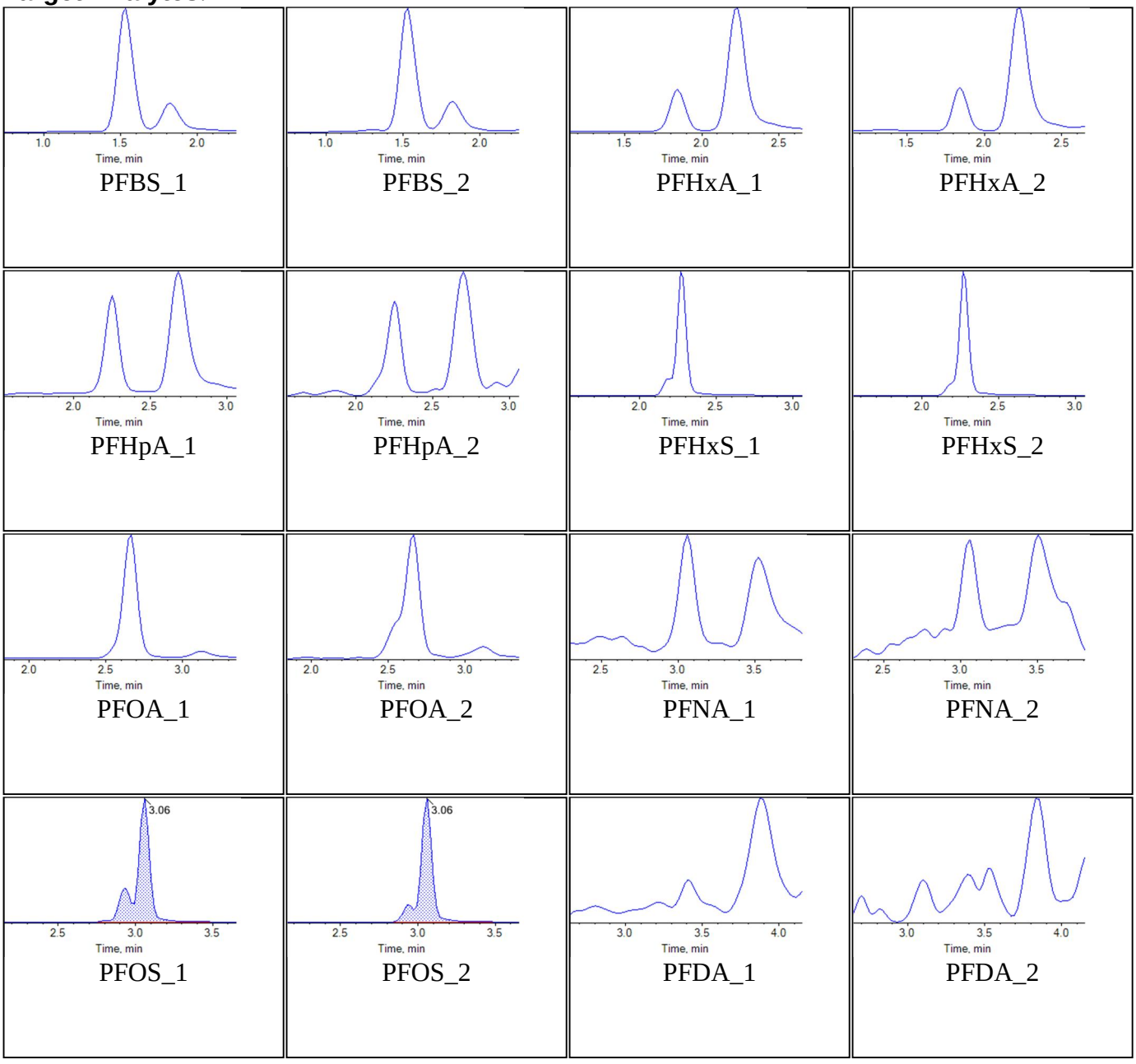
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:00 PM

Sample Name	J8372-FS-D(5)	**Injection Vial**	35
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:11:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

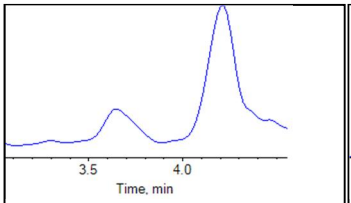
Target Analytes:



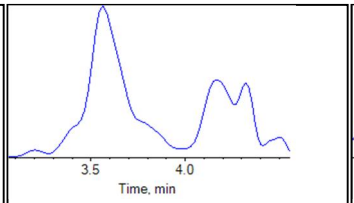
BATTELLE

Chromatogram Report

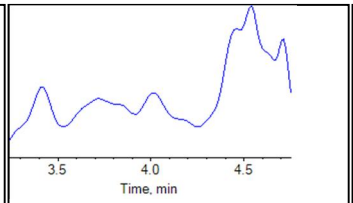
Created with Analyst Reporter
Printed: 23/10/2018 4:15:00 PM



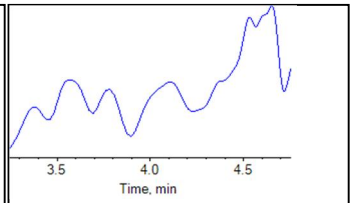
PFUnA_1



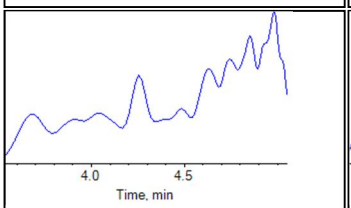
PFUnA_2



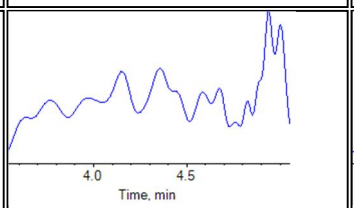
PFDoA_1



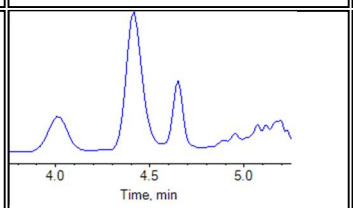
PFDoA_2



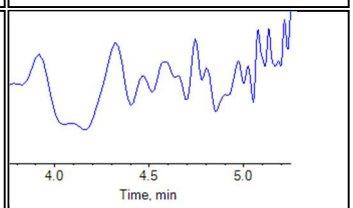
PFTrDA_1



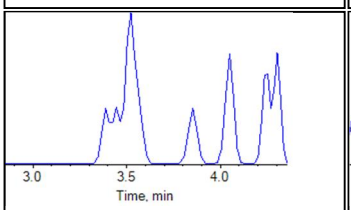
PFTrDA_2



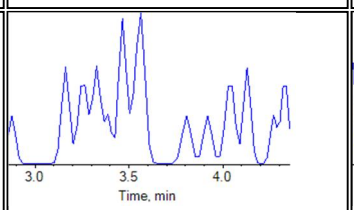
PFTeDA_1



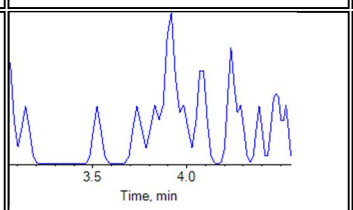
PFTeDA_2



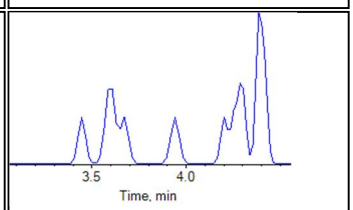
NMeFOSAA_1



NMeFOSAA_2

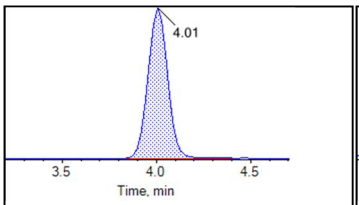


NEtFOSAA_1

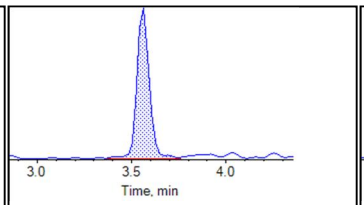


NEtFOSAA_2

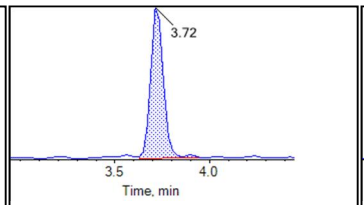
Internal Standards:



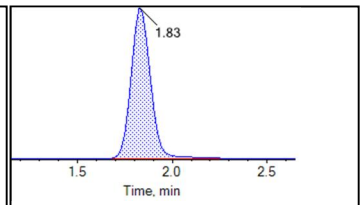
13C2-PFDoA



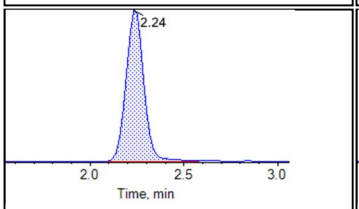
d3-MeFOSAA



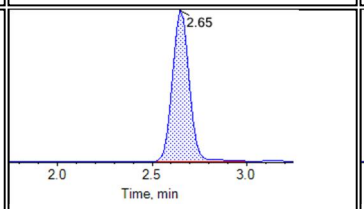
d5-EtFOSAA



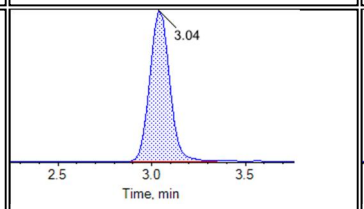
13C5-PFHxA



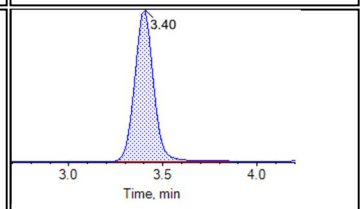
13C4-PFHpA



13C8-PFOA



13C9-PFNA

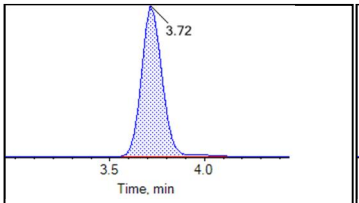


13C6-PFDA

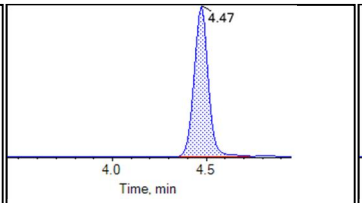
BATTELLE

Chromatogram Report

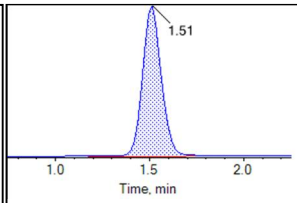
Created with Analyst Reporter
Printed: 23/10/2018 4:15:00 PM



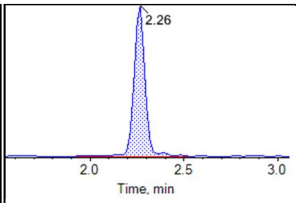
13C7-PFUnA



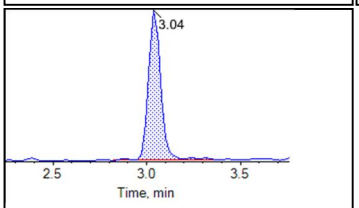
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

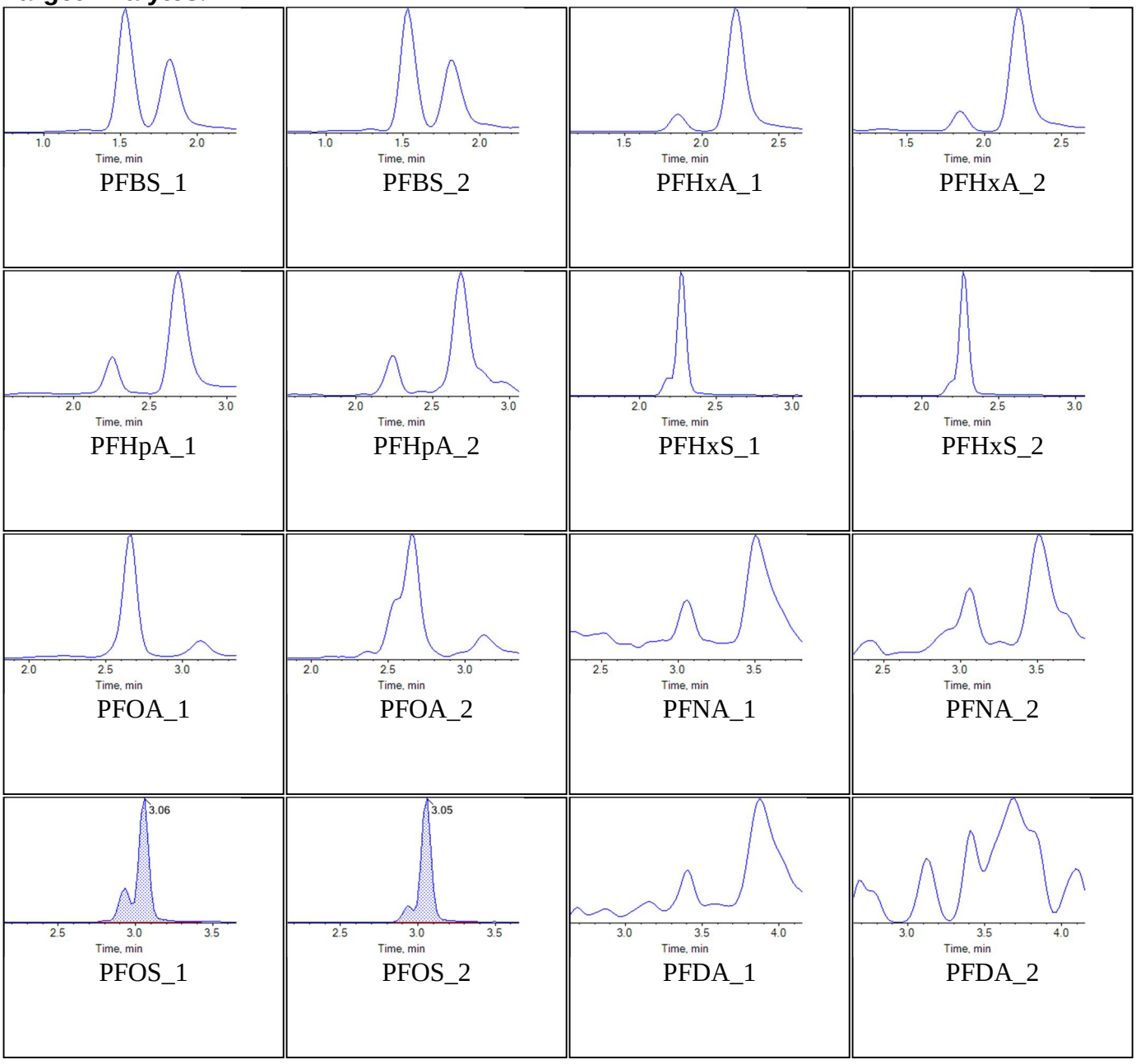
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:06 PM

Sample Name	J8372-FS-D(7)	**Injection Vial**	36
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:21:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

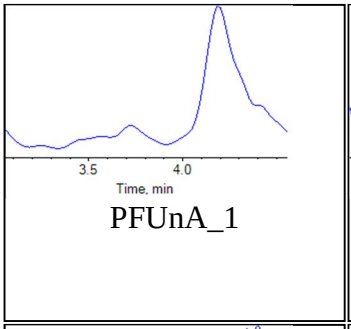
Target Analytes:



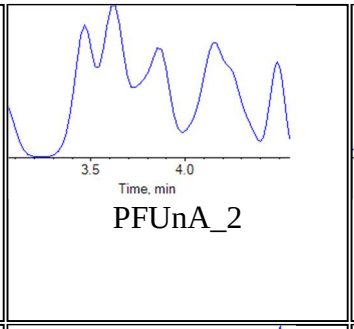
BATTELLE

Chromatogram Report

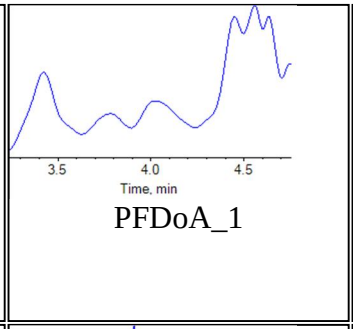
Created with Analyst Reporter
Printed: 23/10/2018 4:15:06 PM



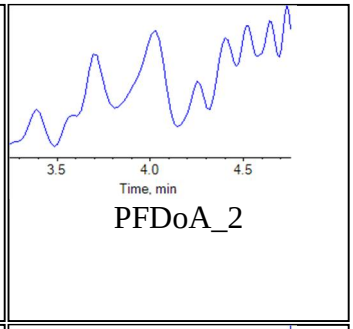
PFUnA_1



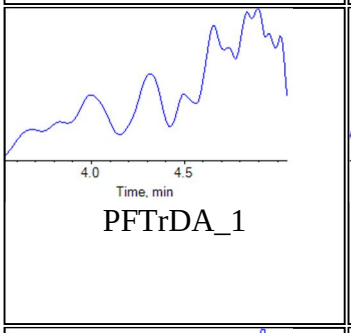
PFUnA_2



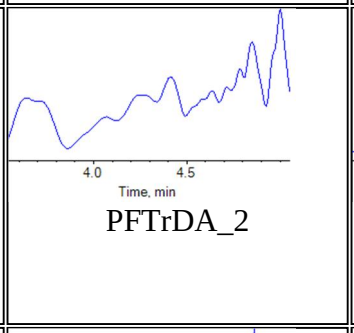
PFDoA_1



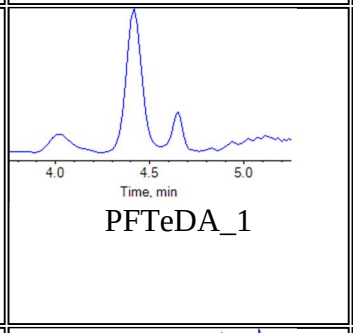
PFDoA_2



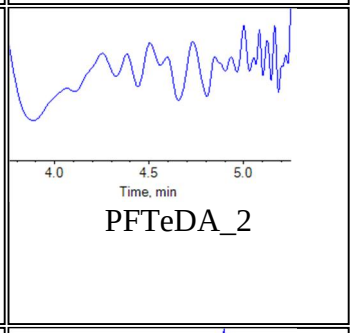
PFTrDA_1



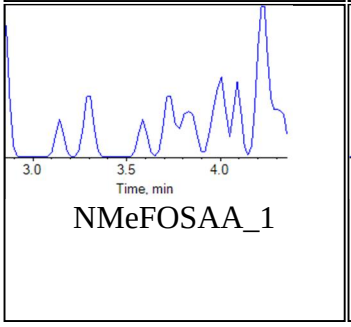
PFTrDA_2



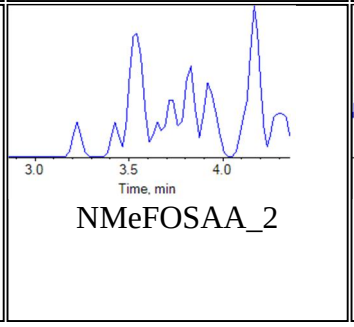
PFTeDA_1



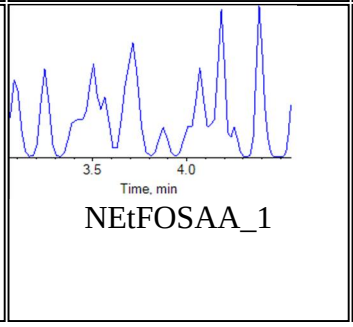
PFTeDA_2



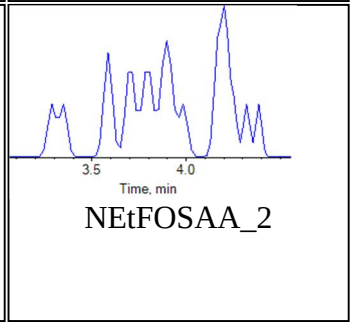
NMeFOSAA_1



NMeFOSAA_2

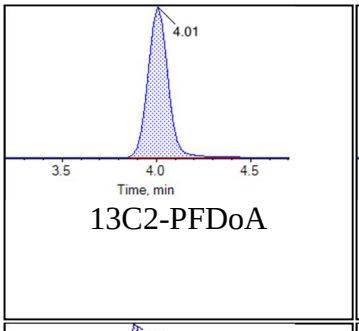


NEtFOSAA_1

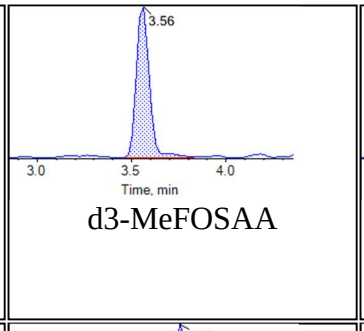


NEtFOSAA_2

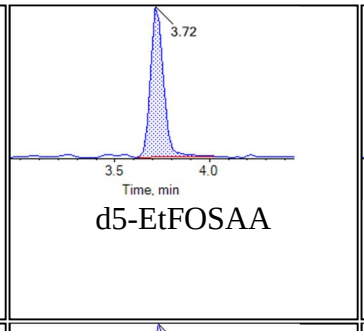
Internal Standards:



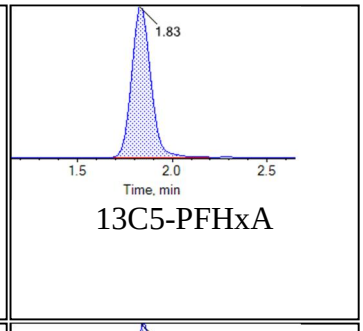
13C2-PFDoA



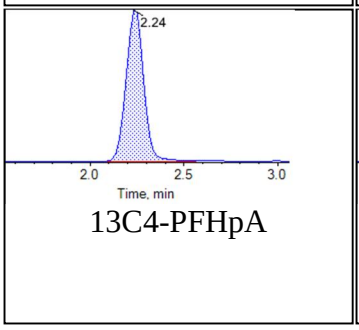
d3-MeFOSAA



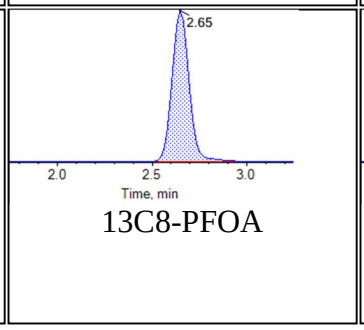
d5-EtFOSAA



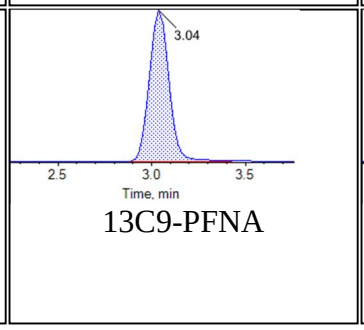
13C5-PFHxA



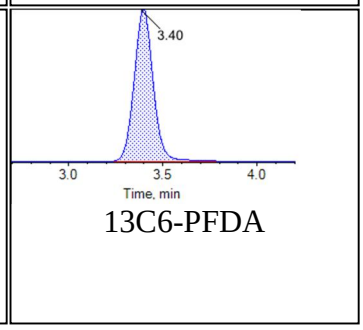
13C4-PFHpA



13C8-PFOA



13C9-PFNA

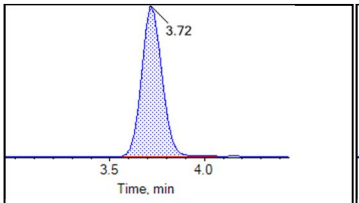


13C6-PFDA

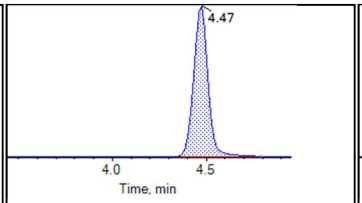
BATTELLE

Chromatogram Report

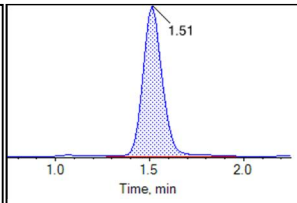
Created with Analyst Reporter
Printed: 23/10/2018 4:15:06 PM



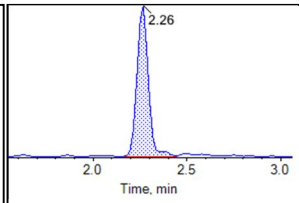
13C7-PFUnA



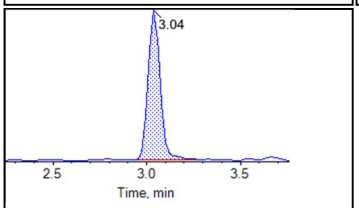
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

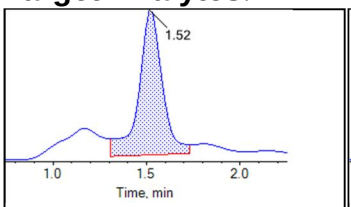
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:11 PM

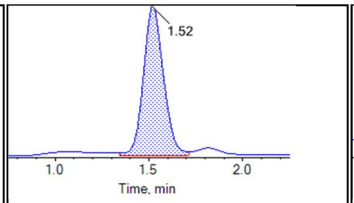
Sample Name	J8382-FS(0)	**Injection Vial**	37
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:32:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

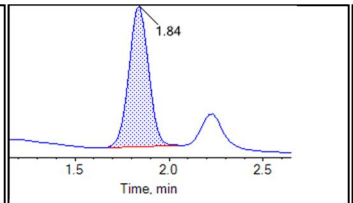
Target Analytes:



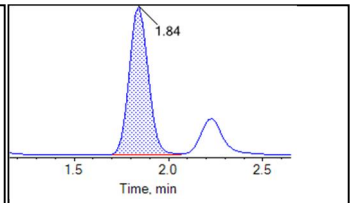
PFBS_1



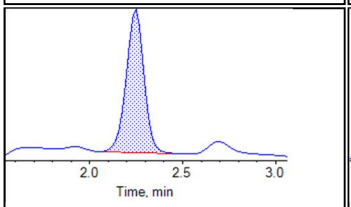
PFBS_2



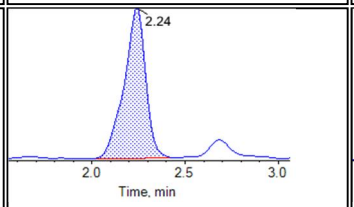
PFHxA_1



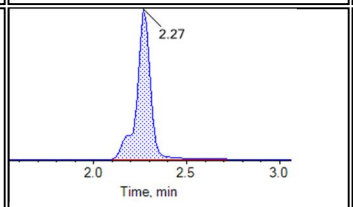
PFHxA_2



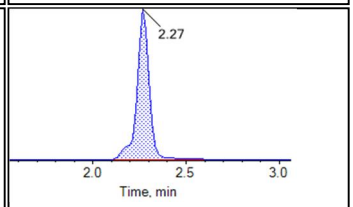
PFHpA_1



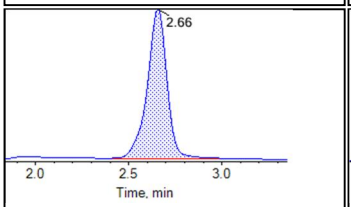
PFHpA_2



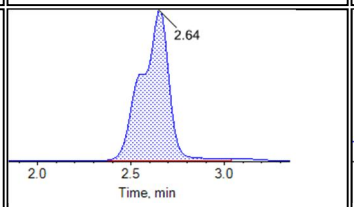
PFHxS_1



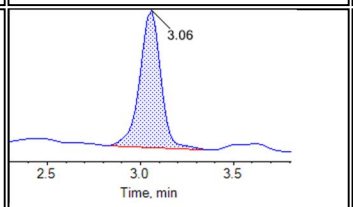
PFHxS_2



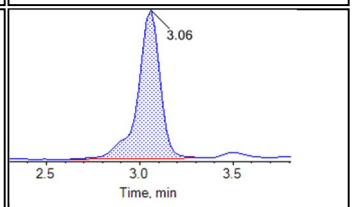
PFOA_1



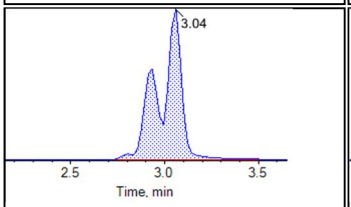
PFOA_2



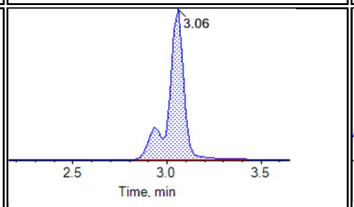
PFNA_1



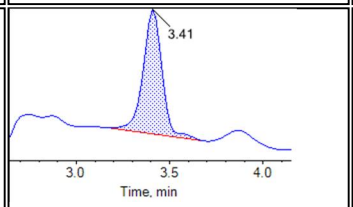
PFNA_2



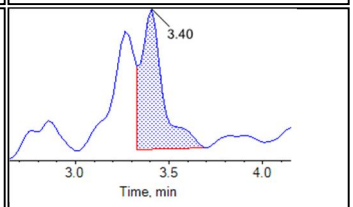
PFOS_1



PFOS_2



PFDA_1

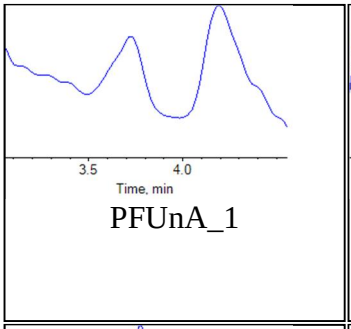


PFDA_2

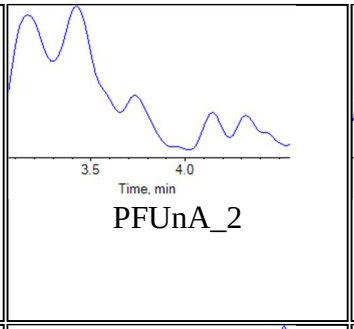
BATTELLE

Chromatogram Report

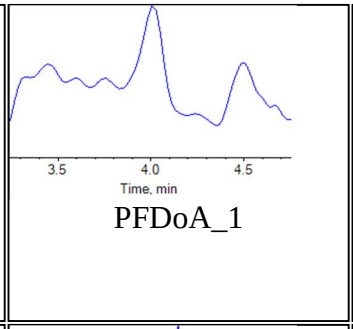
Created with Analyst Reporter
Printed: 23/10/2018 4:15:11 PM



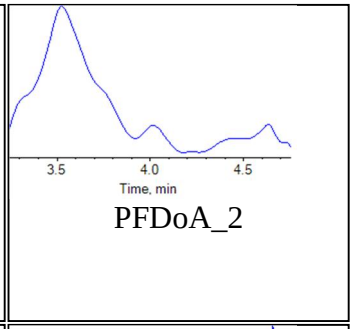
PFUnA_1



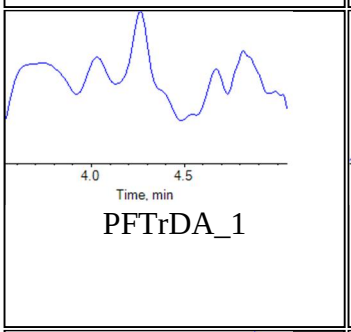
PFUnA_2



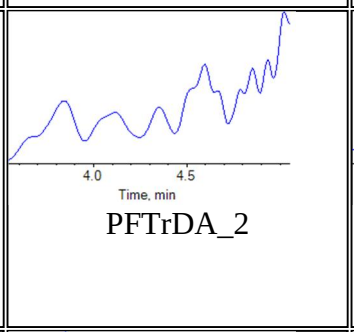
PFDoA_1



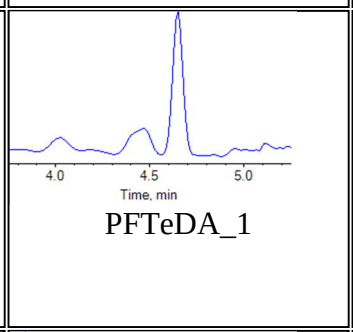
PFDoA_2



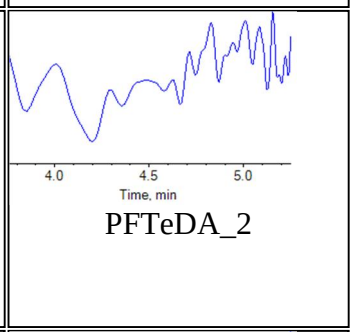
PFTrDA_1



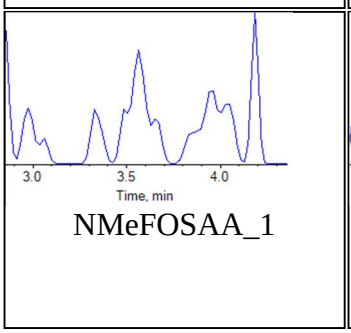
PFTrDA_2



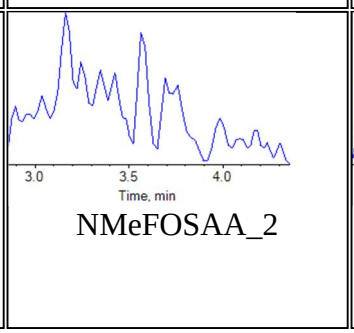
PFTeDA_1



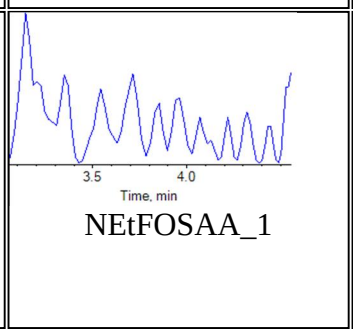
PFTeDA_2



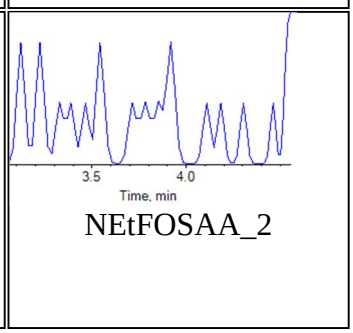
NMeFOSAA_1



NMeFOSAA_2

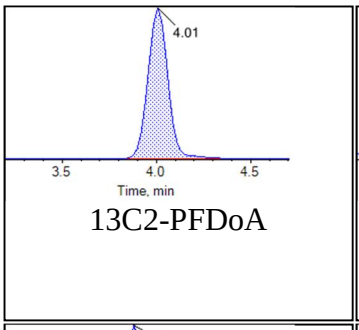


NEtFOSAA_1

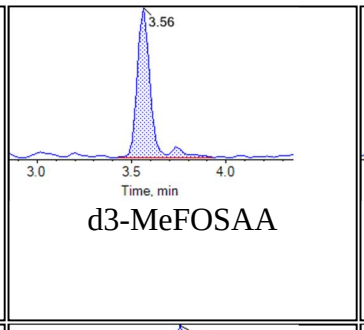


NEtFOSAA_2

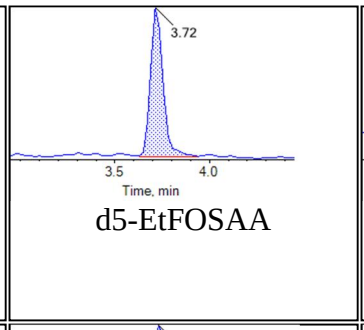
Internal Standards:



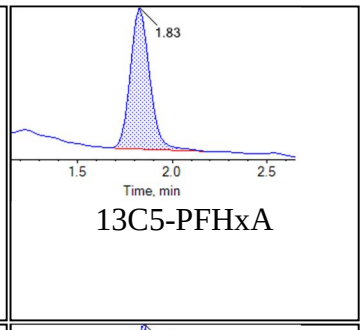
13C2-PFDoA



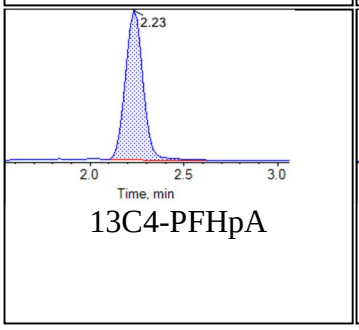
d3-MeFOSAA



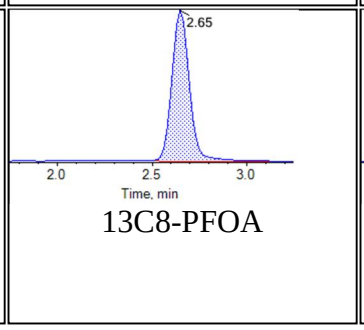
d5-EtFOSAA



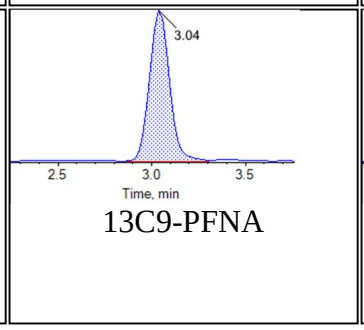
13C5-PFHxA



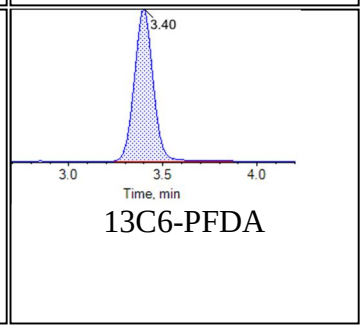
13C4-PFHpA



13C8-PFOA



13C9-PFNA

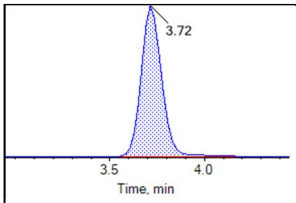


13C6-PFDA

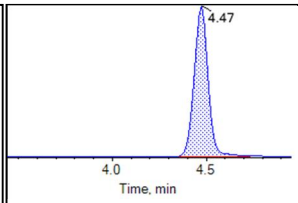
BATTELLE

Chromatogram Report

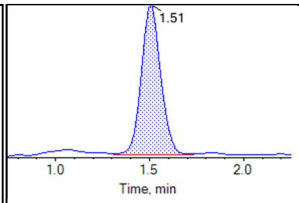
Created with Analyst Reporter
Printed: 23/10/2018 4:15:11 PM



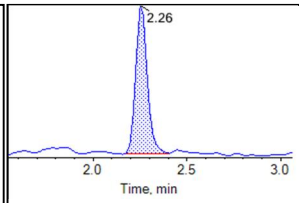
13C7-PFUnA



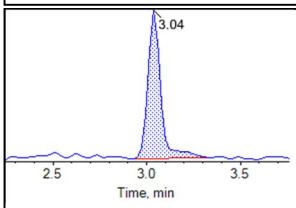
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

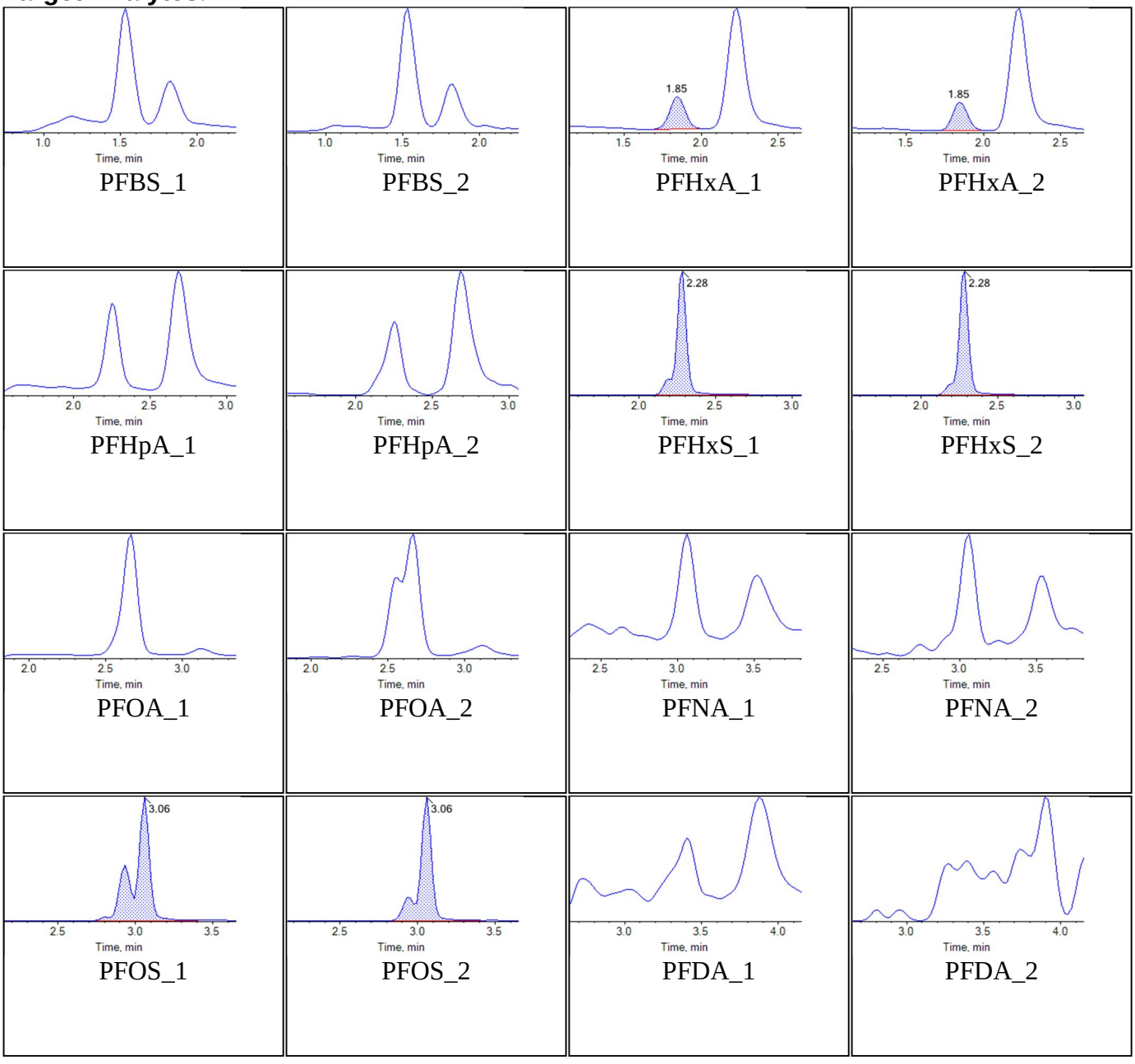
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:16 PM

Sample Name	J8382-FS-D(3)	**Injection Vial**	38
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:43:42	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

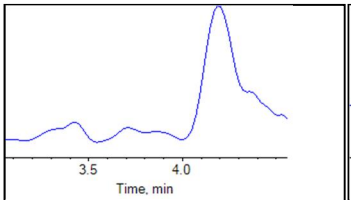
Target Analytes:



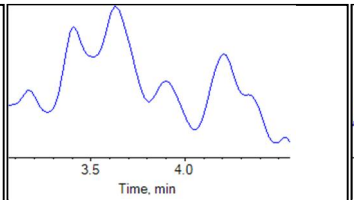
BATTELLE

Chromatogram Report

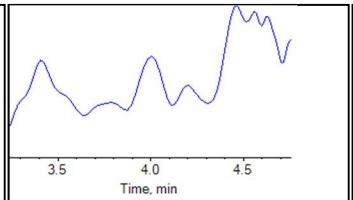
Created with Analyst Reporter
Printed: 23/10/2018 4:15:16 PM



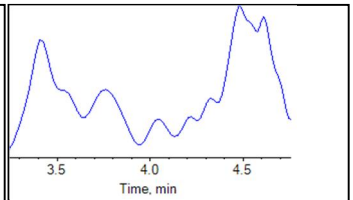
PFUnA_1



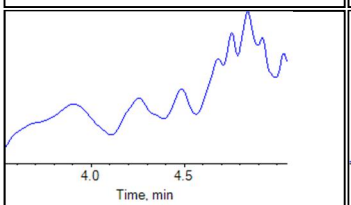
PFUnA_2



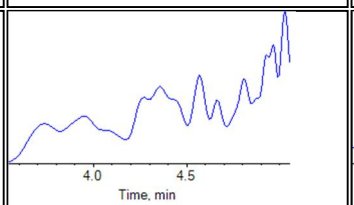
PFDoA_1



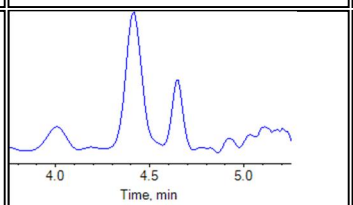
PFDoA_2



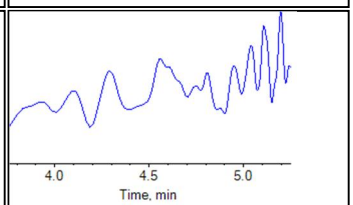
PFTrDA_1



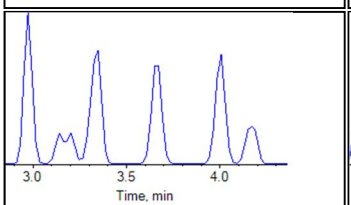
PFTrDA_2



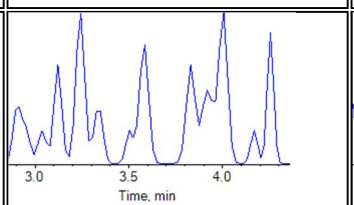
PFTeDA_1



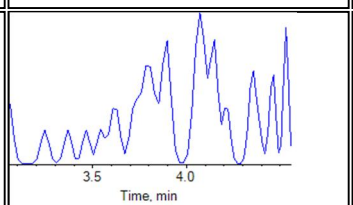
PFTeDA_2



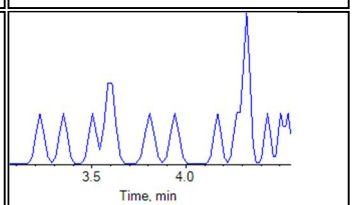
NMeFOSAA_1



NMeFOSAA_2

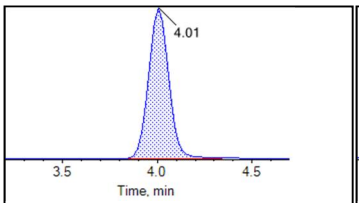


NEtFOSAA_1

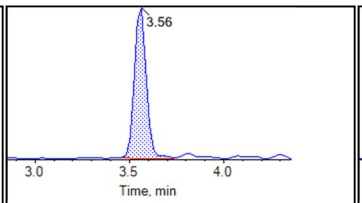


NEtFOSAA_2

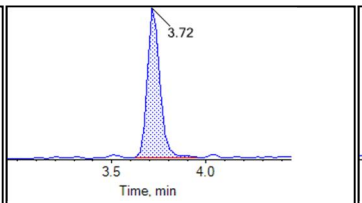
Internal Standards:



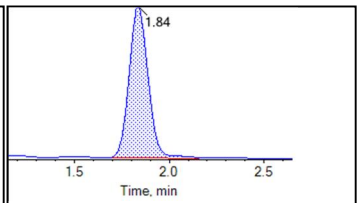
13C2-PFDoA



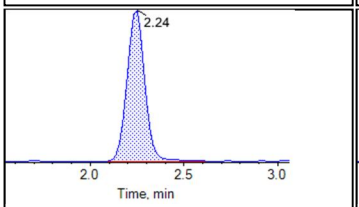
d3-MeFOSAA



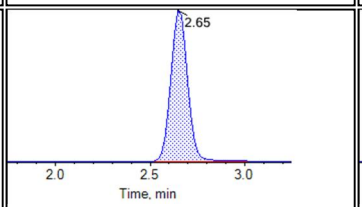
d5-EtFOSAA



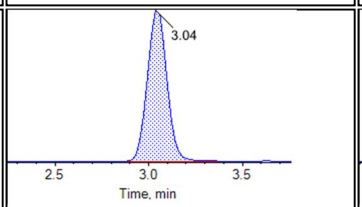
13C5-PFHxA



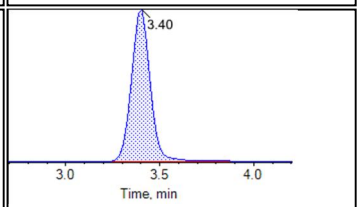
13C4-PFHpA



13C8-PFOA



13C9-PFNA

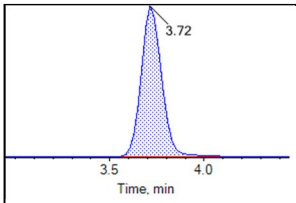


13C6-PFDA

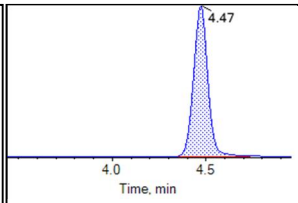
BATTELLE

Chromatogram Report

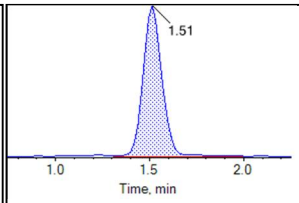
Created with Analyst Reporter
Printed: 23/10/2018 4:15:16 PM



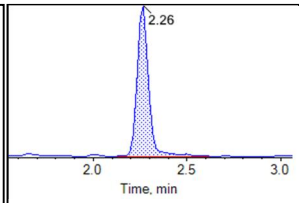
13C7-PFUnA



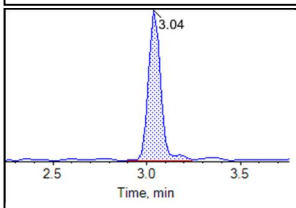
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

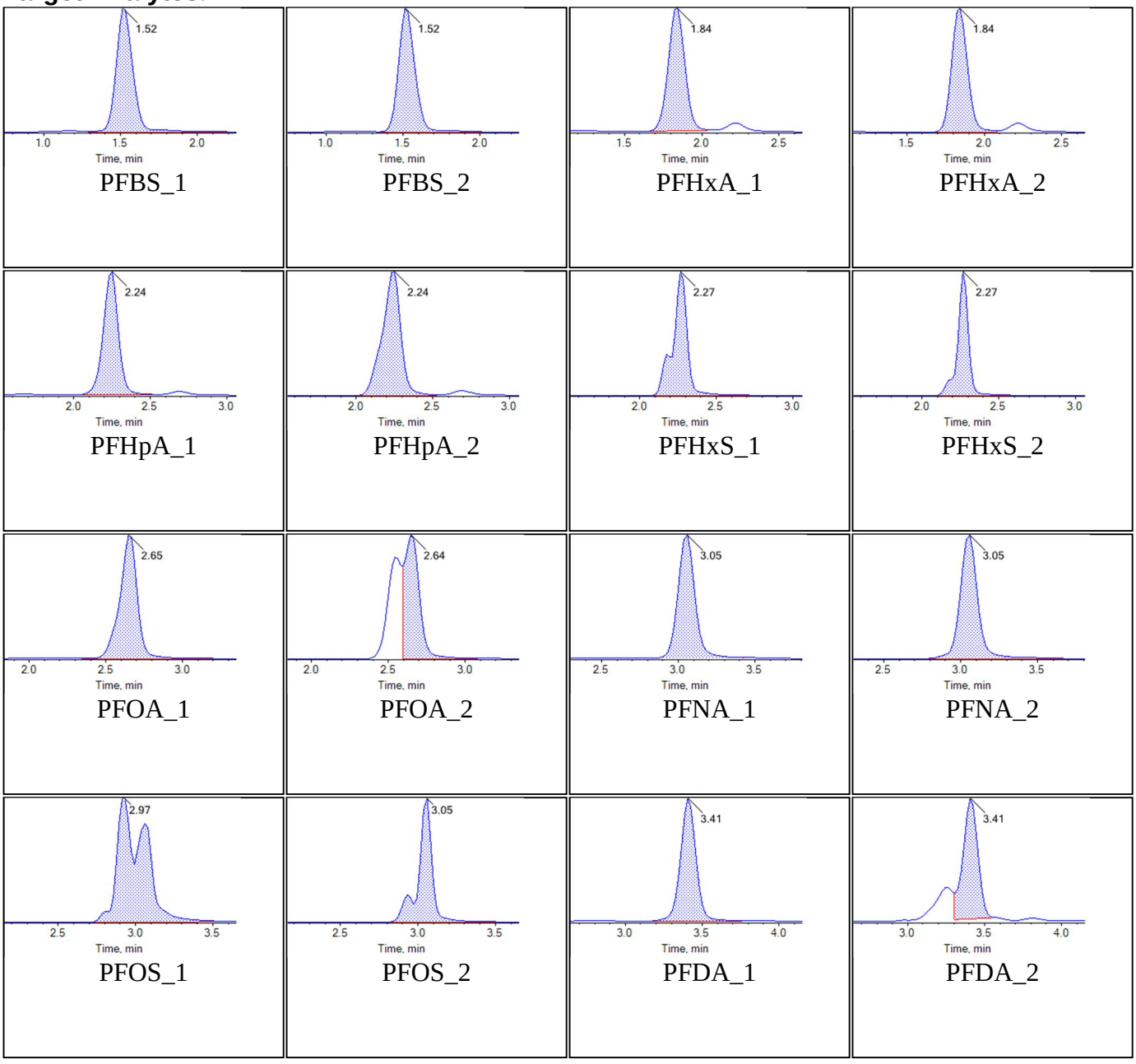
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:21 PM

Sample Name	J8383-FS(0)	**Injection Vial**	39
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:54:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

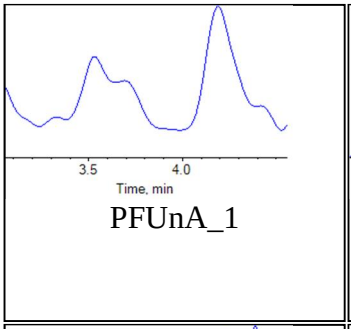
Target Analytes:



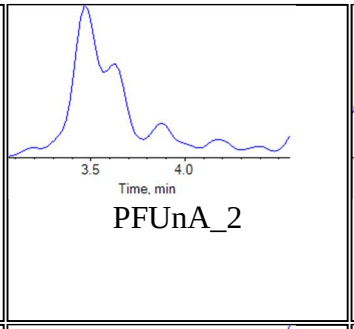
BATTELLE

Chromatogram Report

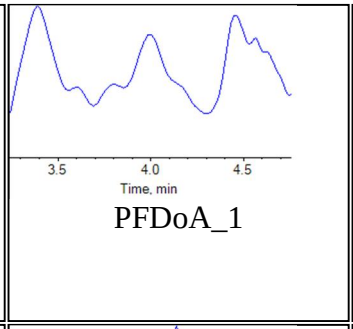
Created with Analyst Reporter
Printed: 23/10/2018 4:15:21 PM



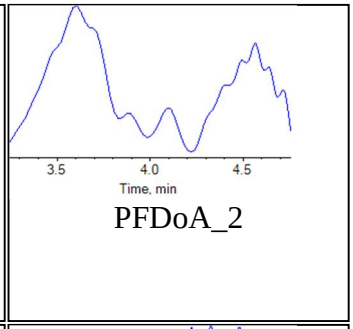
PFUnA_1



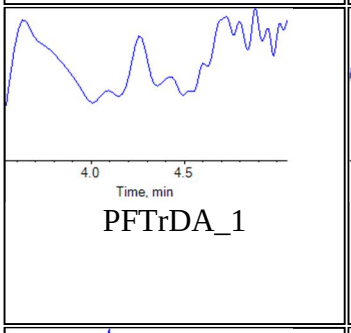
PFUnA_2



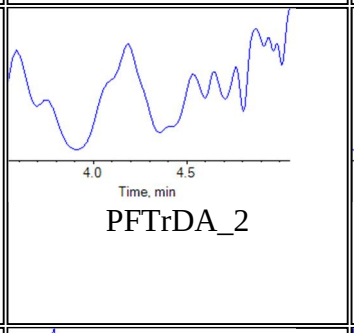
PFDoA_1



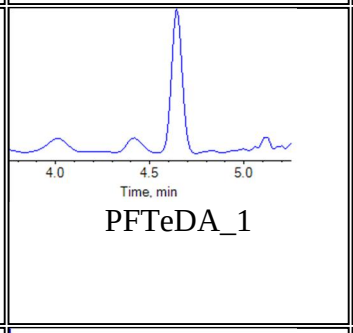
PFDoA_2



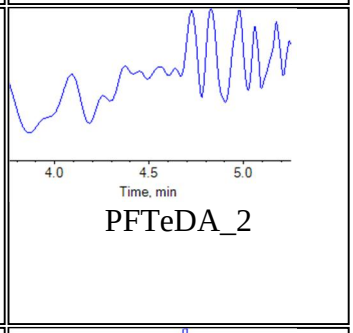
PFTrDA_1



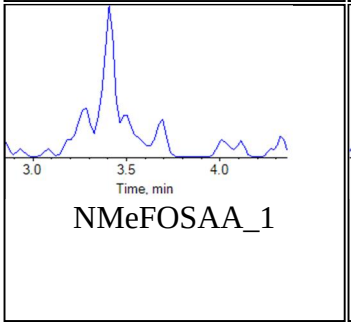
PFTrDA_2



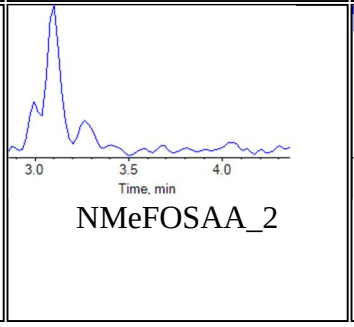
PFTeDA_1



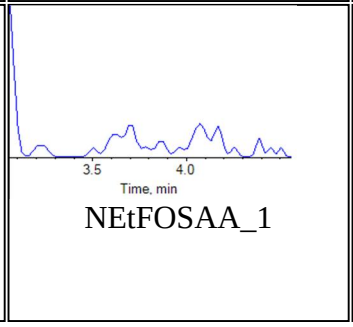
PFTeDA_2



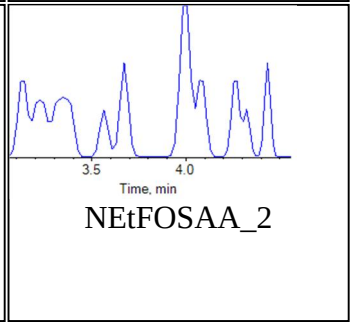
NMeFOSAA_1



NMeFOSAA_2

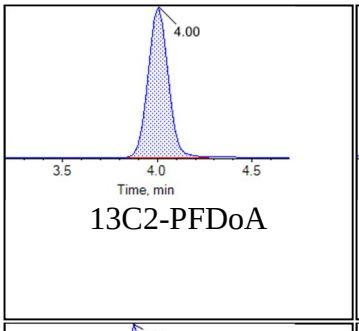


NEtFOSAA_1

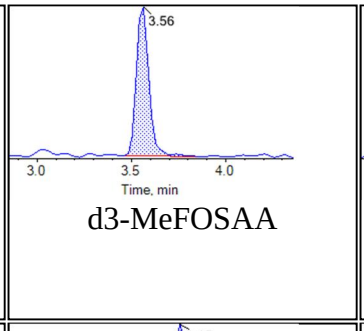


NEtFOSAA_2

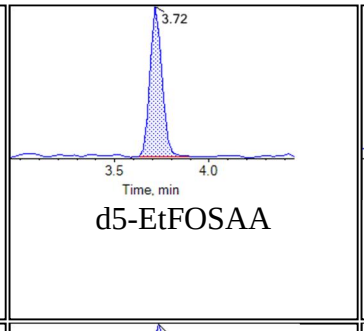
Internal Standards:



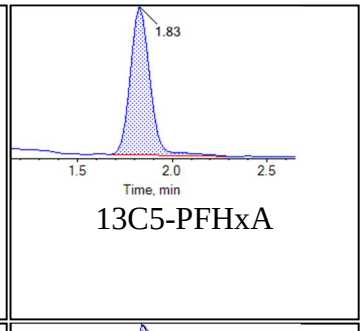
13C2-PFDoA



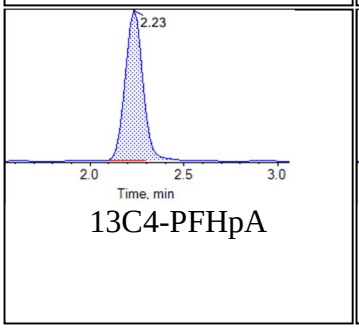
d3-MeFOSAA



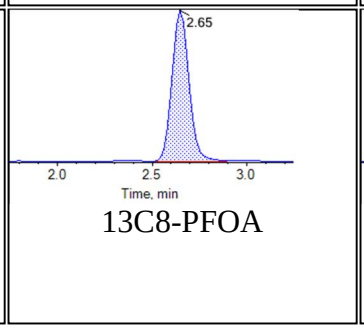
d5-EtFOSAA



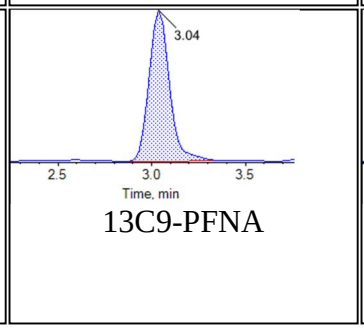
13C5-PFHxA



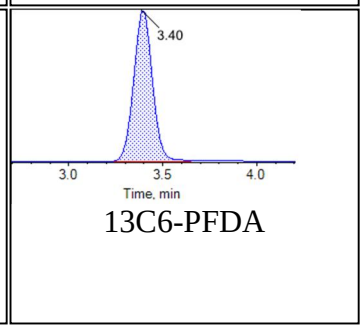
13C4-PFHpA



13C8-PFOA



13C9-PFNA

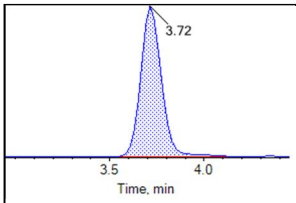


13C6-PFDA

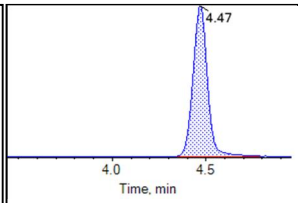
BATTELLE

Chromatogram Report

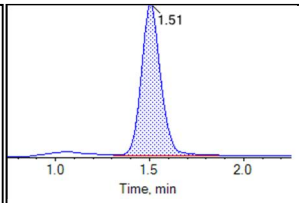
Created with Analyst Reporter
Printed: 23/10/2018 4:15:21 PM



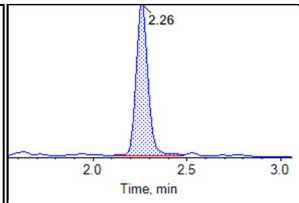
13C7-PFUnA



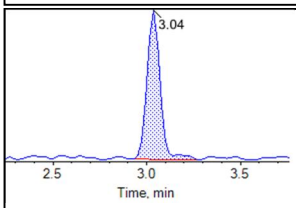
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

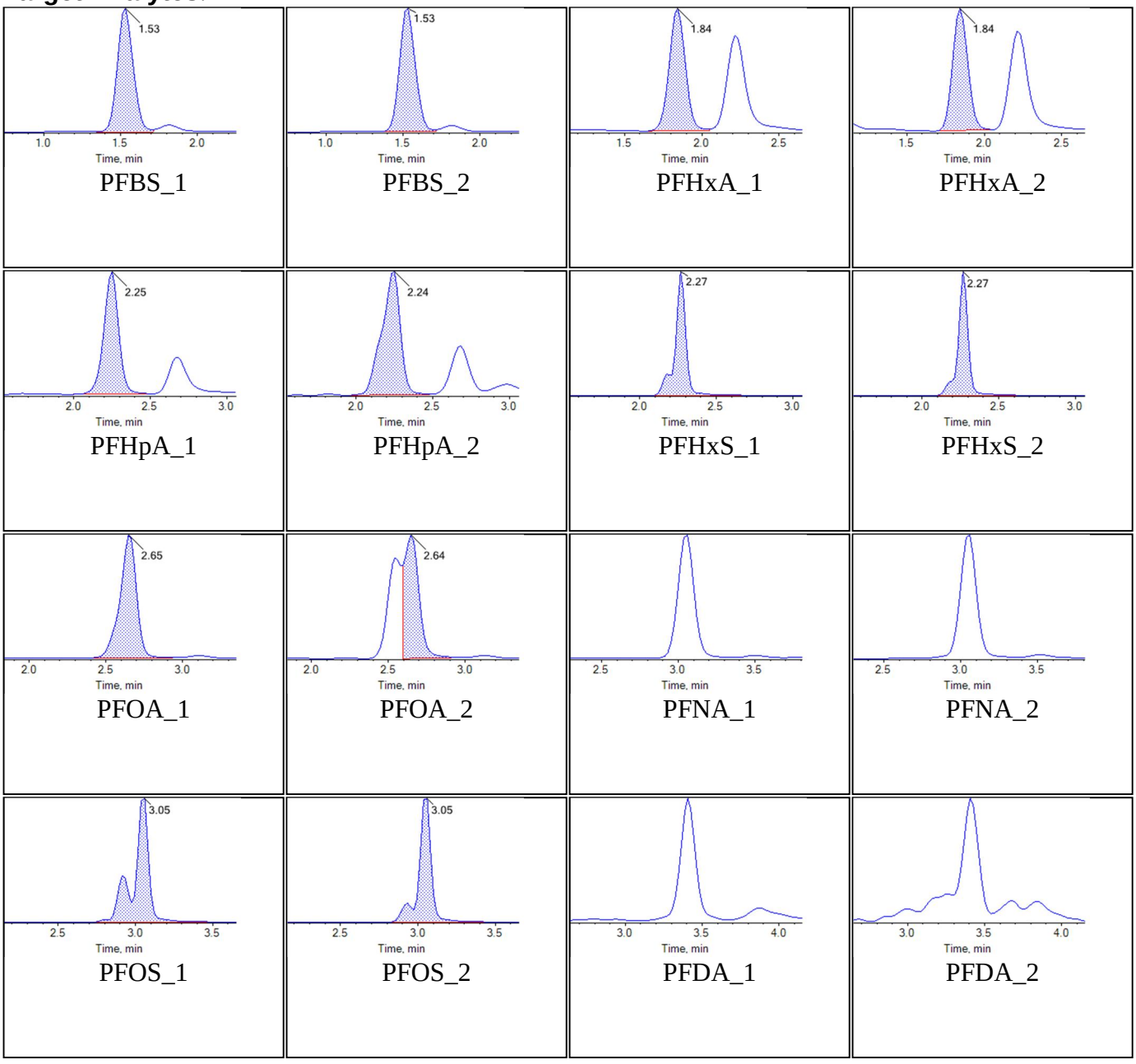
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:26 PM

Sample Name	J8383-FS-D(3)	**Injection Vial**	40
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:05:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

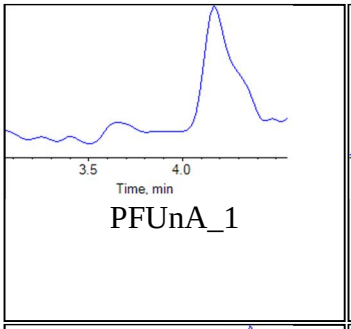
Target Analytes:



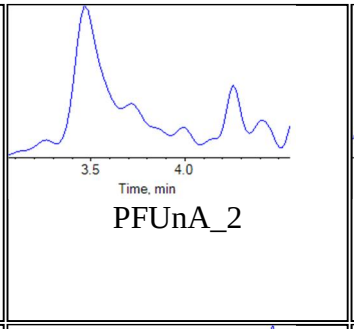
BATTELLE

Chromatogram Report

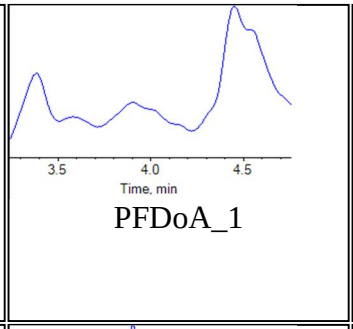
Created with Analyst Reporter
Printed: 23/10/2018 4:15:26 PM



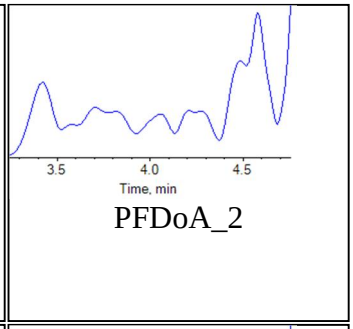
PFUnA_1



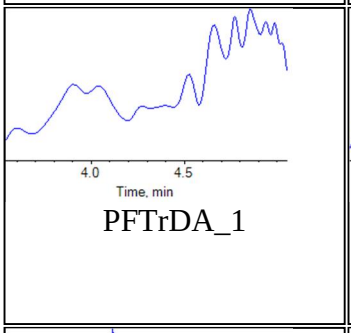
PFUnA_2



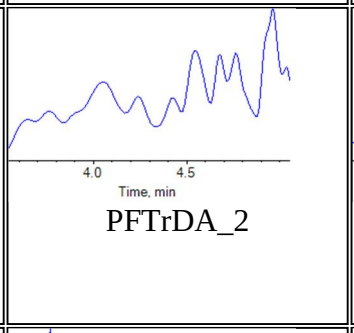
PFDoA_1



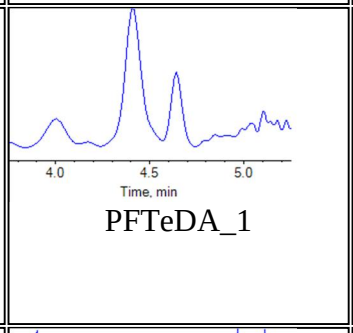
PFDoA_2



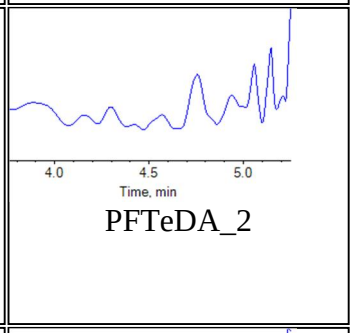
PFTrDA_1



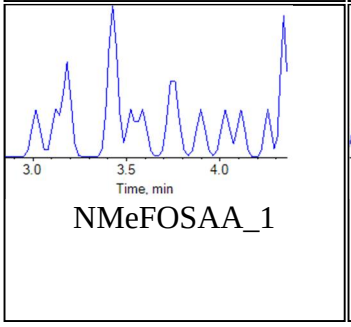
PFTrDA_2



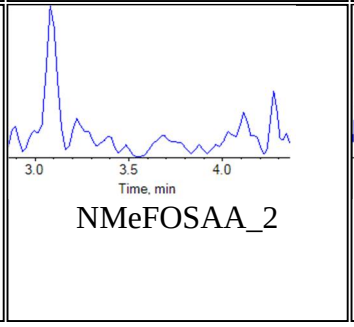
PFTeDA_1



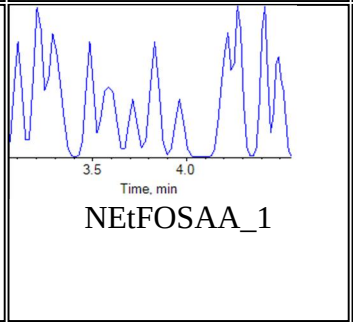
PFTeDA_2



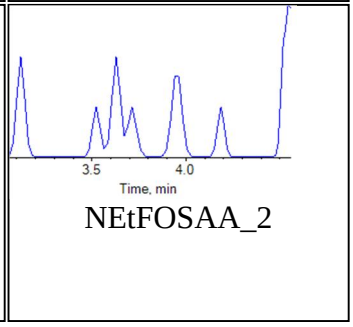
NMeFOSAA_1



NMeFOSAA_2

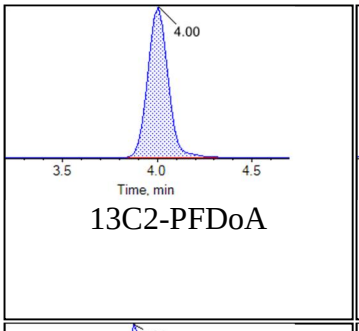


NEtFOSAA_1

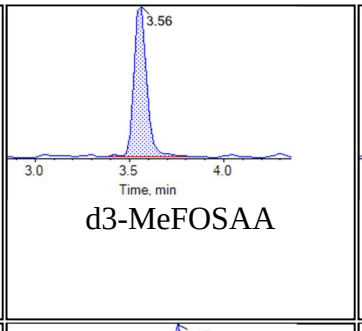


NEtFOSAA_2

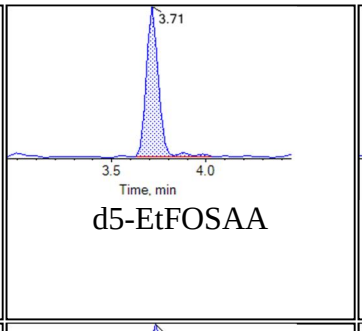
Internal Standards:



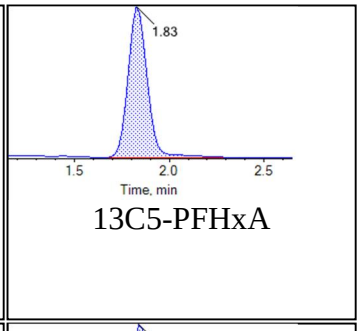
13C2-PFDoA



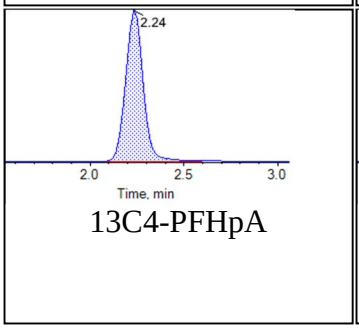
d3-MeFOSAA



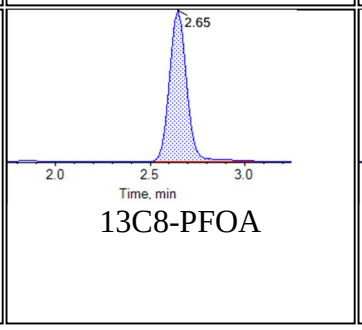
d5-EtFOSAA



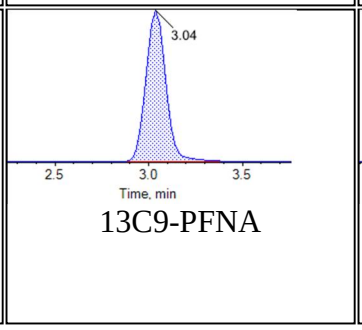
13C5-PFHxA



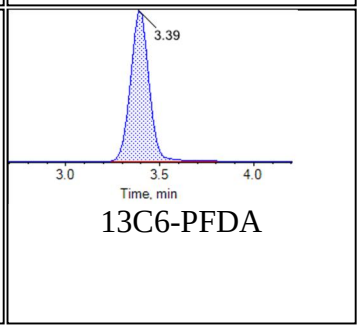
13C4-PFHpA



13C8-PFOA



13C9-PFNA

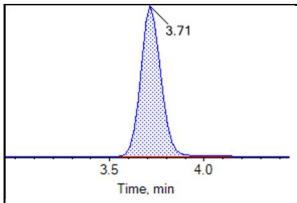


13C6-PFDA

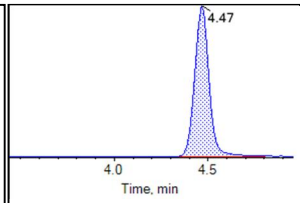
BATTELLE

Chromatogram Report

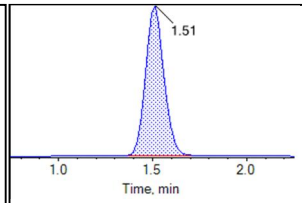
Created with Analyst Reporter
Printed: 23/10/2018 4:15:26 PM



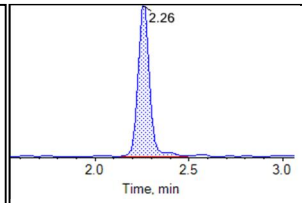
13C7-PFUnA



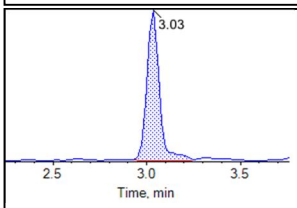
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

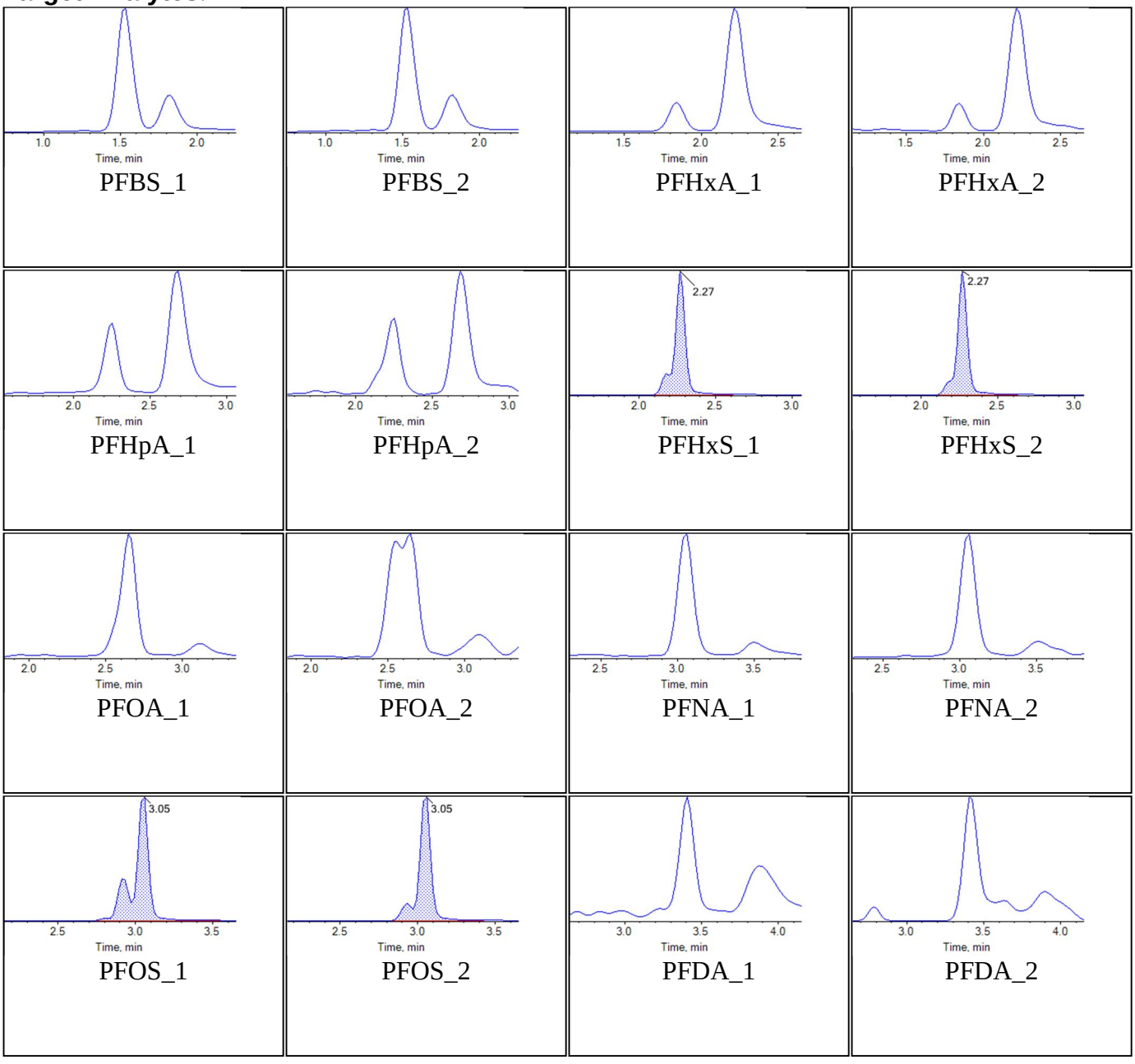
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:32 PM

Sample Name	J8383-FS-D(5)	**Injection Vial**	41
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:16:22	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

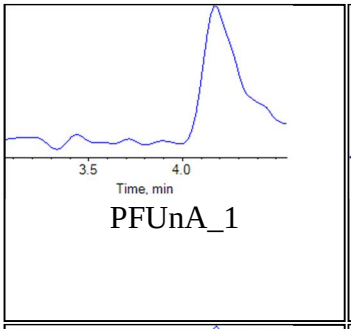
Target Analytes:



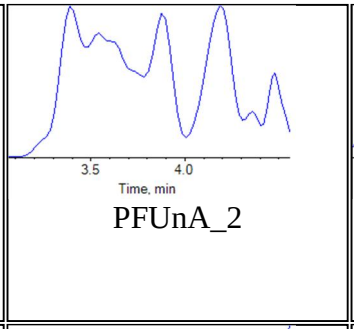
BATTELLE

Chromatogram Report

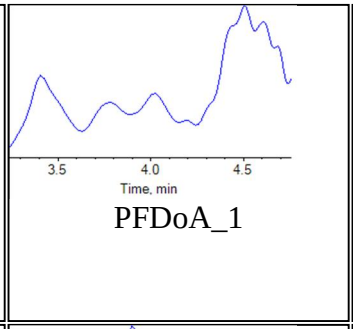
Created with Analyst Reporter
Printed: 23/10/2018 4:15:32 PM



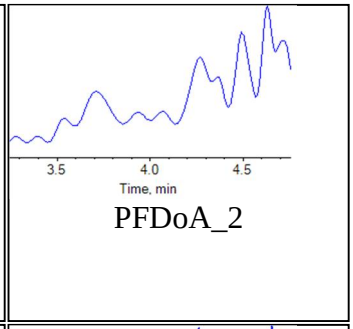
PFUnA_1



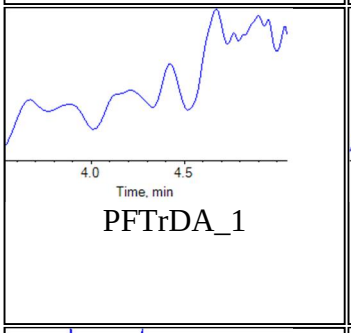
PFUnA_2



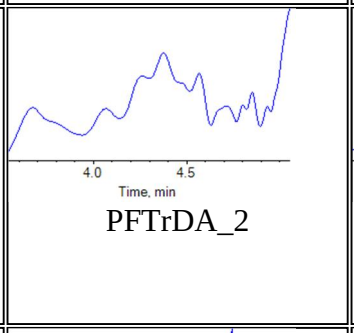
PFDoA_1



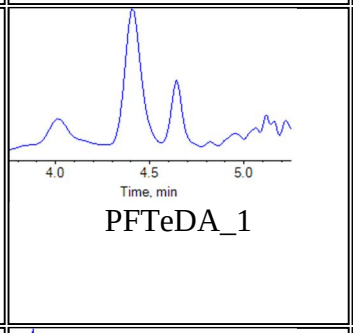
PFDoA_2



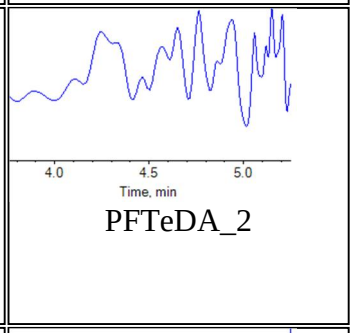
PFTrDA_1



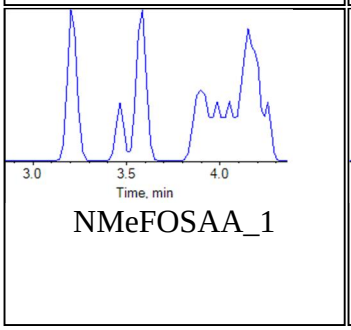
PFTrDA_2



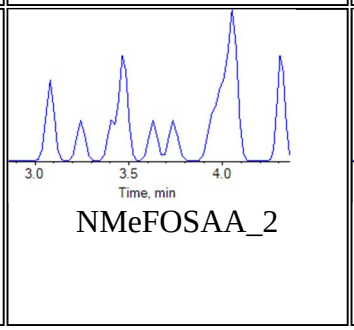
PFTeDA_1



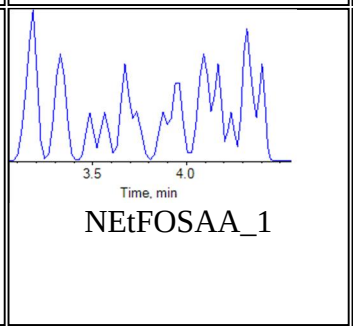
PFTeDA_2



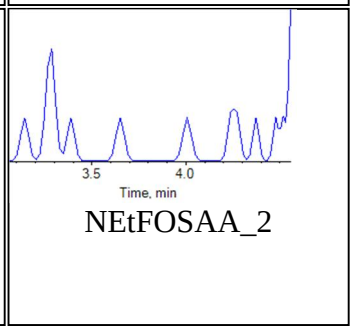
NMeFOSAA_1



NMeFOSAA_2

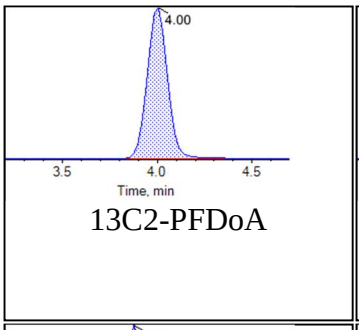


NEtFOSAA_1

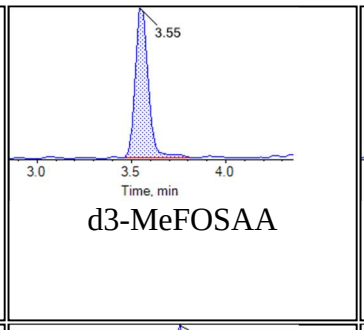


NEtFOSAA_2

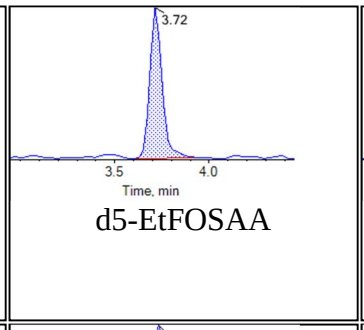
Internal Standards:



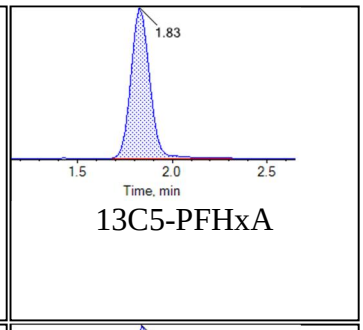
13C2-PFDoA



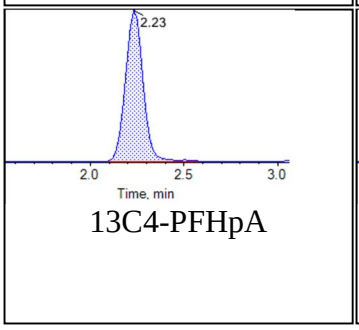
d3-MeFOSAA



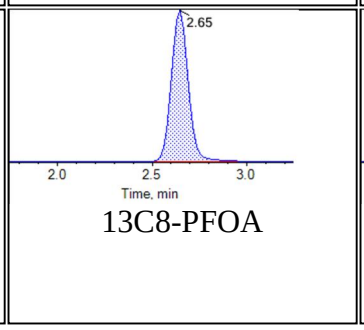
d5-EtFOSAA



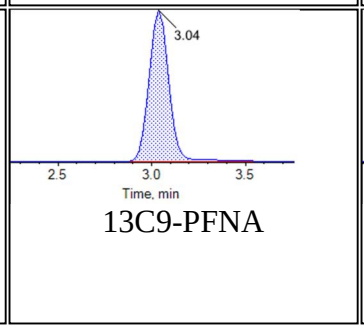
13C5-PFHxA



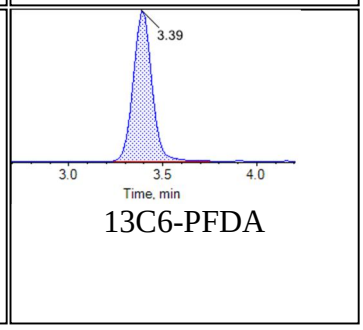
13C4-PFHpA



13C8-PFOA



13C9-PFNA

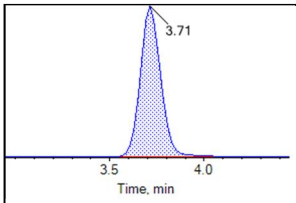


13C6-PFDA

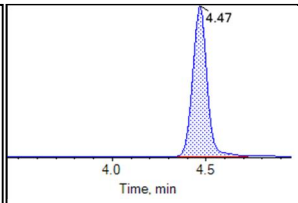
BATTELLE

Chromatogram Report

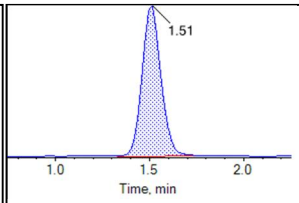
Created with Analyst Reporter
Printed: 23/10/2018 4:15:32 PM



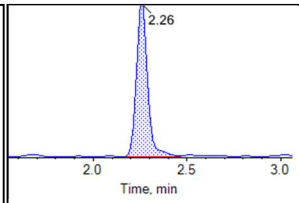
13C7-PFUnA



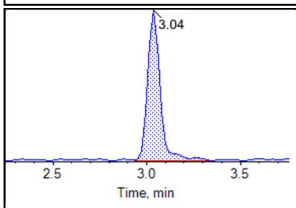
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

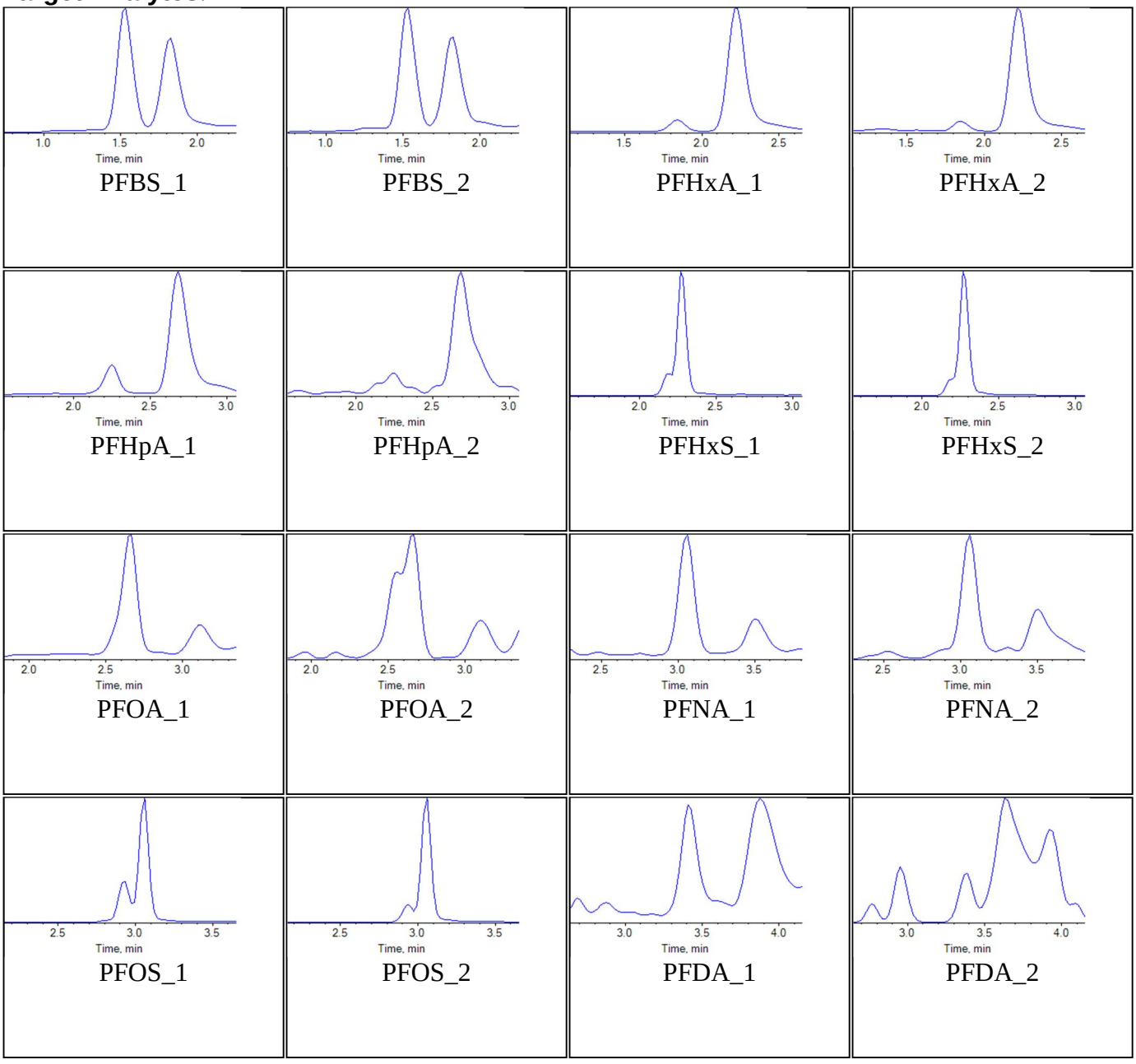
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:37 PM

Sample Name	J8383-FS-D(7)	**Injection Vial**	42
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:27:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

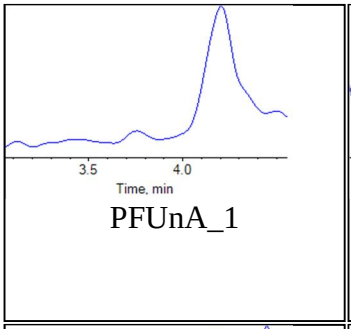
Target Analytes:



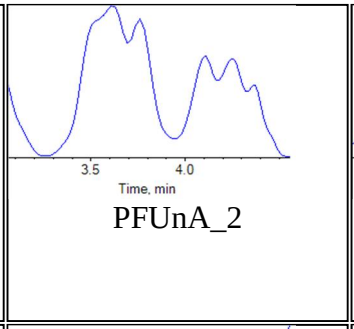
BATTELLE

Chromatogram Report

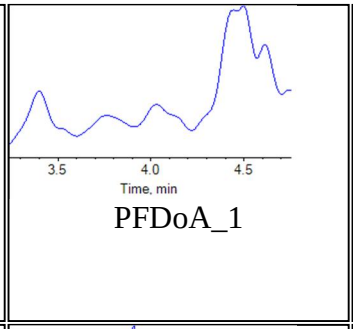
Created with Analyst Reporter
Printed: 23/10/2018 4:15:37 PM



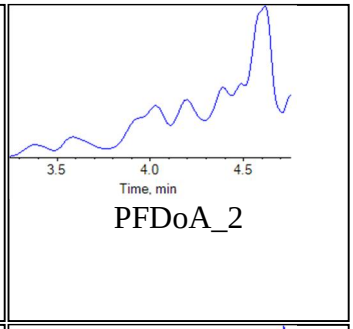
PFUnA_1



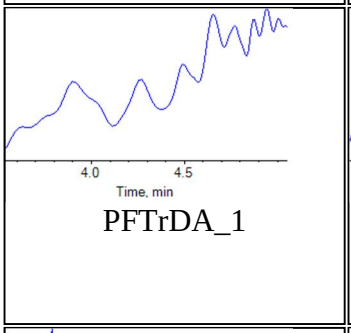
PFUnA_2



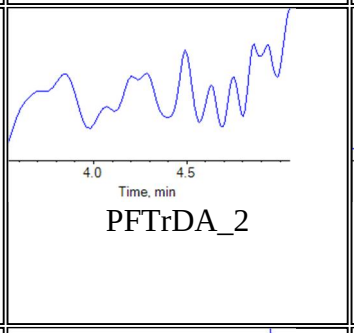
PFDoA_1



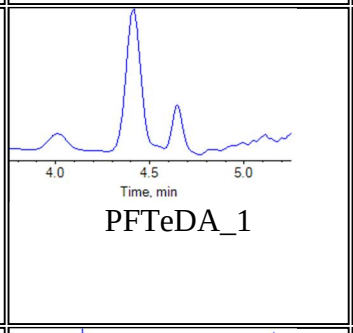
PFDoA_2



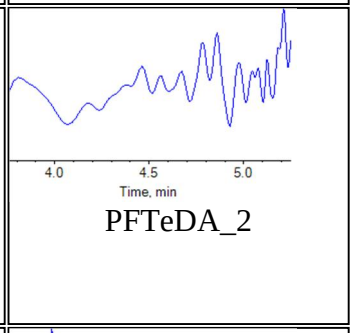
PFTrDA_1



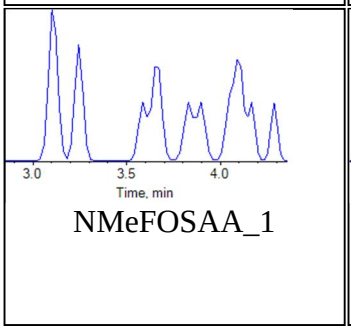
PFTrDA_2



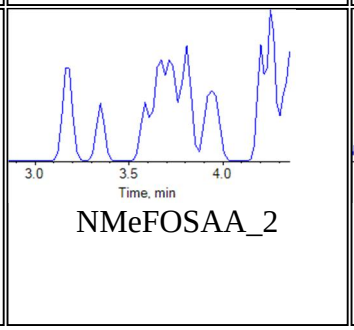
PFTeDA_1



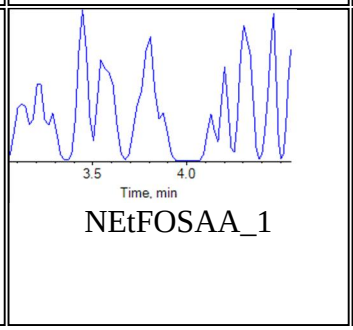
PFTeDA_2



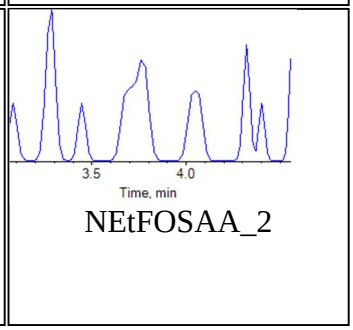
NMeFOSAA_1



NMeFOSAA_2

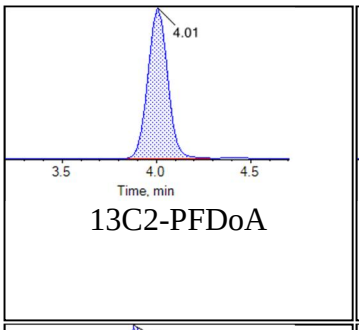


NEtFOSAA_1

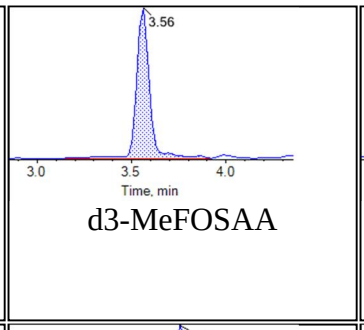


NEtFOSAA_2

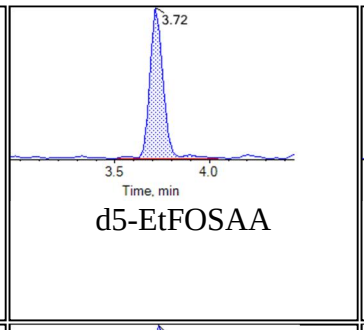
Internal Standards:



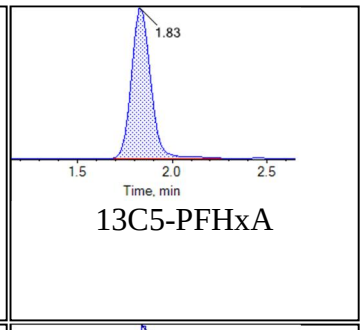
13C2-PFDoA



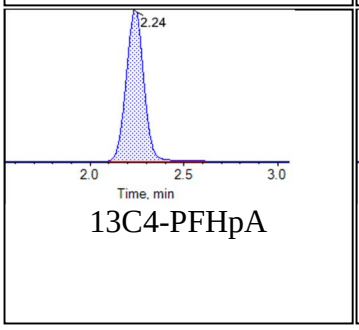
d3-MeFOSAA



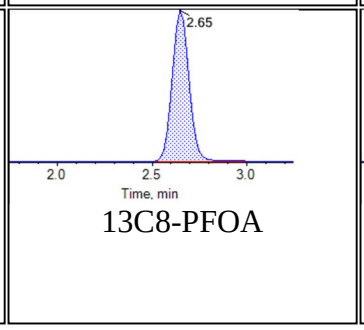
d5-EtFOSAA



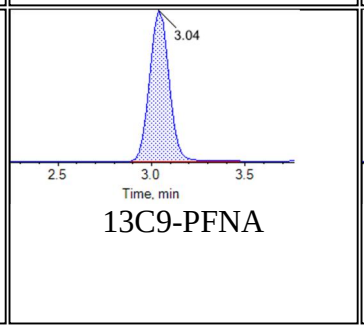
13C5-PFHxA



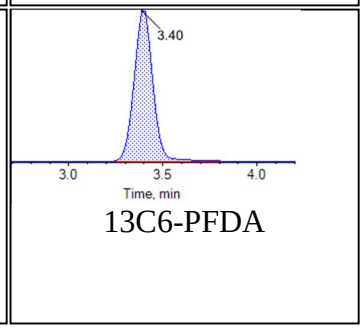
13C4-PFHpA



13C8-PFOA



13C9-PFNA

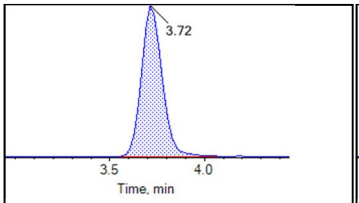


13C6-PFDA

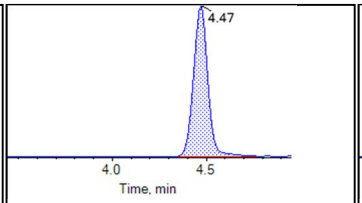
BATTELLE

Chromatogram Report

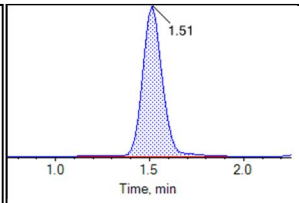
Created with Analyst Reporter
Printed: 23/10/2018 4:15:37 PM



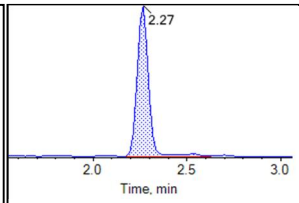
13C7-PFUnA



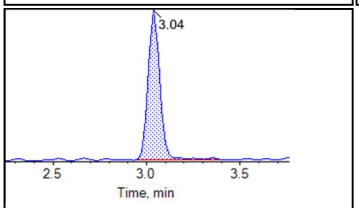
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

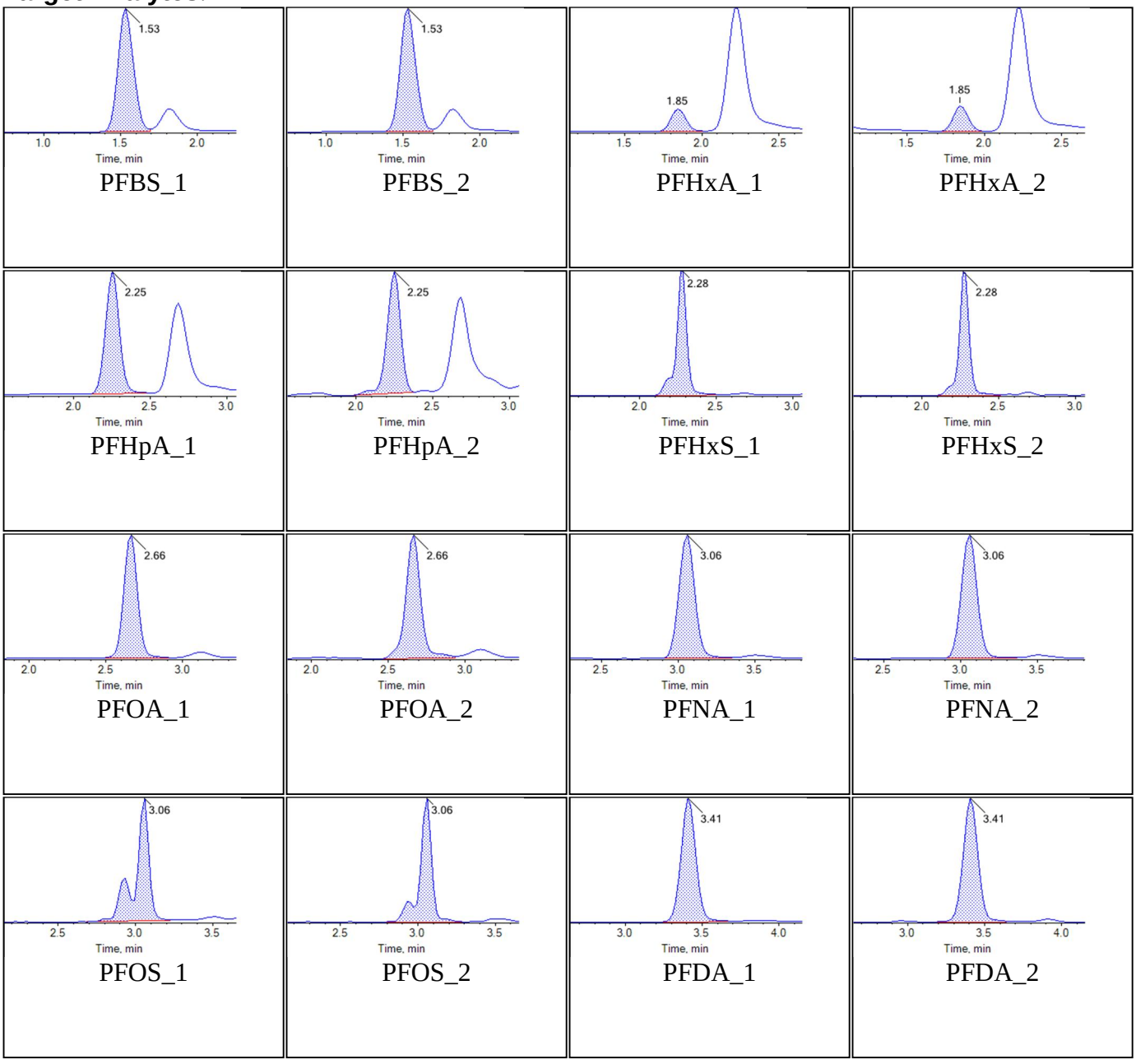
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:42 PM

Sample Name	KB76 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:38:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

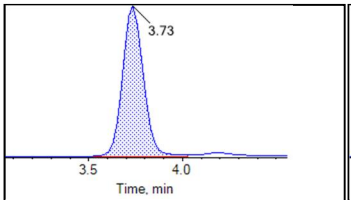
Target Analytes:



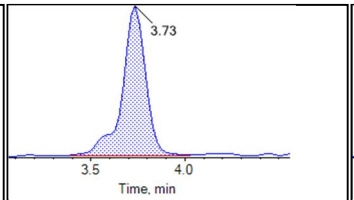
BATTELLE

Chromatogram Report

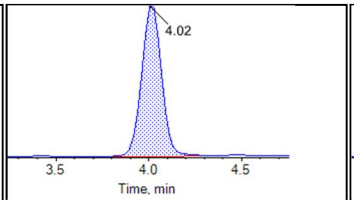
Created with Analyst Reporter
Printed: 23/10/2018 4:15:42 PM



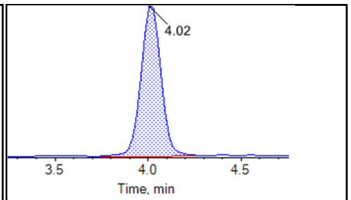
PFUnA_1



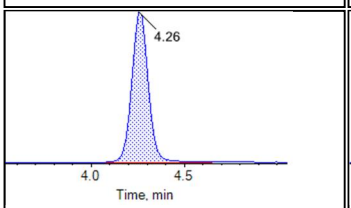
PFUnA_2



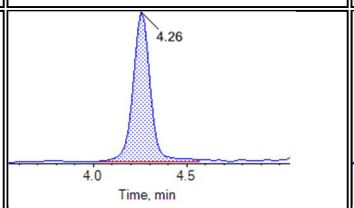
PFDoA_1



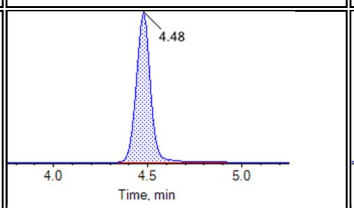
PFDoA_2



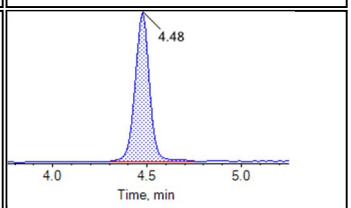
PFTrDA_1



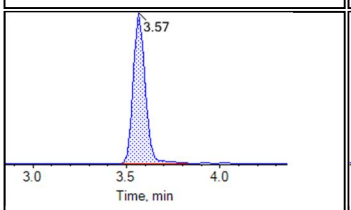
PFTrDA_2



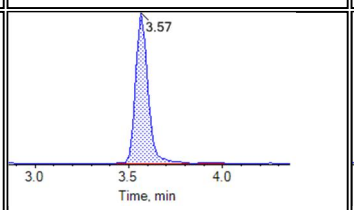
PFTeDA_1



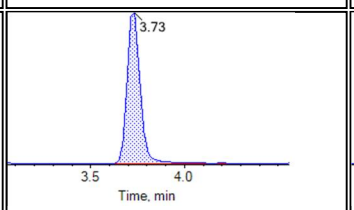
PFTeDA_2



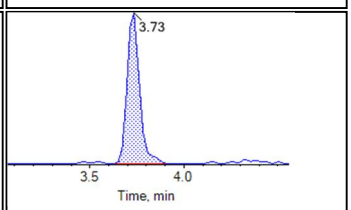
NMeFOSAA_1



NMeFOSAA_2

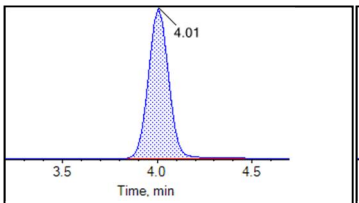


NEtFOSAA_1

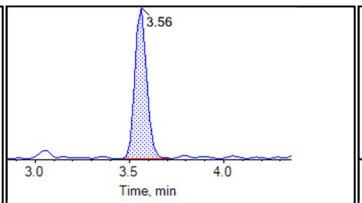


NEtFOSAA_2

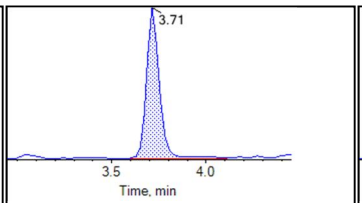
Internal Standards:



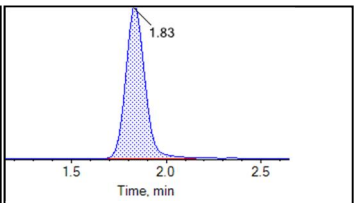
13C2-PFDoA



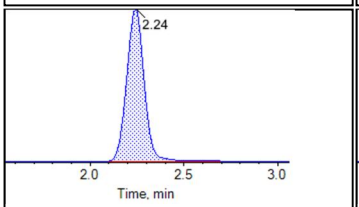
d3-MeFOSAA



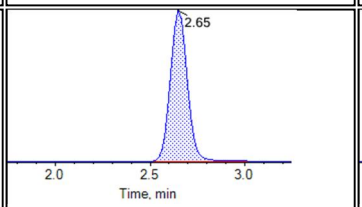
d5-EtFOSAA



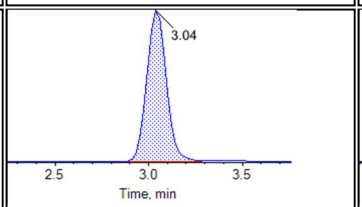
13C5-PFHxA



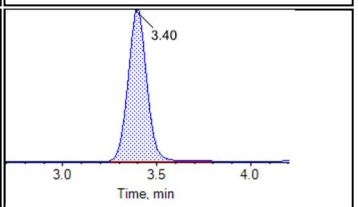
13C4-PFHpA



13C8-PFOA



13C9-PFNA

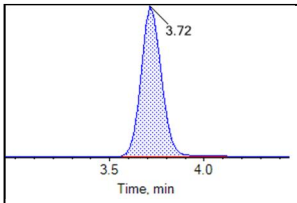


13C6-PFDA

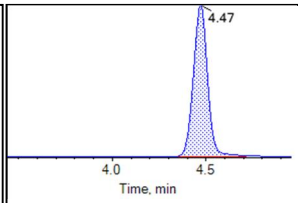
BATTELLE

Chromatogram Report

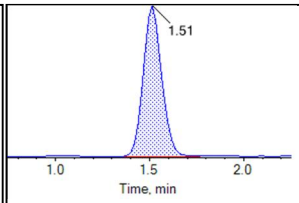
Created with Analyst Reporter
Printed: 23/10/2018 4:15:42 PM



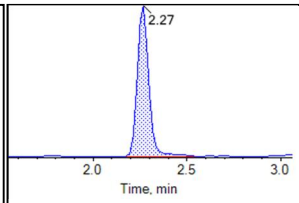
13C7-PFUnA



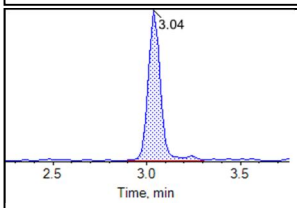
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

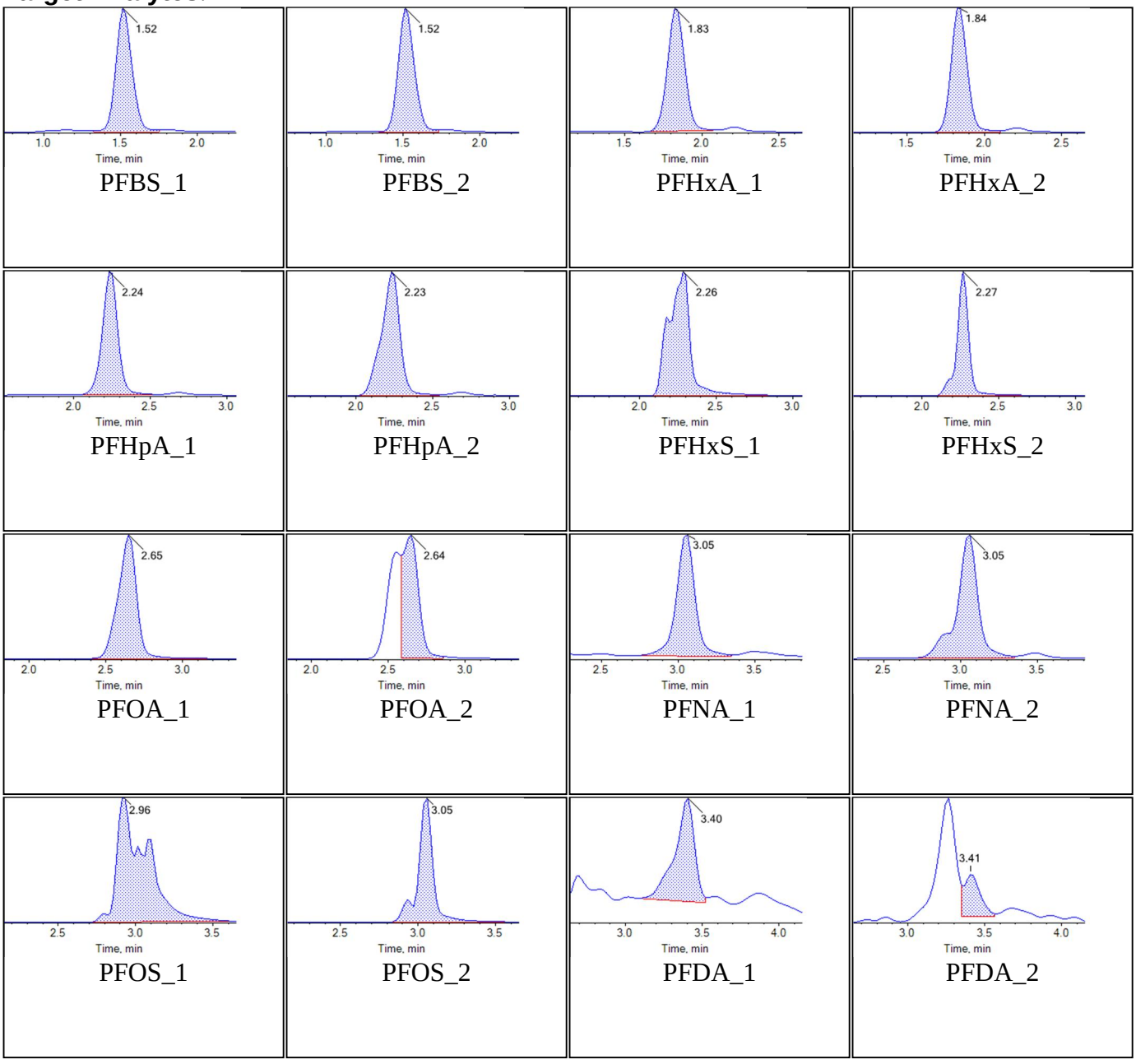
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:47 PM

Sample Name	J8384-FS(0)	**Injection Vial**	44
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:59:56	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

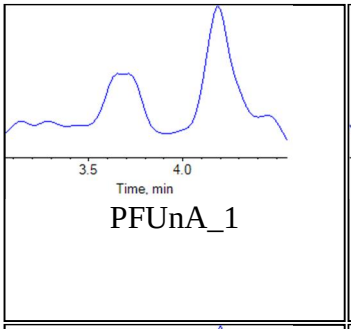
Target Analytes:



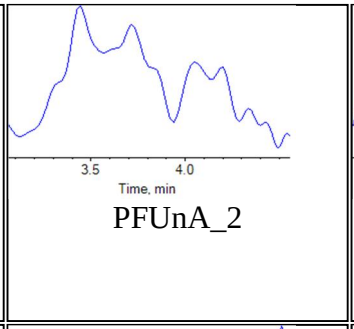
BATTELLE

Chromatogram Report

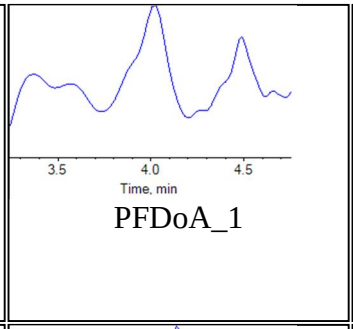
Created with Analyst Reporter
Printed: 23/10/2018 4:15:47 PM



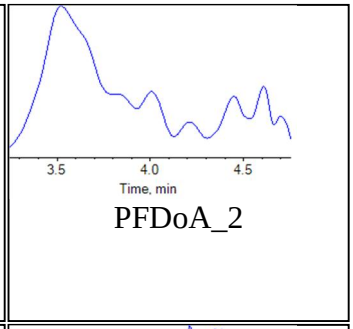
PFUnA_1



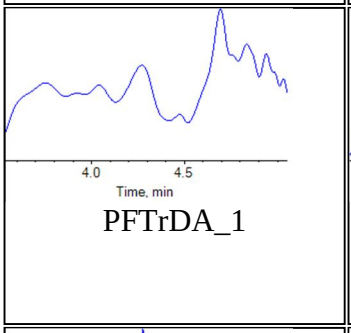
PFUnA_2



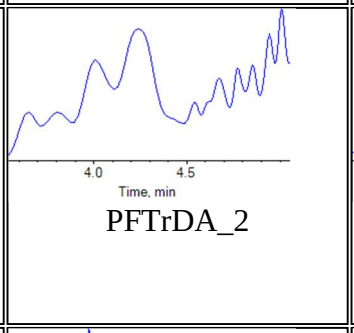
PFDoA_1



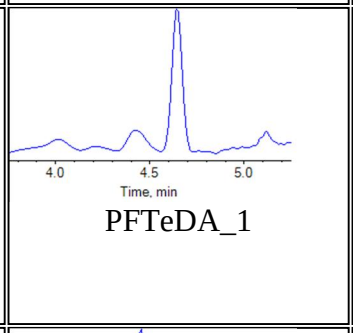
PFDoA_2



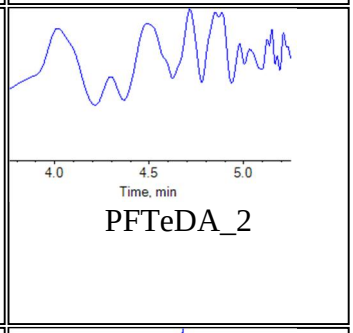
PFTrDA_1



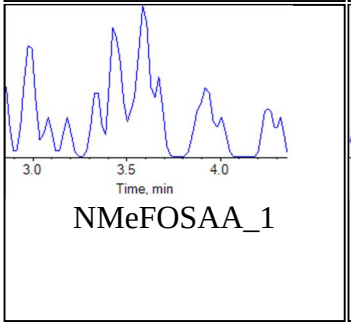
PFTrDA_2



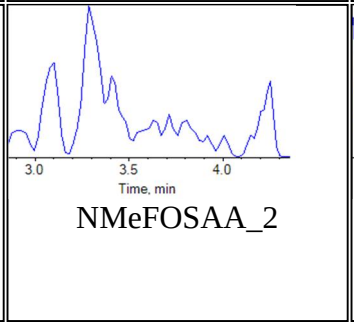
PFTeDA_1



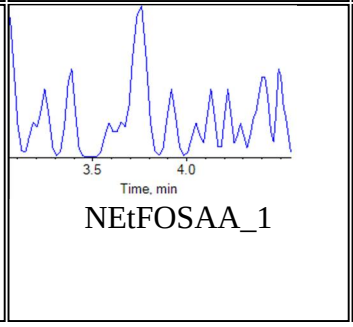
PFTeDA_2



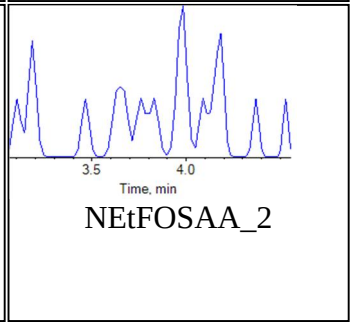
NMeFOSAA_1



NMeFOSAA_2

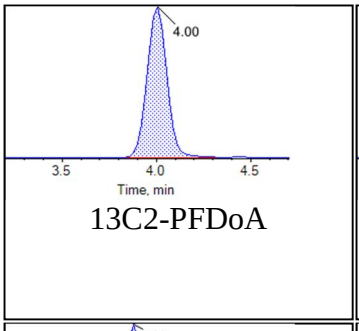


NEtFOSAA_1

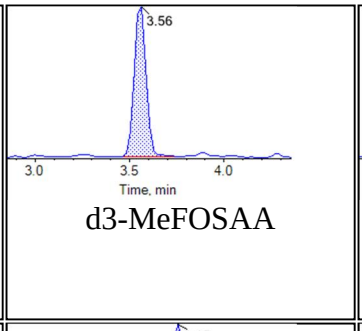


NEtFOSAA_2

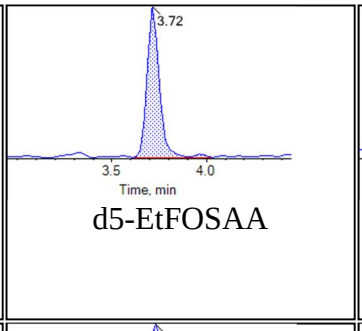
Internal Standards:



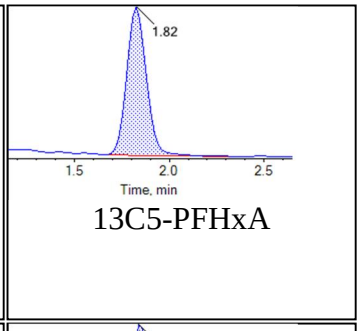
13C2-PFDoA



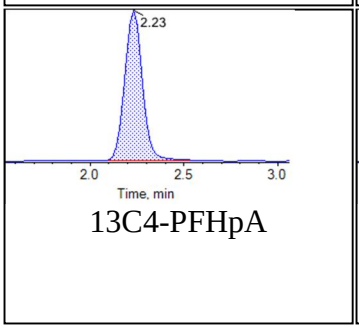
d3-MeFOSAA



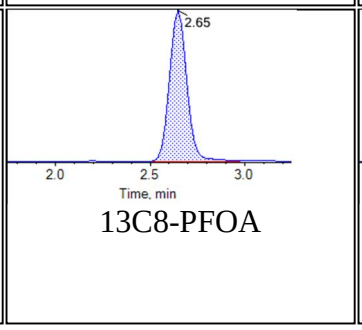
d5-EtFOSAA



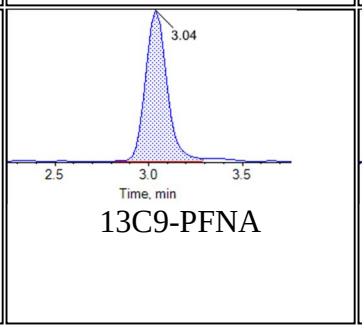
13C5-PFHxA



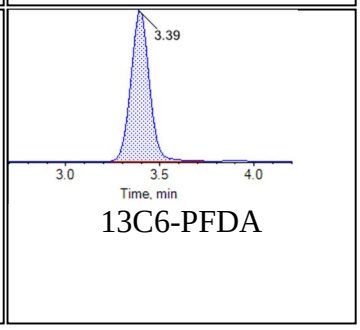
13C4-PFHpA



13C8-PFOA



13C9-PFNA

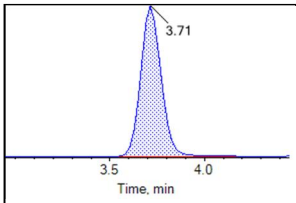


13C6-PFDA

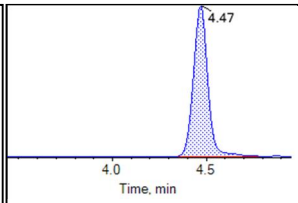
BATTELLE

Chromatogram Report

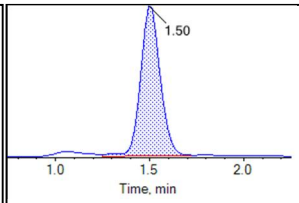
Created with Analyst Reporter
Printed: 23/10/2018 4:15:47 PM



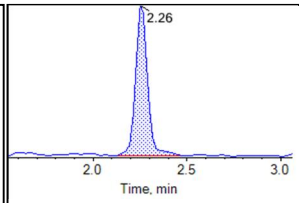
13C7-PFUnA



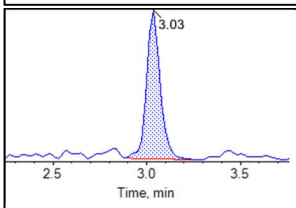
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

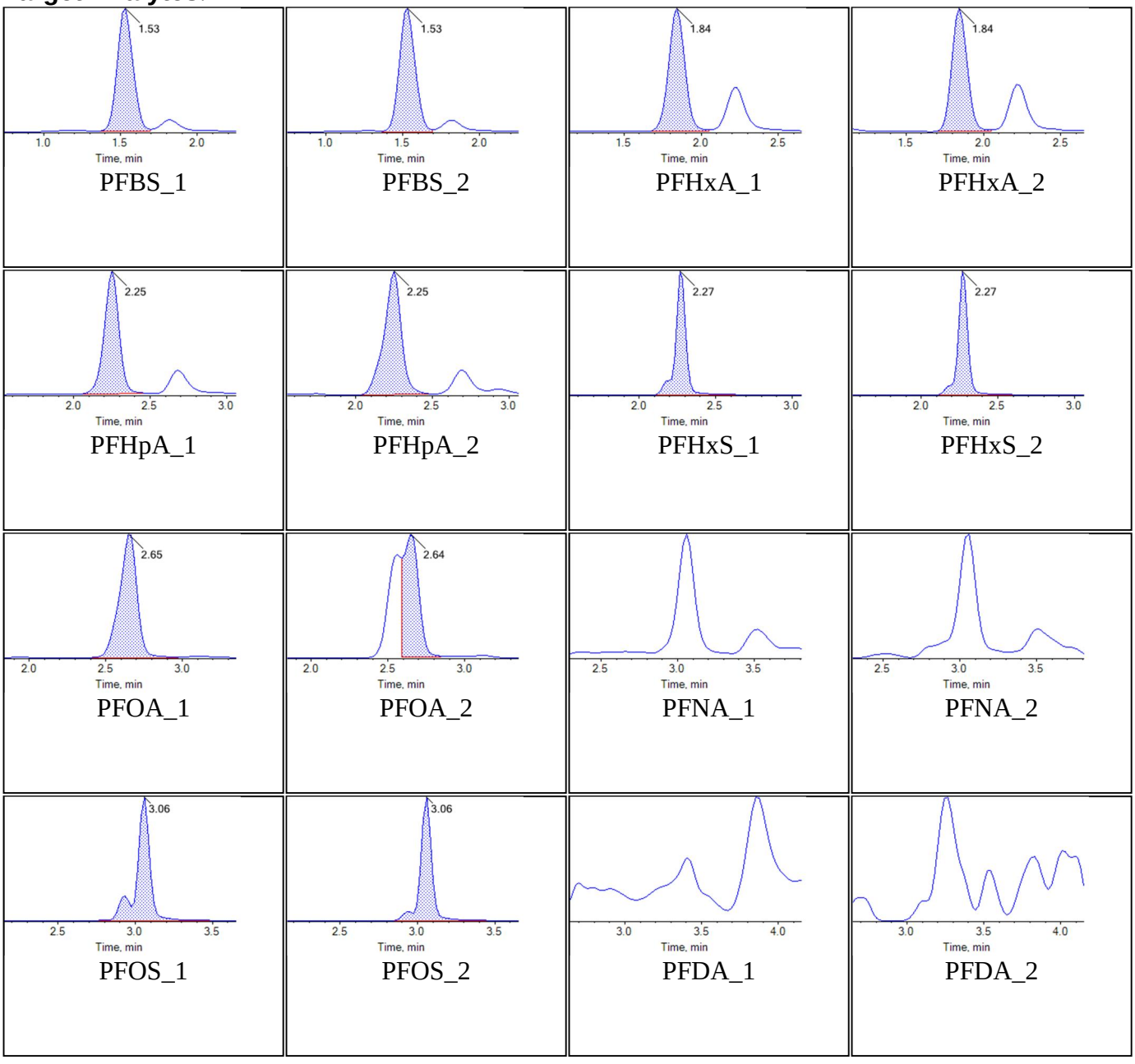
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:53 PM

Sample Name	J8384-FS-D(3)	**Injection Vial**	45
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:10:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

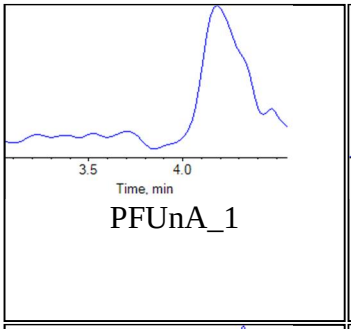
Target Analytes:



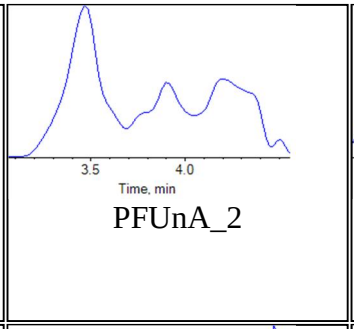
BATTELLE

Chromatogram Report

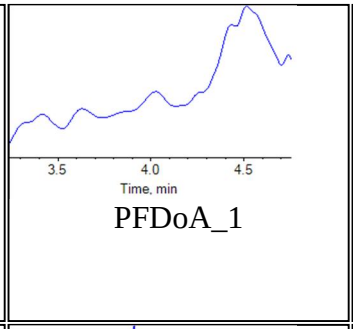
Created with Analyst Reporter
Printed: 23/10/2018 4:15:53 PM



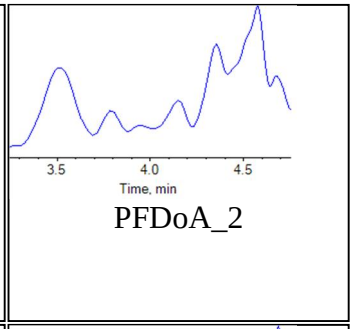
PFUnA_1



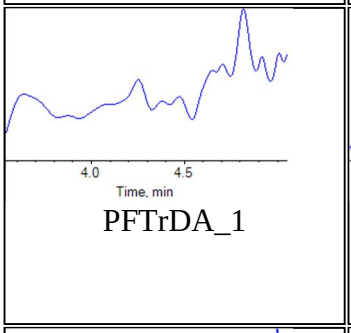
PFUnA_2



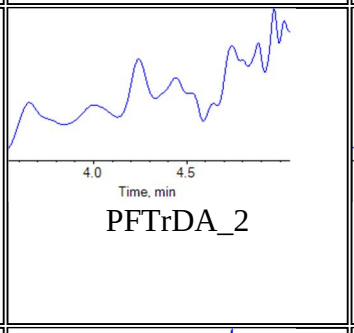
PFDoA_1



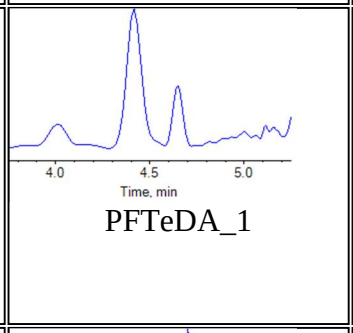
PFDoA_2



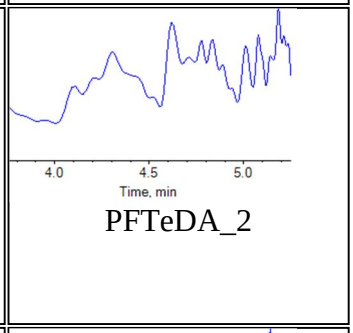
PFTrDA_1



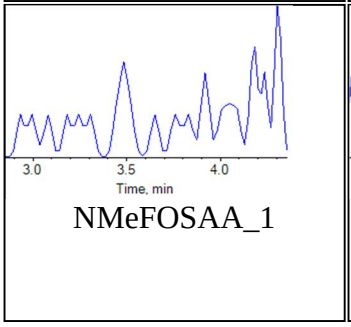
PFTrDA_2



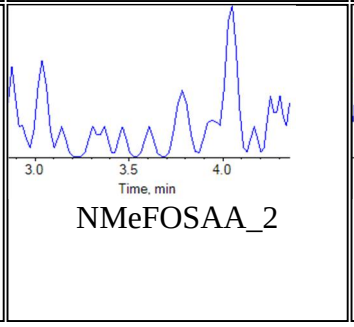
PFTeDA_1



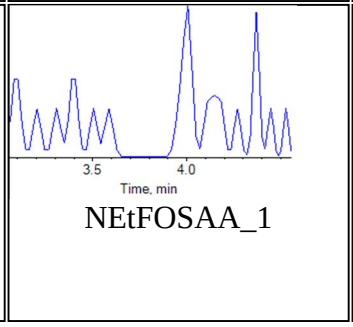
PFTeDA_2



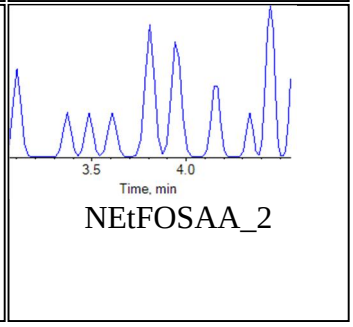
NMeFOSAA_1



NMeFOSAA_2

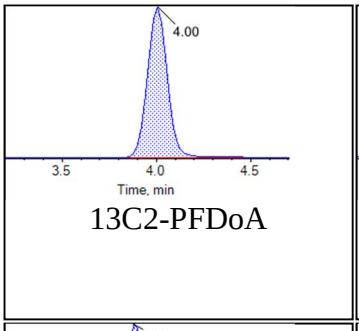


NEtFOSAA_1

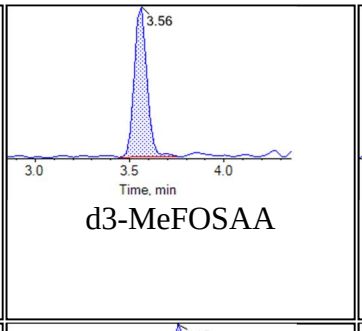


NEtFOSAA_2

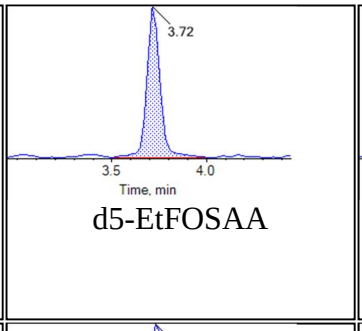
Internal Standards:



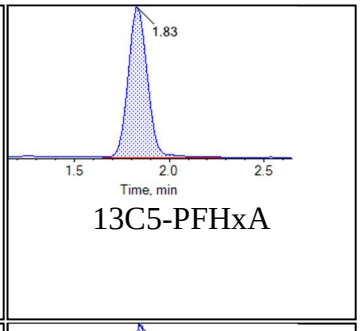
13C2-PFDoA



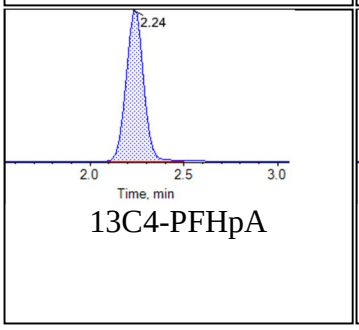
d3-MeFOSAA



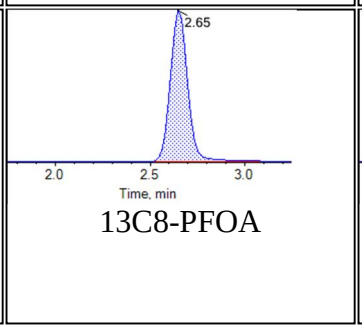
d5-EtFOSAA



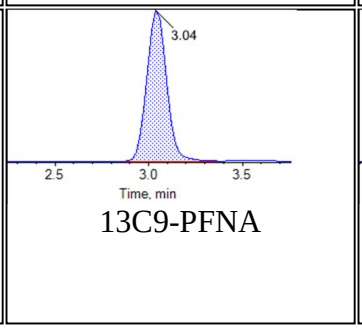
13C5-PFHxA



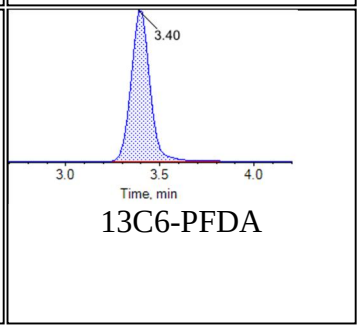
13C4-PFHpA



13C8-PFOA



13C9-PFNA

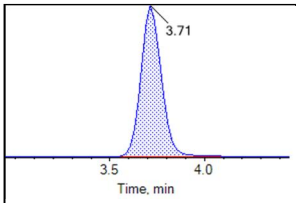


13C6-PFDA

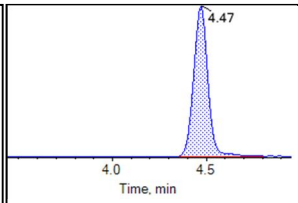
BATTELLE

Chromatogram Report

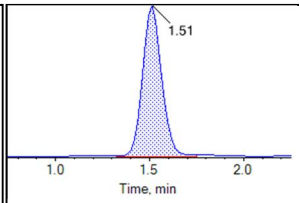
Created with Analyst Reporter
Printed: 23/10/2018 4:15:53 PM



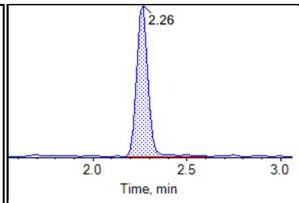
13C7-PFUnA



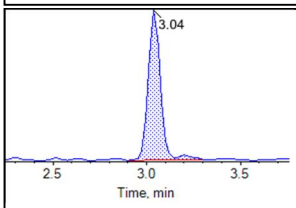
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

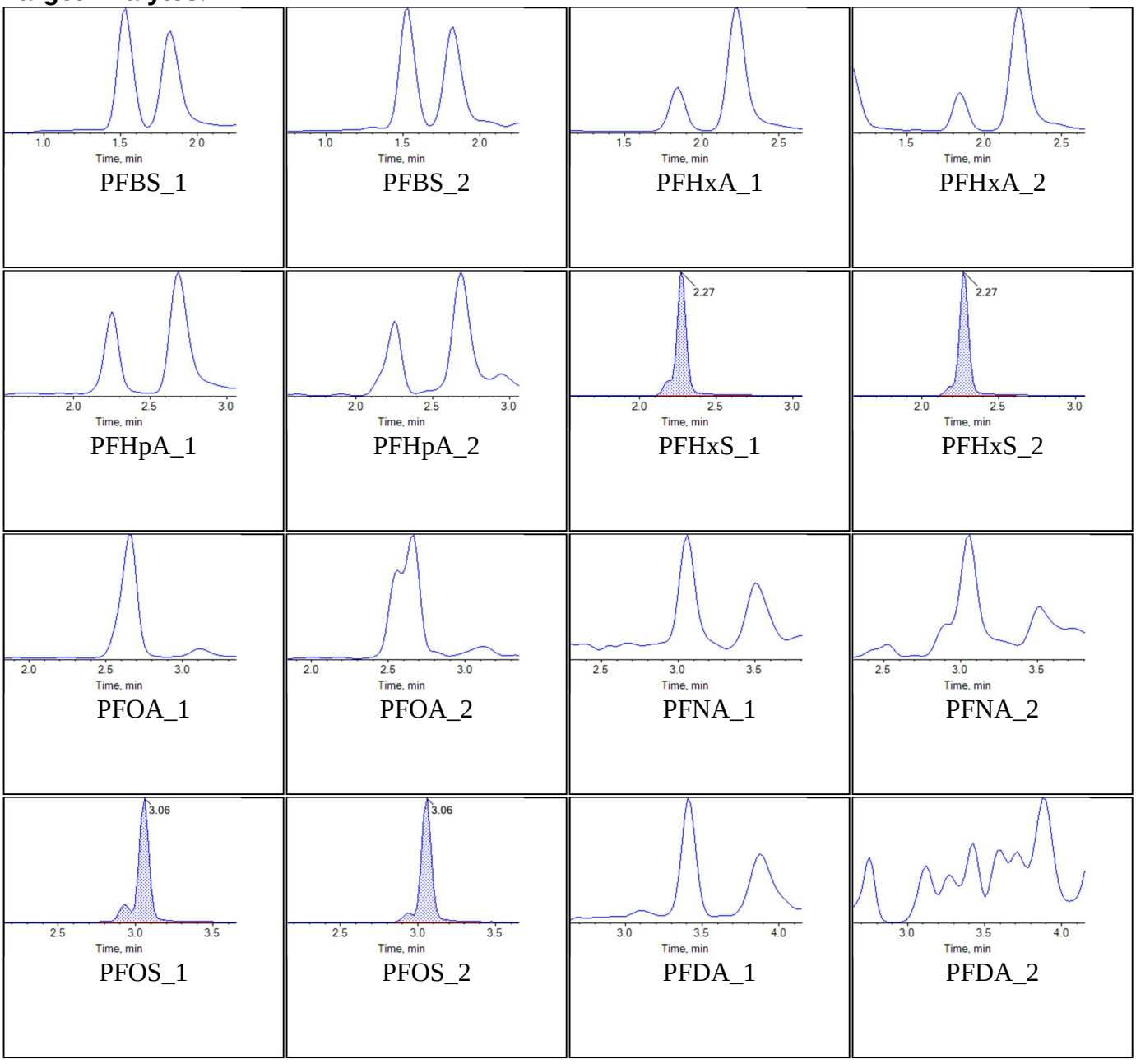
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:16:03 PM

Sample Name	J8384-FS-D(7)	**Injection Vial**	47
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:32:33	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

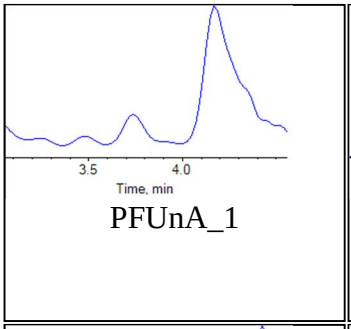
Target Analytes:



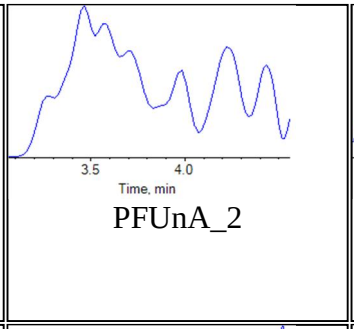
BATTELLE

Chromatogram Report

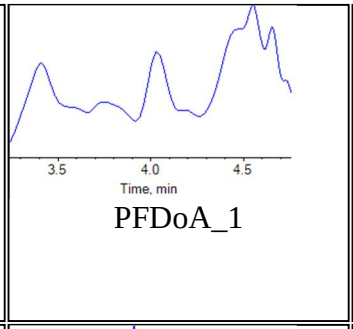
Created with Analyst Reporter
Printed: 23/10/2018 4:16:03 PM



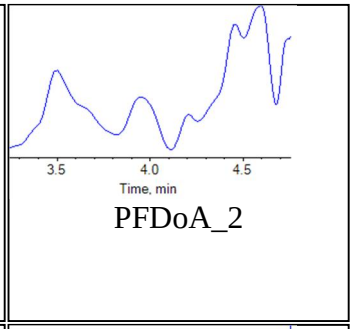
PFUnA_1



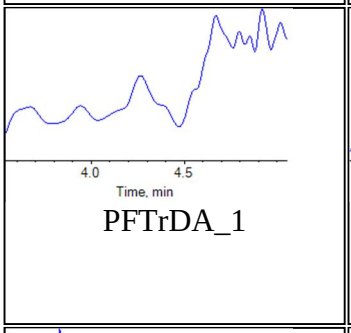
PFUnA_2



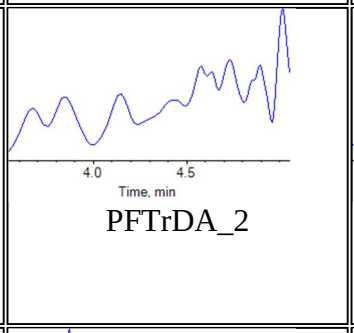
PFDoA_1



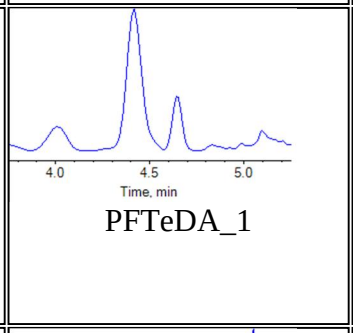
PFDoA_2



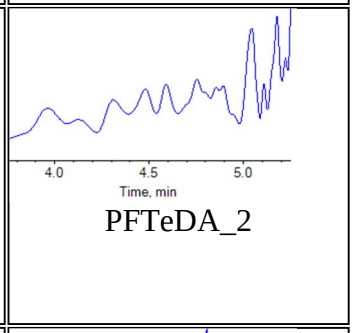
PFTrDA_1



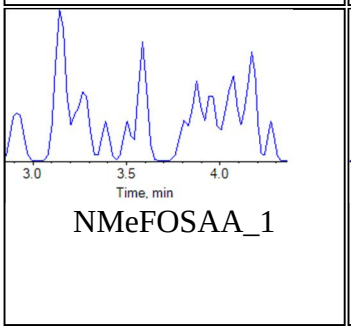
PFTrDA_2



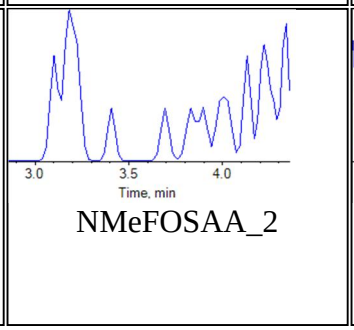
PFTeDA_1



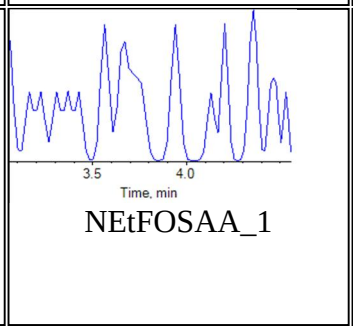
PFTeDA_2



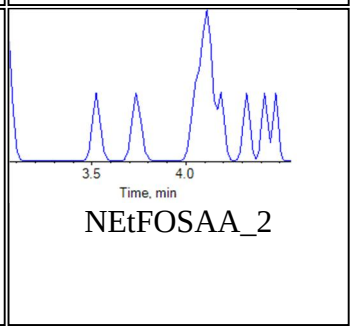
NMeFOSAA_1



NMeFOSAA_2

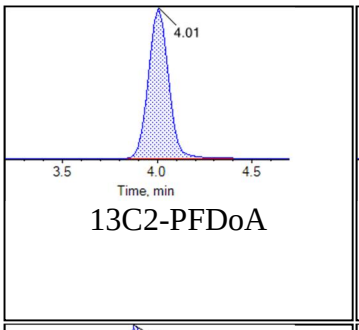


NEtFOSAA_1

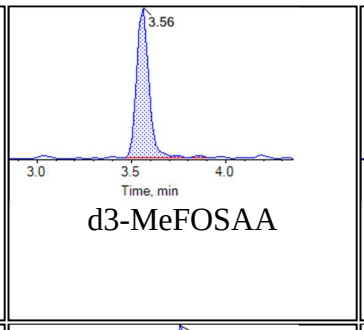


NEtFOSAA_2

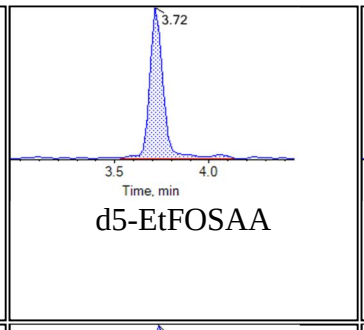
Internal Standards:



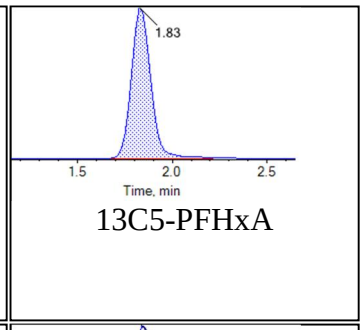
13C2-PFDoA



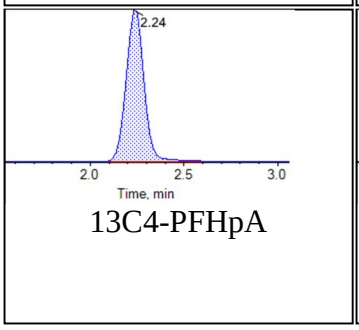
d3-MeFOSAA



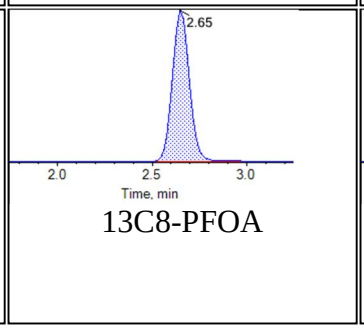
d5-EtFOSAA



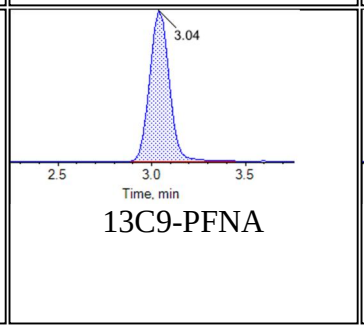
13C5-PFHxA



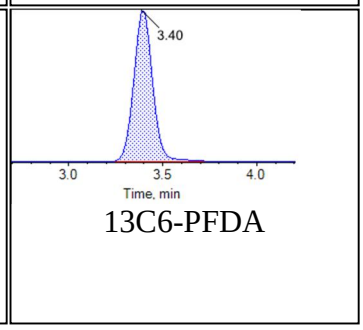
13C4-PFHpA



13C8-PFOA



13C9-PFNA

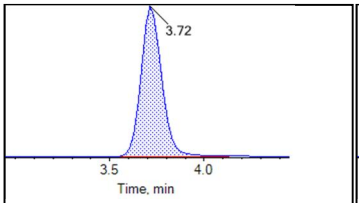


13C6-PFDA

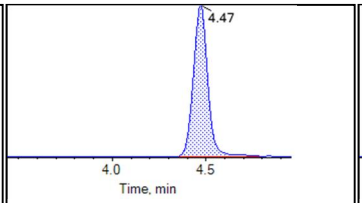
BATTELLE

Chromatogram Report

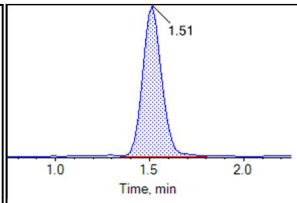
Created with Analyst Reporter
Printed: 23/10/2018 4:16:03 PM



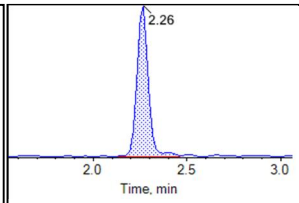
13C7-PFUnA



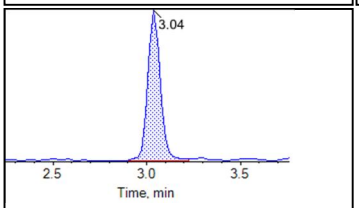
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

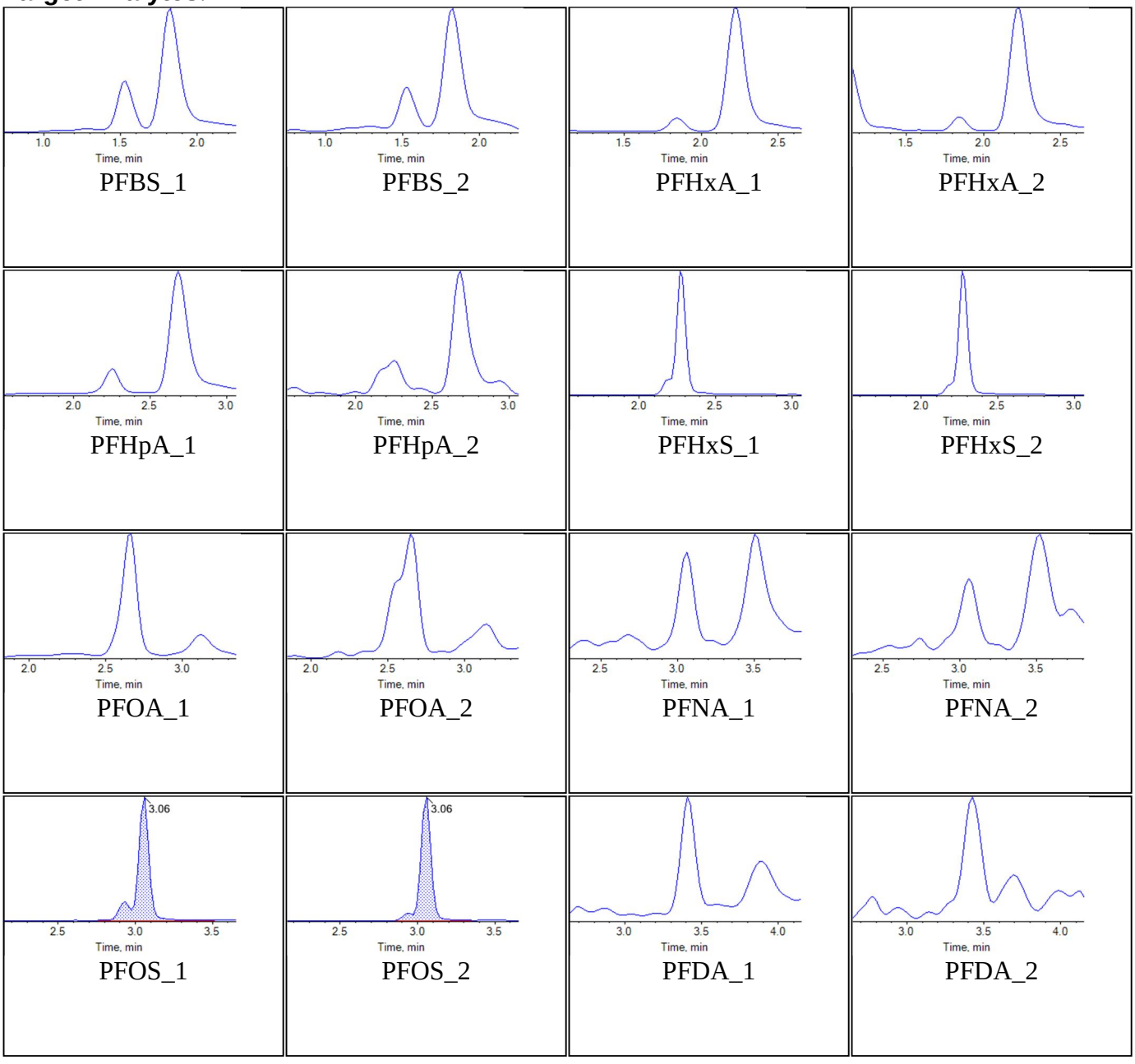
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:16:08 PM

Sample Name	J8384-FS-D(9)	**Injection Vial**	48
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:43:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

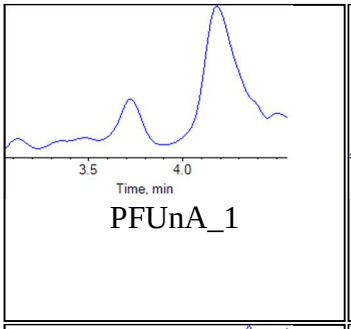
Target Analytes:



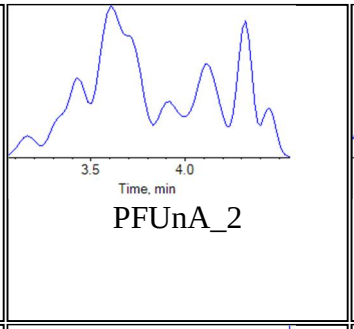
BATTELLE

Chromatogram Report

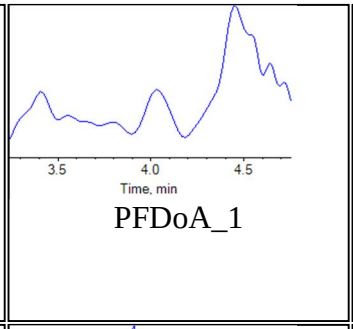
Created with Analyst Reporter
Printed: 23/10/2018 4:16:08 PM



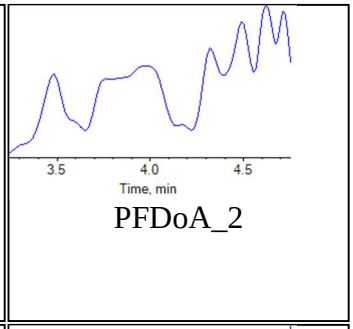
PFUnA_1



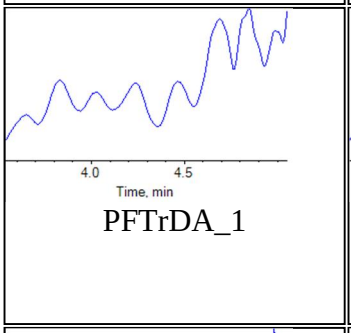
PFUnA_2



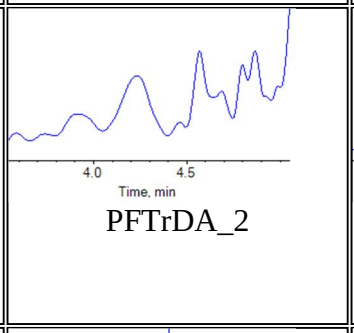
PFDoA_1



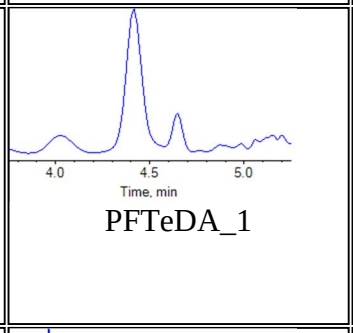
PFDoA_2



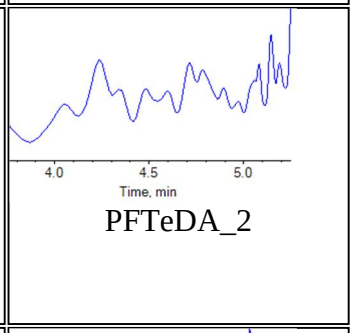
PFTrDA_1



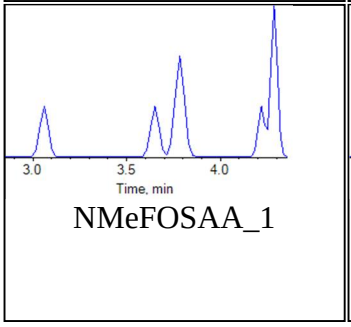
PFTrDA_2



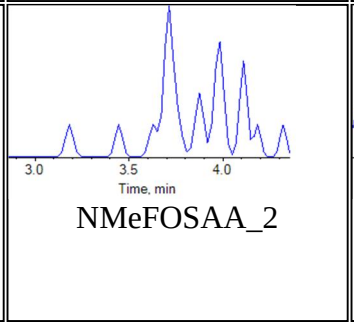
PFTeDA_1



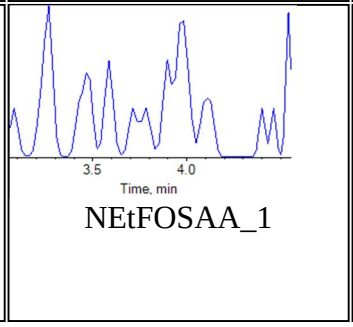
PFTeDA_2



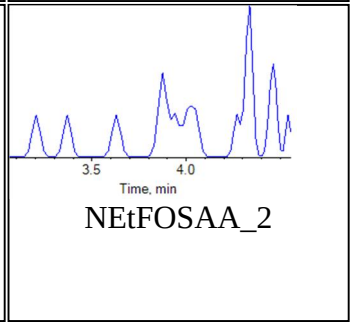
NMeFOSAA_1



NMeFOSAA_2

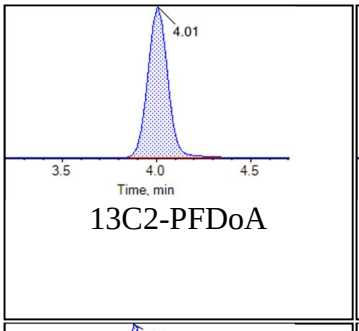


NEtFOSAA_1

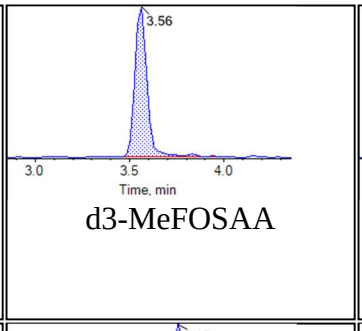


NEtFOSAA_2

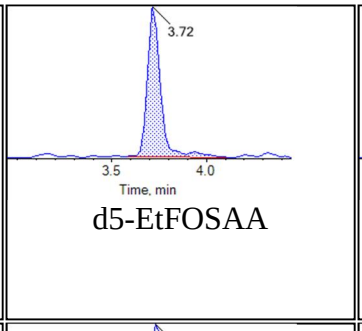
Internal Standards:



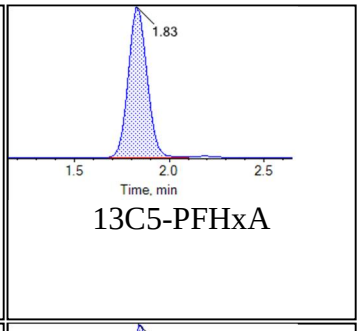
13C2-PFDoA



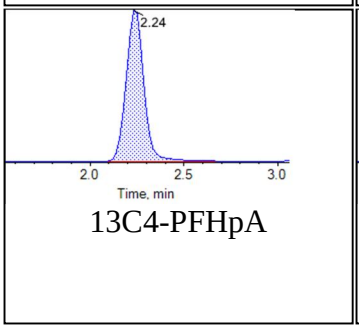
d3-MeFOSAA



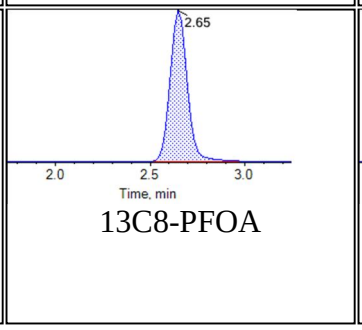
d5-EtFOSAA



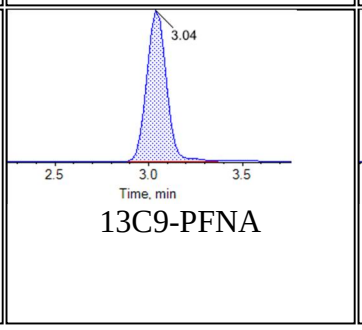
13C5-PFHxA



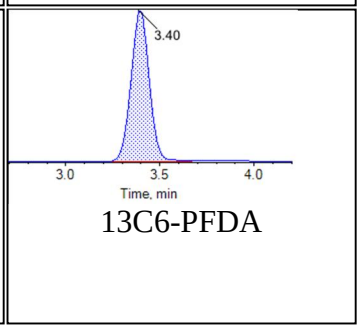
13C4-PFHpA



13C8-PFOA



13C9-PFNA

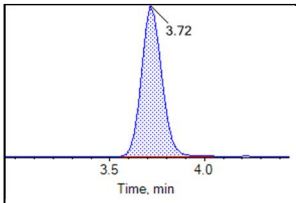


13C6-PFDA

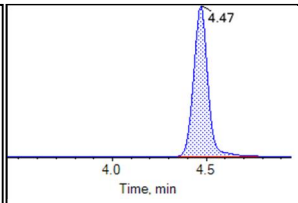
BATTELLE

Chromatogram Report

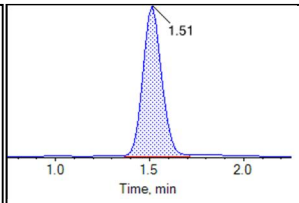
Created with Analyst Reporter
Printed: 23/10/2018 4:16:08 PM



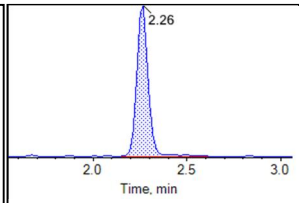
13C7-PFUnA



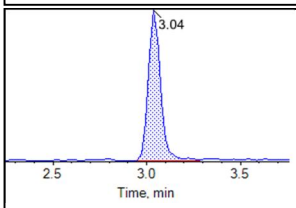
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

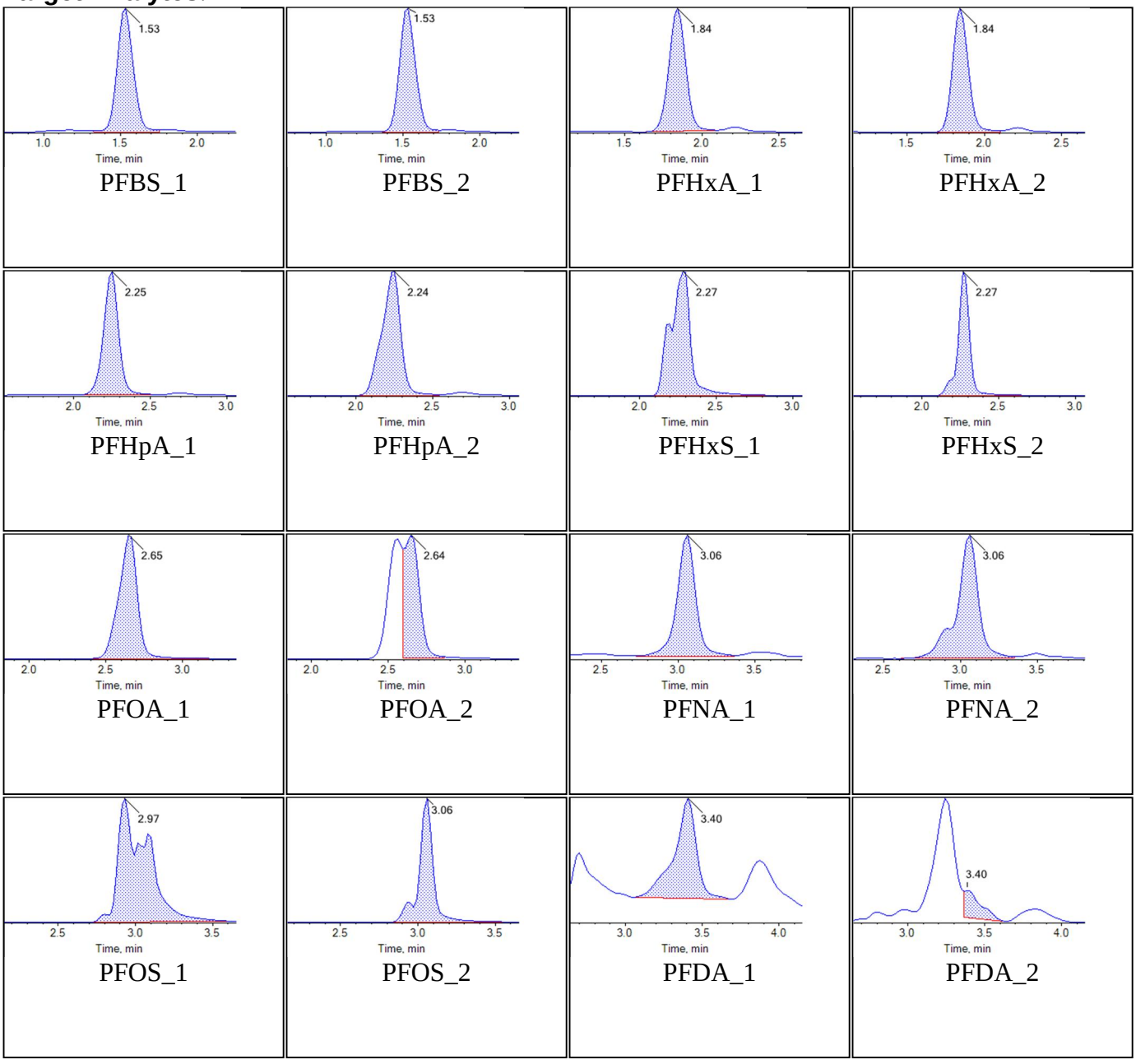
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:16:13 PM

Sample Name	J8385-FS(0)	**Injection Vial**	49
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:54:20	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

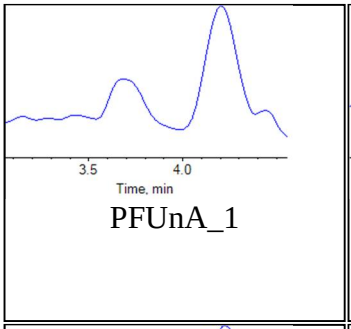
Target Analytes:



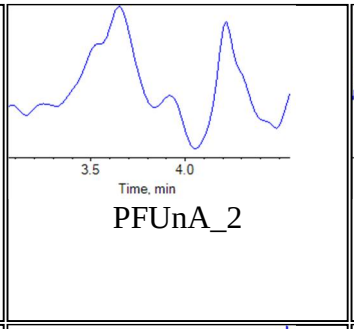
BATTELLE

Chromatogram Report

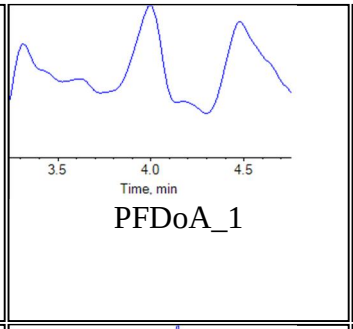
Created with Analyst Reporter
Printed: 23/10/2018 4:16:13 PM



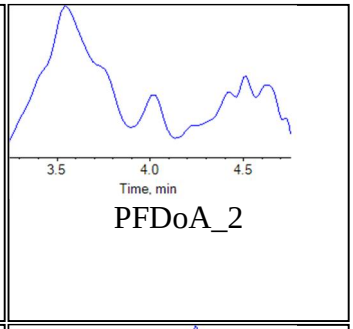
PFUnA_1



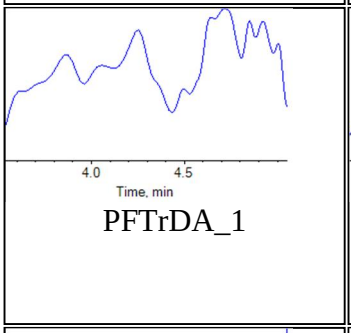
PFUnA_2



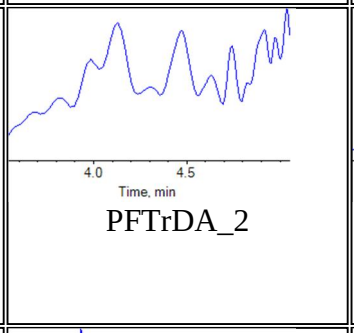
PFDoA_1



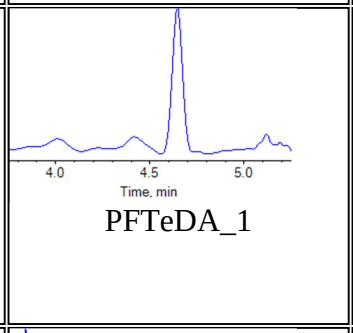
PFDoA_2



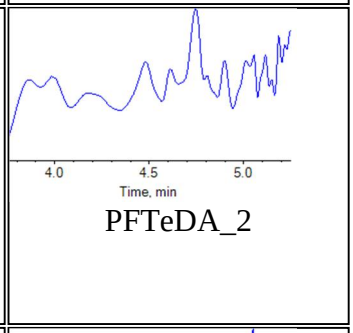
PFTrDA_1



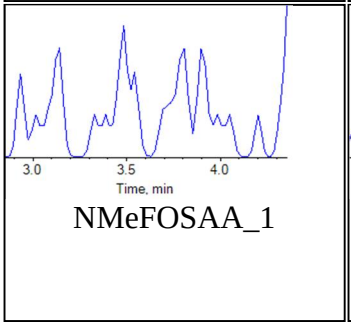
PFTrDA_2



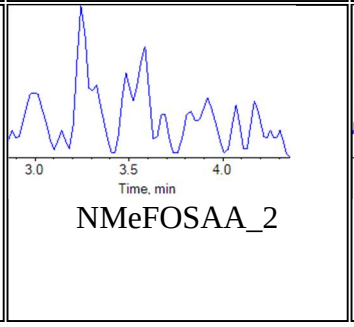
PFTeDA_1



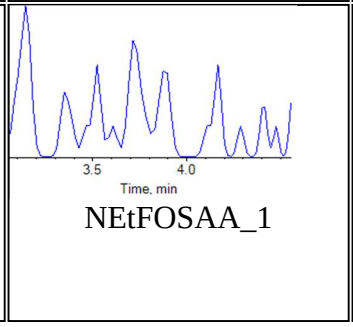
PFTeDA_2



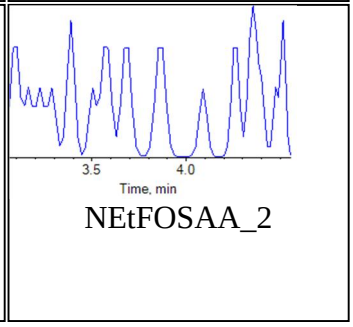
NMeFOSAA_1



NMeFOSAA_2

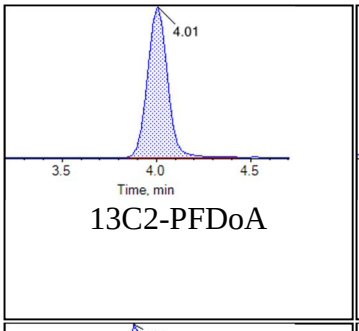


NEtFOSAA_1

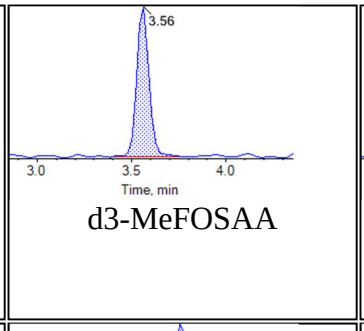


NEtFOSAA_2

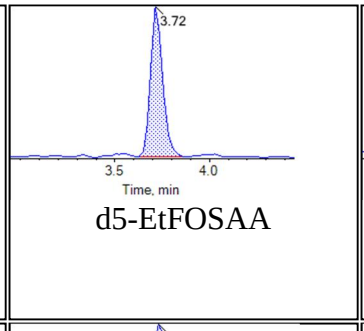
Internal Standards:



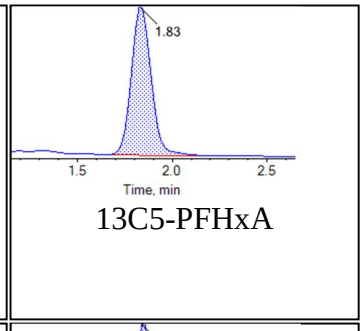
13C2-PFDoA



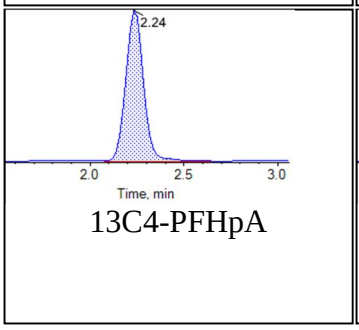
d3-MeFOSAA



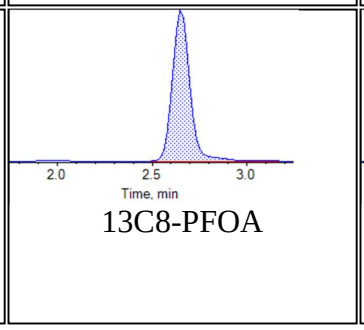
d5-EtFOSAA



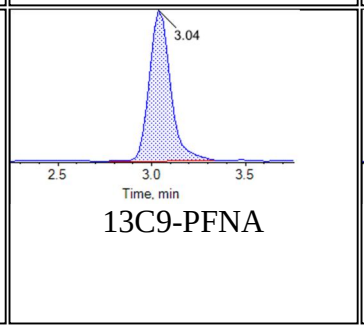
13C5-PFHxA



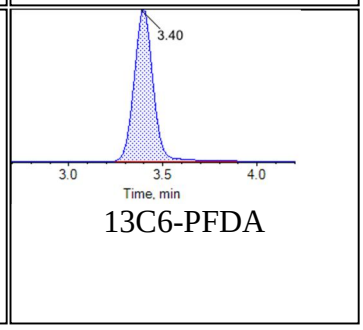
13C4-PFHpA



13C8-PFOA



13C9-PFNA

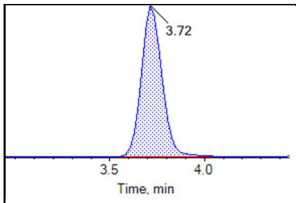


13C6-PFDA

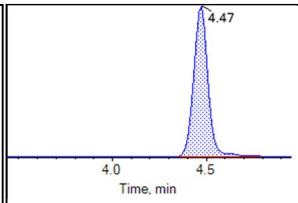
BATTELLE

Chromatogram Report

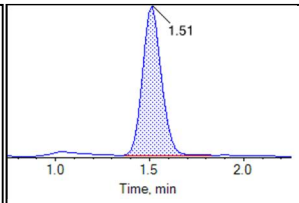
Created with Analyst Reporter
Printed: 23/10/2018 4:16:13 PM



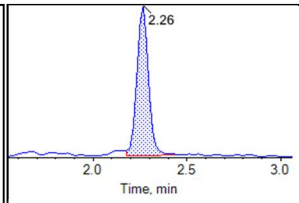
13C7-PFUnA



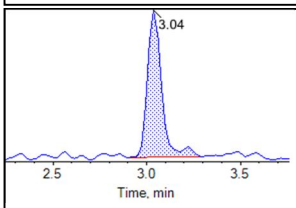
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

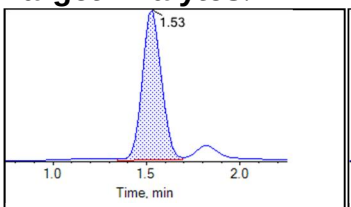
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:16:18 PM

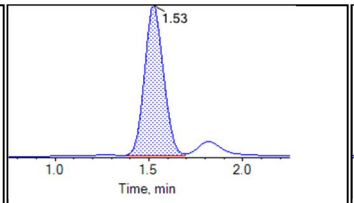
Sample Name	J8385-FS-D(3)	**Injection Vial**	50
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:05:13	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

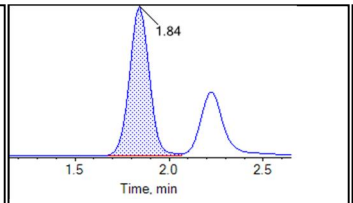
Target Analytes:



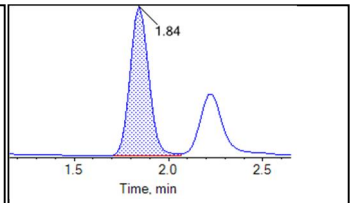
PFBS_1



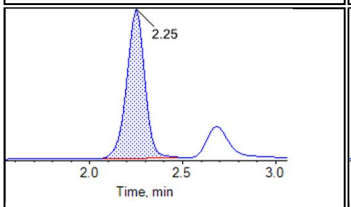
PFBS_2



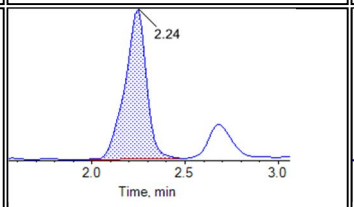
PFHxA_1



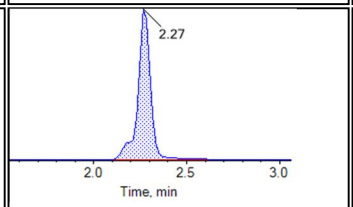
PFHxA_2



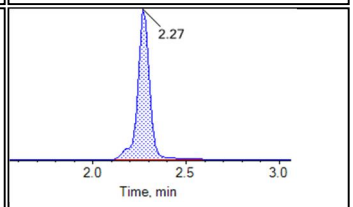
PFHpA_1



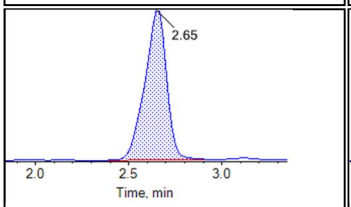
PFHpA_2



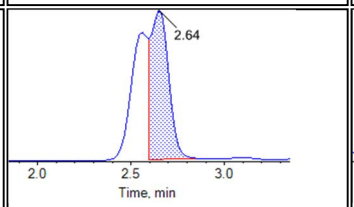
PFHxS_1



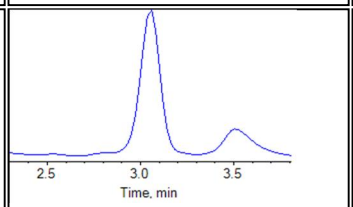
PFHxS_2



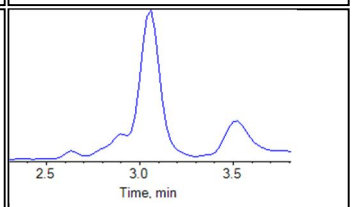
PFOA_1



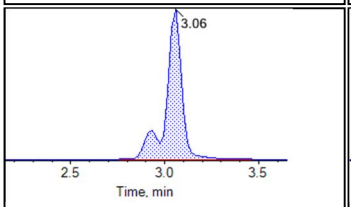
PFOA_2



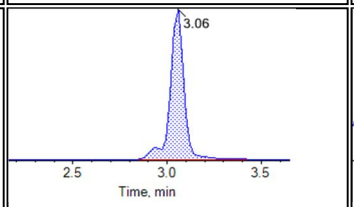
PFNA_1



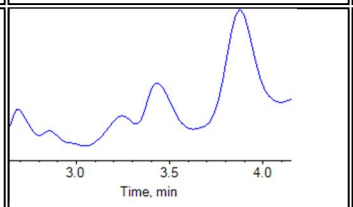
PFNA_2



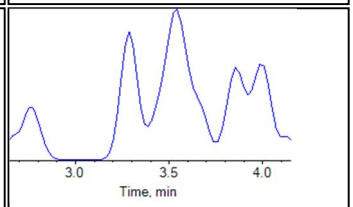
PFOS_1



PFOS_2



PFDA_1

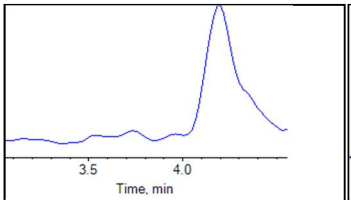


PFDA_2

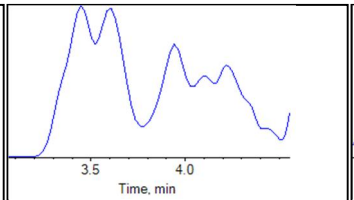
BATTELLE

Chromatogram Report

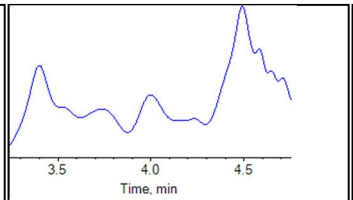
Created with Analyst Reporter
Printed: 23/10/2018 4:16:18 PM



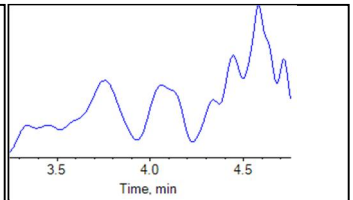
PFUnA_1



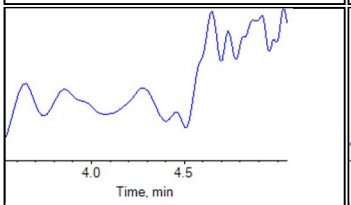
PFUnA_2



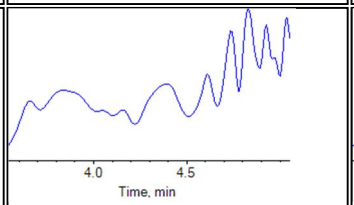
PFDoA_1



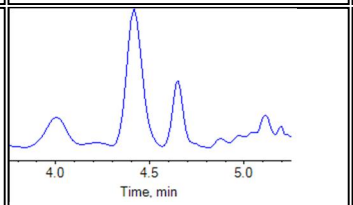
PFDoA_2



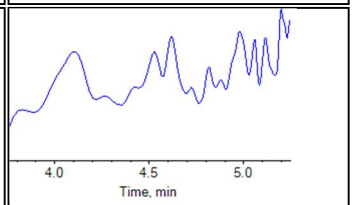
PFTrDA_1



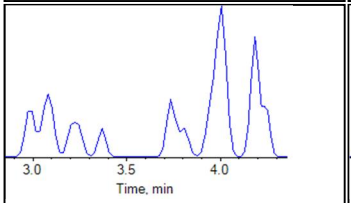
PFTrDA_2



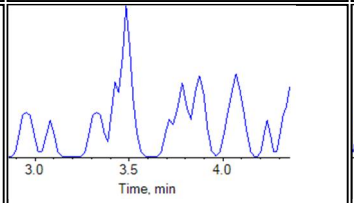
PFTeDA_1



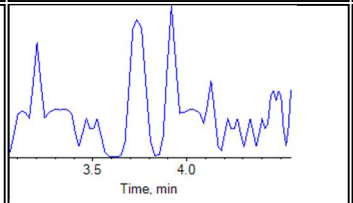
PFTeDA_2



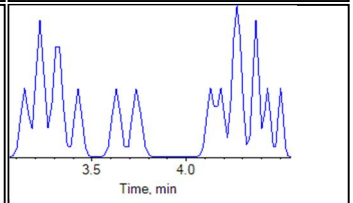
NMeFOSAA_1



NMeFOSAA_2

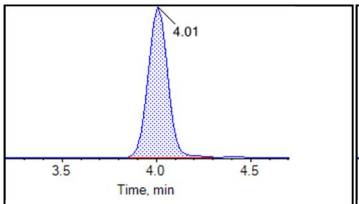


NEtFOSAA_1

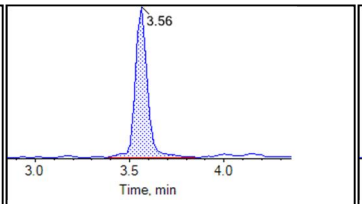


NEtFOSAA_2

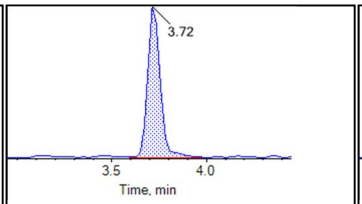
Internal Standards:



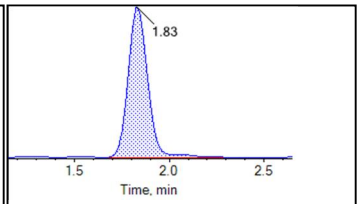
13C2-PFDoA



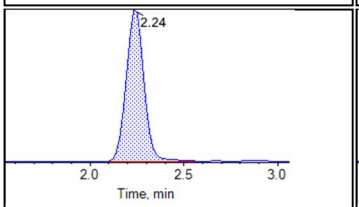
d3-MeFOSAA



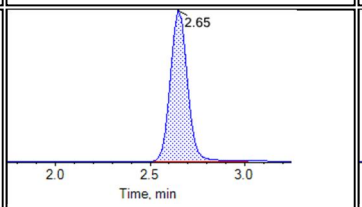
d5-EtFOSAA



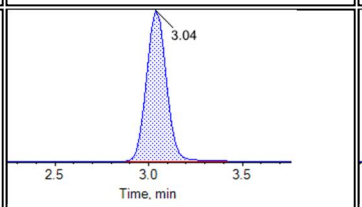
13C5-PFHxA



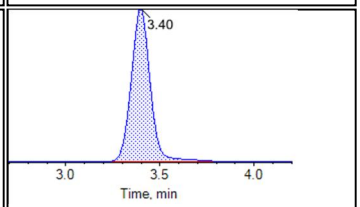
13C4-PFHpA



13C8-PFOA



13C9-PFNA

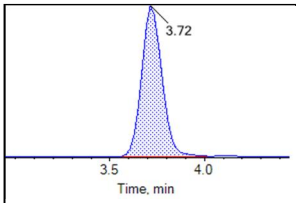


13C6-PFDA

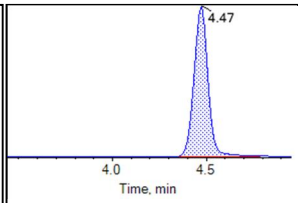
BATTELLE

Chromatogram Report

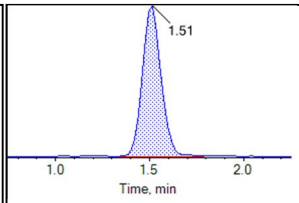
Created with Analyst Reporter
Printed: 23/10/2018 4:16:18 PM



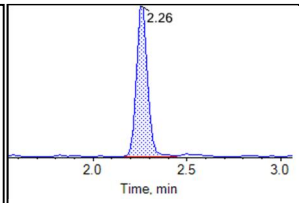
13C7-PFUnA



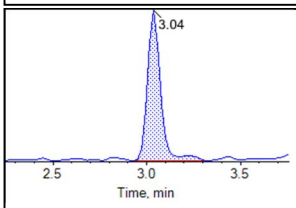
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

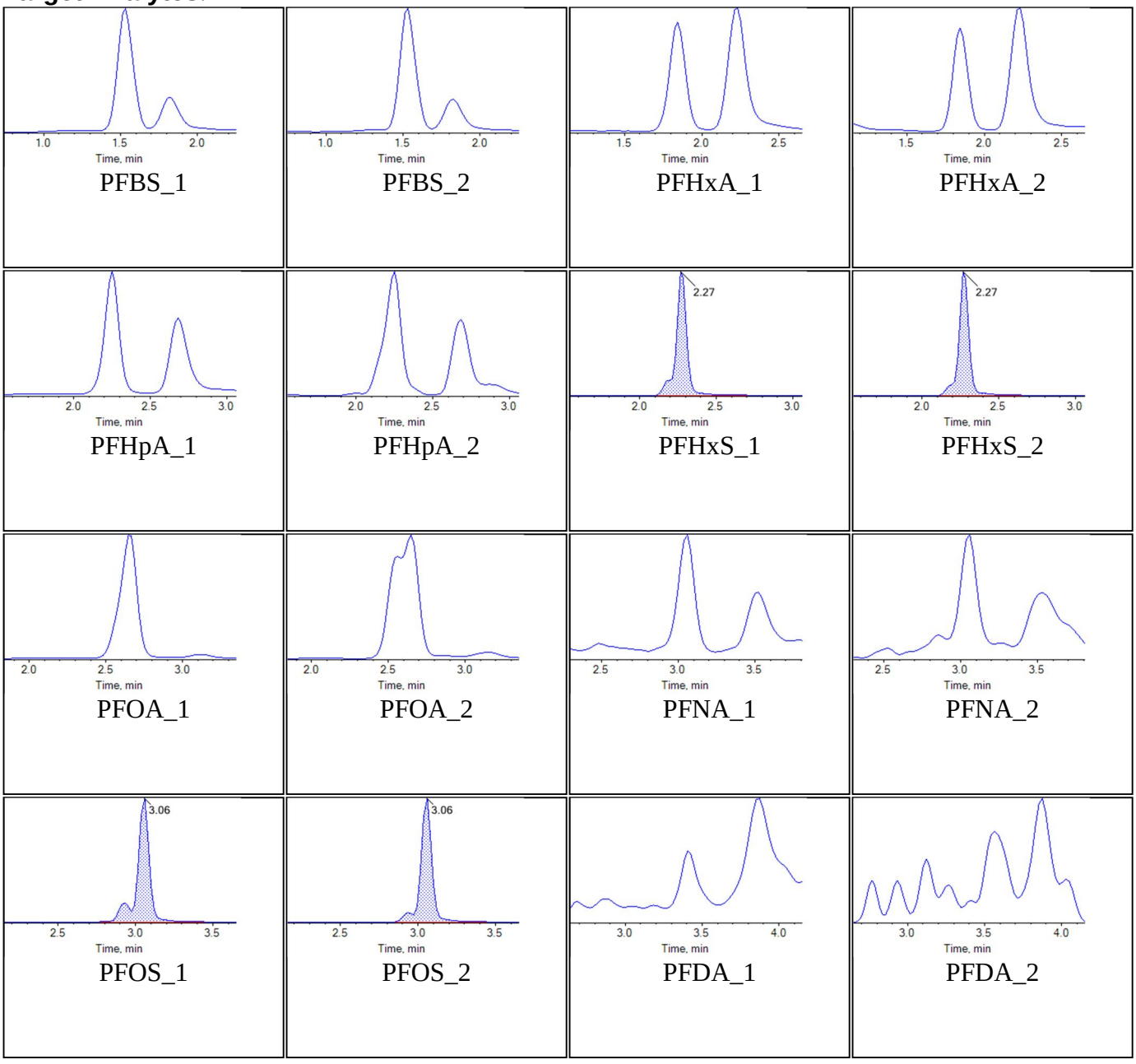
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:16:23 PM

Sample Name	J8385-FS-D(5)	**Injection Vial**	51
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:16:05	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

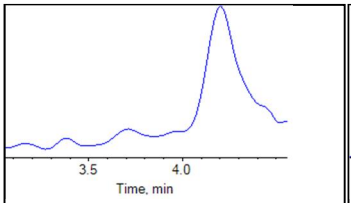
Target Analytes:



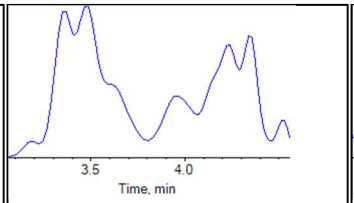
BATTELLE

Chromatogram Report

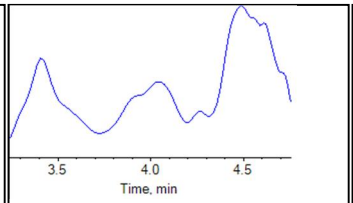
Created with Analyst Reporter
Printed: 23/10/2018 4:16:23 PM



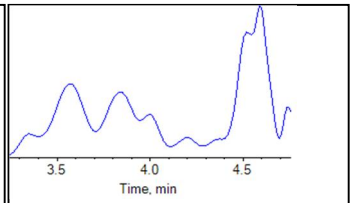
PFUnA_1



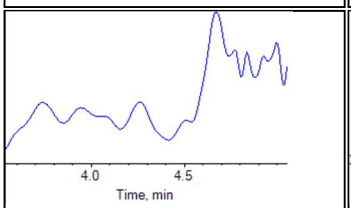
PFUnA_2



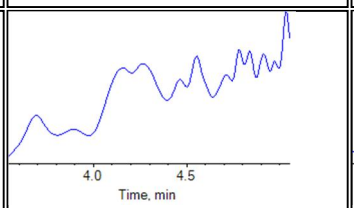
PFDoA_1



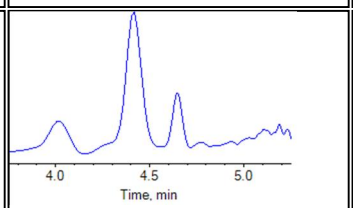
PFDoA_2



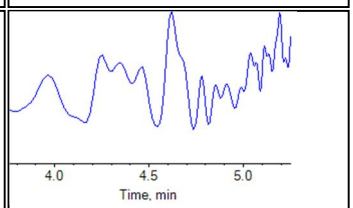
PFTrDA_1



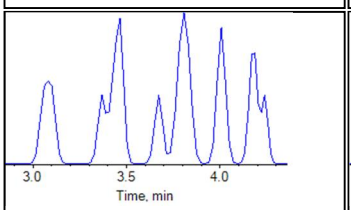
PFTrDA_2



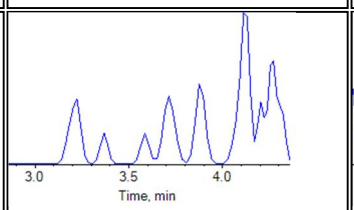
PFTeDA_1



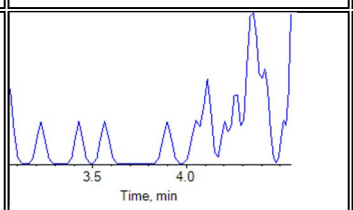
PFTeDA_2



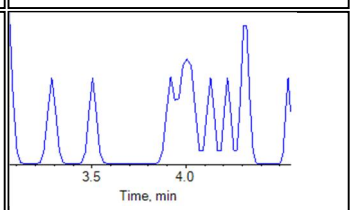
NMeFOSAA_1



NMeFOSAA_2

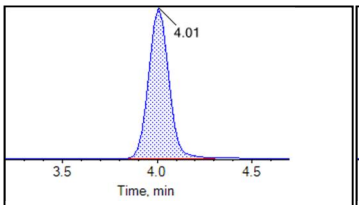


NEtFOSAA_1

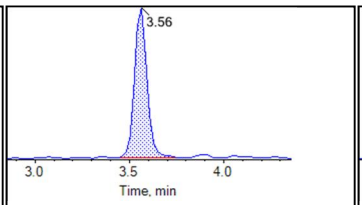


NEtFOSAA_2

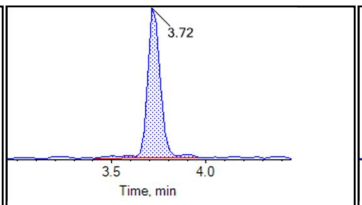
Internal Standards:



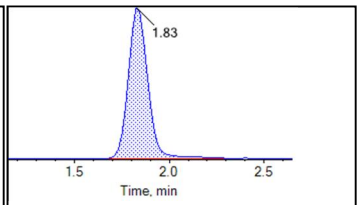
13C2-PFDoA



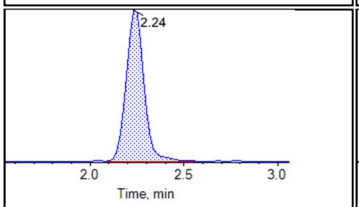
d3-MeFOSAA



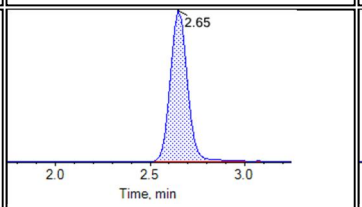
d5-EtFOSAA



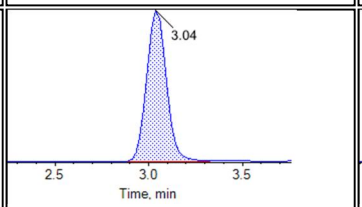
13C5-PFHxA



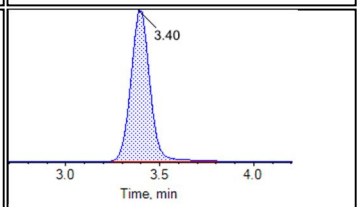
13C4-PFHpA



13C8-PFOA



13C9-PFNA

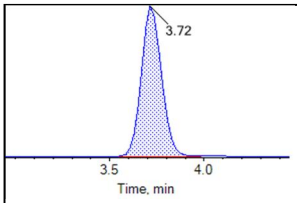


13C6-PFDA

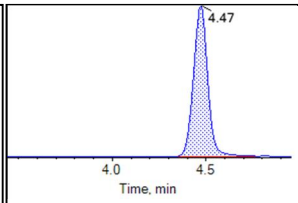
BATTELLE

Chromatogram Report

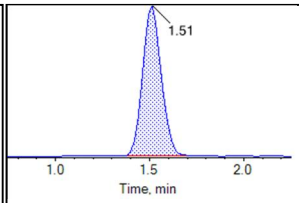
Created with Analyst Reporter
Printed: 23/10/2018 4:16:23 PM



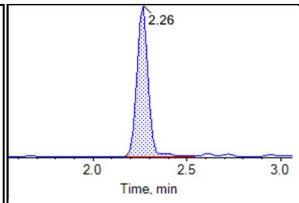
13C7-PFUnA



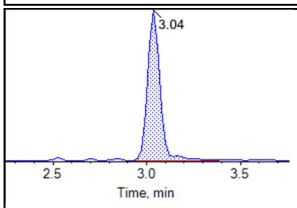
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

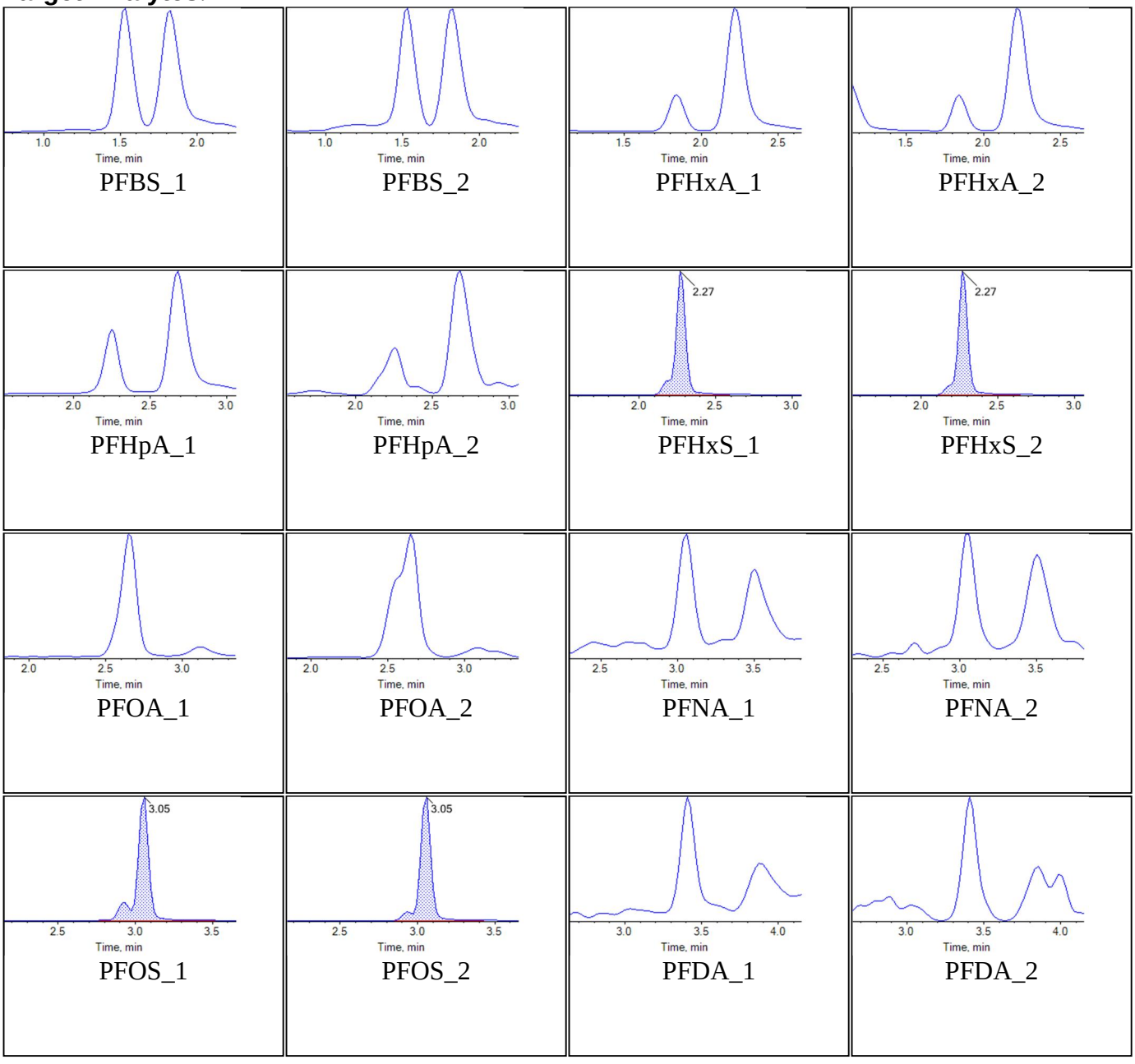
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:16:29 PM

Sample Name	J8385-FS-D(7)	**Injection Vial**	52
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:26:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

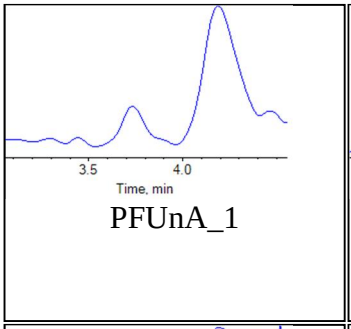
Target Analytes:



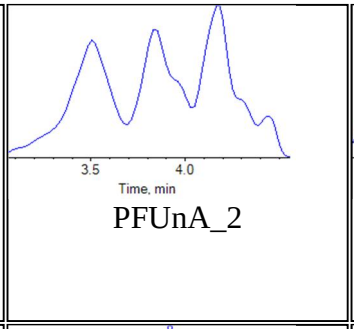
BATTELLE

Chromatogram Report

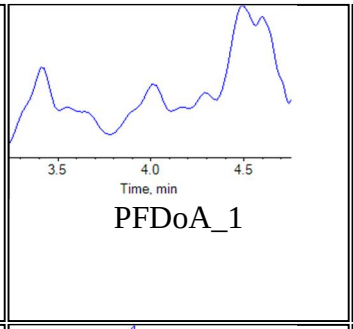
Created with Analyst Reporter
Printed: 23/10/2018 4:16:29 PM



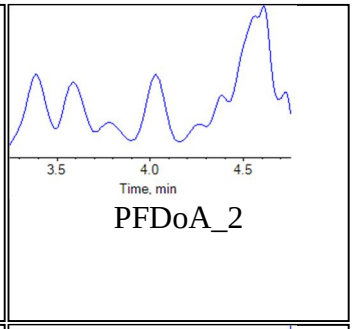
PFUnA_1



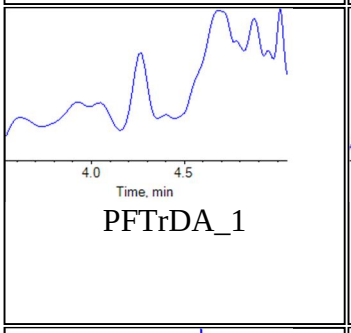
PFUnA_2



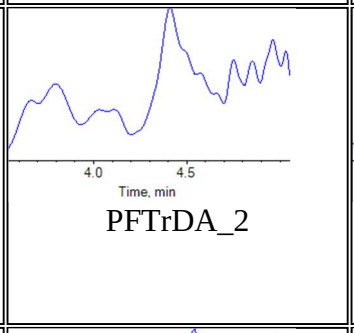
PFDoA_1



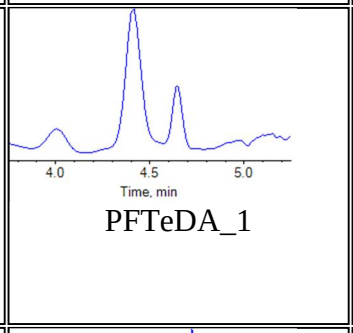
PFDoA_2



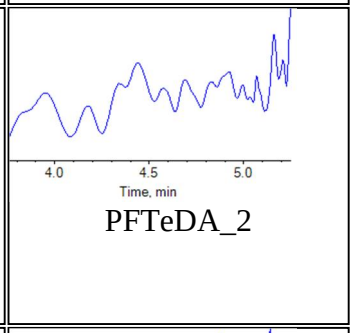
PFTrDA_1



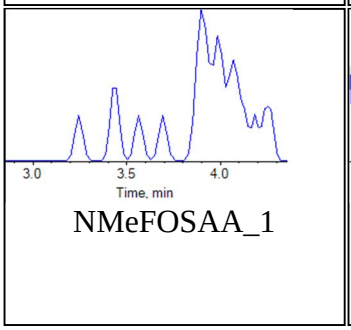
PFTrDA_2



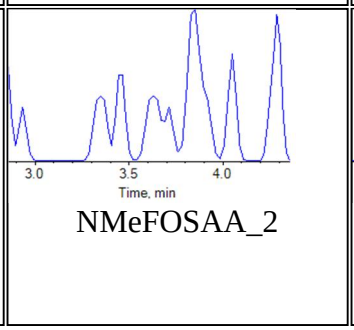
PFTeDA_1



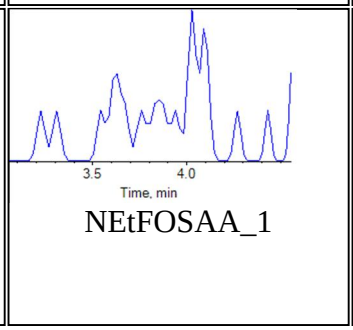
PFTeDA_2



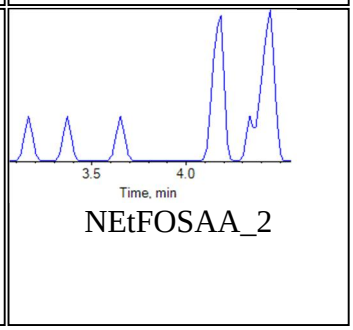
NMeFOSAA_1



NMeFOSAA_2

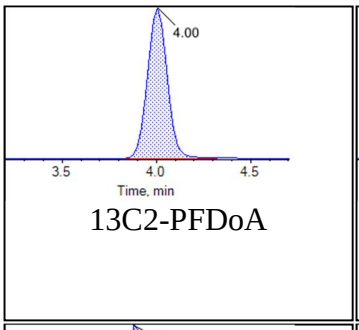


NEtFOSAA_1

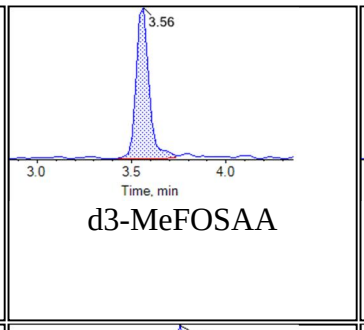


NEtFOSAA_2

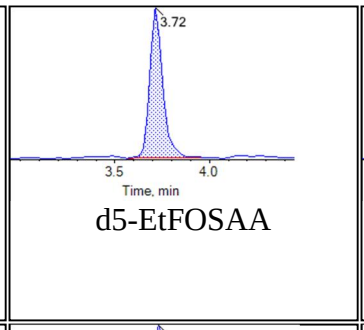
Internal Standards:



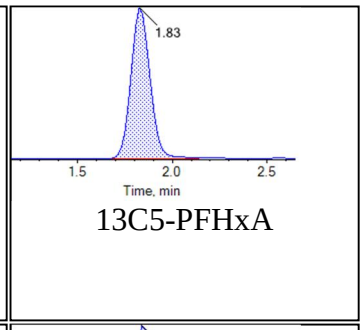
13C2-PFDoA



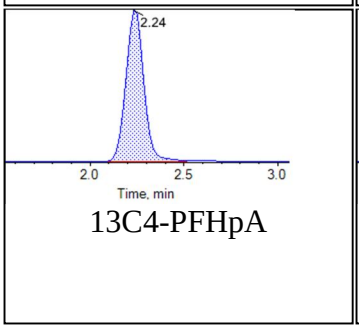
d3-MeFOSAA



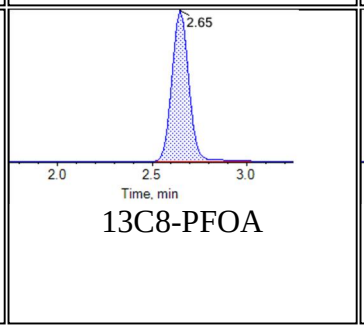
d5-EtFOSAA



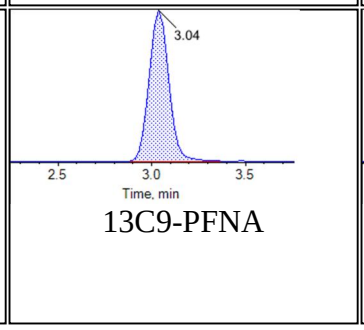
13C5-PFHxA



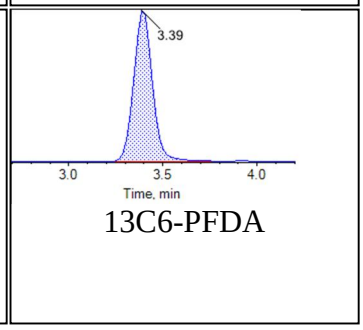
13C4-PFHpA



13C8-PFOA



13C9-PFNA

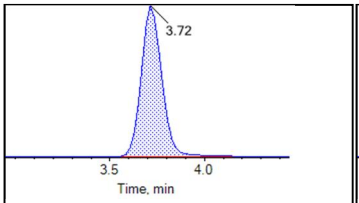


13C6-PFDA

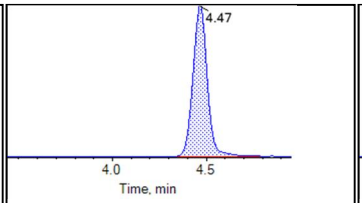
BATTELLE

Chromatogram Report

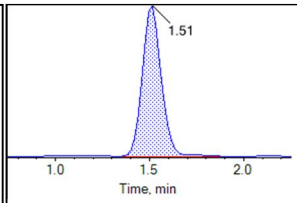
Created with Analyst Reporter
Printed: 23/10/2018 4:16:29 PM



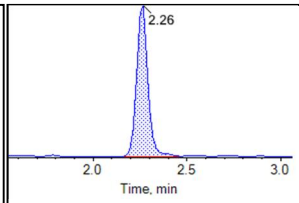
13C7-PFUnA



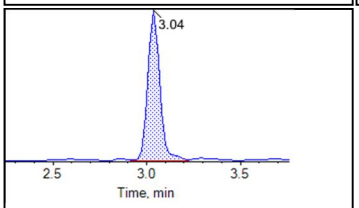
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

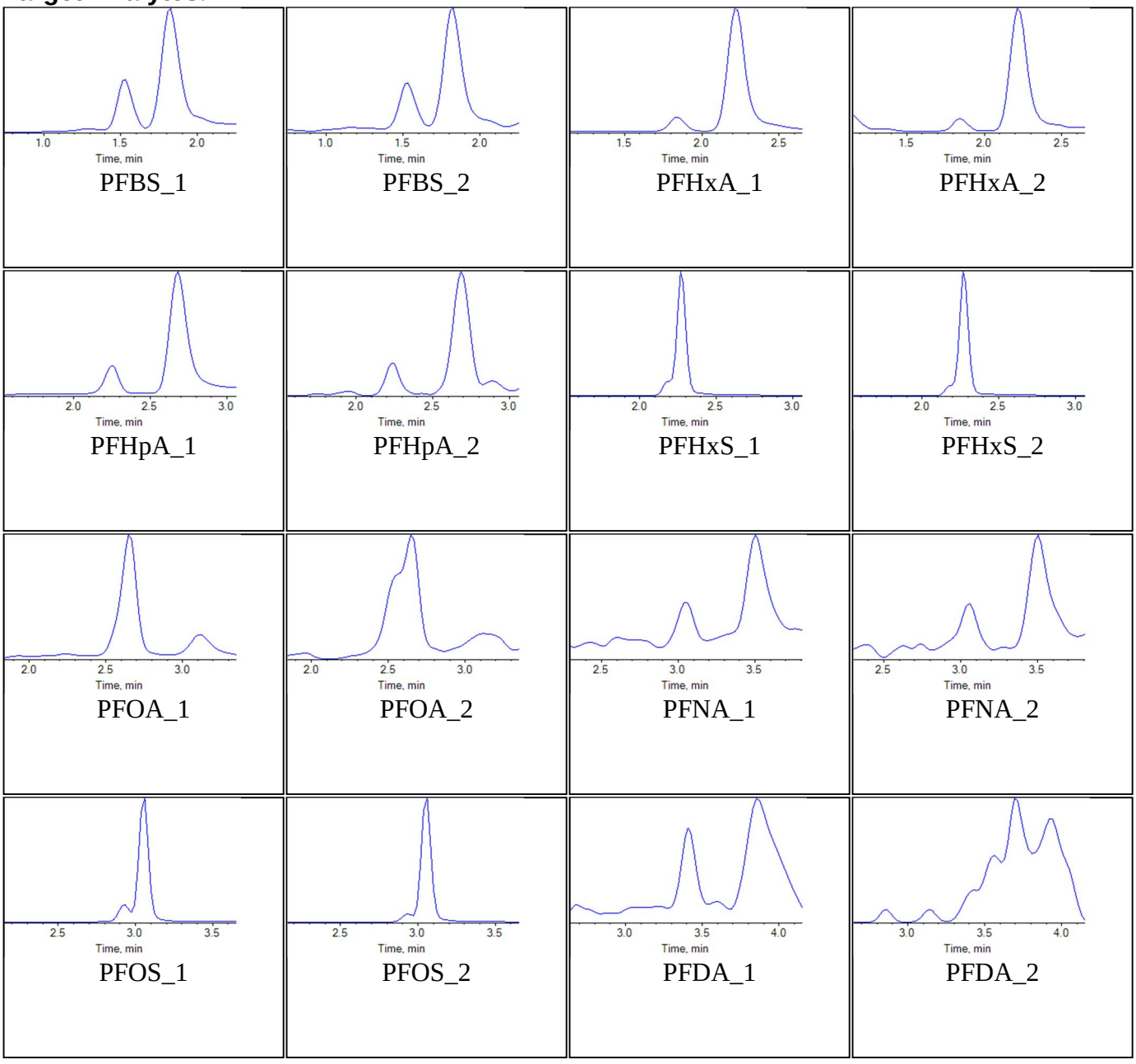
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:16:34 PM

Sample Name	J8385-FS-D(9)	**Injection Vial**	53
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:37:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

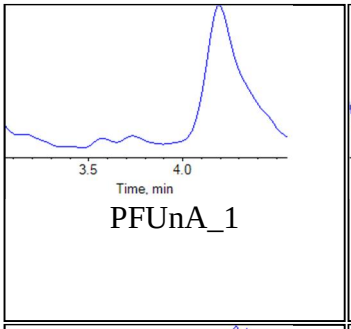
Target Analytes:



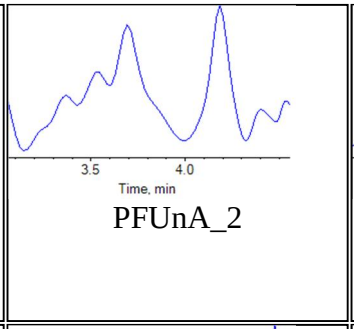
BATTELLE

Chromatogram Report

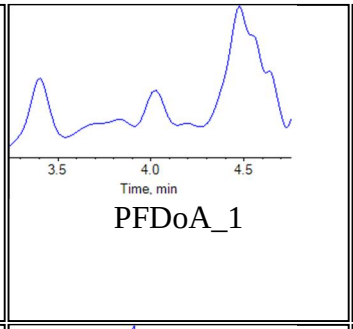
Created with Analyst Reporter
Printed: 23/10/2018 4:16:34 PM



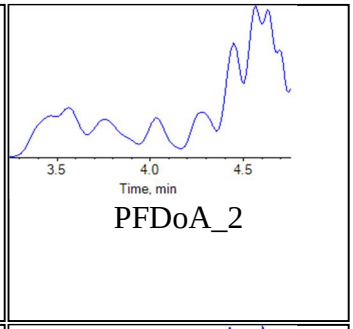
PFUnA_1



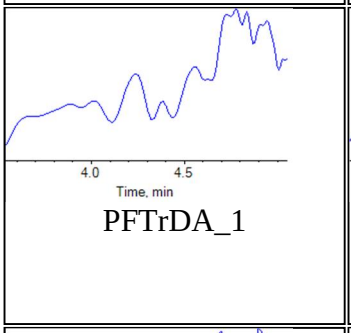
PFUnA_2



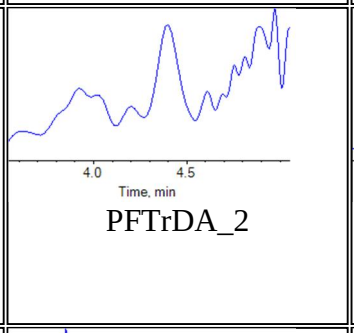
PFDoA_1



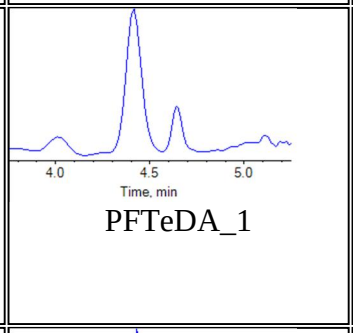
PFDoA_2



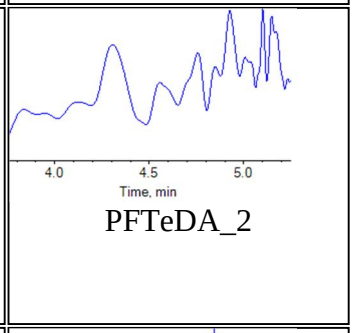
PFTrDA_1



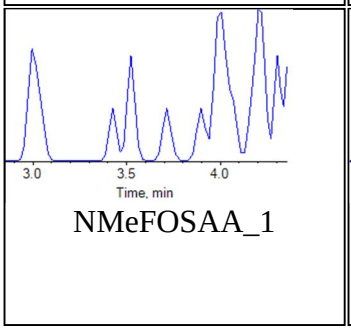
PFTrDA_2



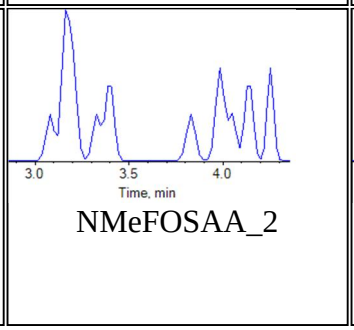
PFTeDA_1



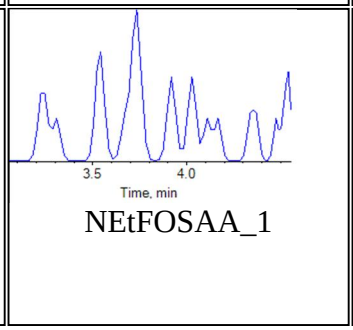
PFTeDA_2



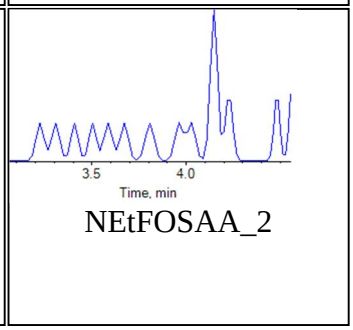
NMeFOSAA_1



NMeFOSAA_2

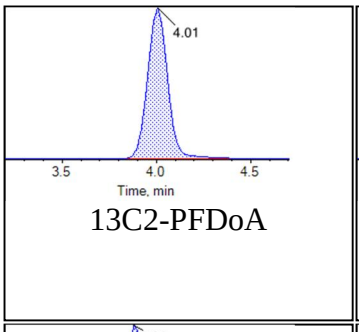


NEtFOSAA_1

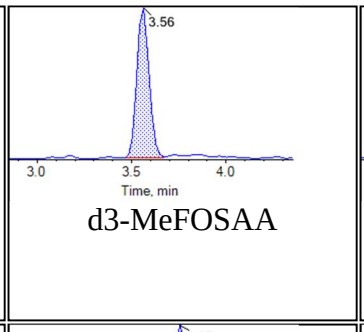


NEtFOSAA_2

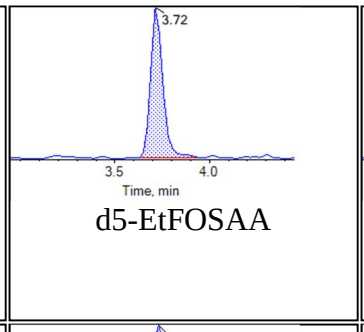
Internal Standards:



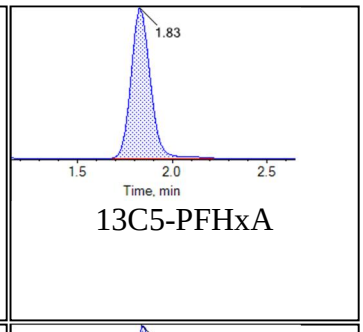
13C2-PFDoA



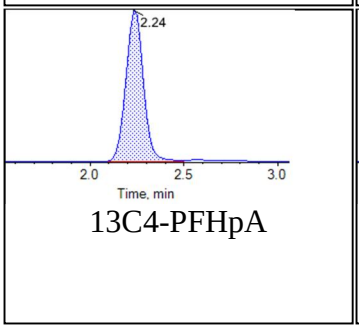
d3-MeFOSAA



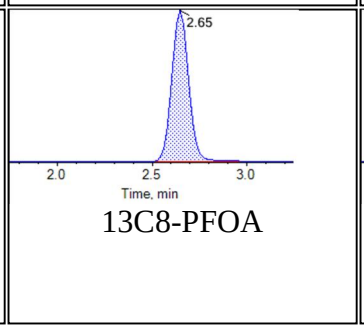
d5-EtFOSAA



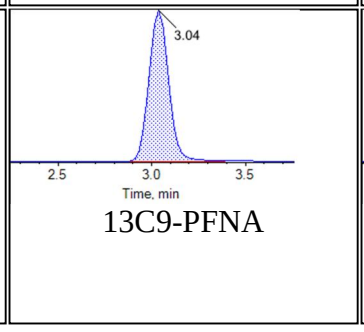
13C5-PFHxA



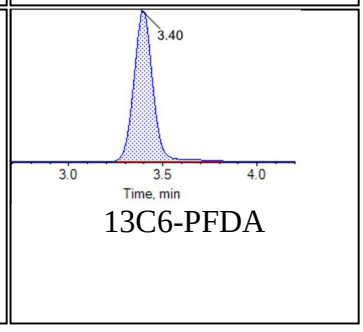
13C4-PFHpA



13C8-PFOA



13C9-PFNA

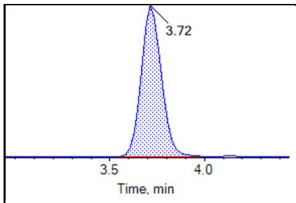


13C6-PFDA

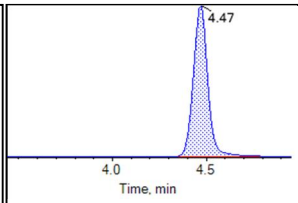
BATTELLE

Chromatogram Report

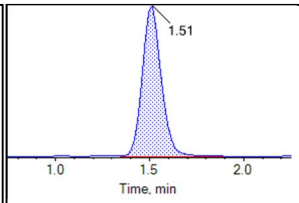
Created with Analyst Reporter
Printed: 23/10/2018 4:16:34 PM



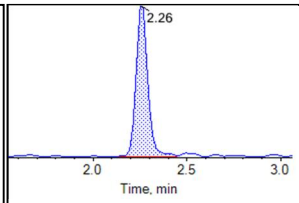
13C7-PFUnA



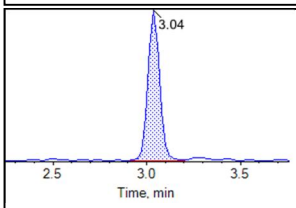
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

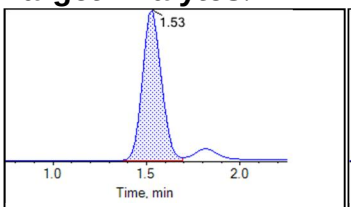
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:16:39 PM

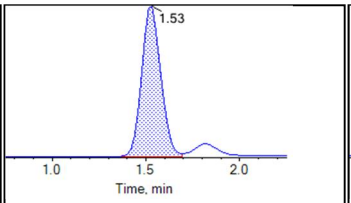
Sample Name	KB77 CCV	**Injection Vial**	54
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:48:43	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

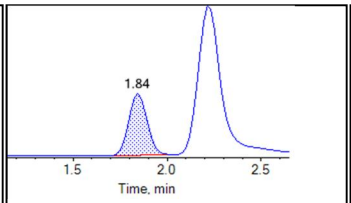
Target Analytes:



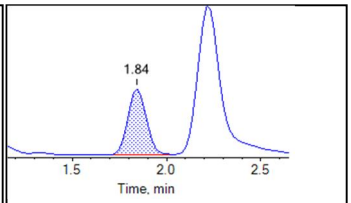
PFBS_1



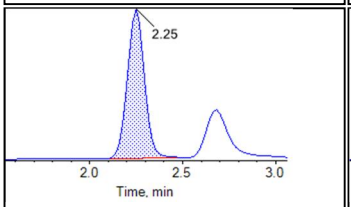
PFBS_2



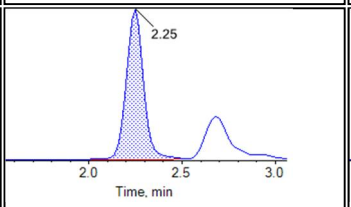
PFHxA_1



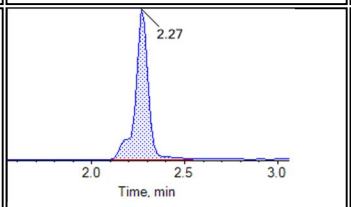
PFHxA_2



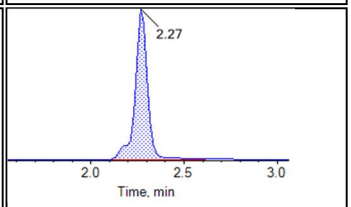
PFHpA_1



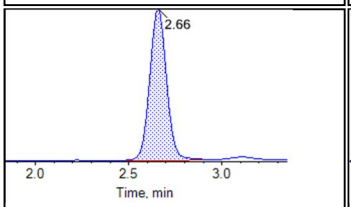
PFHpA_2



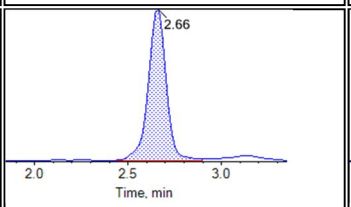
PFHxS_1



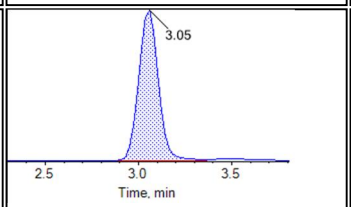
PFHxS_2



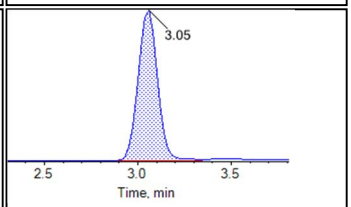
PFOA_1



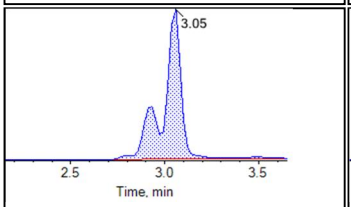
PFOA_2



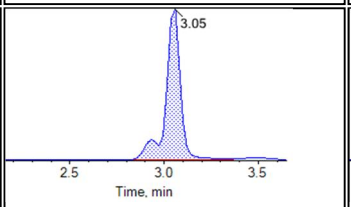
PFNA_1



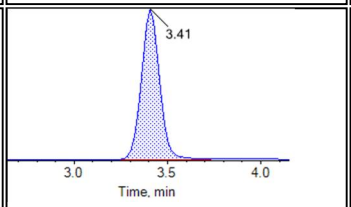
PFNA_2



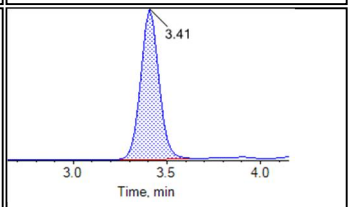
PFOS_1



PFOS_2



PFDA_1

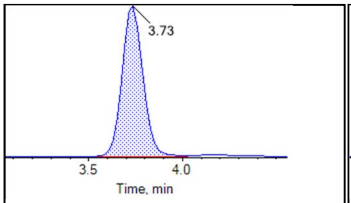


PFDA_2

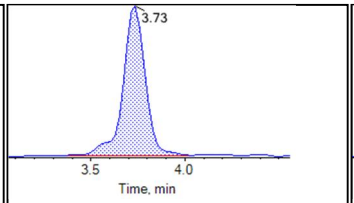
BATTELLE

Chromatogram Report

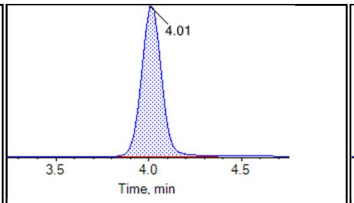
Created with Analyst Reporter
Printed: 23/10/2018 4:16:39 PM



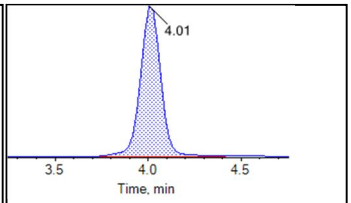
PFUnA_1



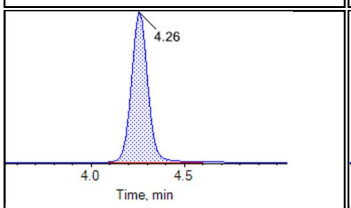
PFUnA_2



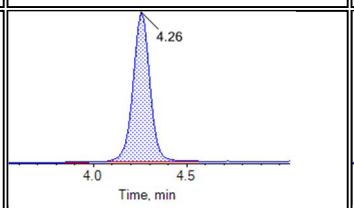
PFDoA_1



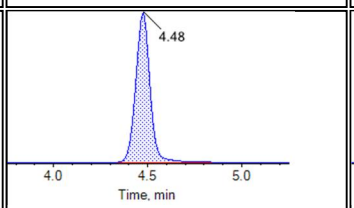
PFDoA_2



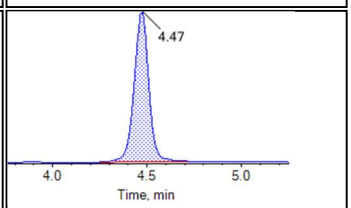
PFTrDA_1



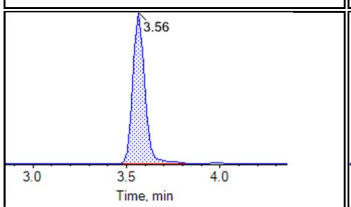
PFTrDA_2



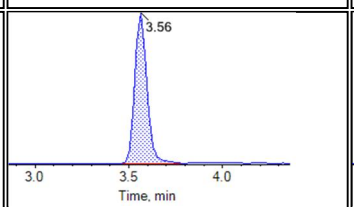
PFTeDA_1



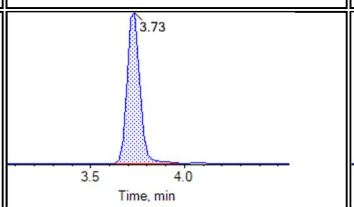
PFTeDA_2



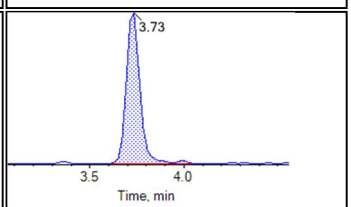
NMeFOSAA_1



NMeFOSAA_2

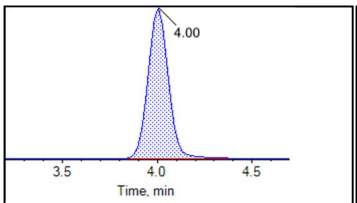


NEtFOSAA_1

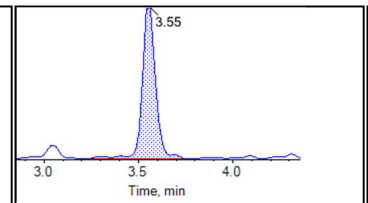


NEtFOSAA_2

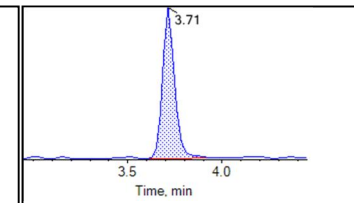
Internal Standards:



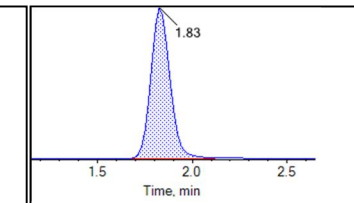
13C2-PFDoA



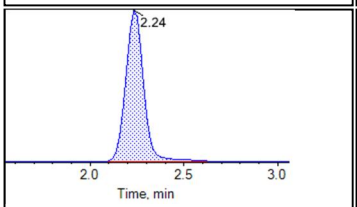
d3-MeFOSAA



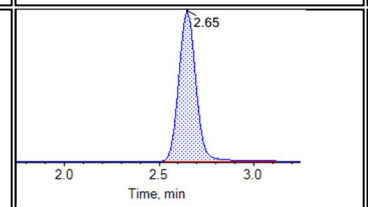
d5-EtFOSAA



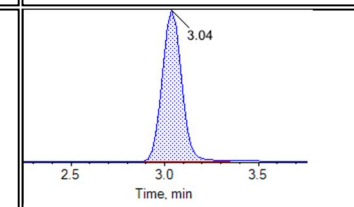
13C5-PFHxA



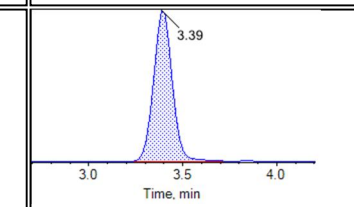
13C4-PFHpA



13C8-PFOA



13C9-PFNA

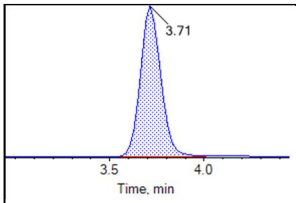


13C6-PFDA

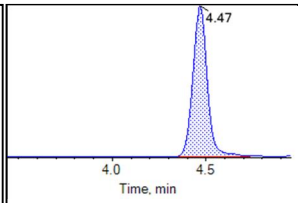
BATTELLE

Chromatogram Report

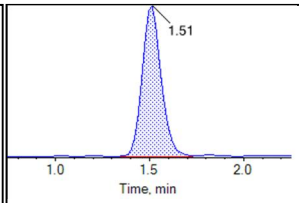
Created with Analyst Reporter
Printed: 23/10/2018 4:16:39 PM



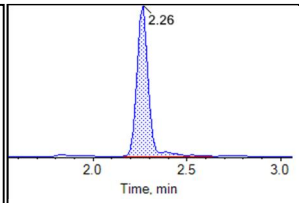
13C7-PFUnA



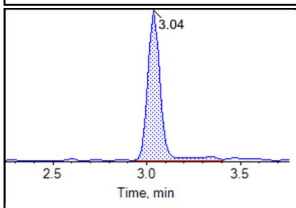
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

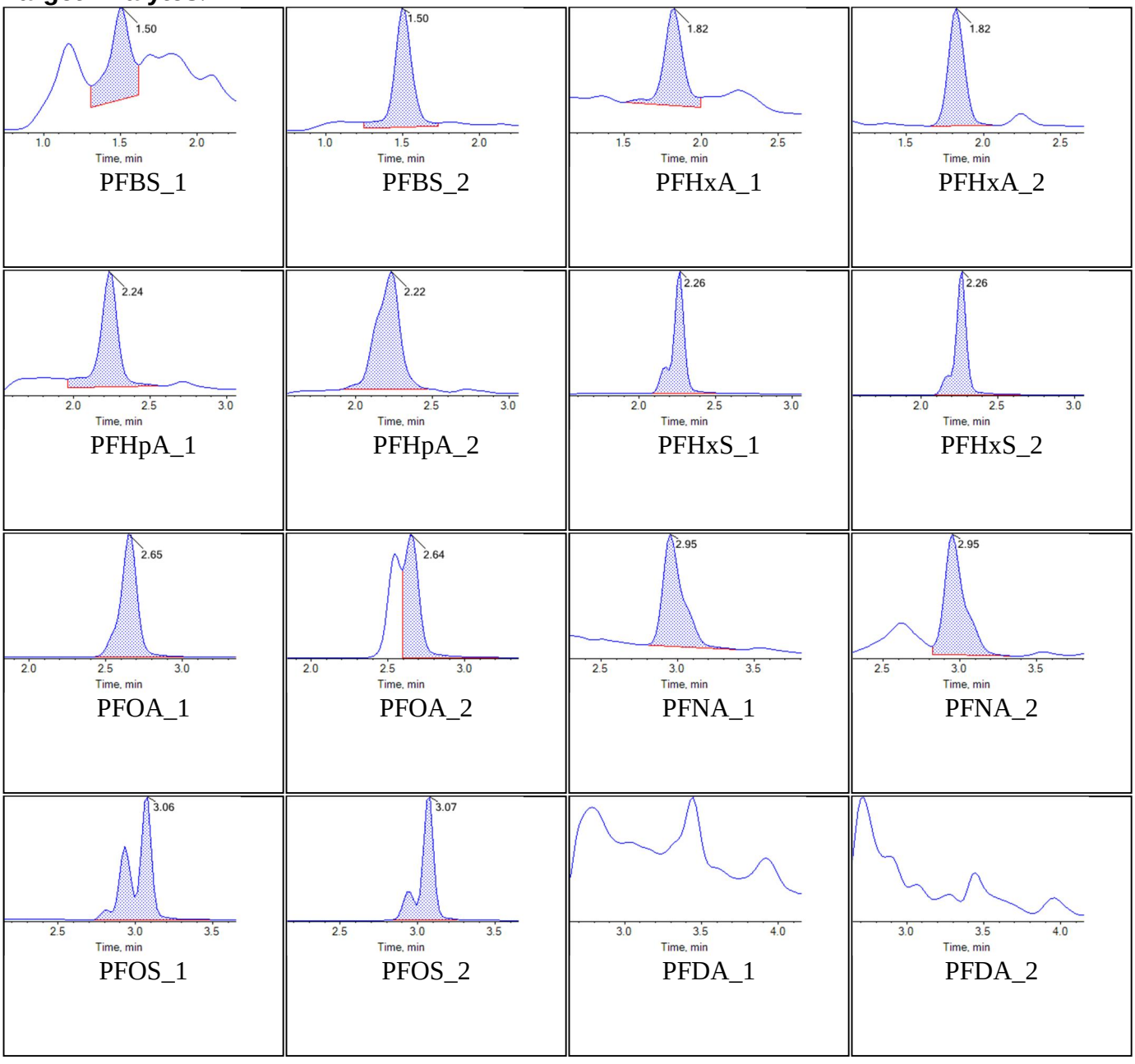
Chromatogram Report

Created with Analyst Reporter
Printed: 26/10/2018 10:54:31 AM

Sample Name	J8395-FS(0)	**Injection Vial**	2
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:44:08	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

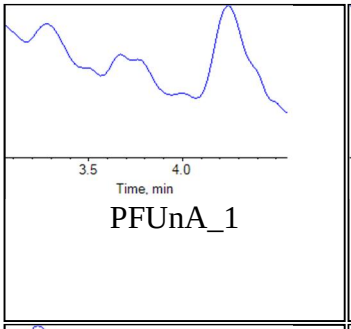
Target Analytes:



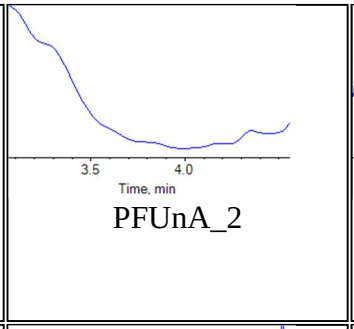
BATTELLE

Chromatogram Report

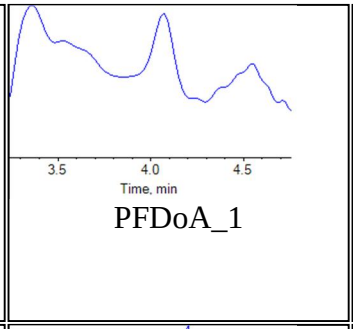
Created with Analyst Reporter
Printed: 26/10/2018 10:54:31 AM



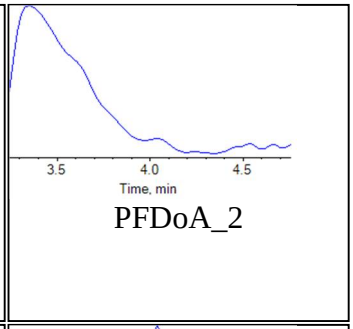
PFUnA_1



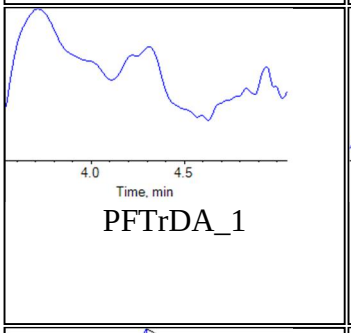
PFUnA_2



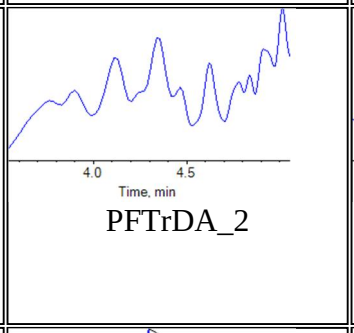
PFDoA_1



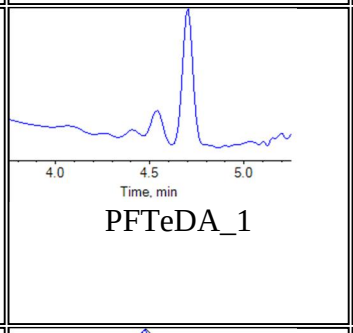
PFDoA_2



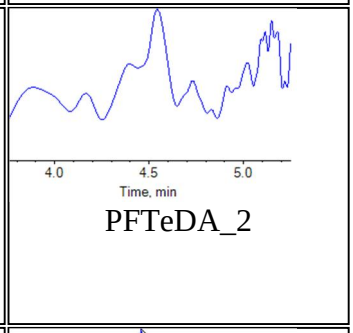
PFTrDA_1



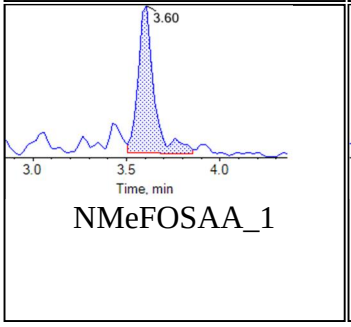
PFTrDA_2



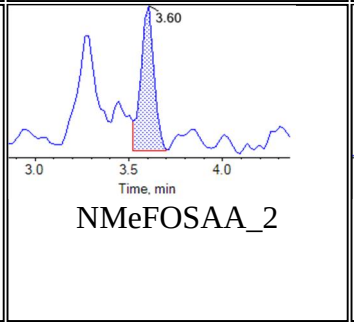
PFTeDA_1



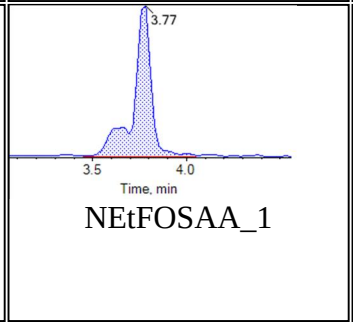
PFTeDA_2



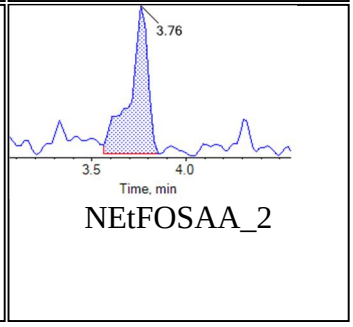
NMeFOSAA_1



NMeFOSAA_2

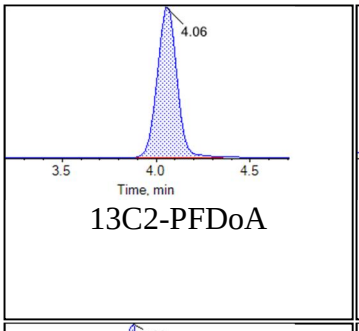


NEtFOSAA_1

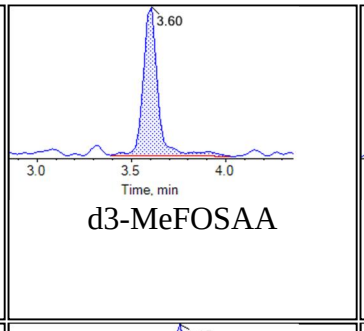


NEtFOSAA_2

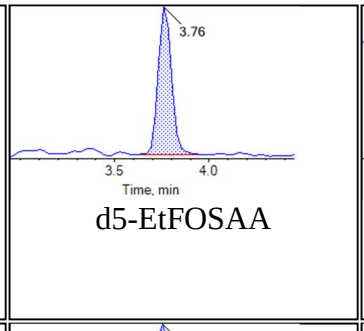
Internal Standards:



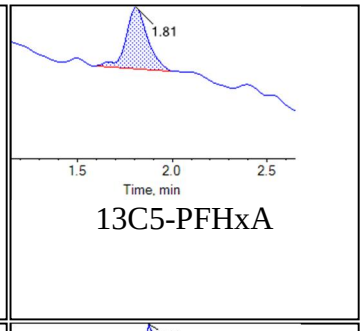
13C2-PFDoA



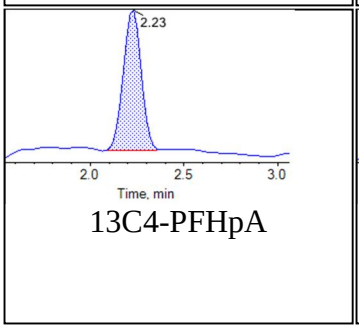
d3-MeFOSAA



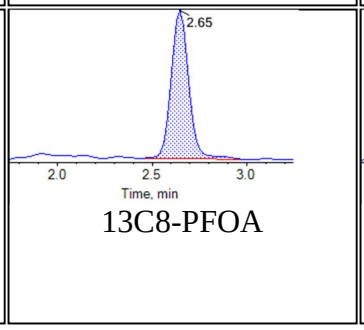
d5-EtFOSAA



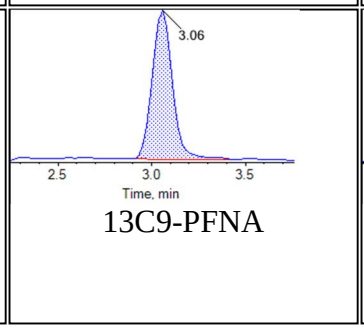
13C5-PFHxA



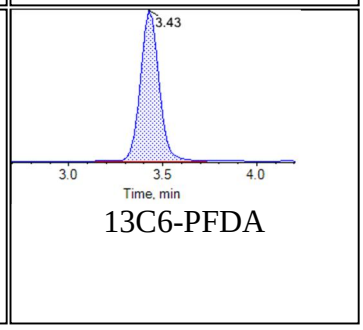
13C4-PFHpA



13C8-PFOA



13C9-PFNA

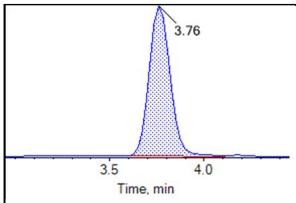


13C6-PFDA

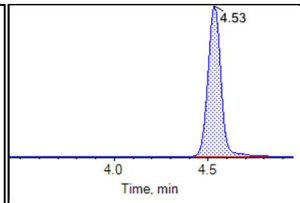
BATTELLE

Chromatogram Report

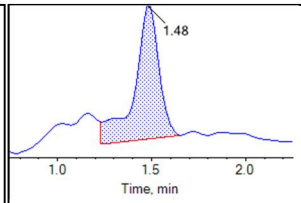
Created with Analyst Reporter
Printed: 26/10/2018 10:54:31 AM



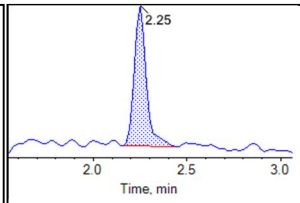
13C7-PFUnA



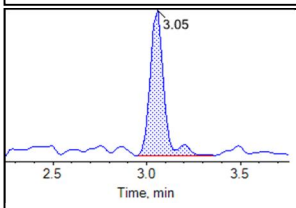
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

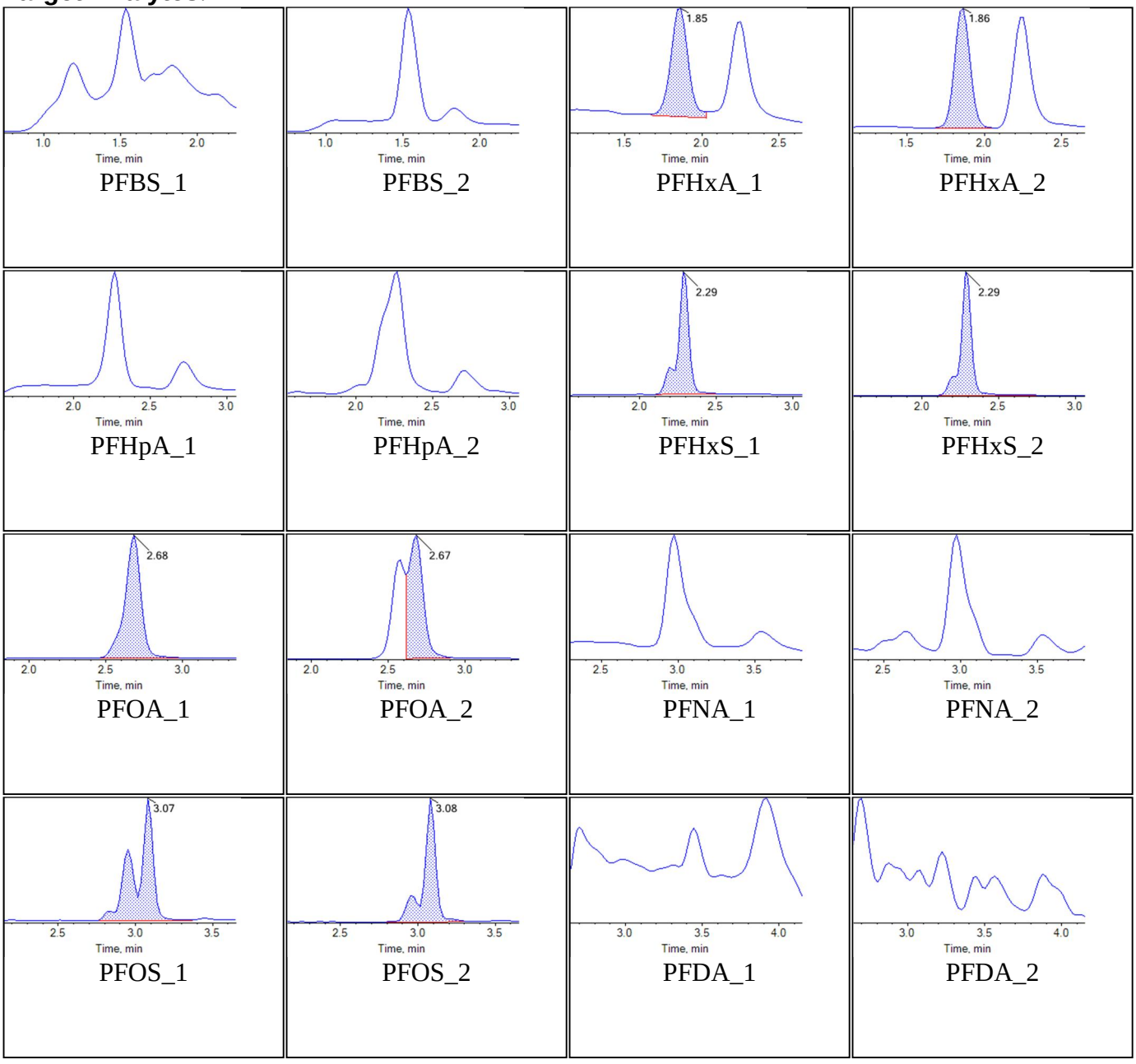
Chromatogram Report

Created with Analyst Reporter
Printed: 26/10/2018 10:54:37 AM

Sample Name	J8395-FS-D(3)	**Injection Vial**	3
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:55:00	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

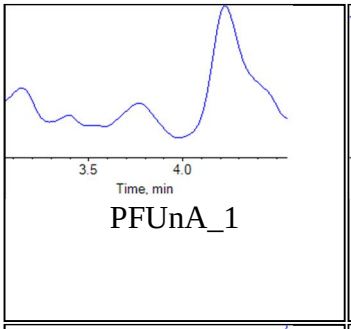
Target Analytes:



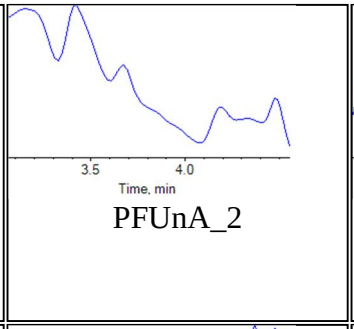
BATTELLE

Chromatogram Report

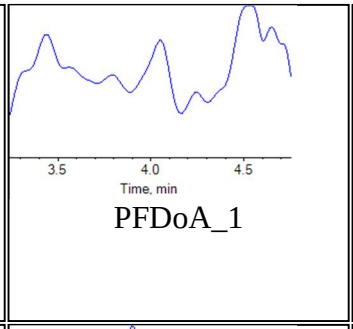
Created with Analyst Reporter
Printed: 26/10/2018 10:54:37 AM



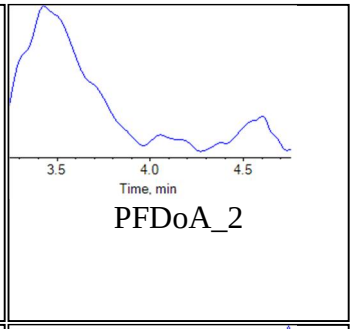
PFUnA_1



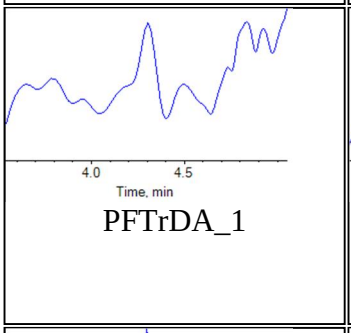
PFUnA_2



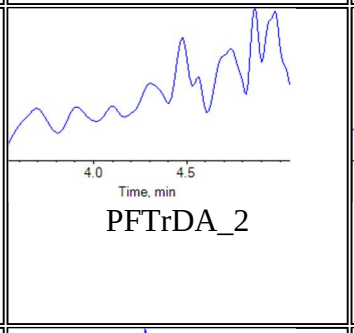
PFDoA_1



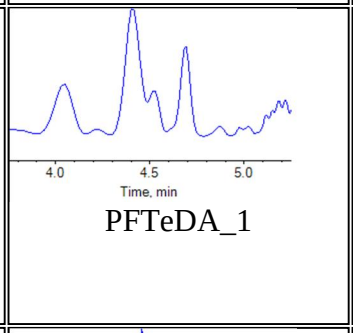
PFDoA_2



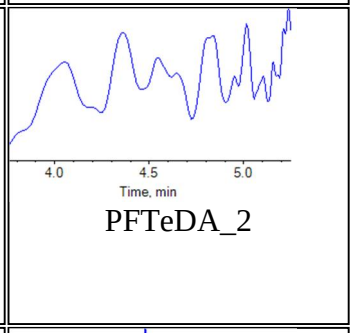
PFTrDA_1



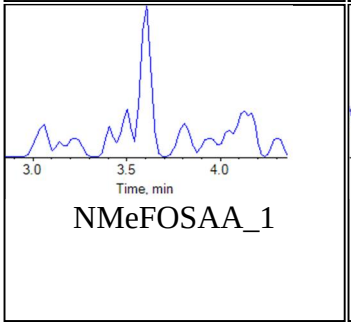
PFTrDA_2



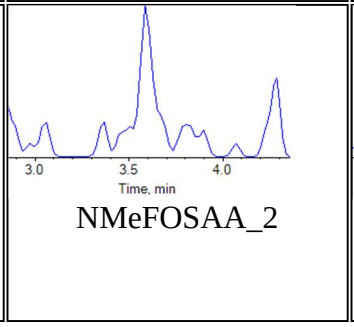
PFTeDA_1



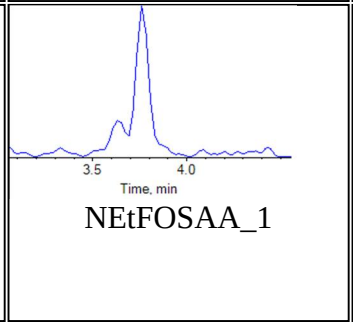
PFTeDA_2



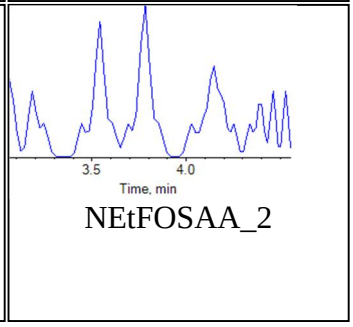
NMeFOSAA_1



NMeFOSAA_2

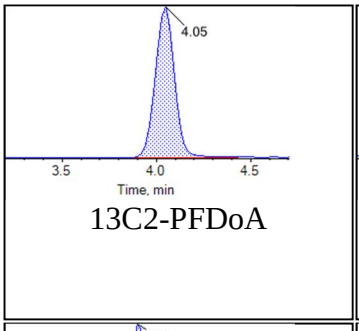


NEtFOSAA_1

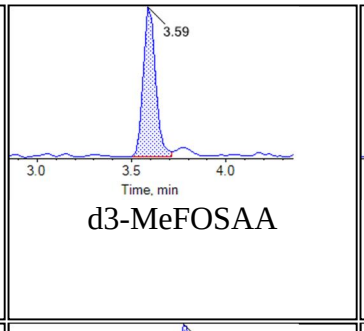


NEtFOSAA_2

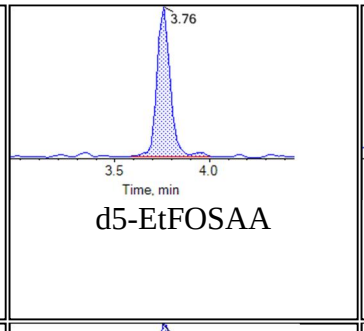
Internal Standards:



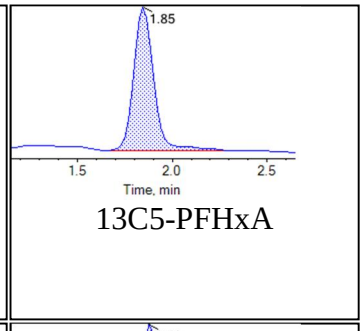
13C2-PFDoA



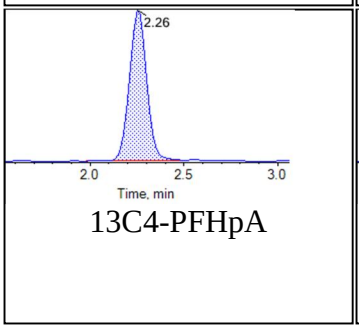
d3-MeFOSAA



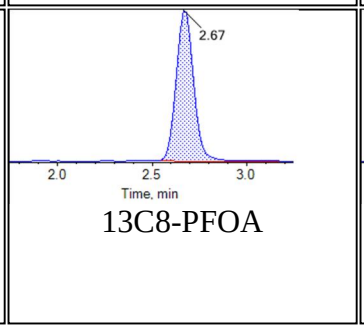
d5-EtFOSAA



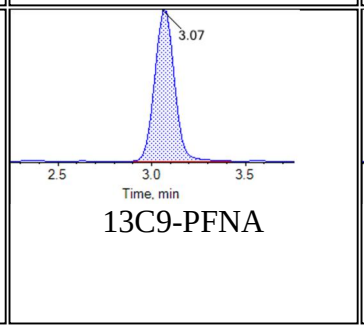
13C5-PFHxA



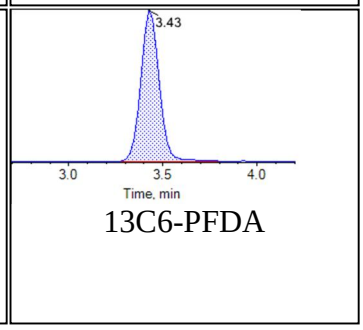
13C4-PFHpA



13C8-PFOA



13C9-PFNA

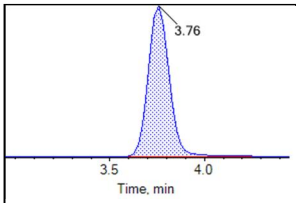


13C6-PFDA

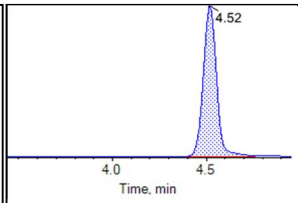
BATTELLE

Chromatogram Report

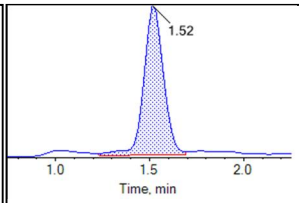
Created with Analyst Reporter
Printed: 26/10/2018 10:54:37 AM



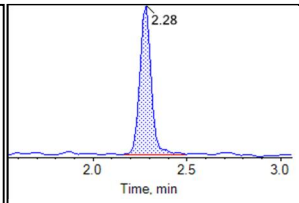
13C7-PFUnA



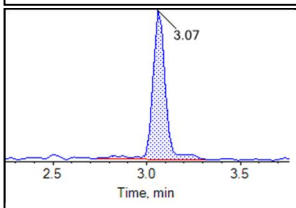
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

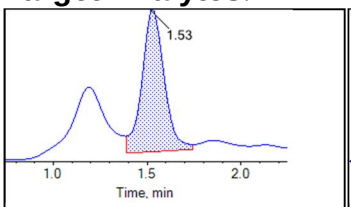
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:16:54 PM

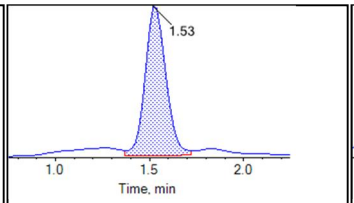
Sample Name	J8396-FS(0)	**Injection Vial**	4
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:05:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

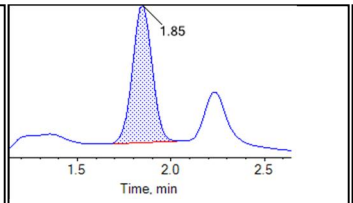
Target Analytes:



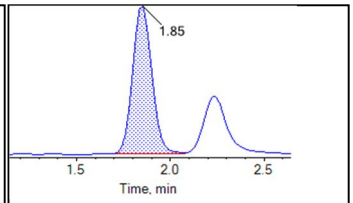
PFBS_1



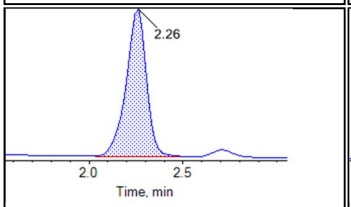
PFBS_2



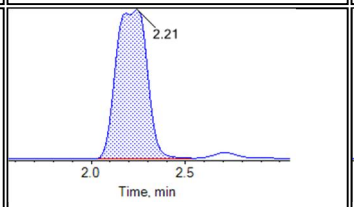
PFHxA_1



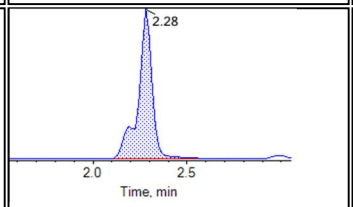
PFHxA_2



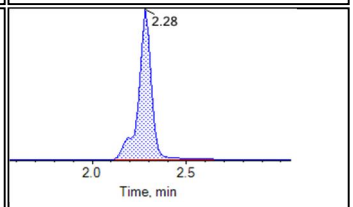
PFHpA_1



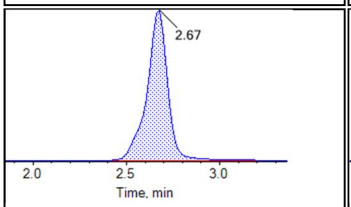
PFHpA_2



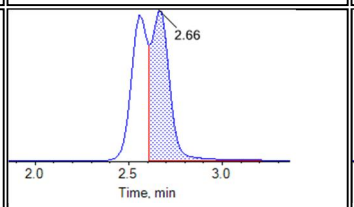
PFHxS_1



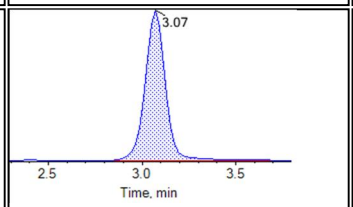
PFHxS_2



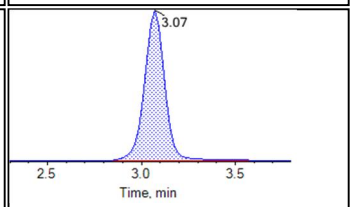
PFOA_1



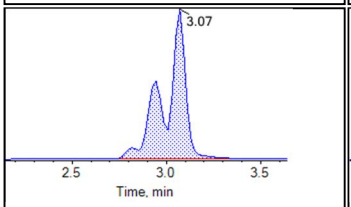
PFOA_2



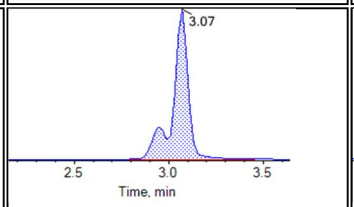
PFNA_1



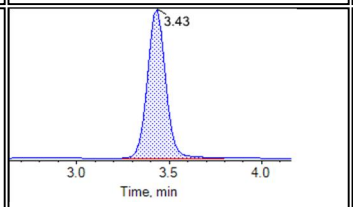
PFNA_2



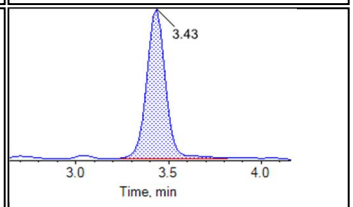
PFOS_1



PFOS_2



PFDA_1

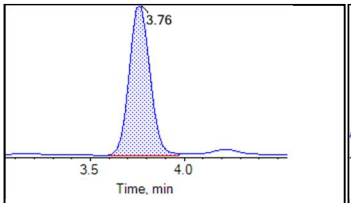


PFDA_2

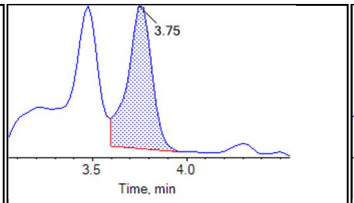
BATTELLE

Chromatogram Report

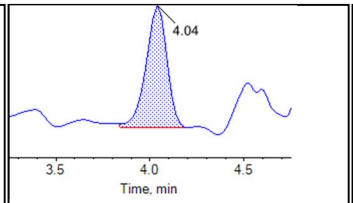
Created with Analyst Reporter
Printed: 23/10/2018 4:16:54 PM



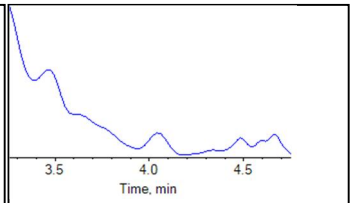
PFUnA_1



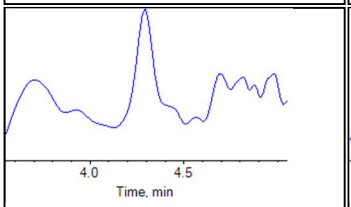
PFUnA_2



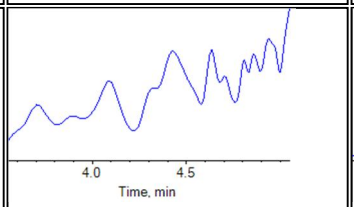
PFDoA_1



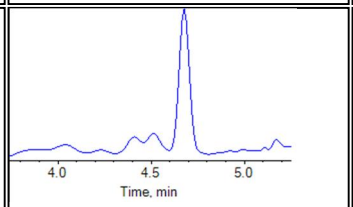
PFDoA_2



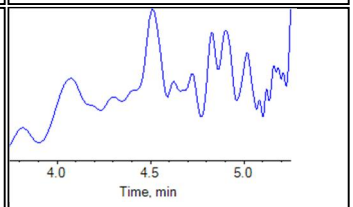
PFTrDA_1



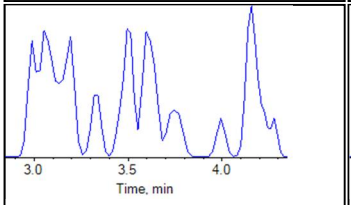
PFTrDA_2



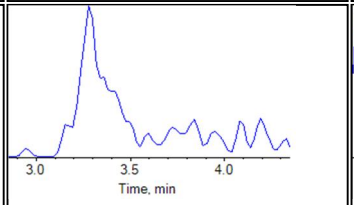
PFTeDA_1



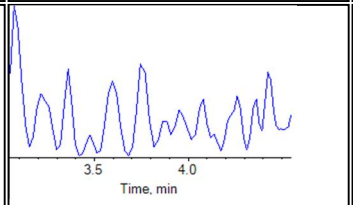
PFTeDA_2



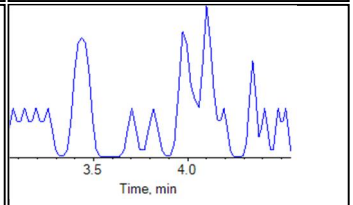
NMeFOSAA_1



NMeFOSAA_2

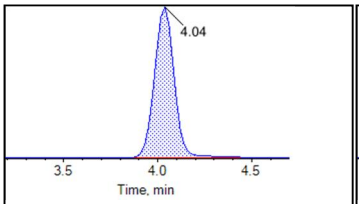


NEtFOSAA_1

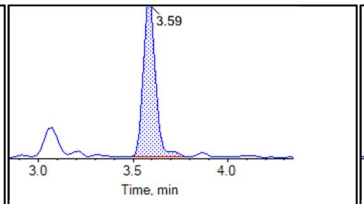


NEtFOSAA_2

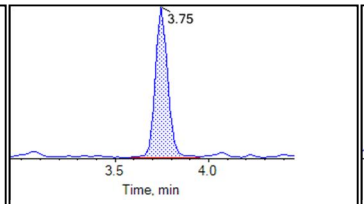
Internal Standards:



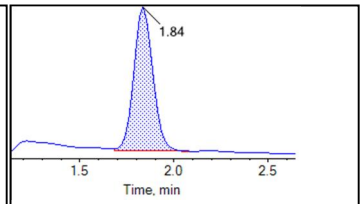
13C2-PFDoA



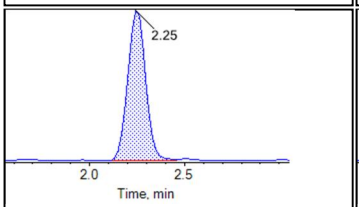
d3-MeFOSAA



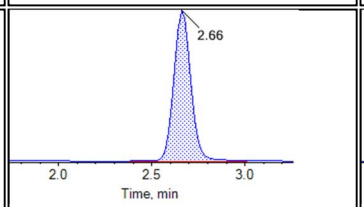
d5-EtFOSAA



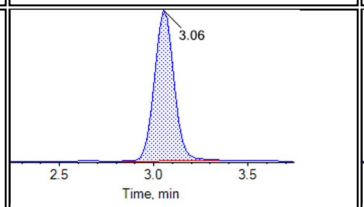
13C5-PFHxA



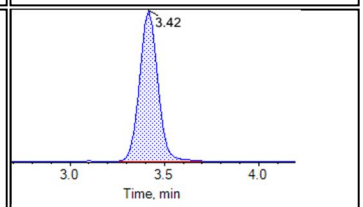
13C4-PFHpA



13C8-PFOA



13C9-PFNA

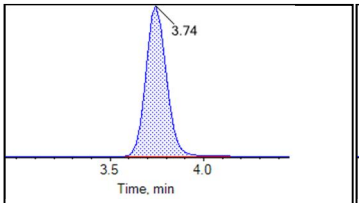


13C6-PFDA

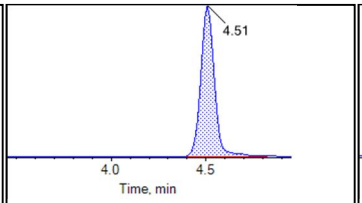
BATTELLE

Chromatogram Report

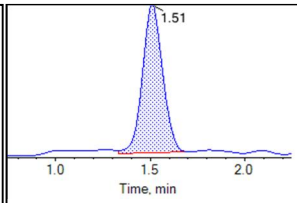
Created with Analyst Reporter
Printed: 23/10/2018 4:16:54 PM



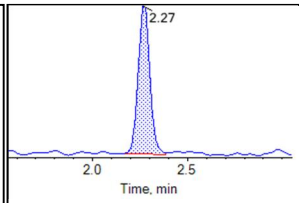
13C7-PFUnA



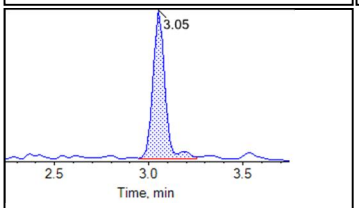
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

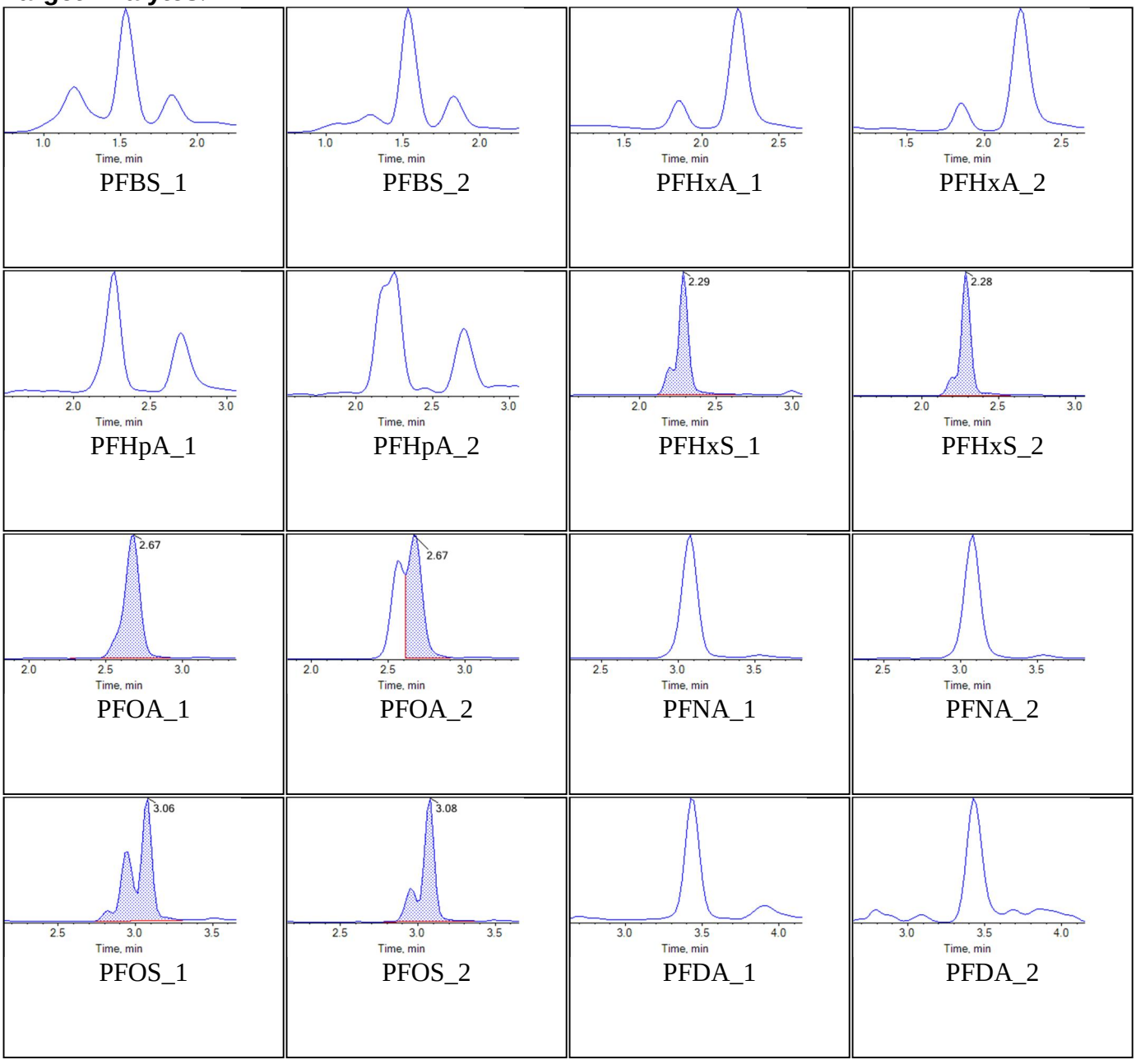
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:16:59 PM

Sample Name	J8396-FS-D(3)	**Injection Vial**	5
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:16:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

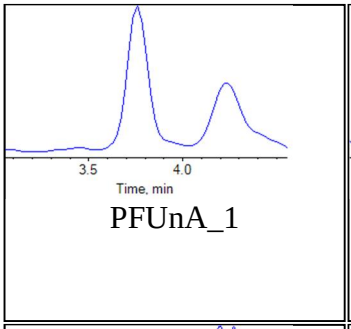
Target Analytes:



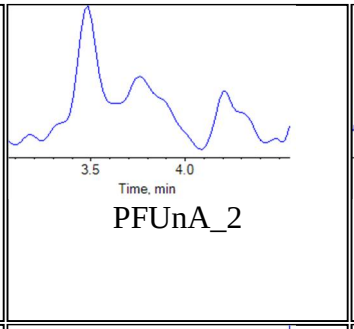
BATTELLE

Chromatogram Report

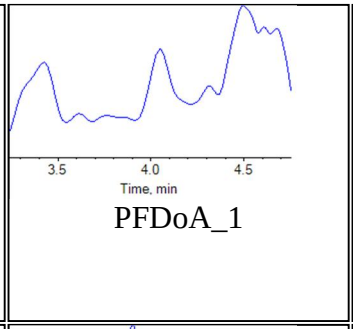
Created with Analyst Reporter
Printed: 23/10/2018 4:16:59 PM



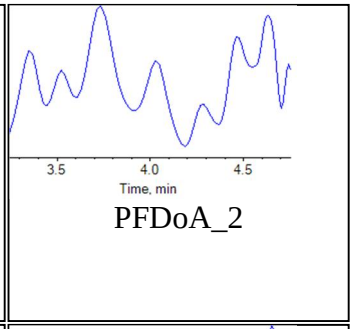
PFUnA_1



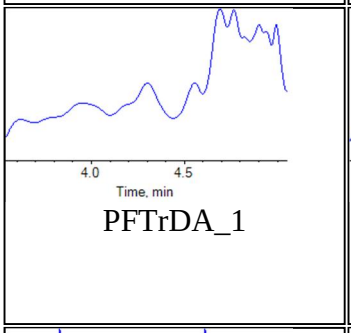
PFUnA_2



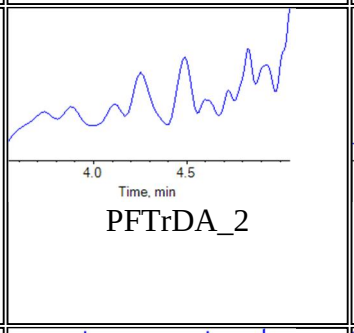
PFDoA_1



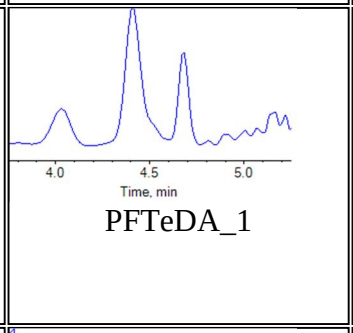
PFDoA_2



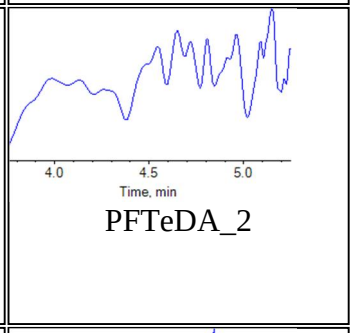
PFTrDA_1



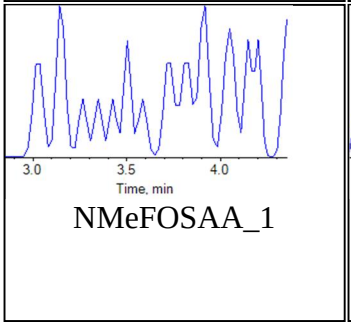
PFTrDA_2



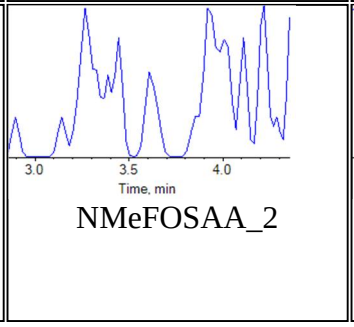
PFTeDA_1



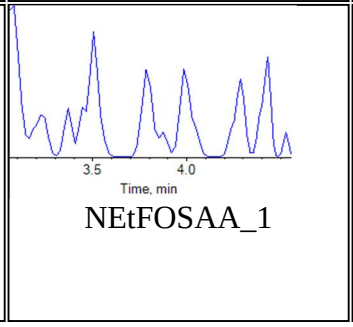
PFTeDA_2



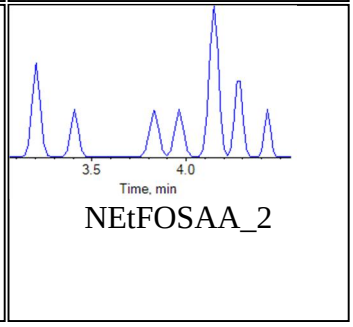
NMeFOSAA_1



NMeFOSAA_2

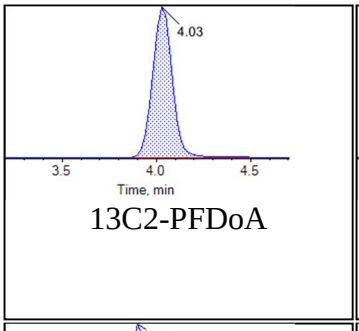


NEtFOSAA_1

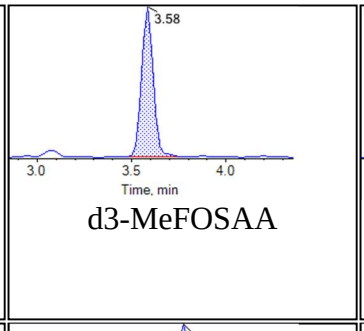


NEtFOSAA_2

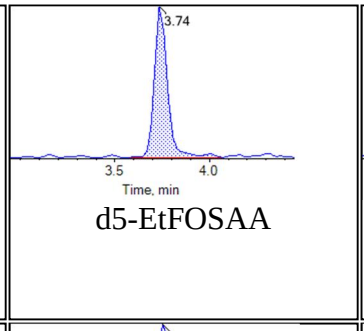
Internal Standards:



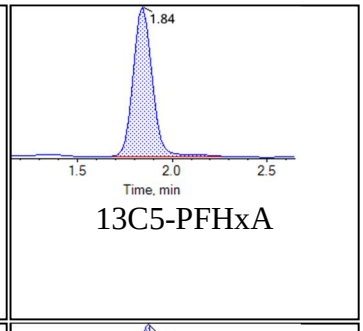
13C2-PFDoA



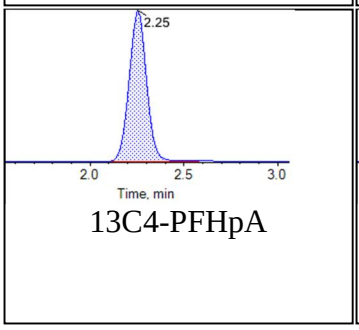
d3-MeFOSAA



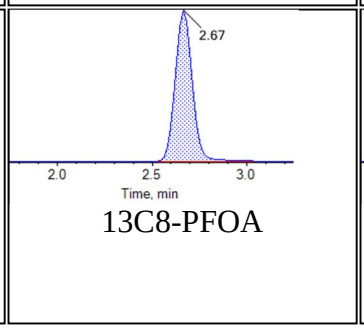
d5-EtFOSAA



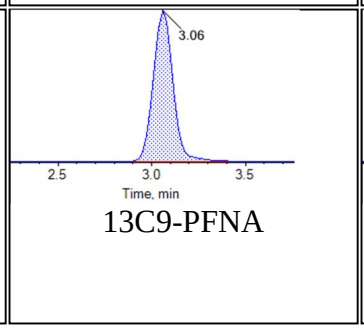
13C5-PFHxA



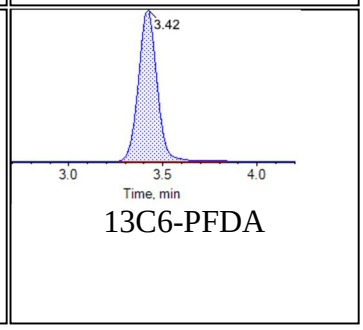
13C4-PFHpA



13C8-PFOA



13C9-PFNA

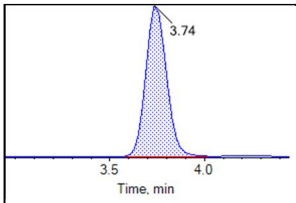


13C6-PFDA

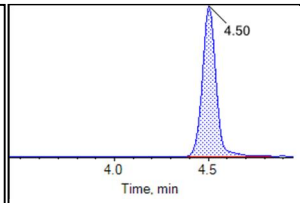
BATTELLE

Chromatogram Report

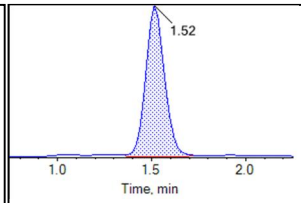
Created with Analyst Reporter
Printed: 23/10/2018 4:16:59 PM



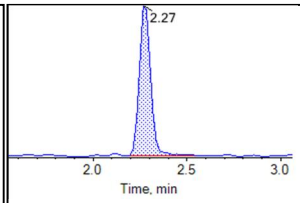
13C7-PFUnA



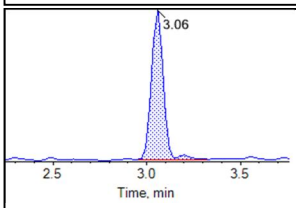
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

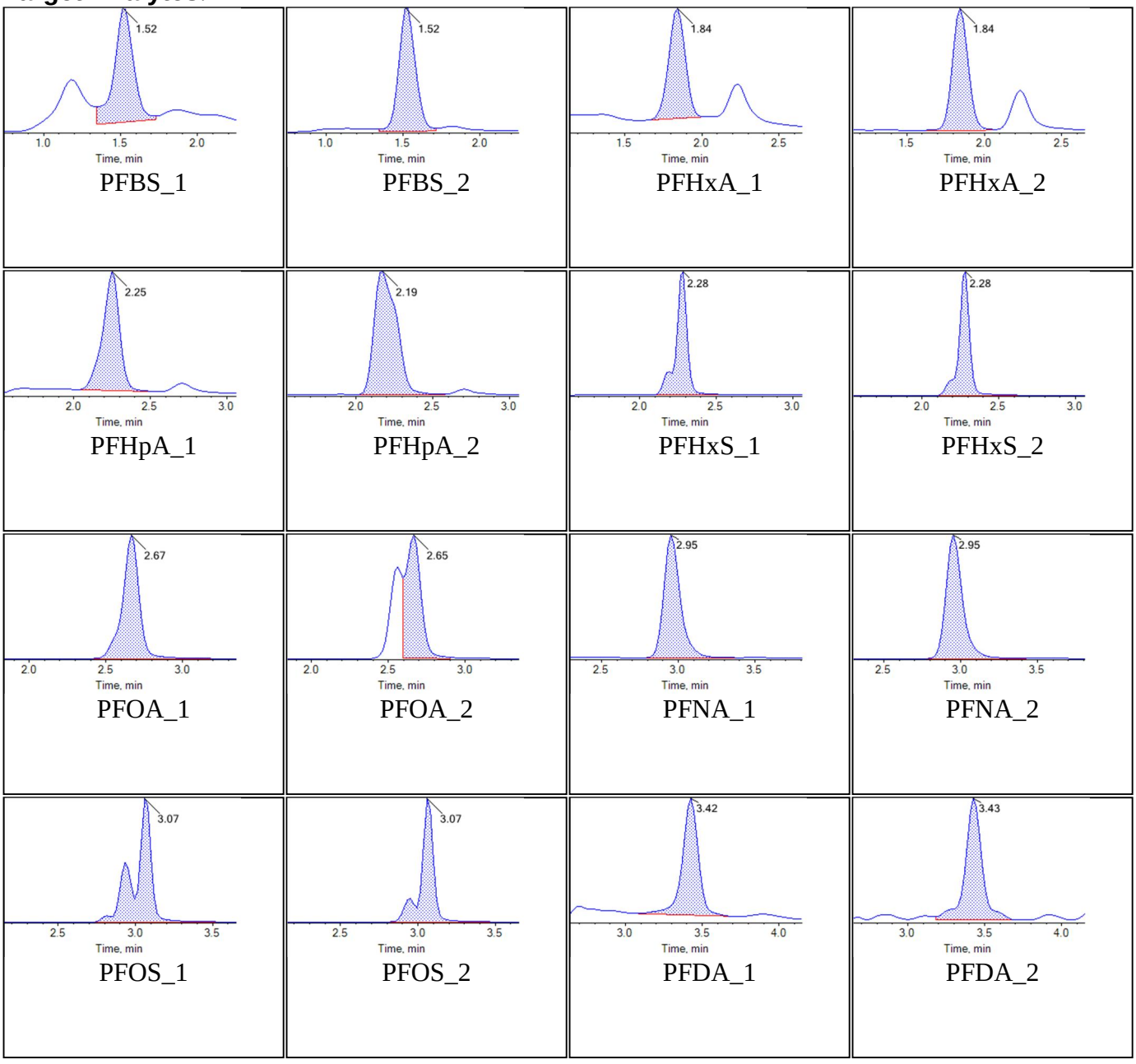
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:17:04 PM

Sample Name	J8397-FS(0)	**Injection Vial**	6
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:27:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

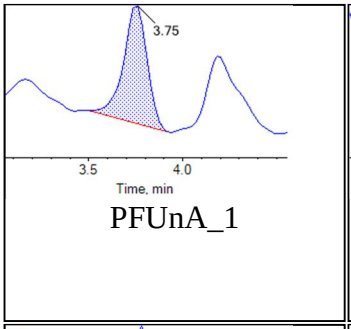
Target Analytes:



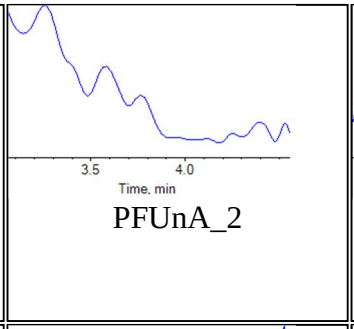
BATTELLE

Chromatogram Report

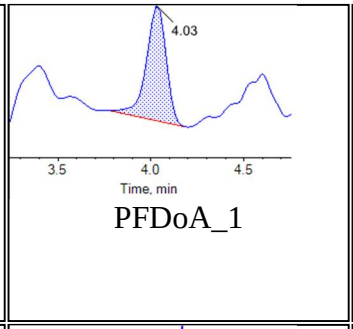
Created with Analyst Reporter
Printed: 23/10/2018 4:17:04 PM



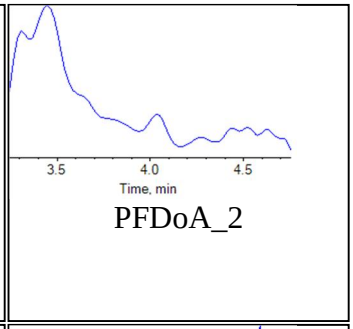
PFUnA_1



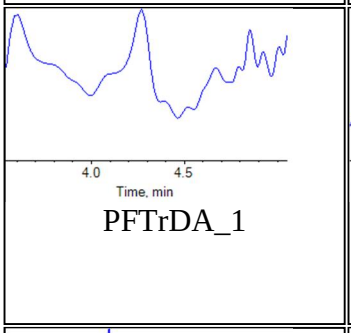
PFUnA_2



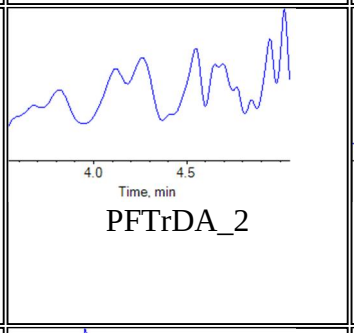
PFDoA_1



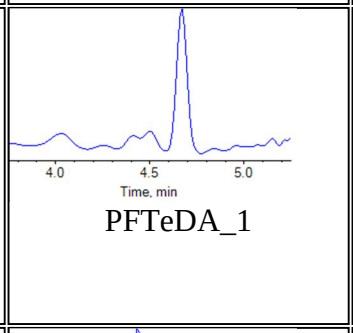
PFDoA_2



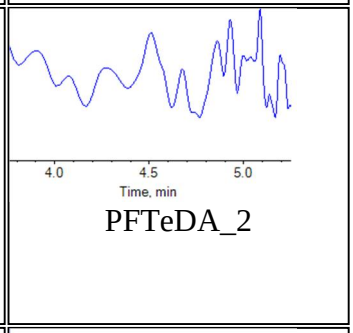
PFTrDA_1



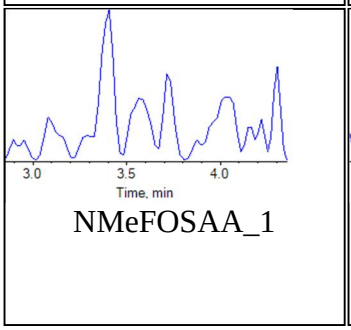
PFTrDA_2



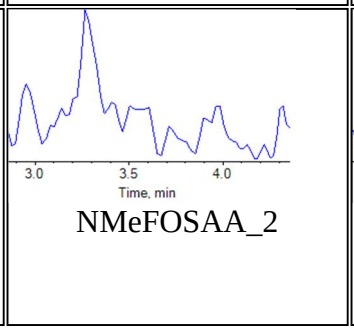
PFTeDA_1



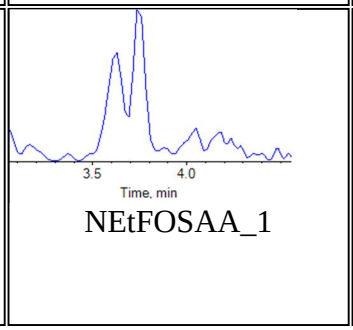
PFTeDA_2



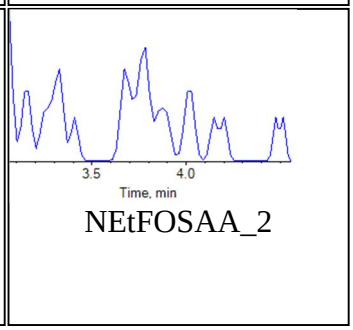
NMeFOSAA_1



NMeFOSAA_2

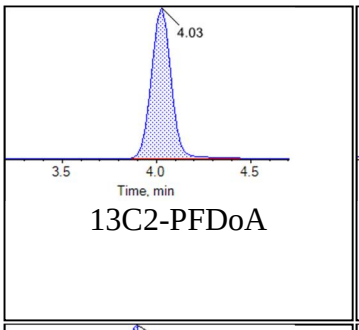


NEtFOSAA_1

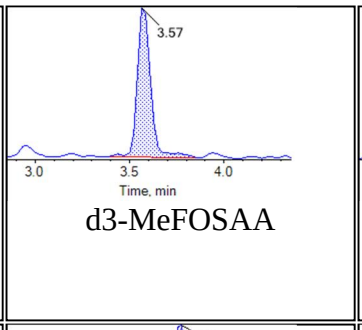


NEtFOSAA_2

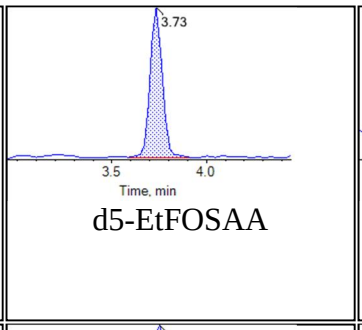
Internal Standards:



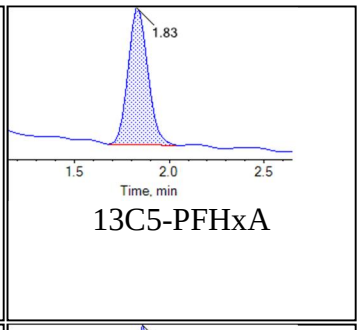
13C2-PFDoA



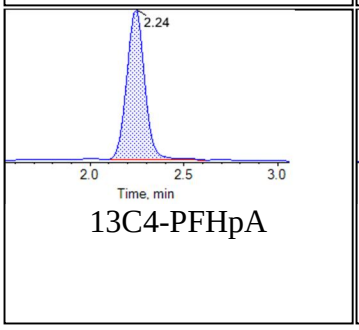
d3-MeFOSAA



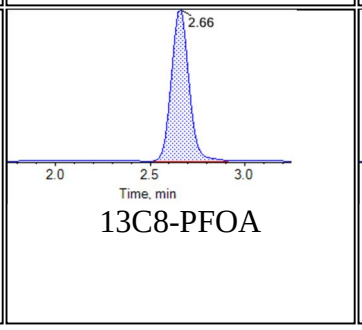
d5-EtFOSAA



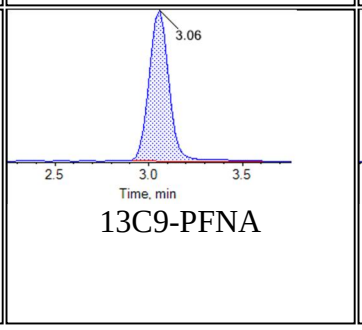
13C5-PFHxA



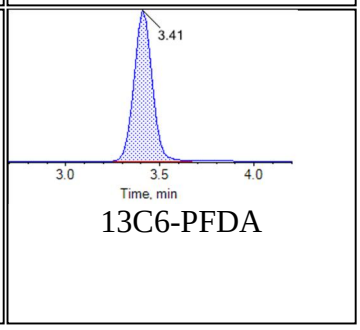
13C4-PFHpA



13C8-PFOA



13C9-PFNA

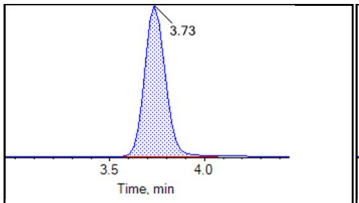


13C6-PFDA

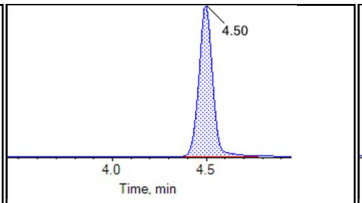
BATTELLE

Chromatogram Report

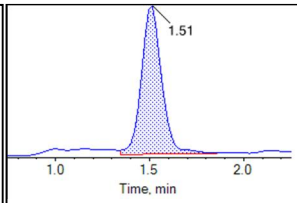
Created with Analyst Reporter
Printed: 23/10/2018 4:17:04 PM



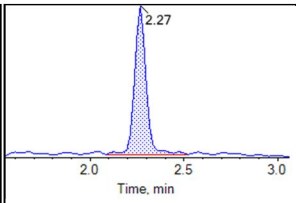
13C7-PFUnA



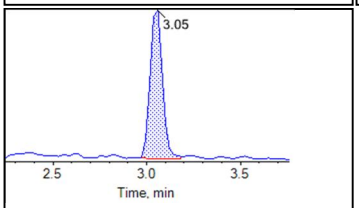
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

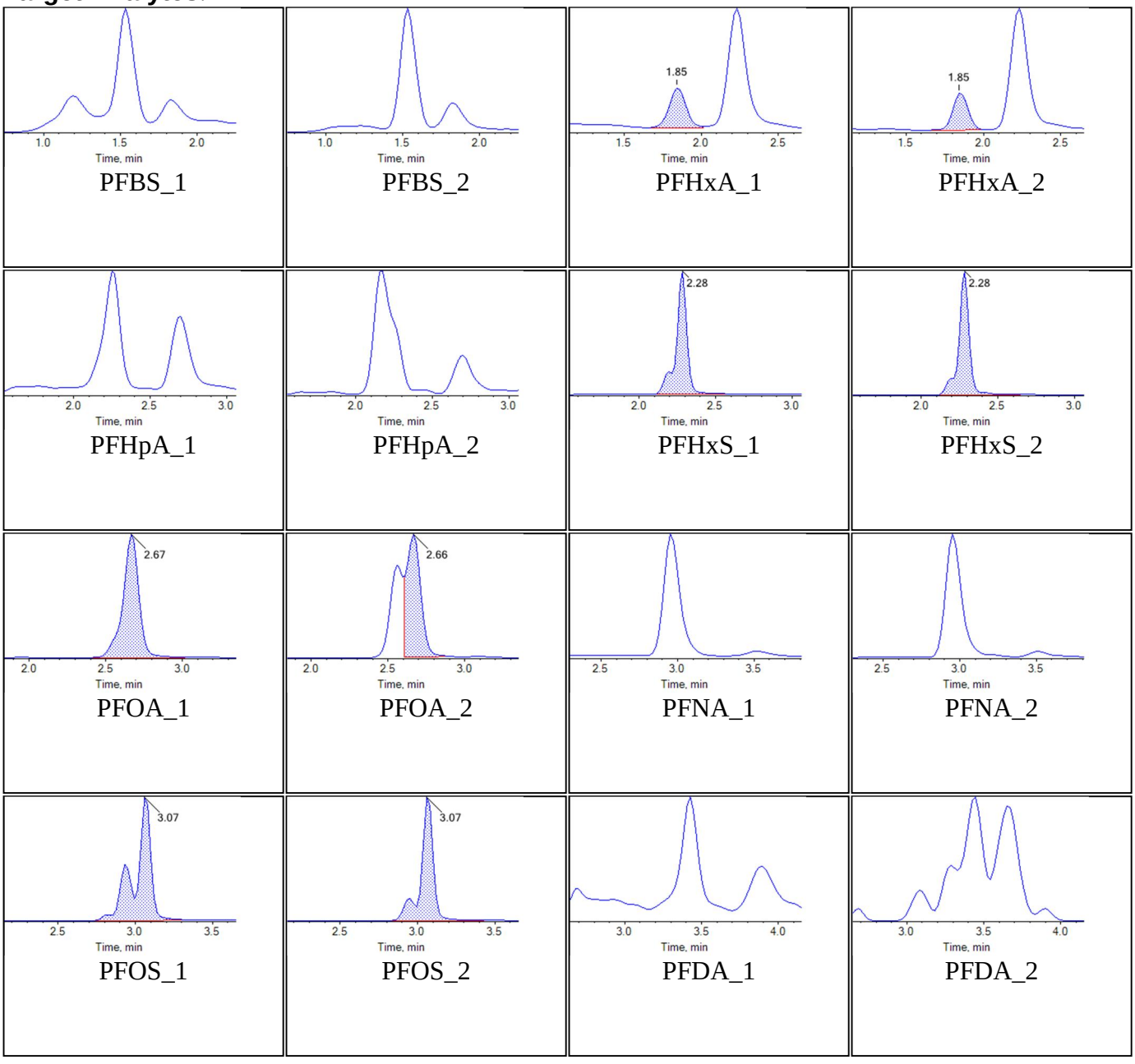
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:17:08 PM

Sample Name	J8397-FS-D(3)	**Injection Vial**	7
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:38:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

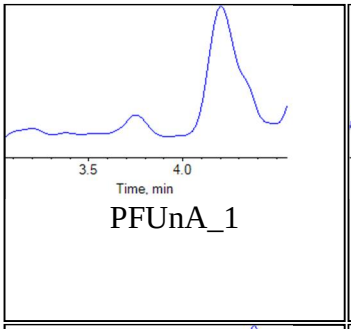
Target Analytes:



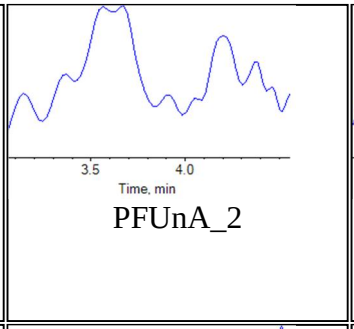
BATTELLE

Chromatogram Report

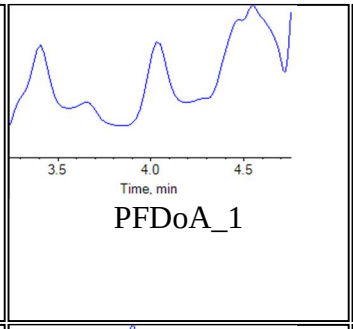
Created with Analyst Reporter
Printed: 23/10/2018 4:17:08 PM



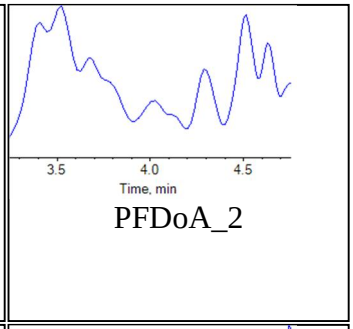
PFUnA_1



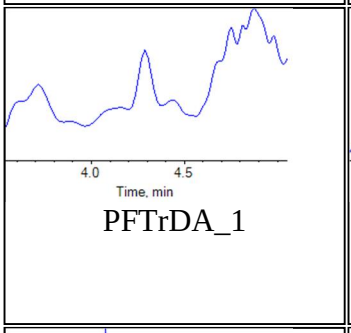
PFUnA_2



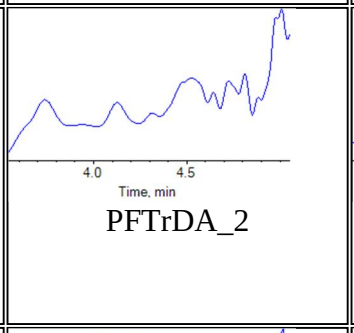
PFDoA_1



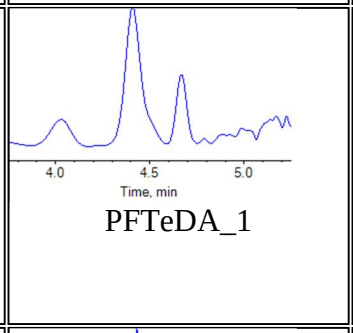
PFDoA_2



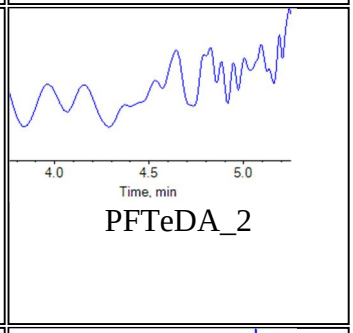
PFTrDA_1



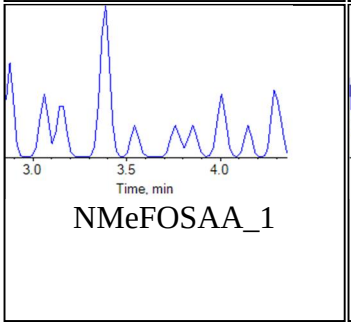
PFTrDA_2



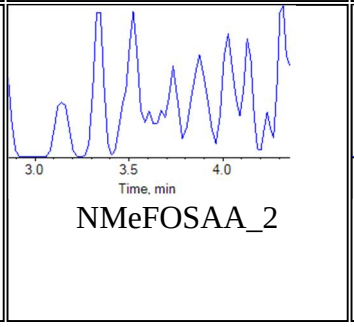
PFTeDA_1



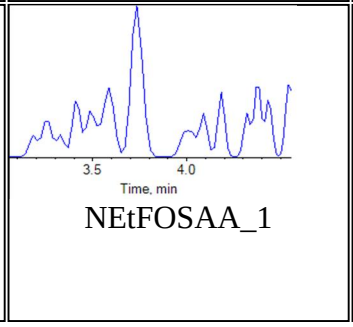
PFTeDA_2



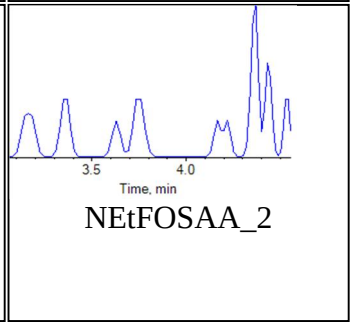
NMeFOSAA_1



NMeFOSAA_2

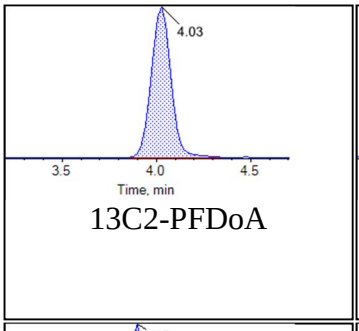


NEtFOSAA_1

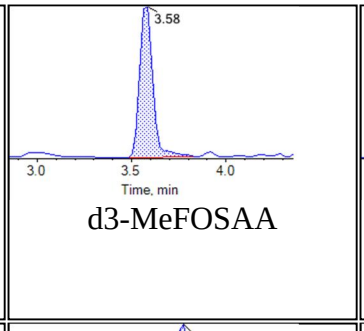


NEtFOSAA_2

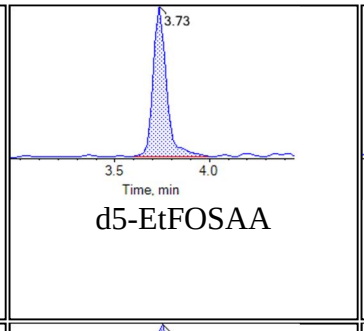
Internal Standards:



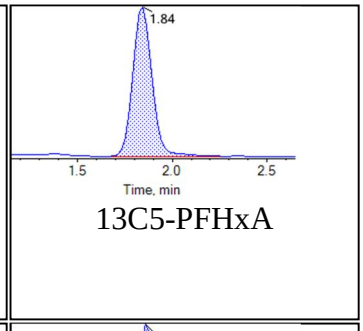
13C2-PFDoA



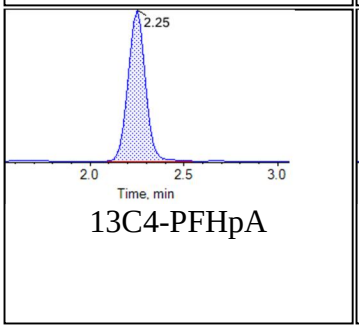
d3-MeFOSAA



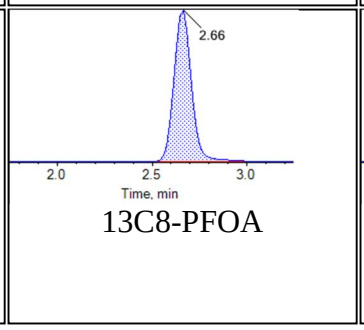
d5-EtFOSAA



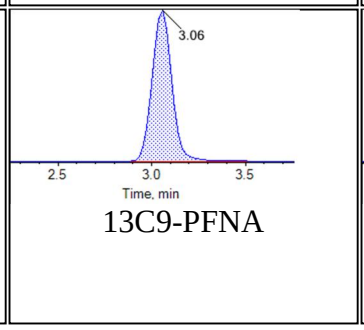
13C5-PFHxA



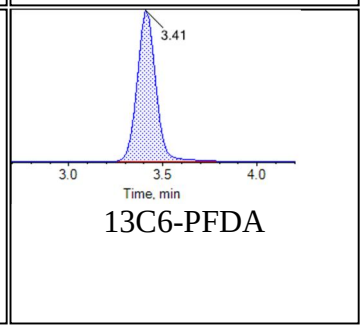
13C4-PFHpA



13C8-PFOA



13C9-PFNA

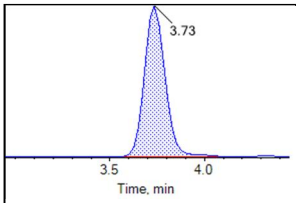


13C6-PFDA

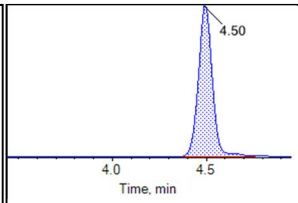
BATTELLE

Chromatogram Report

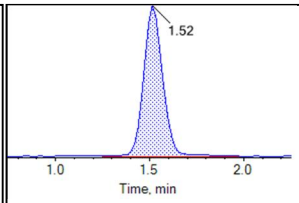
Created with Analyst Reporter
Printed: 23/10/2018 4:17:08 PM



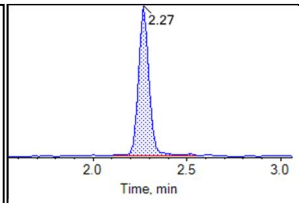
13C7-PFUnA



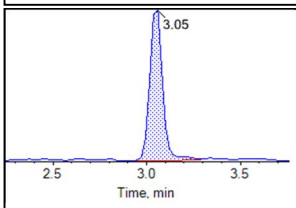
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

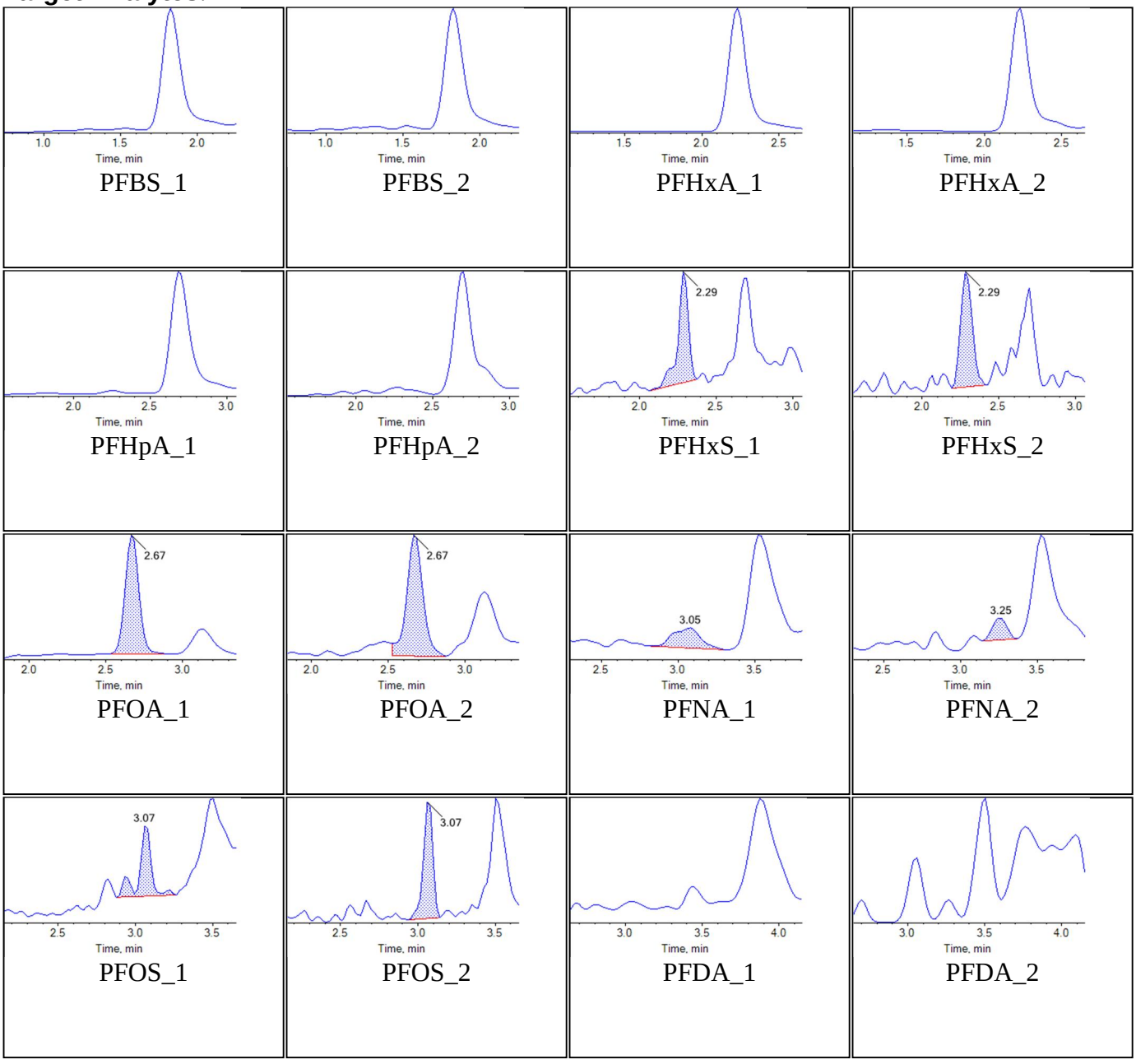
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:17:13 PM

Sample Name	J8398-FS(0)	**Injection Vial**	8
Sample ID	VC-AQ-FB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:49:21	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

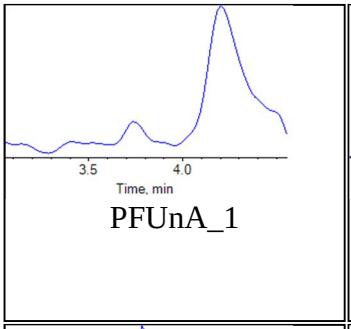
Target Analytes:



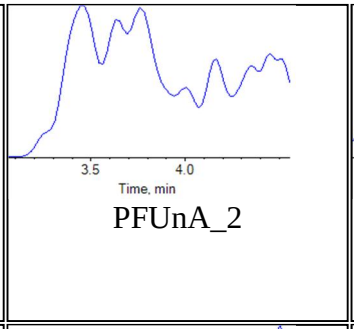
BATTELLE

Chromatogram Report

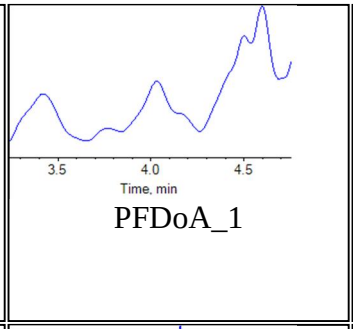
Created with Analyst Reporter
Printed: 23/10/2018 4:17:13 PM



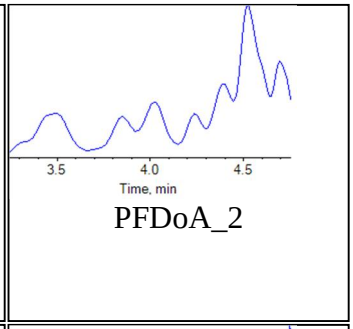
PFUnA_1



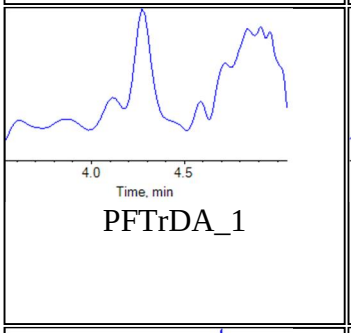
PFUnA_2



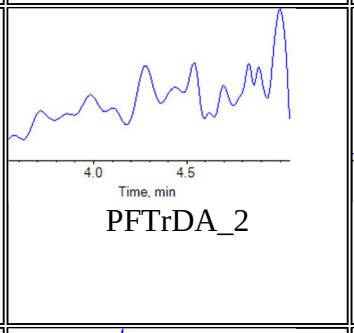
PFDoA_1



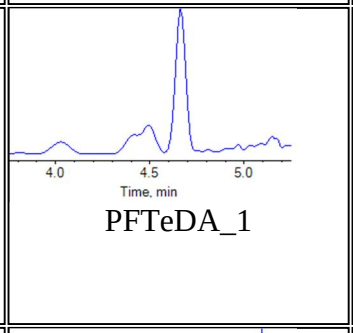
PFDoA_2



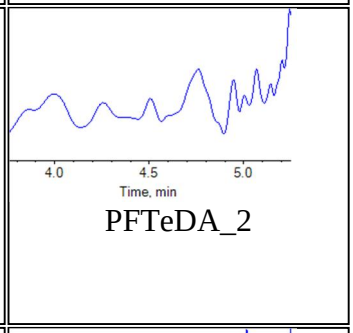
PFTrDA_1



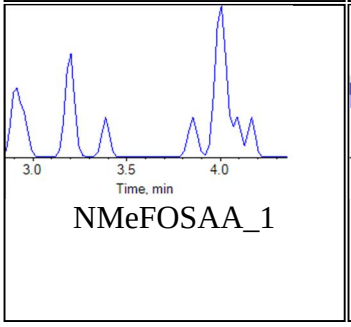
PFTrDA_2



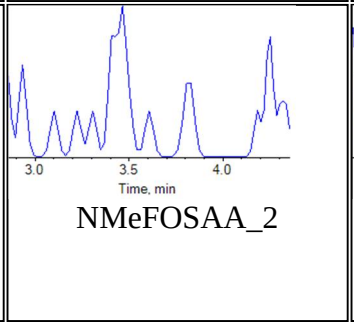
PFTeDA_1



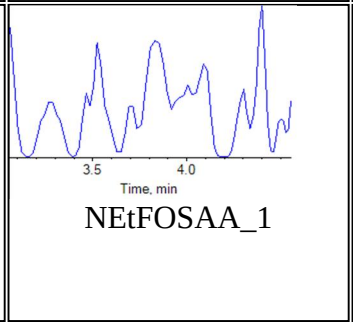
PFTeDA_2



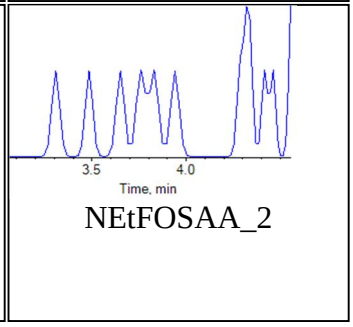
NMeFOSAA_1



NMeFOSAA_2

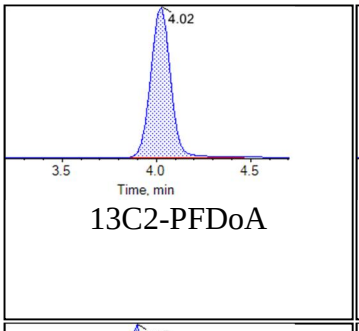


NEtFOSAA_1

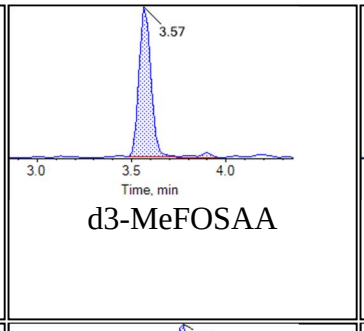


NEtFOSAA_2

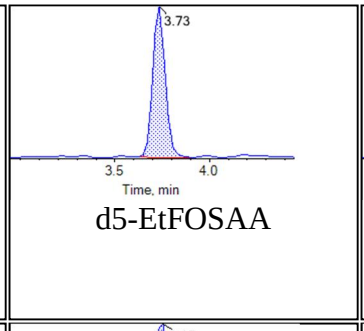
Internal Standards:



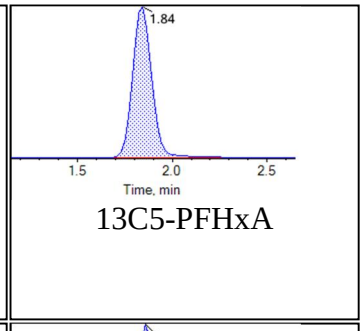
13C2-PFDoA



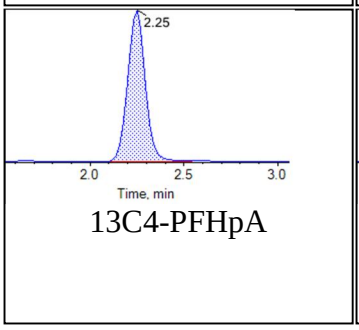
d3-MeFOSAA



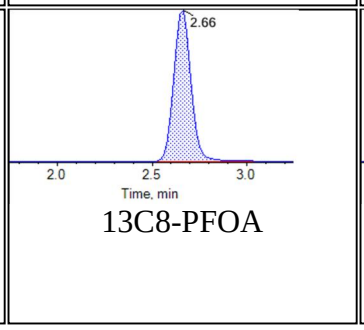
d5-EtFOSAA



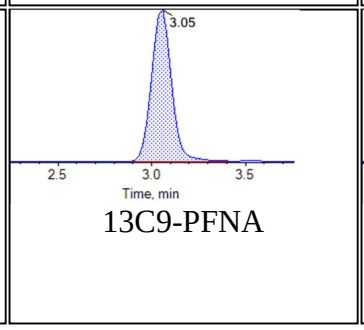
13C5-PFHxA



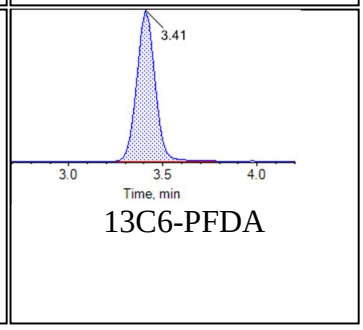
13C4-PFHpA



13C8-PFOA



13C9-PFNA

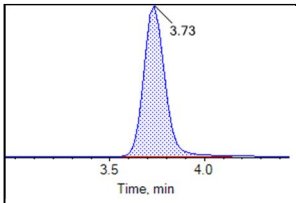


13C6-PFDA

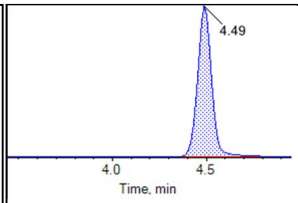
BATTELLE

Chromatogram Report

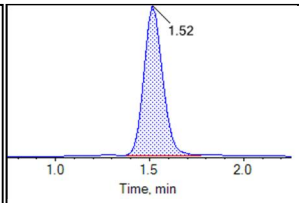
Created with Analyst Reporter
Printed: 23/10/2018 4:17:13 PM



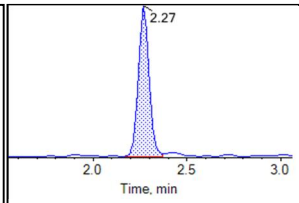
13C7-PFUnA



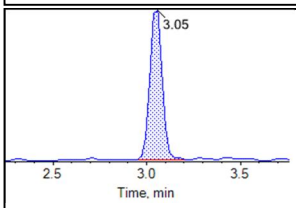
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

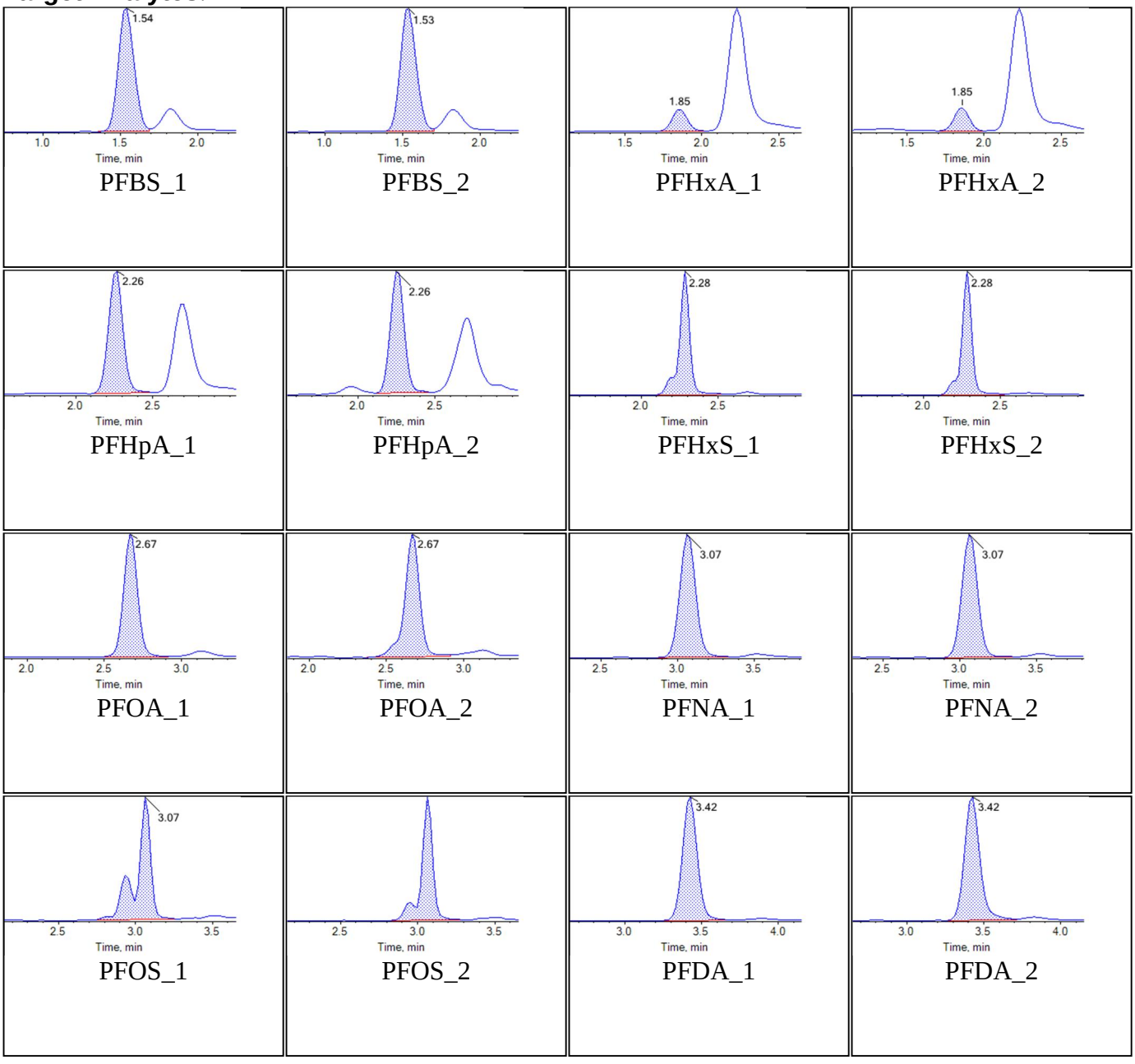
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:17:18 PM

Sample Name	KB76 CCV	**Injection Vial**	9
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:00:12	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

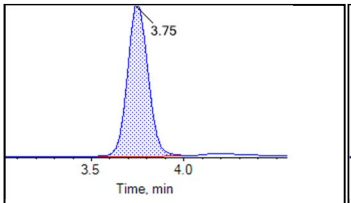
Target Analytes:



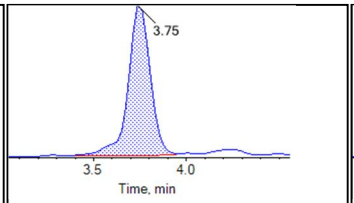
BATTELLE

Chromatogram Report

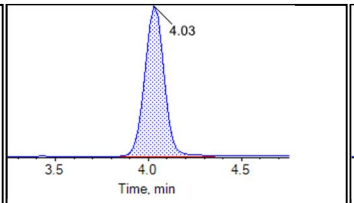
Created with Analyst Reporter
Printed: 23/10/2018 4:17:18 PM



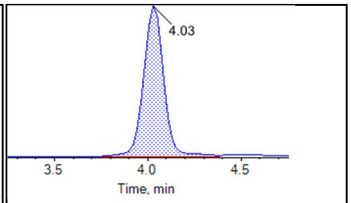
PFUnA_1



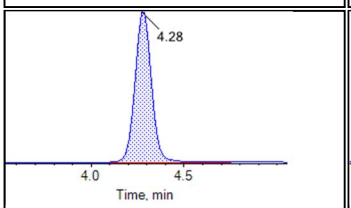
PFUnA_2



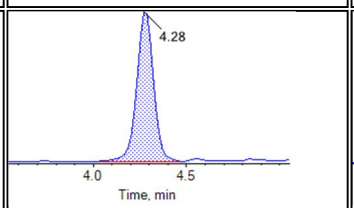
PFDoA_1



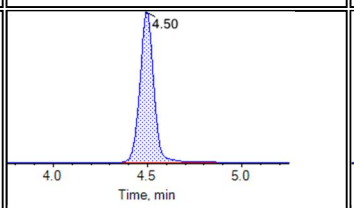
PFDoA_2



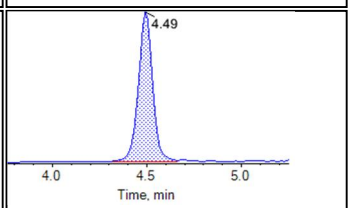
PFTrDA_1



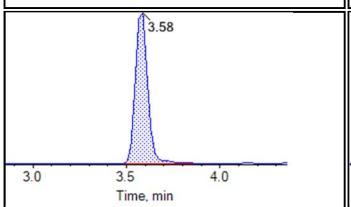
PFTrDA_2



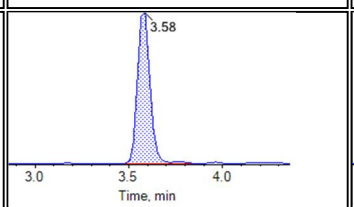
PFTeDA_1



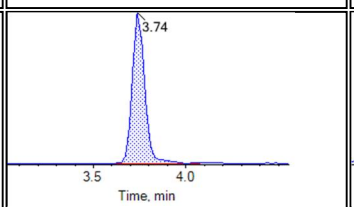
PFTeDA_2



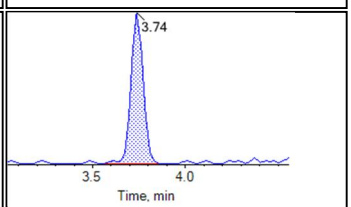
NMeFOSAA_1



NMeFOSAA_2

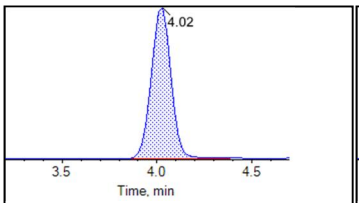


NEtFOSAA_1

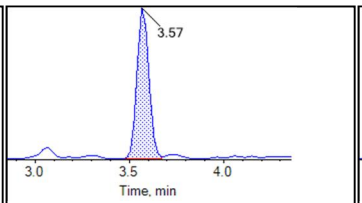


NEtFOSAA_2

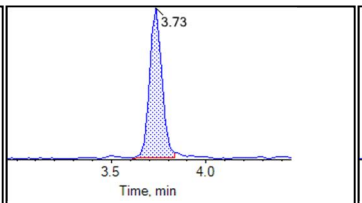
Internal Standards:



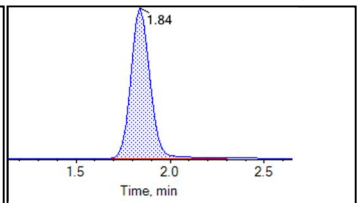
13C2-PFDoA



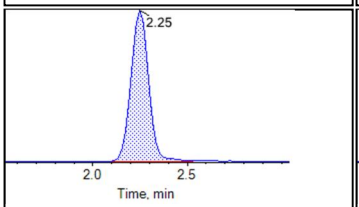
d3-MeFOSAA



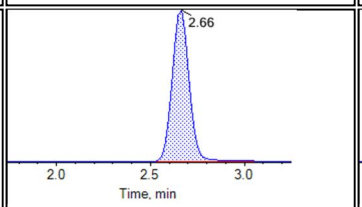
d5-EtFOSAA



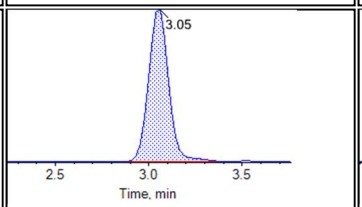
13C5-PFHxA



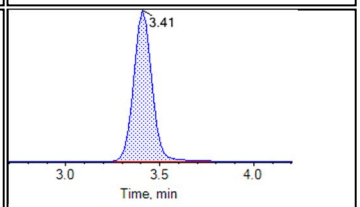
13C4-PFHpA



13C8-PFOA



13C9-PFNA

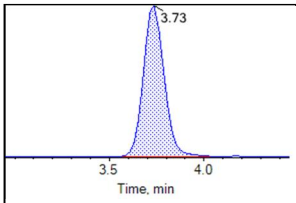


13C6-PFDA

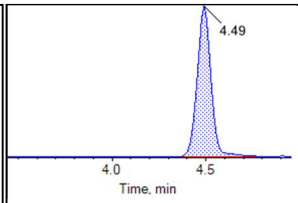
BATTELLE

Chromatogram Report

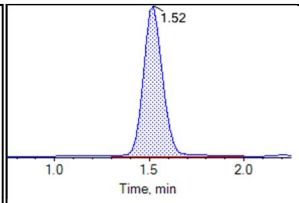
Created with Analyst Reporter
Printed: 23/10/2018 4:17:18 PM



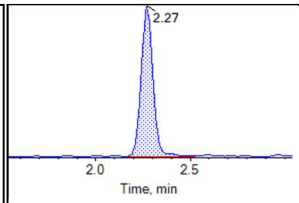
13C7-PFUnA



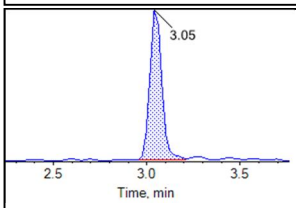
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

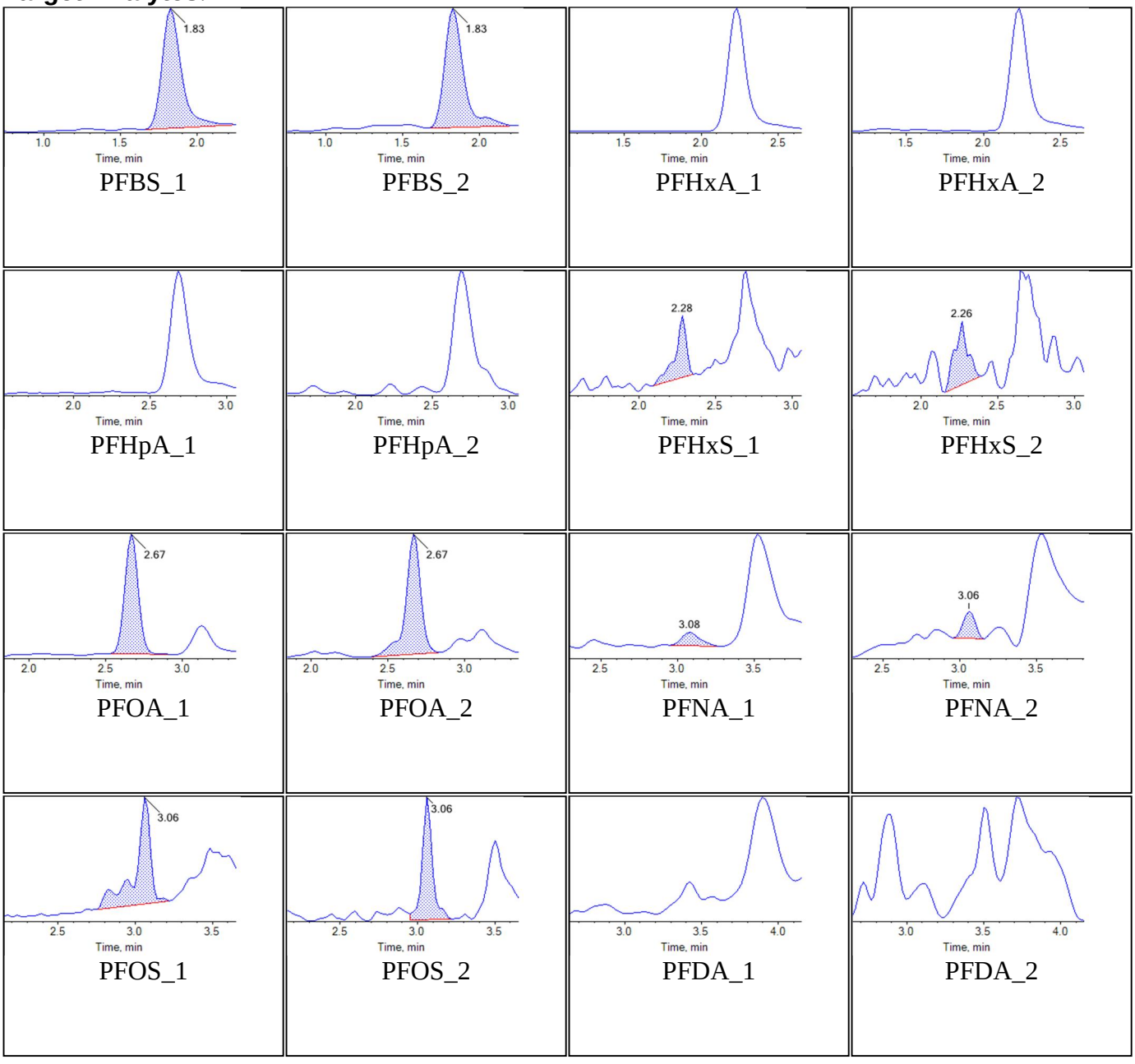
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:17:23 PM

Sample Name	J8399-FS(0)	**Injection Vial**	11
Sample ID	VC-AQ-EB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:21:57	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

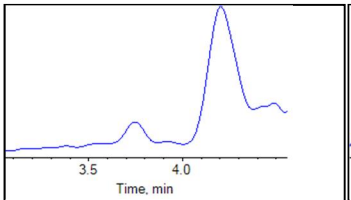
Target Analytes:



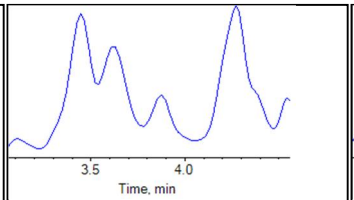
BATTELLE

Chromatogram Report

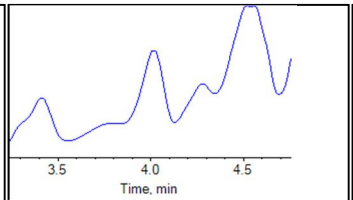
Created with Analyst Reporter
Printed: 23/10/2018 4:17:23 PM



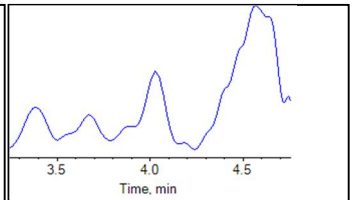
PFUnA_1



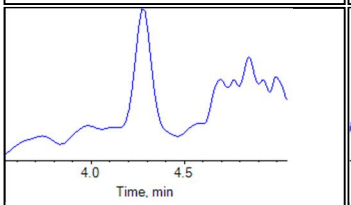
PFUnA_2



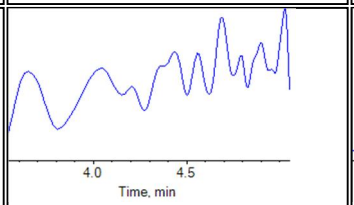
PFDoA_1



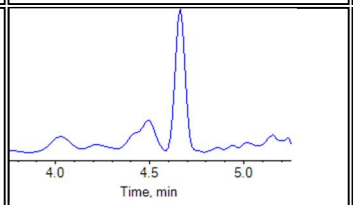
PFDoA_2



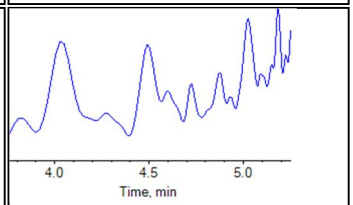
PFTrDA_1



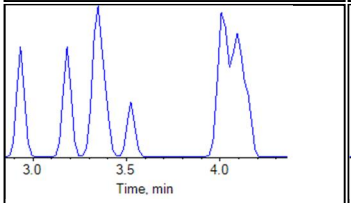
PFTrDA_2



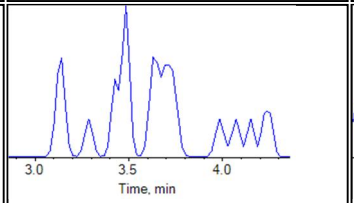
PFTeDA_1



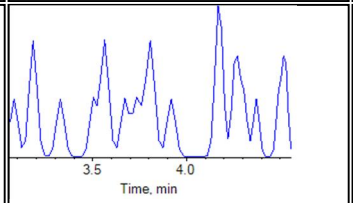
PFTeDA_2



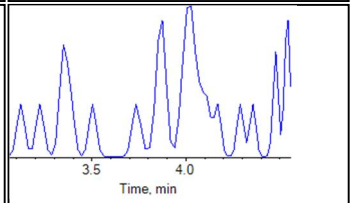
NMeFOSAA_1



NMeFOSAA_2

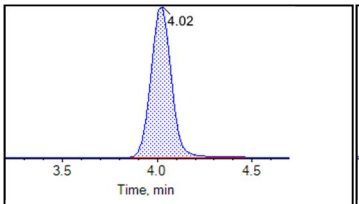


NEtFOSAA_1

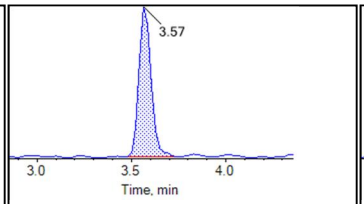


NEtFOSAA_2

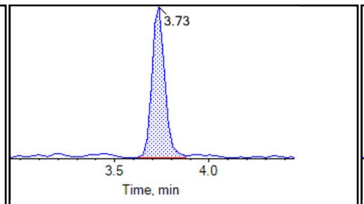
Internal Standards:



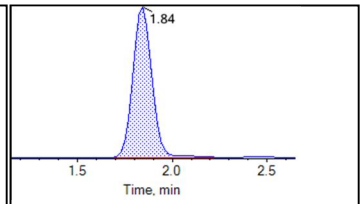
13C2-PFDoA



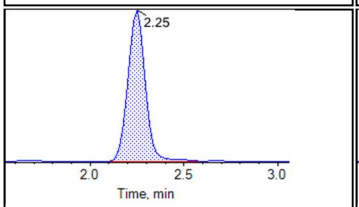
d3-MeFOSAA



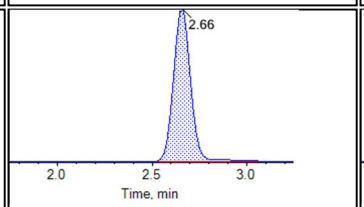
d5-EtFOSAA



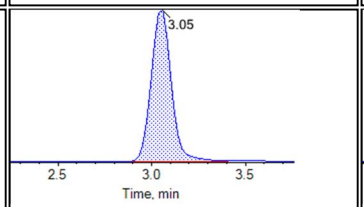
13C5-PFHxA



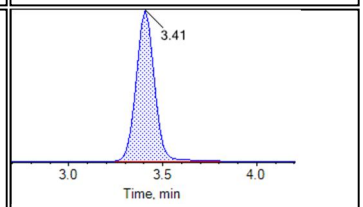
13C4-PFHpA



13C8-PFOA



13C9-PFNA

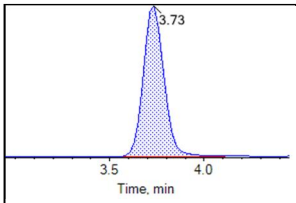


13C6-PFDA

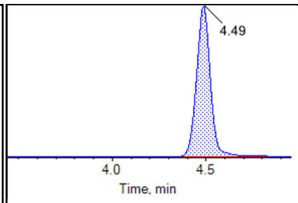
BATTELLE

Chromatogram Report

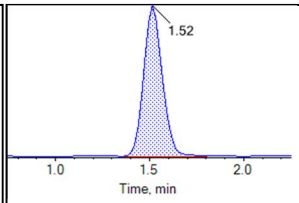
Created with Analyst Reporter
Printed: 23/10/2018 4:17:23 PM



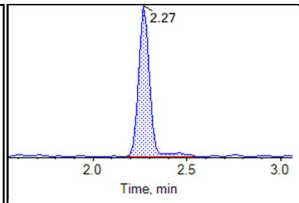
13C7-PFUnA



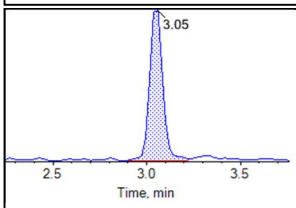
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

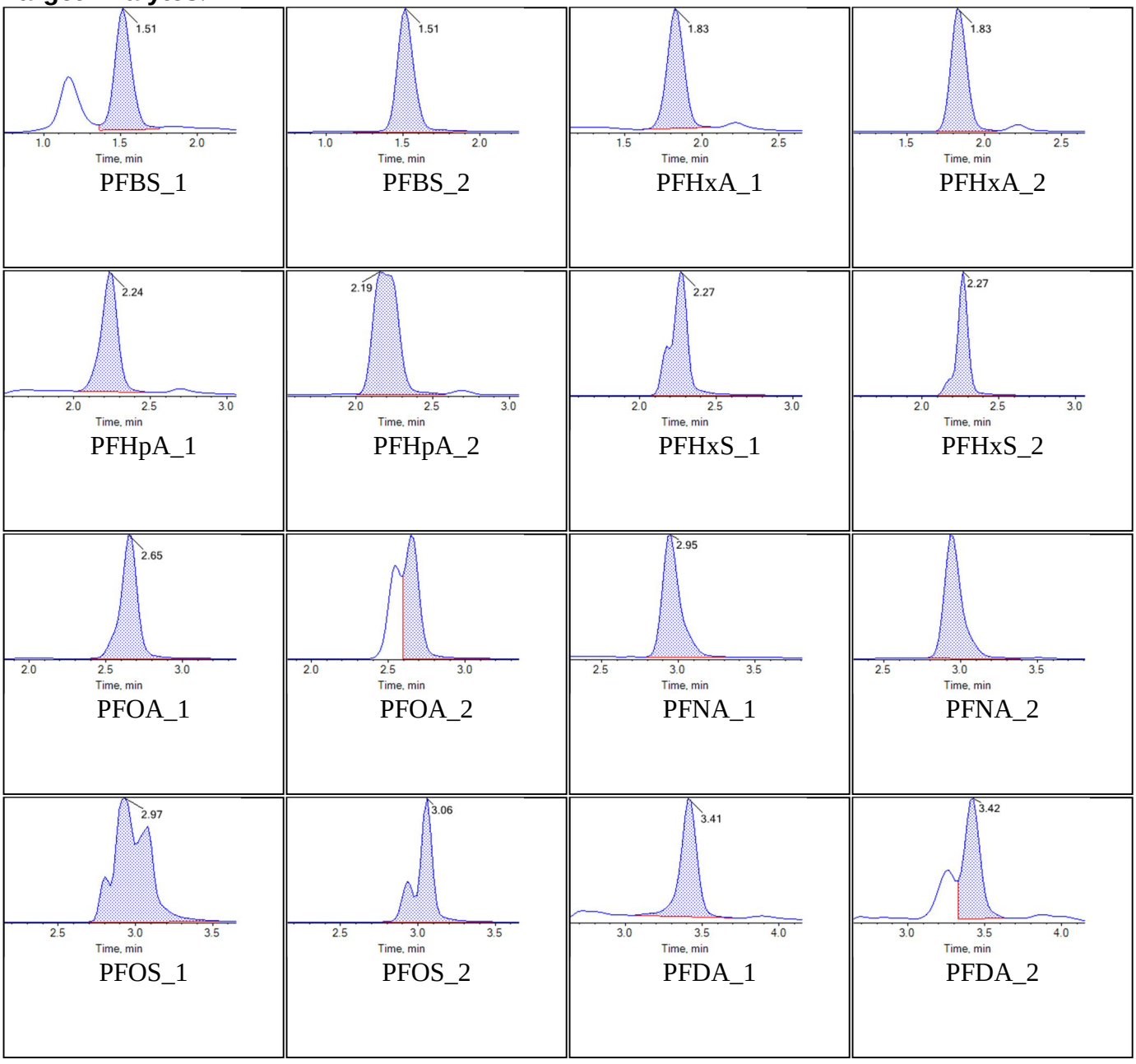
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:17:28 PM

Sample Name	J8400-FS(0)	**Injection Vial**	12
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:32:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

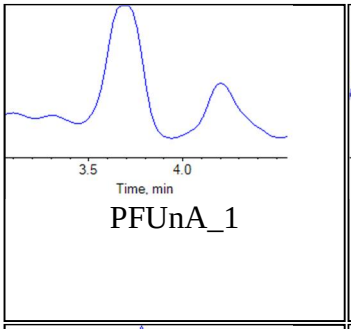
Target Analytes:



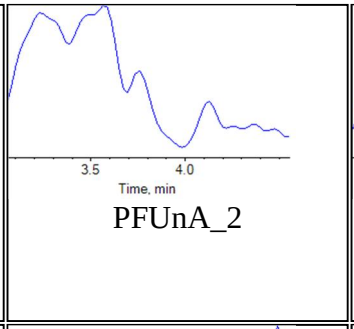
BATTELLE

Chromatogram Report

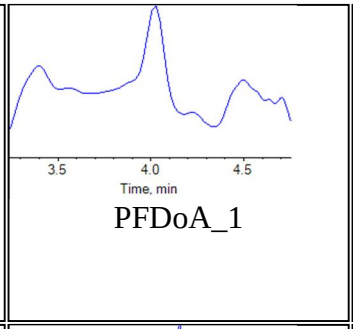
Created with Analyst Reporter
Printed: 23/10/2018 4:17:28 PM



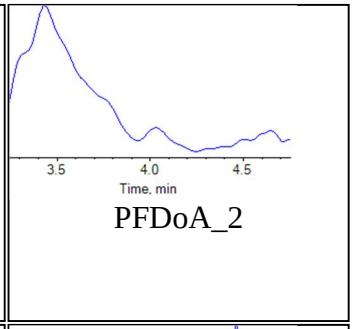
PFUnA_1



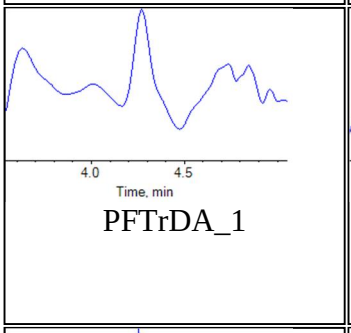
PFUnA_2



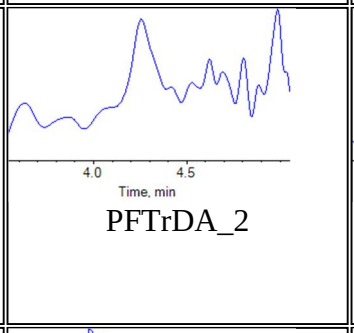
PFDoA_1



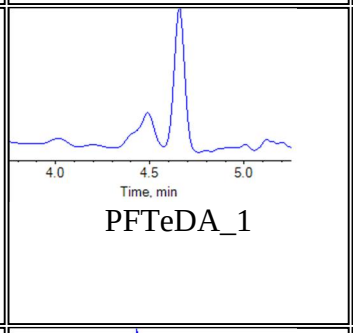
PFDoA_2



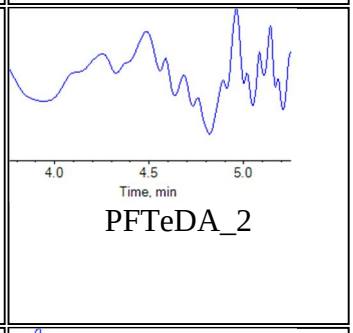
PFTrDA_1



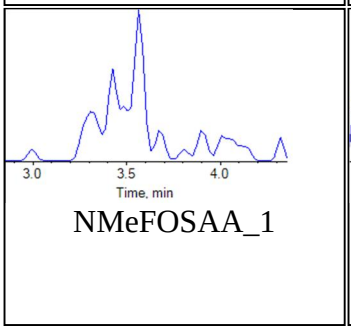
PFTrDA_2



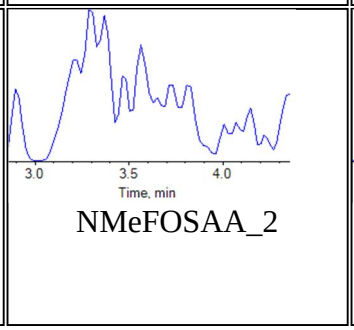
PFTeDA_1



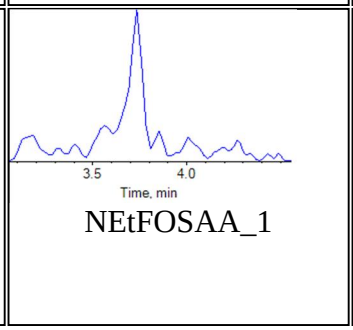
PFTeDA_2



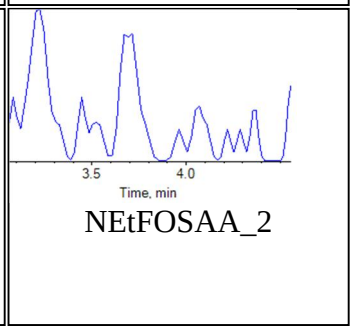
NMeFOSAA_1



NMeFOSAA_2

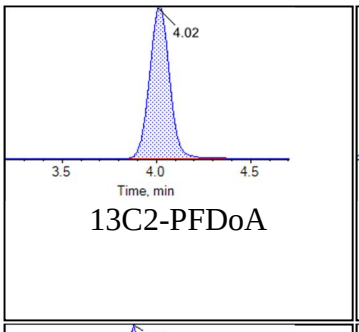


NEtFOSAA_1

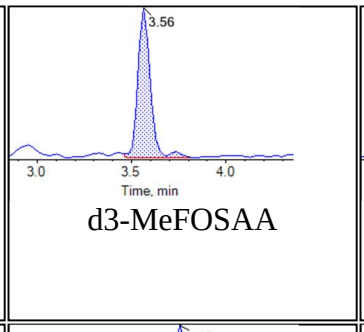


NEtFOSAA_2

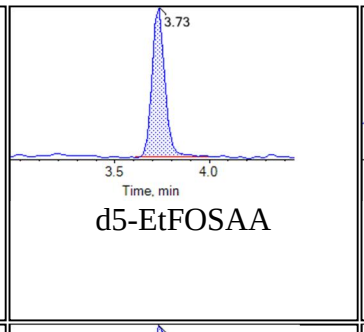
Internal Standards:



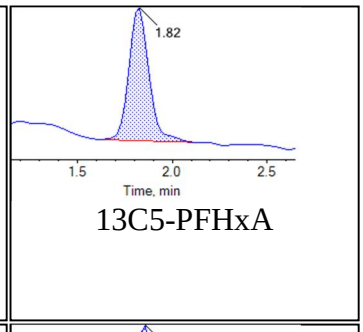
13C2-PFDoA



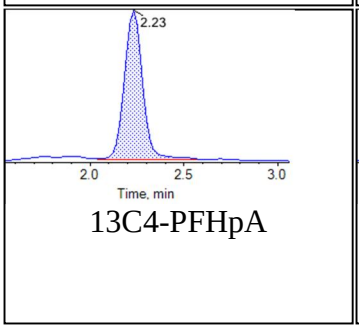
d3-MeFOSAA



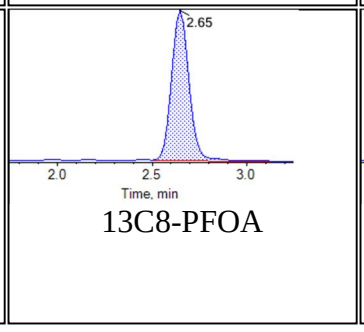
d5-EtFOSAA



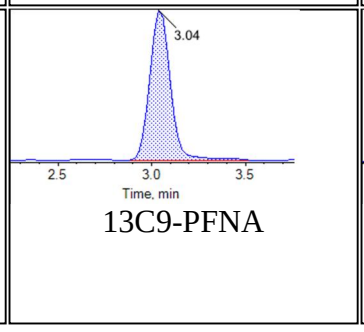
13C5-PFHxA



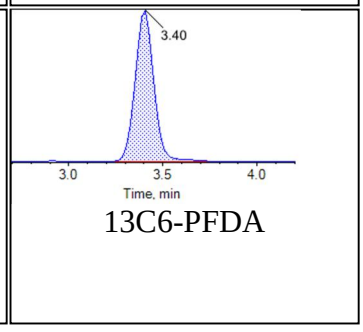
13C4-PFHpA



13C8-PFOA



13C9-PFNA

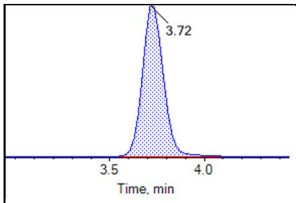


13C6-PFDA

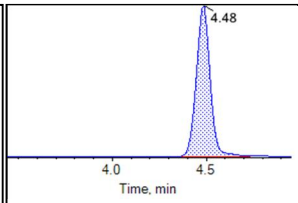
BATTELLE

Chromatogram Report

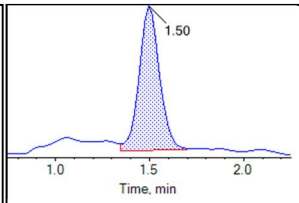
Created with Analyst Reporter
Printed: 23/10/2018 4:17:28 PM



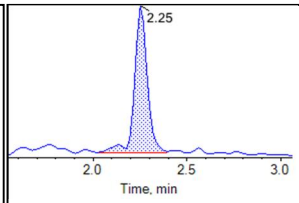
13C7-PFUnA



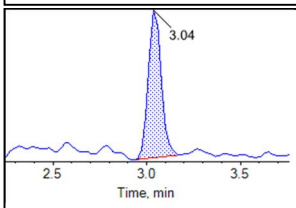
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

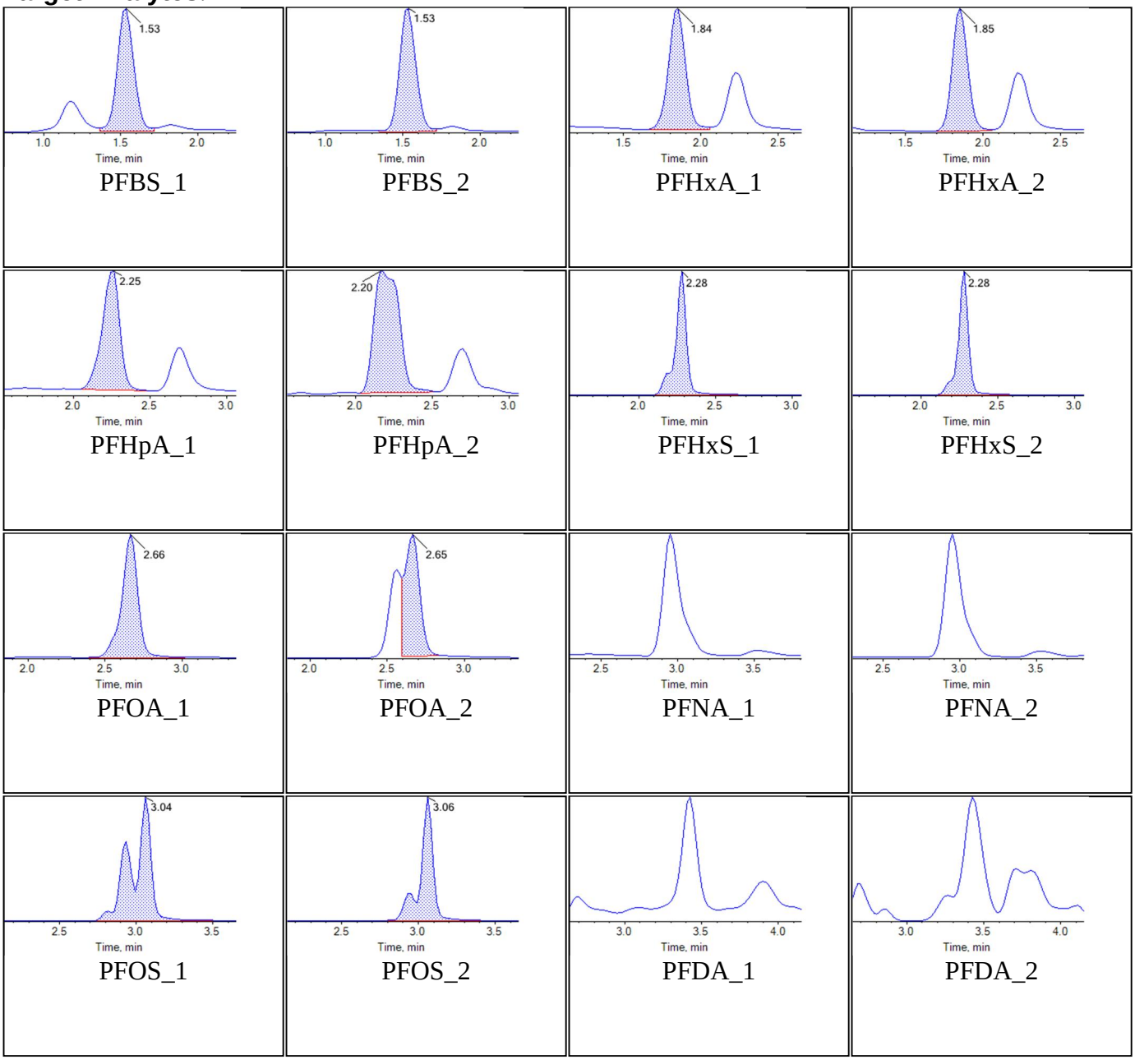
Chromatogram Report

Created with Analyst Reporter
Printed: 26/10/2018 10:54:41 AM

Sample Name	J8400-FS-D(3)	**Injection Vial**	13
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:43:40	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

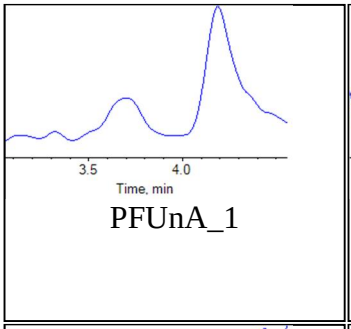
Target Analytes:



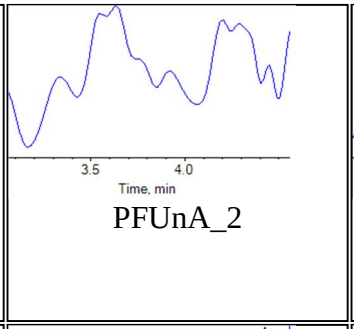
BATTELLE

Chromatogram Report

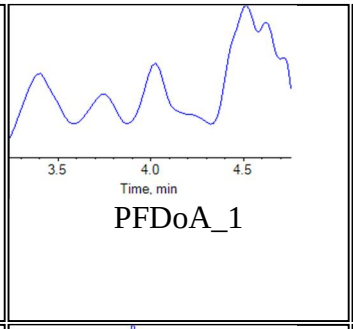
Created with Analyst Reporter
Printed: 26/10/2018 10:54:41 AM



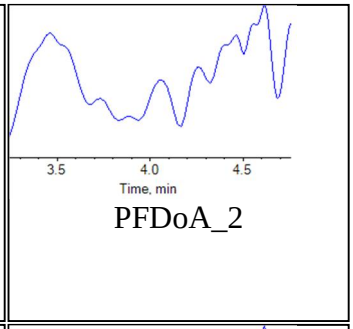
PFUnA_1



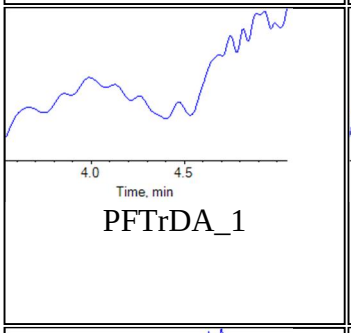
PFUnA_2



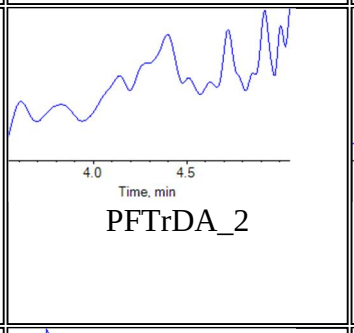
PFDoA_1



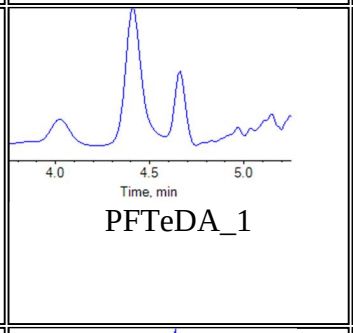
PFDoA_2



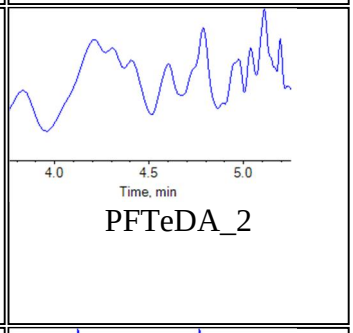
PFTrDA_1



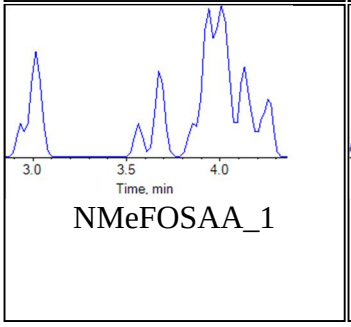
PFTrDA_2



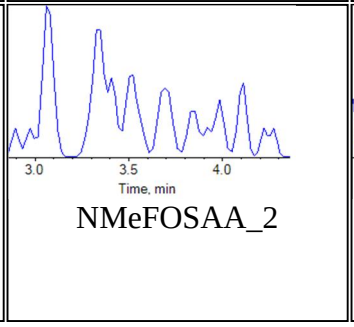
PFTeDA_1



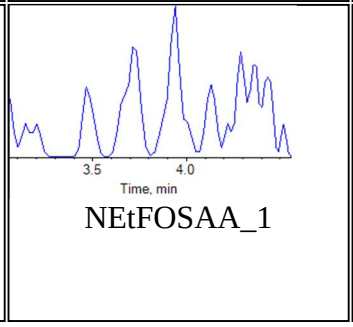
PFTeDA_2



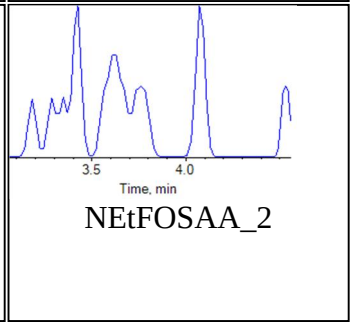
NMeFOSAA_1



NMeFOSAA_2

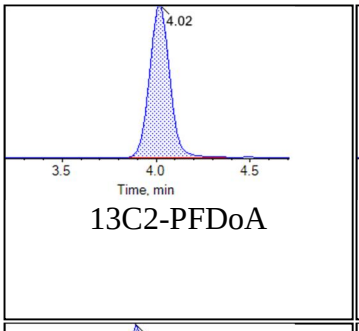


NEtFOSAA_1

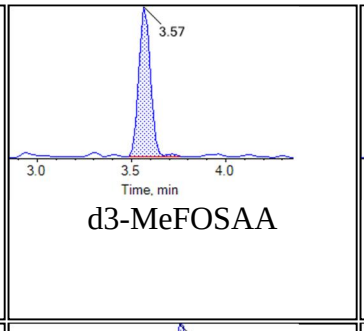


NEtFOSAA_2

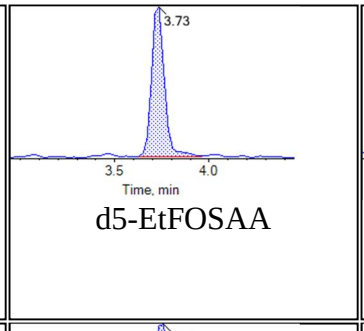
Internal Standards:



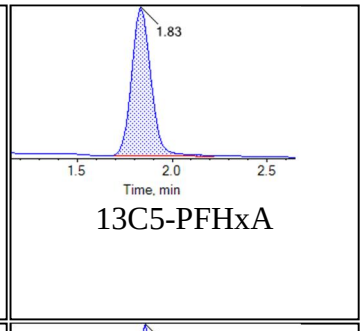
13C2-PFDoA



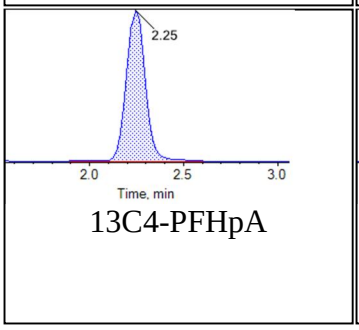
d3-MeFOSAA



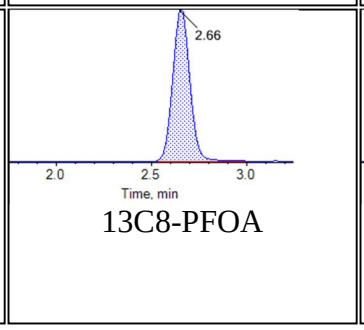
d5-EtFOSAA



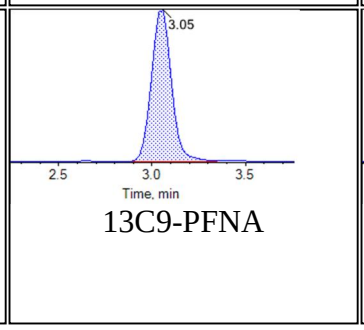
13C5-PFHxA



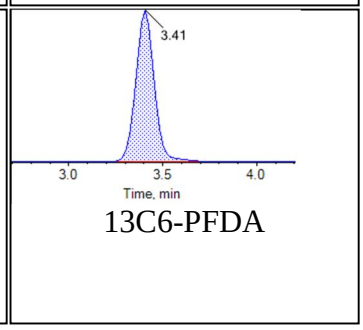
13C4-PFHpA



13C8-PFOA



13C9-PFNA

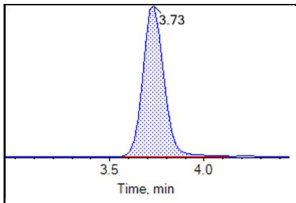


13C6-PFDA

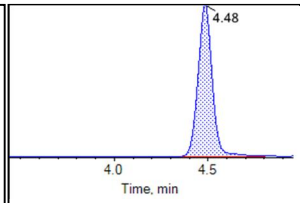
BATTELLE

Chromatogram Report

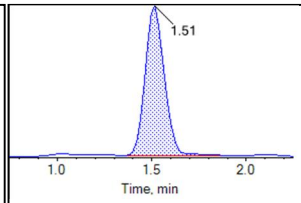
Created with Analyst Reporter
Printed: 26/10/2018 10:54:41 AM



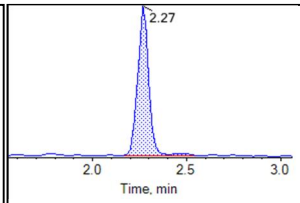
13C7-PFUnA



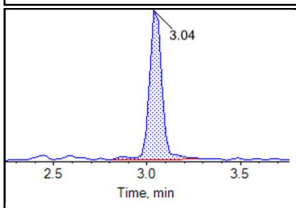
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

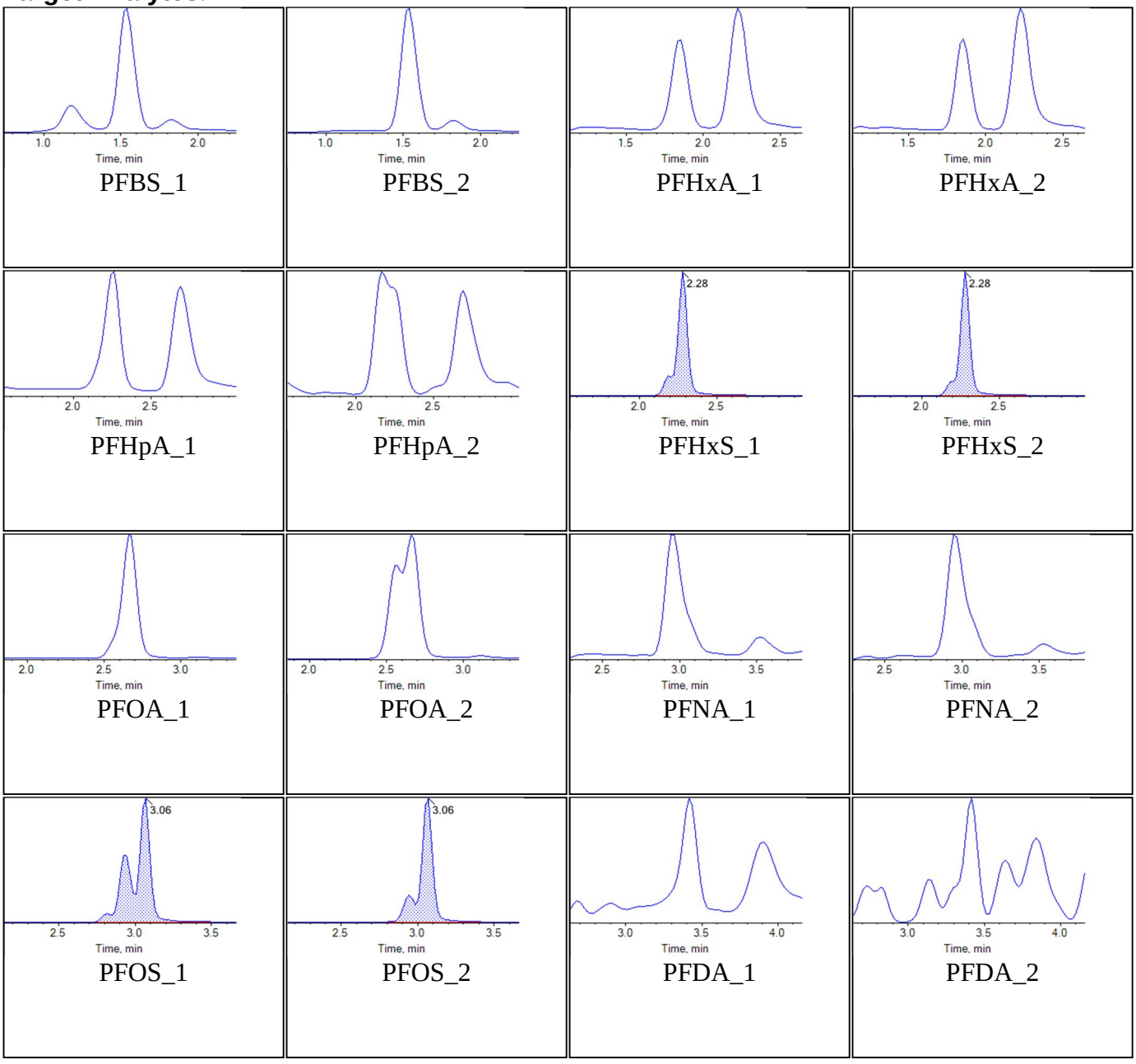
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:17:39 PM

Sample Name	J8400-FS-D(5)	**Injection Vial**	14
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:54:32	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

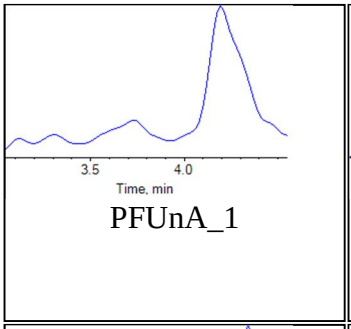
Target Analytes:



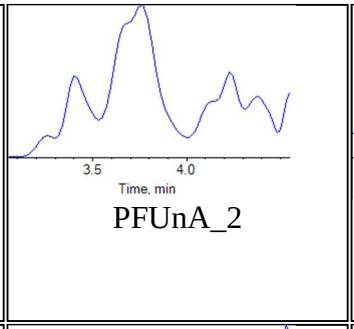
BATTELLE

Chromatogram Report

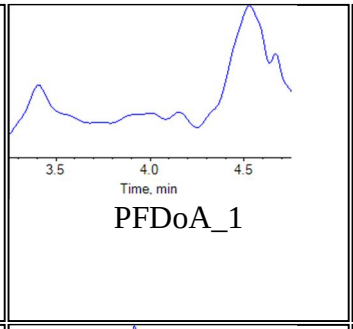
Created with Analyst Reporter
Printed: 23/10/2018 4:17:39 PM



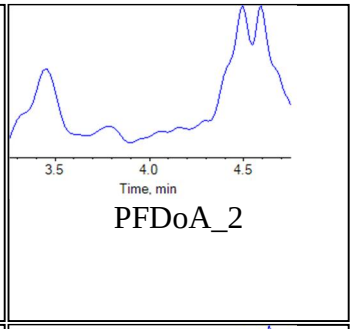
PFUnA_1



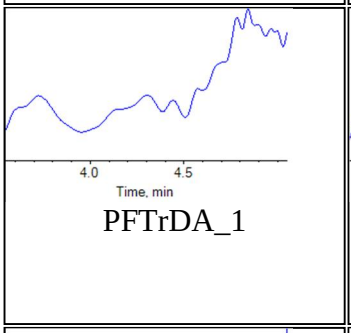
PFUnA_2



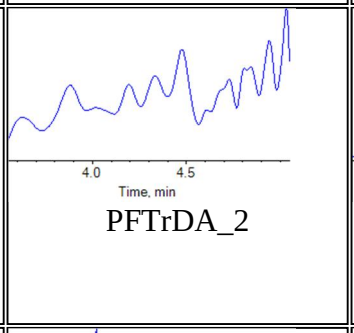
PFDoA_1



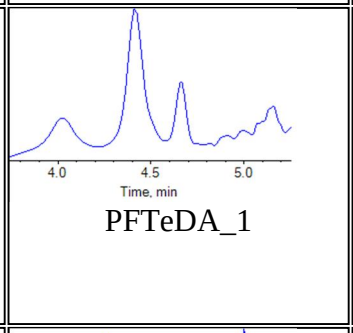
PFDoA_2



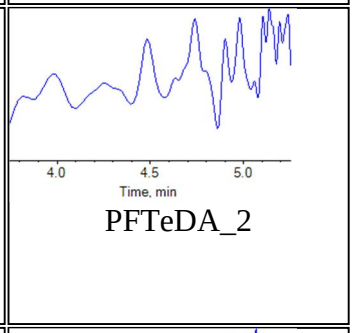
PFTrDA_1



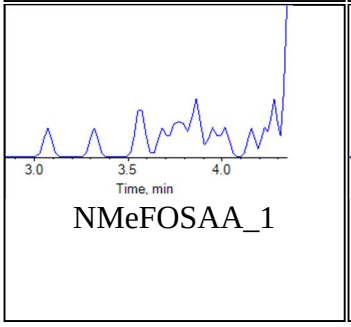
PFTrDA_2



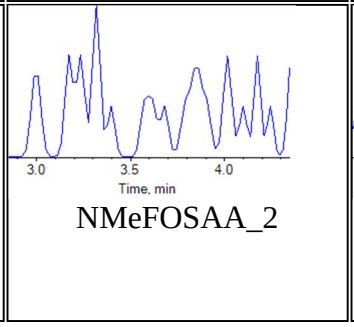
PFTeDA_1



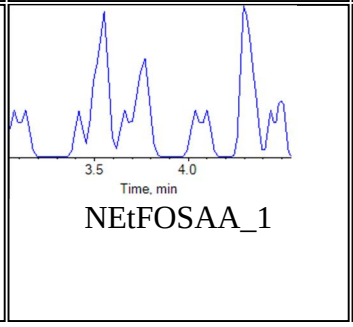
PFTeDA_2



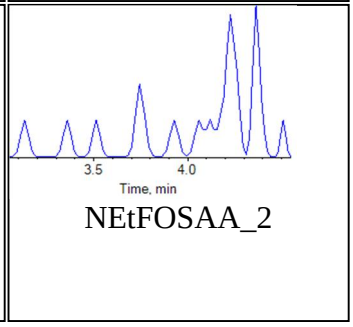
NMeFOSAA_1



NMeFOSAA_2

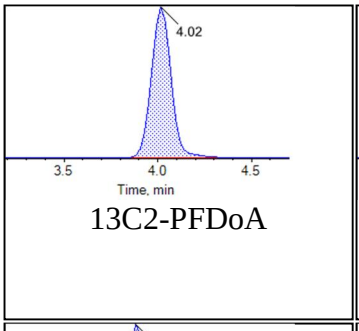


NEtFOSAA_1

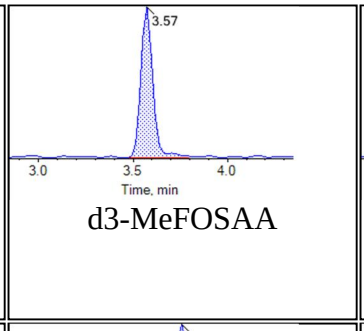


NEtFOSAA_2

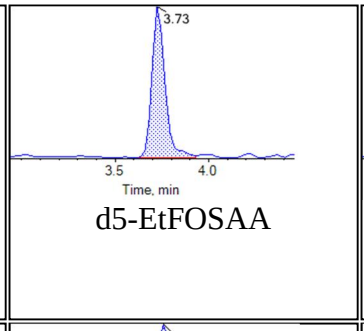
Internal Standards:



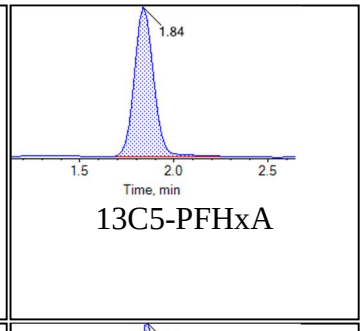
13C2-PFDoA



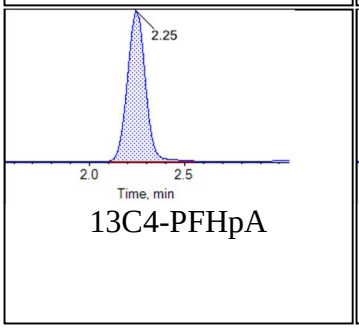
d3-MeFOSAA



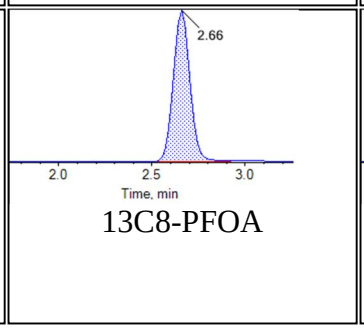
d5-EtFOSAA



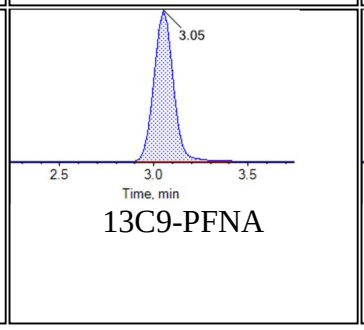
13C5-PFHxA



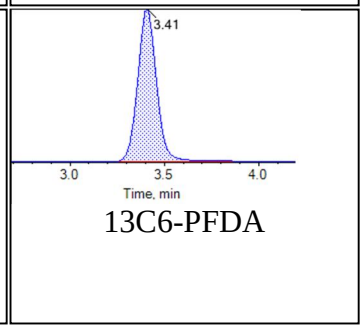
13C4-PFHpA



13C8-PFOA



13C9-PFNA

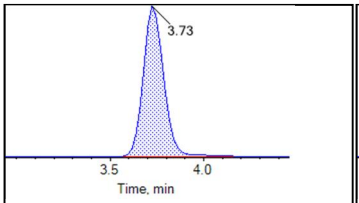


13C6-PFDA

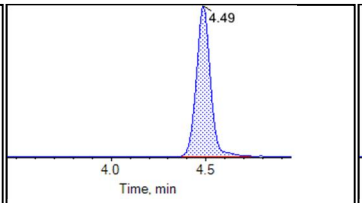
BATTELLE

Chromatogram Report

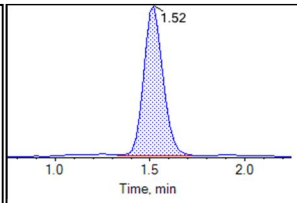
Created with Analyst Reporter
Printed: 23/10/2018 4:17:39 PM



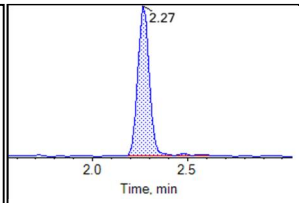
13C7-PFUnA



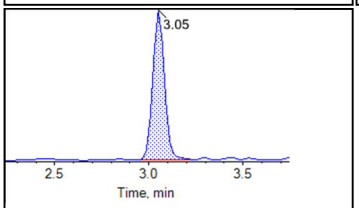
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

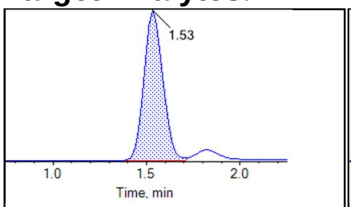
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:17:45 PM

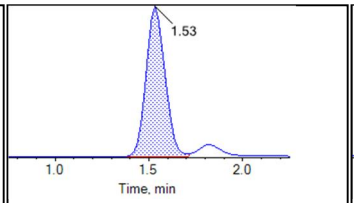
Sample Name	KB77 CCV	**Injection Vial**	15
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T11:05:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

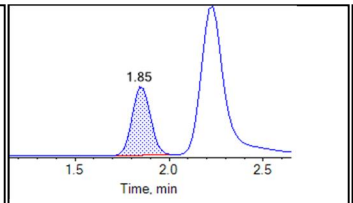
Target Analytes:



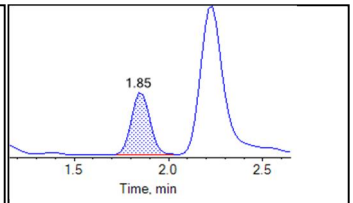
PFBS_1



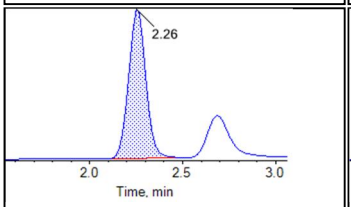
PFBS_2



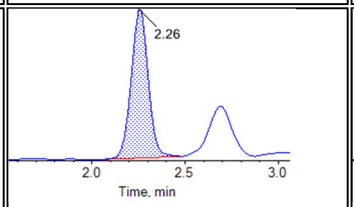
PFHxA_1



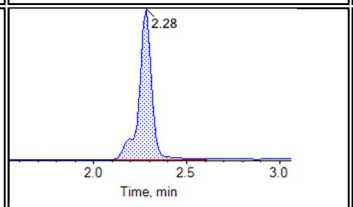
PFHxA_2



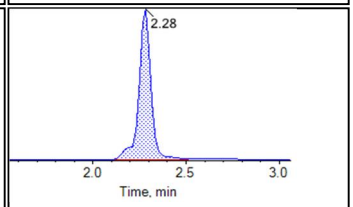
PFHpA_1



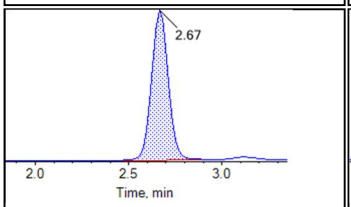
PFHpA_2



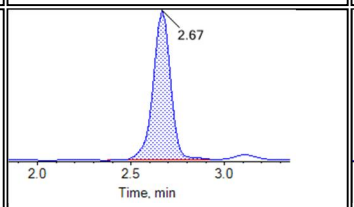
PFHxS_1



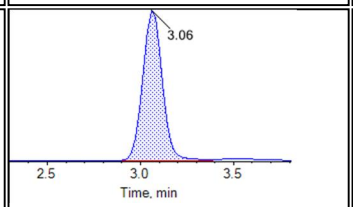
PFHxS_2



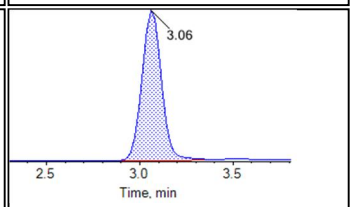
PFOA_1



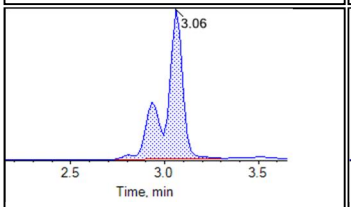
PFOA_2



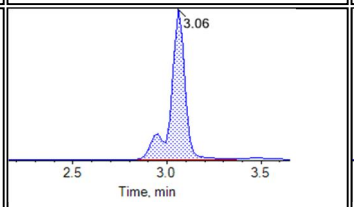
PFNA_1



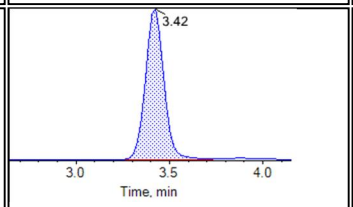
PFNA_2



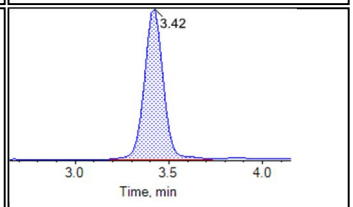
PFOS_1



PFOS_2



PFDA_1

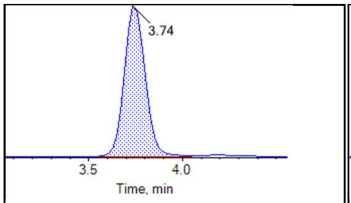


PFDA_2

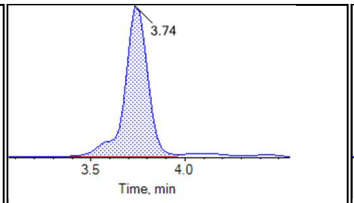
BATTELLE

Chromatogram Report

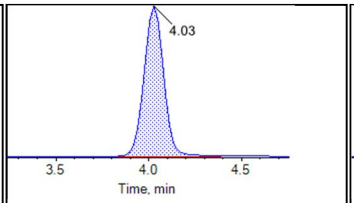
Created with Analyst Reporter
Printed: 23/10/2018 4:17:45 PM



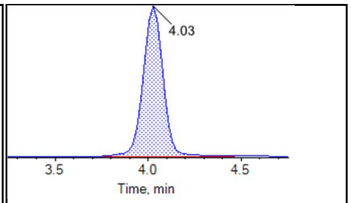
PFUnA_1



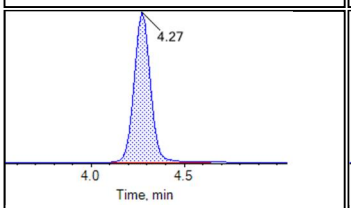
PFUnA_2



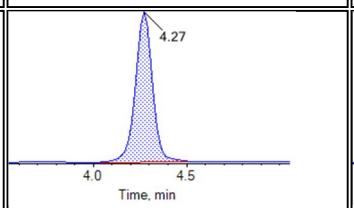
PFDoA_1



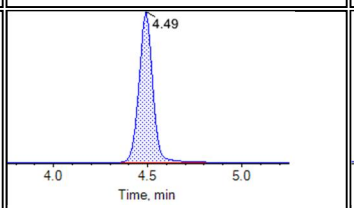
PFDoA_2



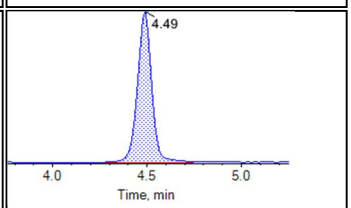
PFTrDA_1



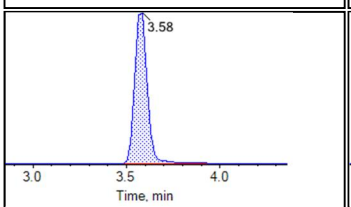
PFTrDA_2



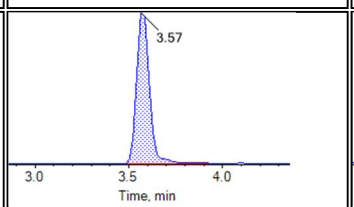
PFTeDA_1



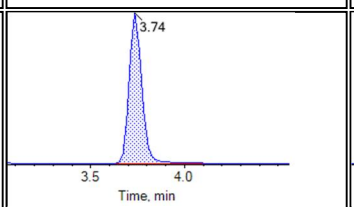
PFTeDA_2



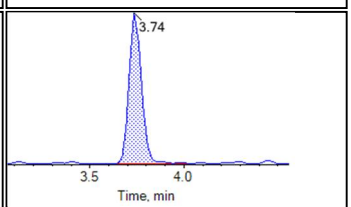
NMeFOSAA_1



NMeFOSAA_2

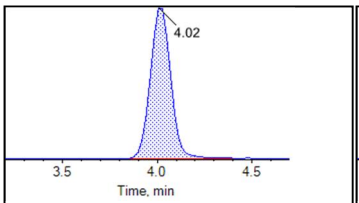


NEtFOSAA_1

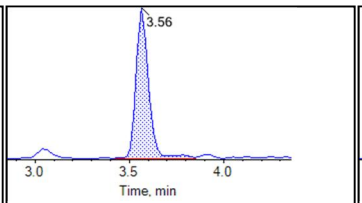


NEtFOSAA_2

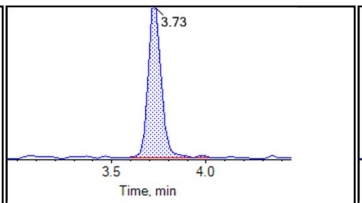
Internal Standards:



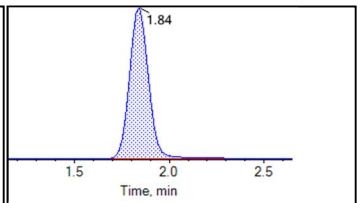
13C2-PFDoA



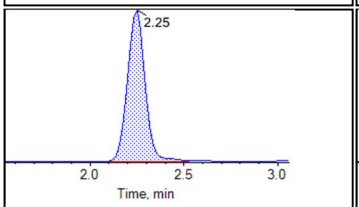
d3-MeFOSAA



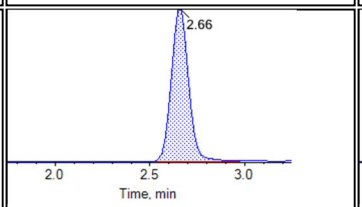
d5-EtFOSAA



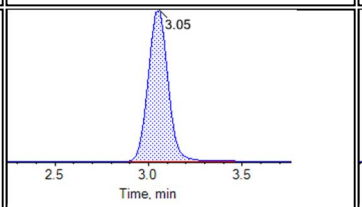
13C5-PFHxA



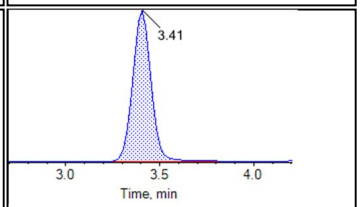
13C4-PFHpA



13C8-PFOA



13C9-PFNA

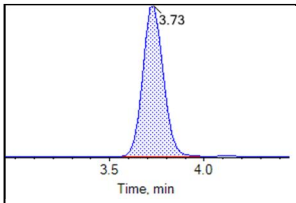


13C6-PFDA

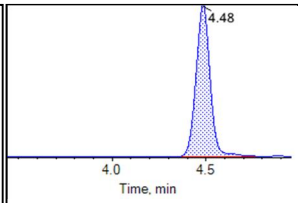
BATTELLE

Chromatogram Report

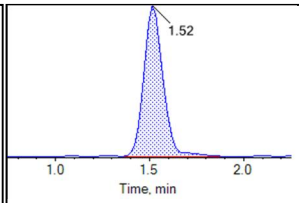
Created with Analyst Reporter
Printed: 23/10/2018 4:17:45 PM



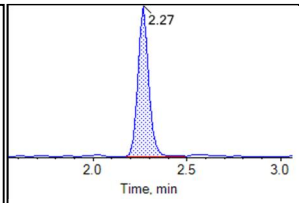
13C7-PFUnA



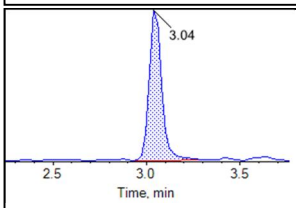
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

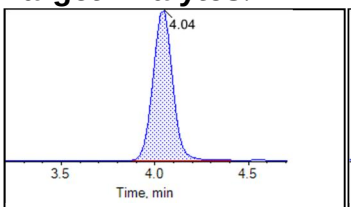
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:34 PM

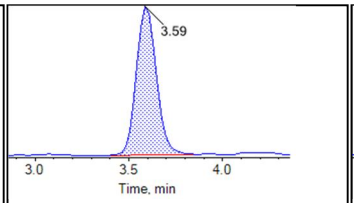
Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

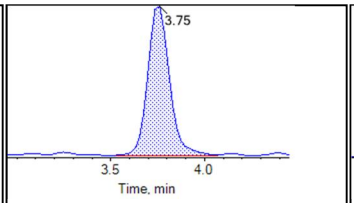
Target Analytes:



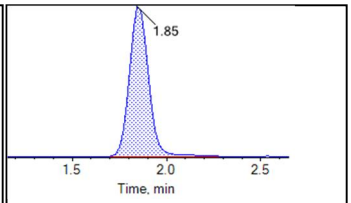
13C2-PFDoA



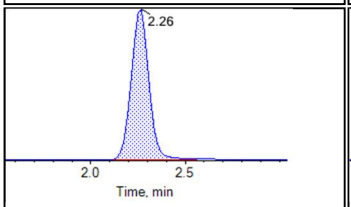
d3-MeFOSAA



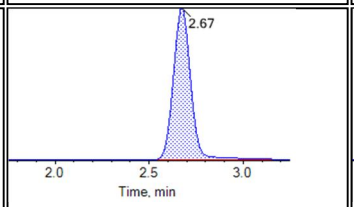
d5-EtFOSAA



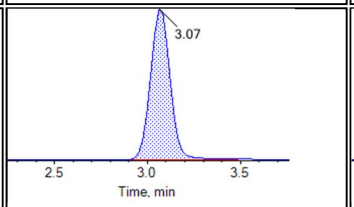
13C5-PFHxA



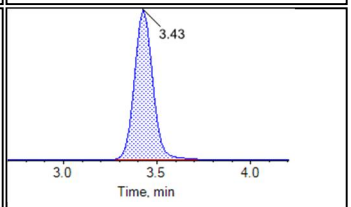
13C4-PFHpA



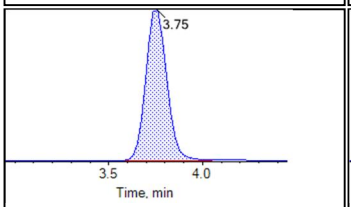
13C8-PFOA



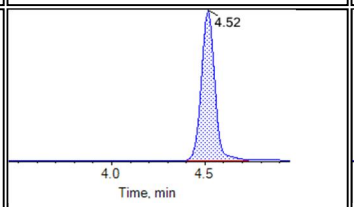
13C9-PFNA



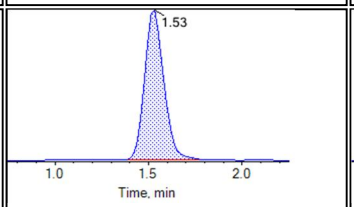
13C6-PFDA



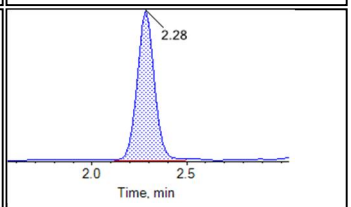
13C7-PFUnA



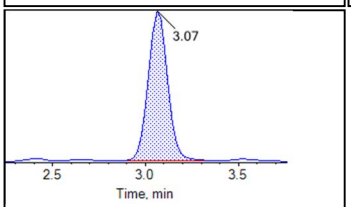
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

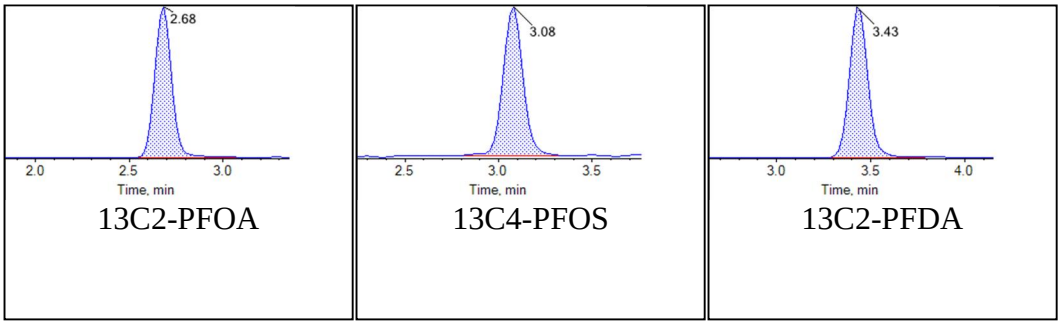


13C8-PFOS

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:34 PM

Internal Standards:



BATTELLE

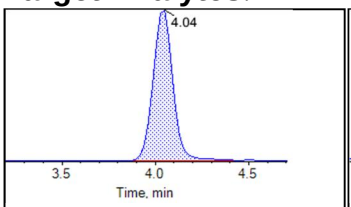
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:39 PM

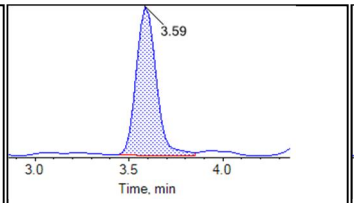
Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

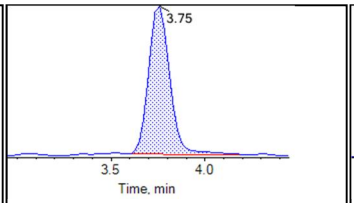
Target Analytes:



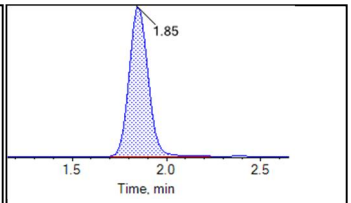
13C2-PFDoA



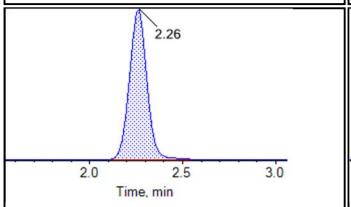
d3-MeFOSAA



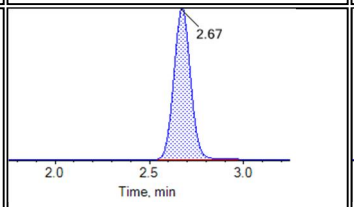
d5-EtFOSAA



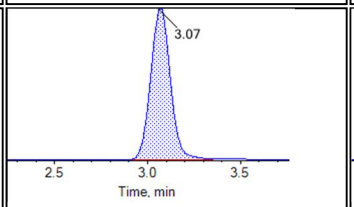
13C5-PFHxA



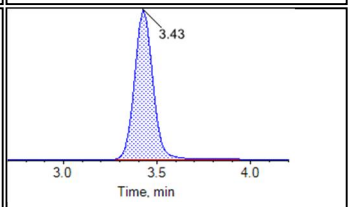
13C4-PFHpA



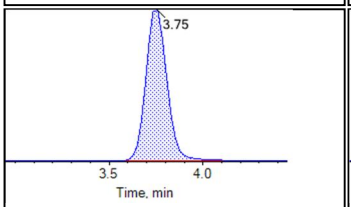
13C8-PFOA



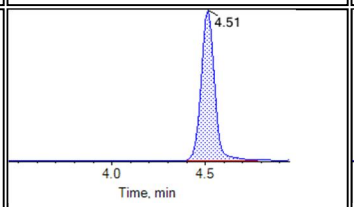
13C9-PFNA



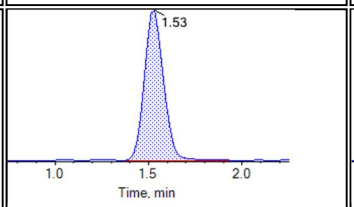
13C6-PFDA



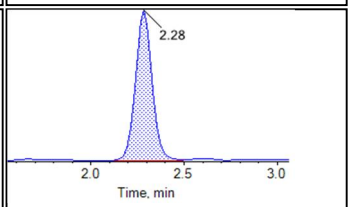
13C7-PFUnA



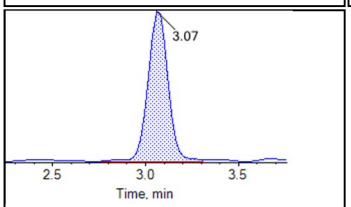
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



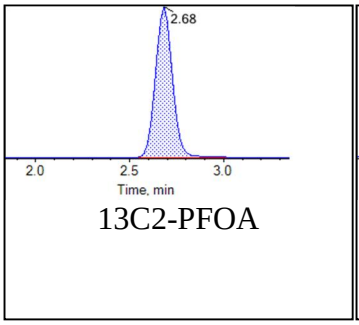
13C8-PFOS

BATTELLE

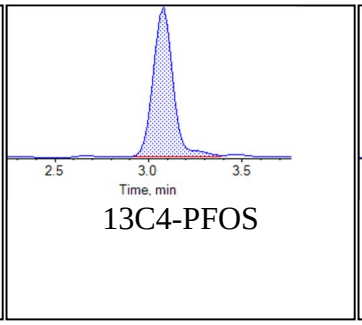
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:39 PM

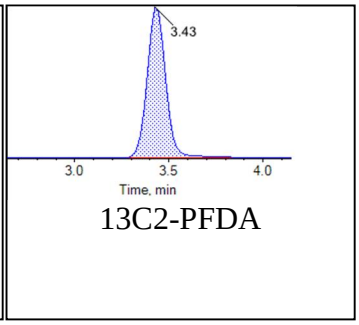
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

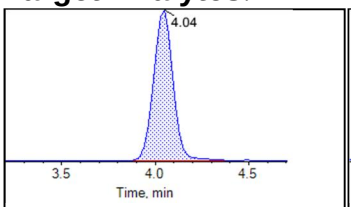
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:44 PM

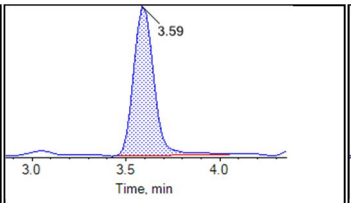
Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

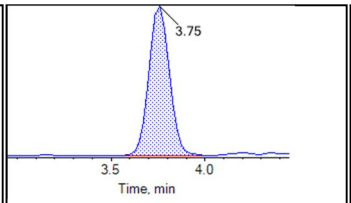
Target Analytes:



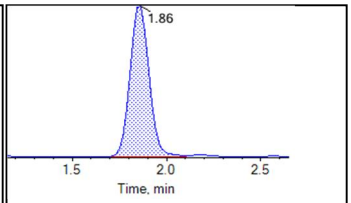
13C2-PFDoA



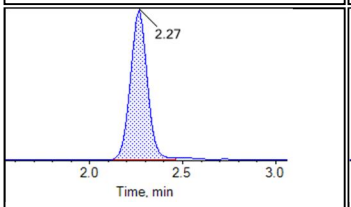
d3-MeFOSAA



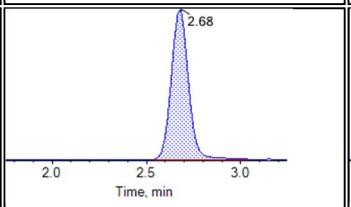
d5-EtFOSAA



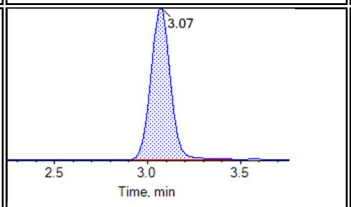
13C5-PFHxA



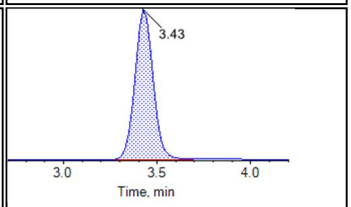
13C4-PFHpA



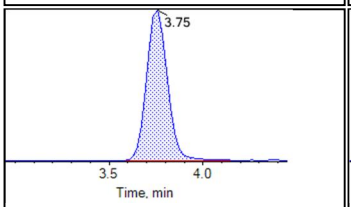
13C8-PFOA



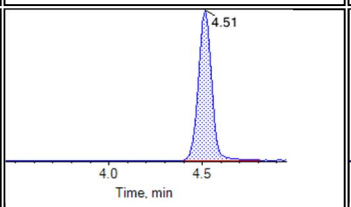
13C9-PFNA



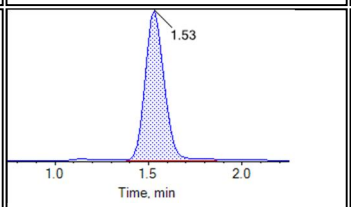
13C6-PFDA



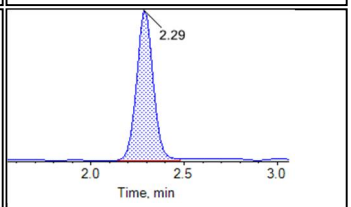
13C7-PFUnA



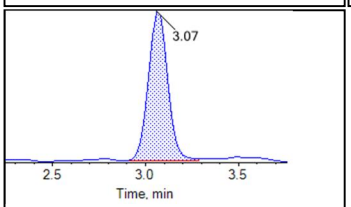
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



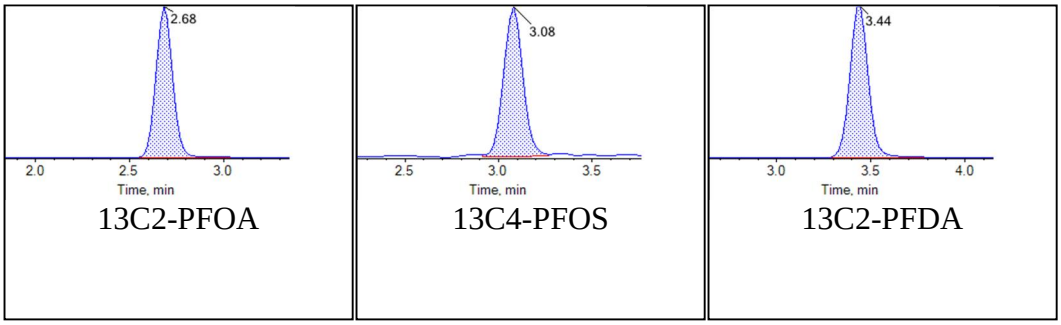
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:44 PM

Internal Standards:



BATTELLE

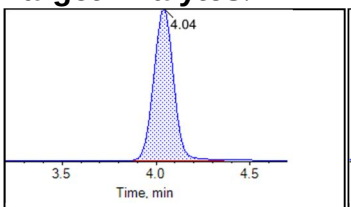
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:48 PM

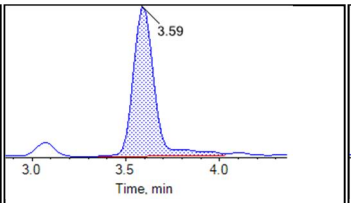
Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

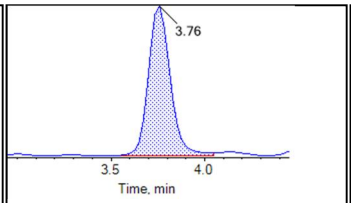
Target Analytes:



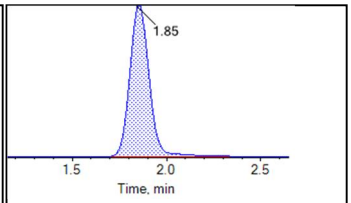
13C2-PFDoA



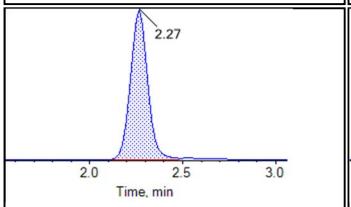
d3-MeFOSAA



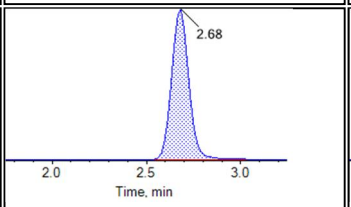
d5-EtFOSAA



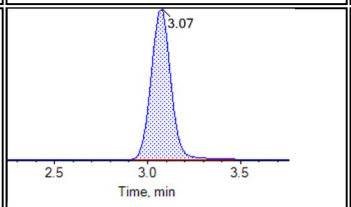
13C5-PFHxA



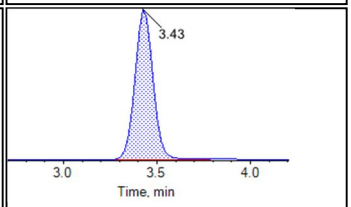
13C4-PFHpA



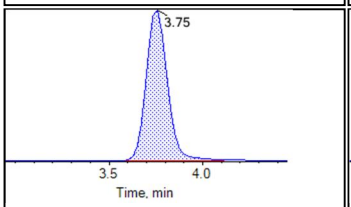
13C8-PFOA



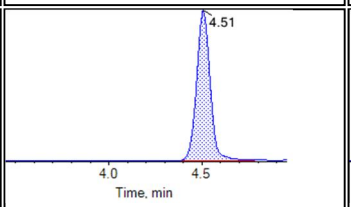
13C9-PFNA



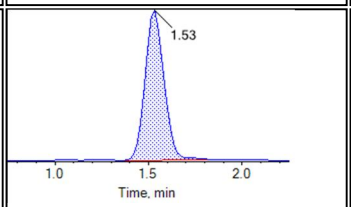
13C6-PFDA



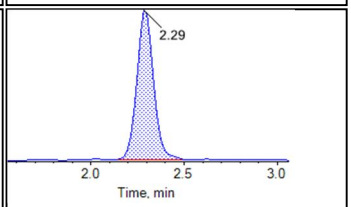
13C7-PFUnA



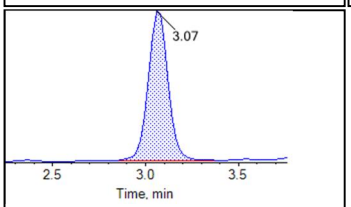
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



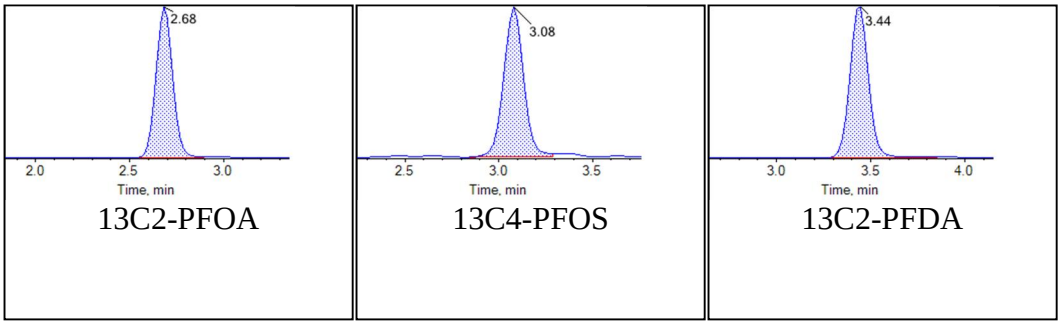
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:48 PM

Internal Standards:



BATTELLE

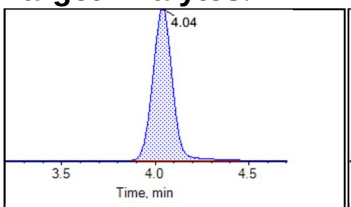
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:53 PM

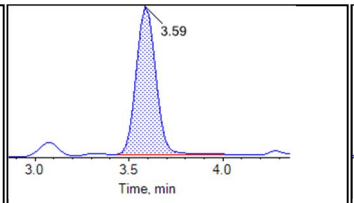
Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

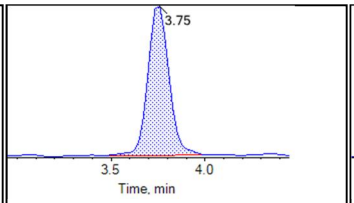
Target Analytes:



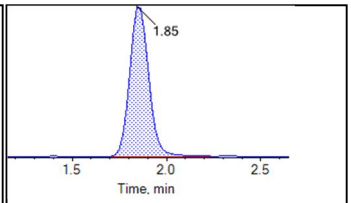
13C2-PFDoA



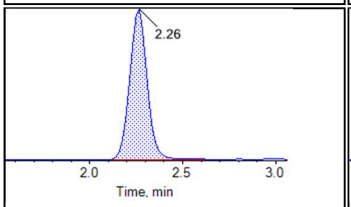
d3-MeFOSAA



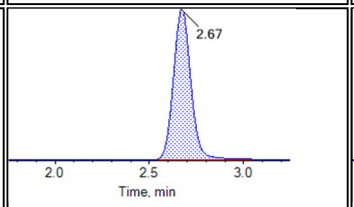
d5-EtFOSAA



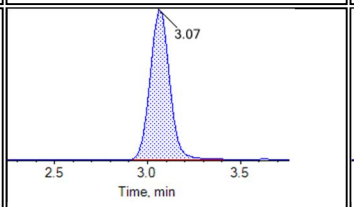
13C5-PFHxA



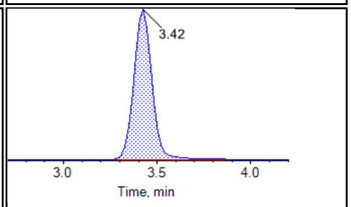
13C4-PFHpA



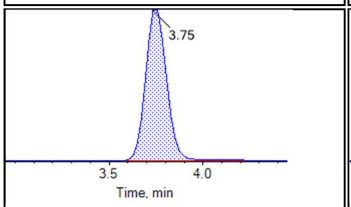
13C8-PFOA



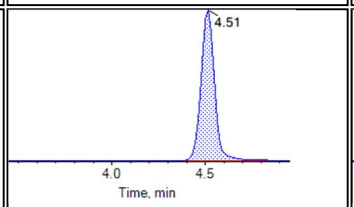
13C9-PFNA



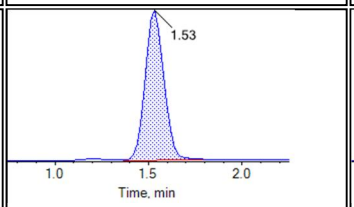
13C6-PFDA



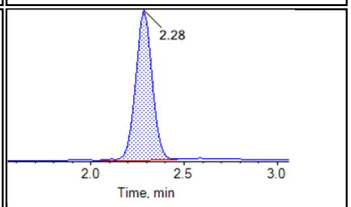
13C7-PFUnA



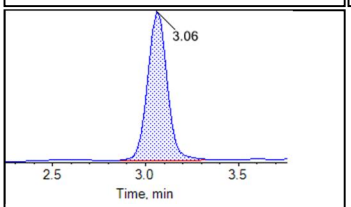
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

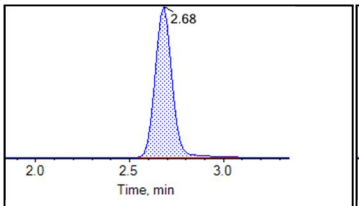


13C8-PFOS

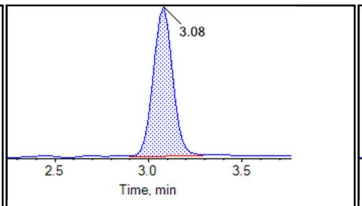
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:53 PM

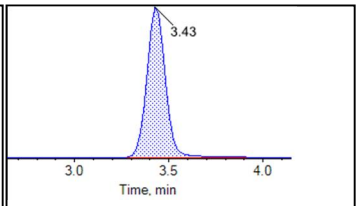
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

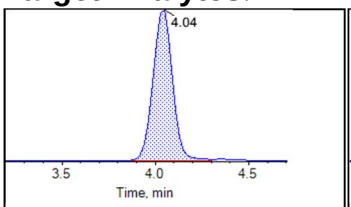
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:58 PM

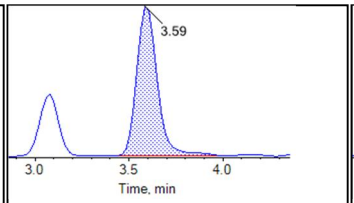
Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

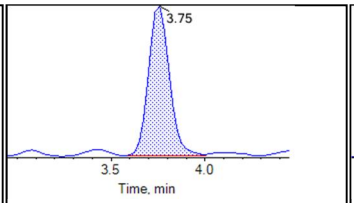
Target Analytes:



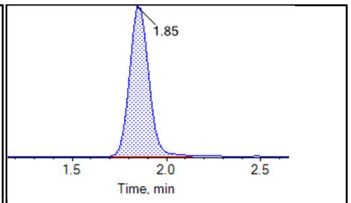
13C2-PFDoA



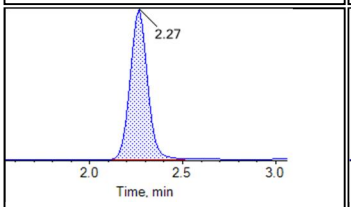
d3-MeFOSAA



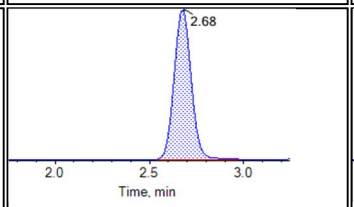
d5-EtFOSAA



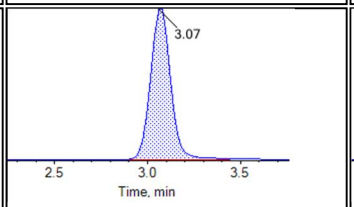
13C5-PFHxA



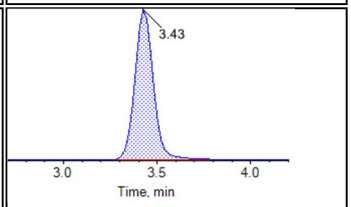
13C4-PFHpA



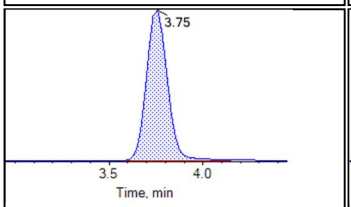
13C8-PFOA



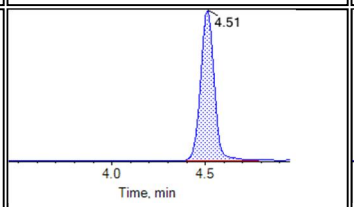
13C9-PFNA



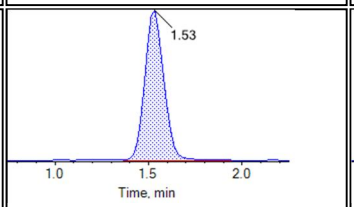
13C6-PFDA



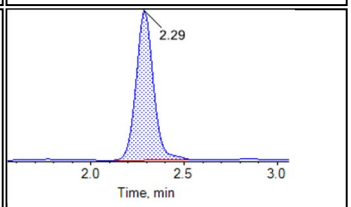
13C7-PFUnA



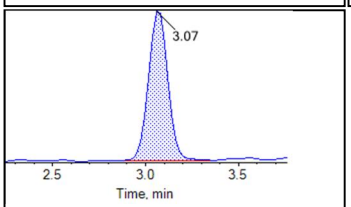
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

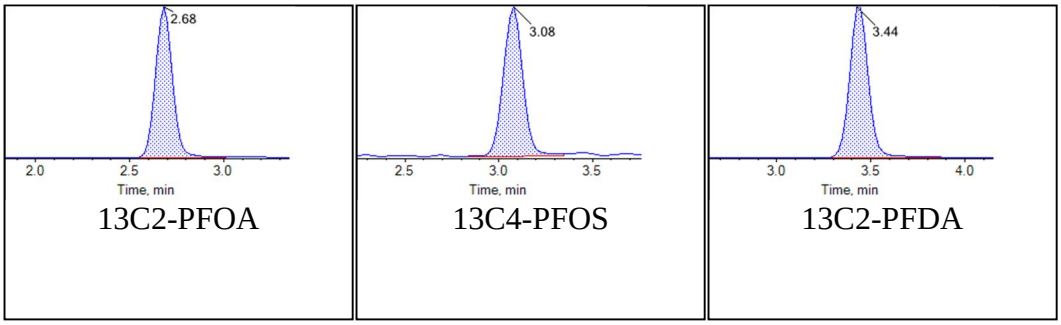


13C8-PFOS

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:04:58 PM

Internal Standards:



BATTELLE

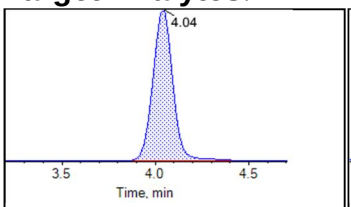
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:02 PM

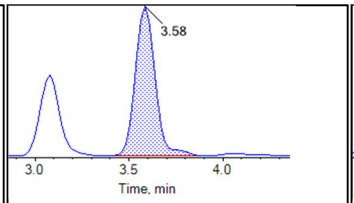
Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

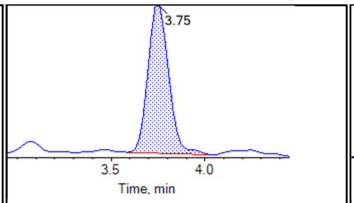
Target Analytes:



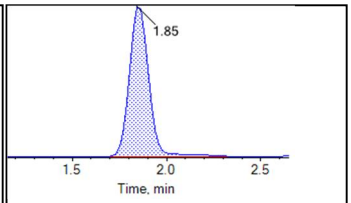
13C2-PFDoA



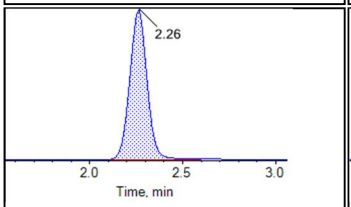
d3-MeFOSAA



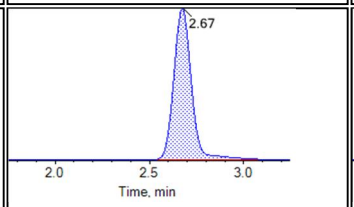
d5-EtFOSAA



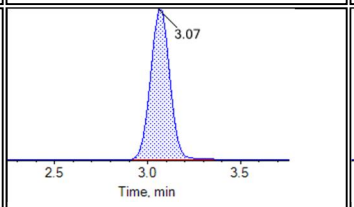
13C5-PFHxA



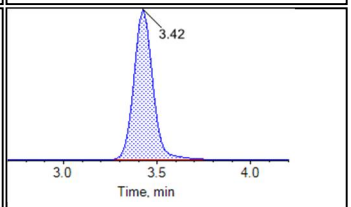
13C4-PFHpA



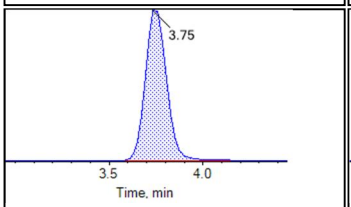
13C8-PFOA



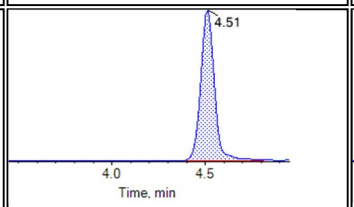
13C9-PFNA



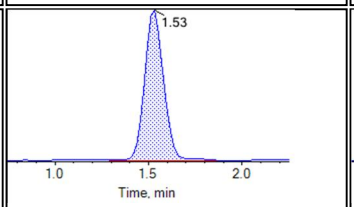
13C6-PFDA



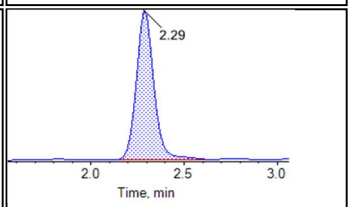
13C7-PFUnA



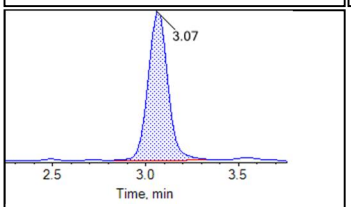
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



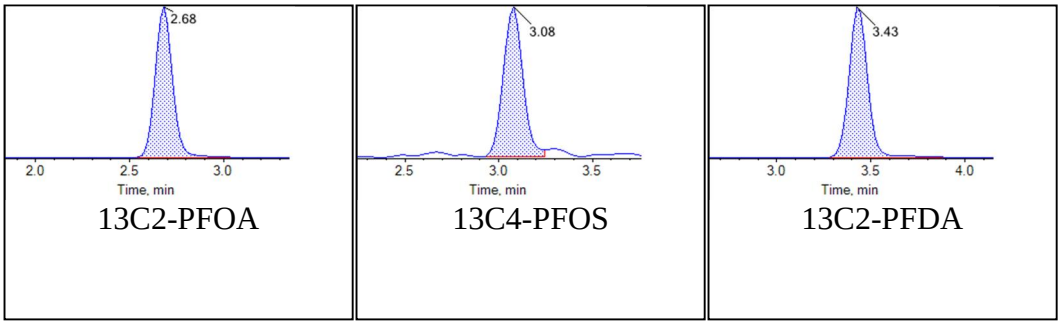
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:02 PM

Internal Standards:



BATTELLE

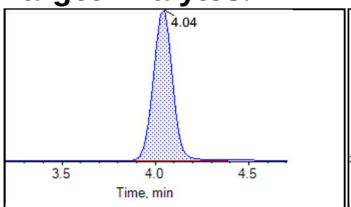
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:07 PM

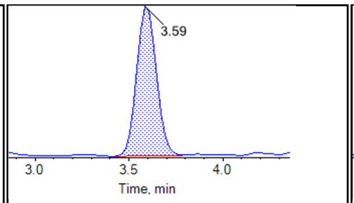
Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

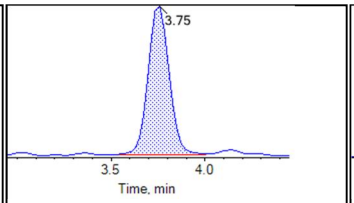
Target Analytes:



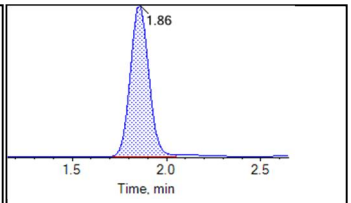
13C2-PFDoA



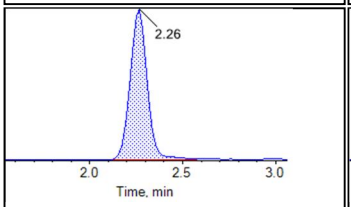
d3-MeFOSAA



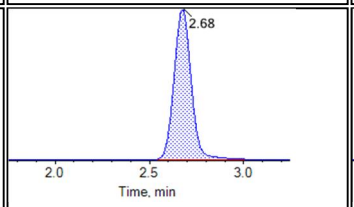
d5-EtFOSAA



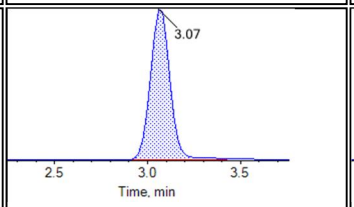
13C5-PFHxA



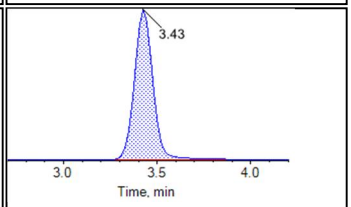
13C4-PFHpA



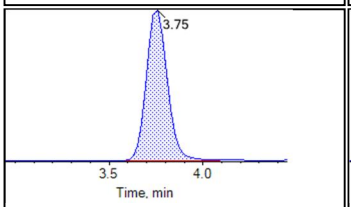
13C8-PFOA



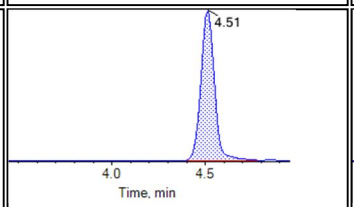
13C9-PFNA



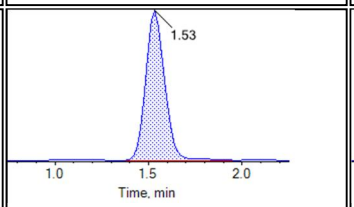
13C6-PFDA



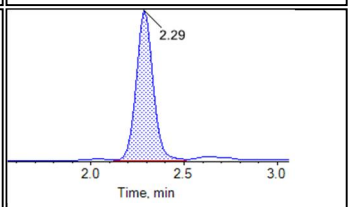
13C7-PFUnA



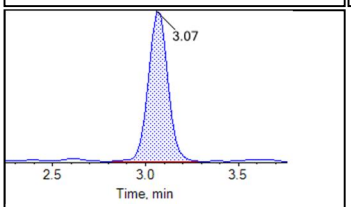
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



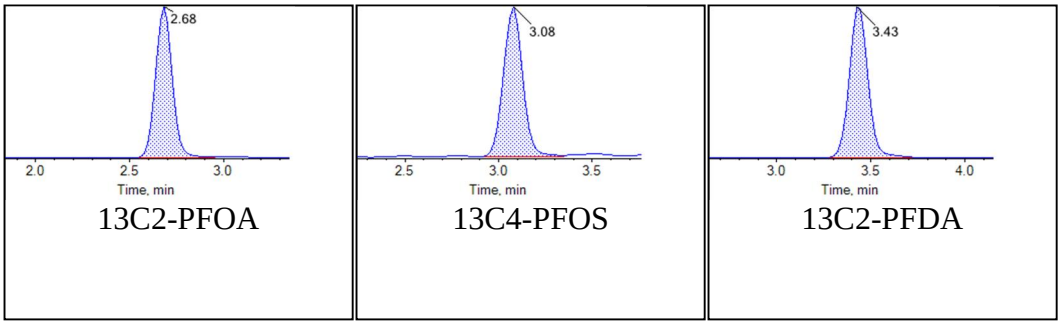
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:07 PM

Internal Standards:



BATTELLE

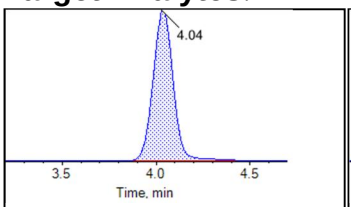
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:11 PM

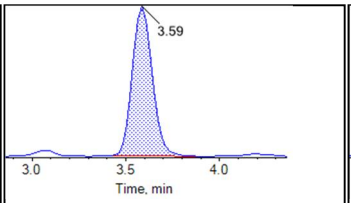
Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

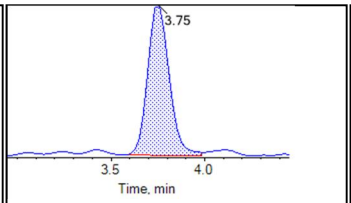
Target Analytes:



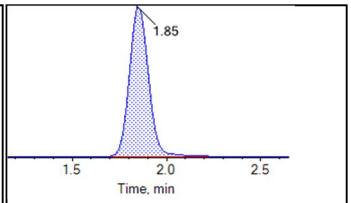
13C2-PFDoA



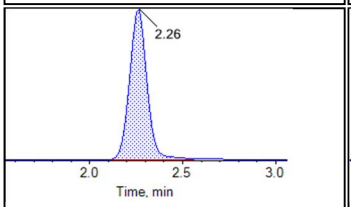
d3-MeFOSAA



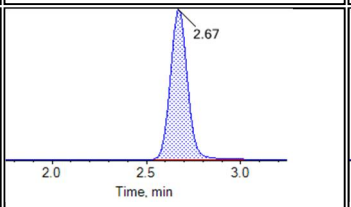
d5-EtFOSAA



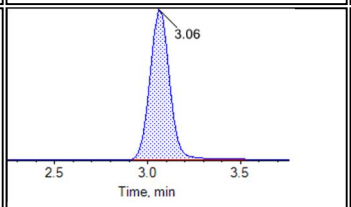
13C5-PFHxA



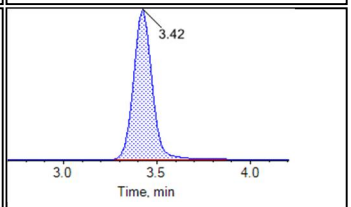
13C4-PFHpA



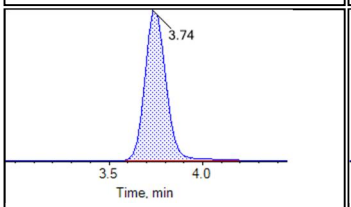
13C8-PFOA



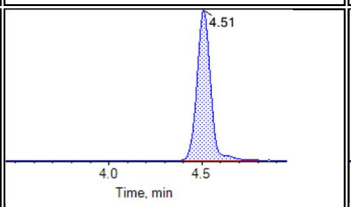
13C9-PFNA



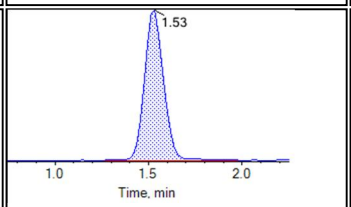
13C6-PFDA



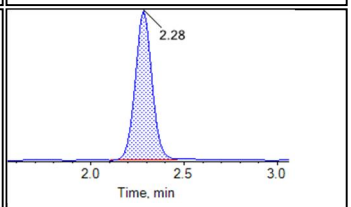
13C7-PFUnA



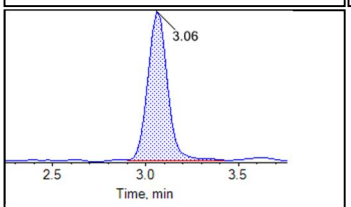
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



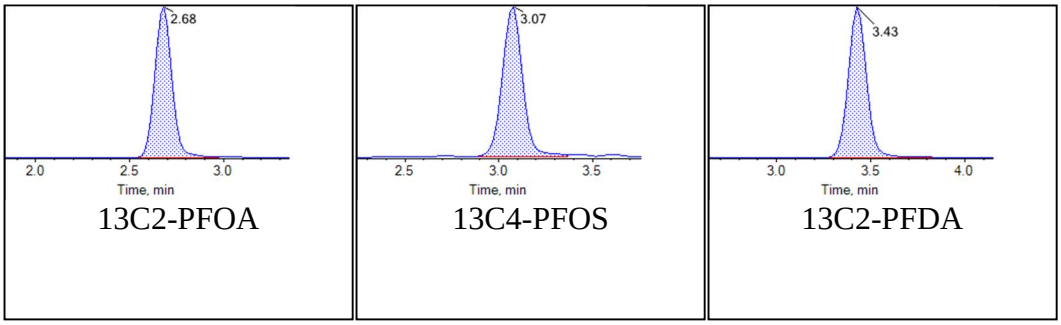
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:11 PM

Internal Standards:



BATTELLE

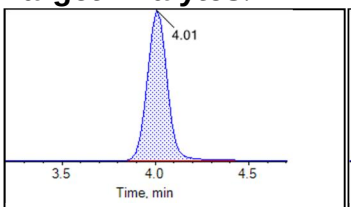
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:25 PM

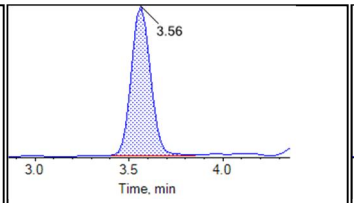
Sample Name	CR890PB-FS(0)	**Injection Vial**	10
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:28:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

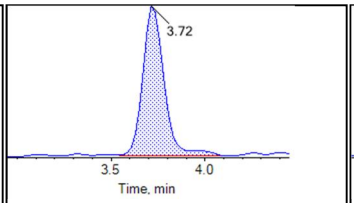
Target Analytes:



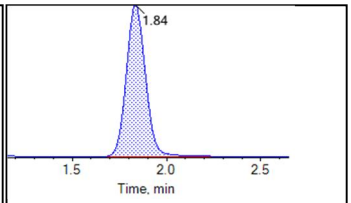
13C2-PFDoA



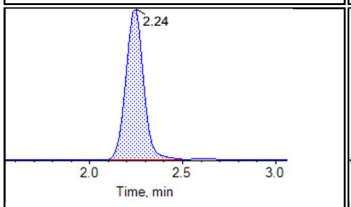
d3-MeFOSAA



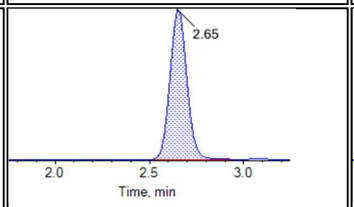
d5-EtFOSAA



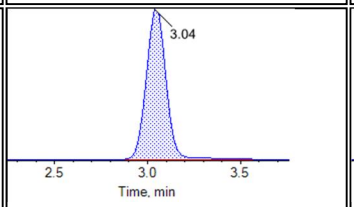
13C5-PFHxA



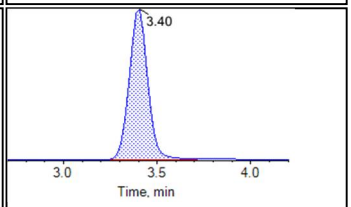
13C4-PFHpA



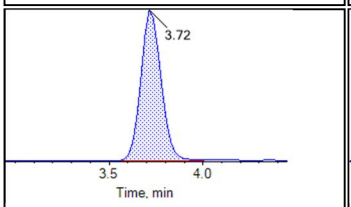
13C8-PFOA



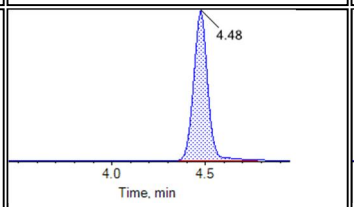
13C9-PFNA



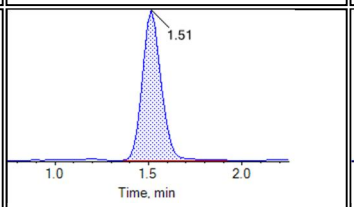
13C6-PFDA



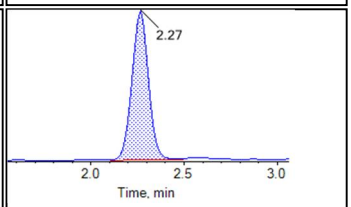
13C7-PFUnA



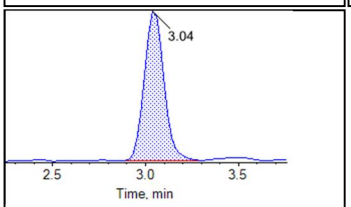
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



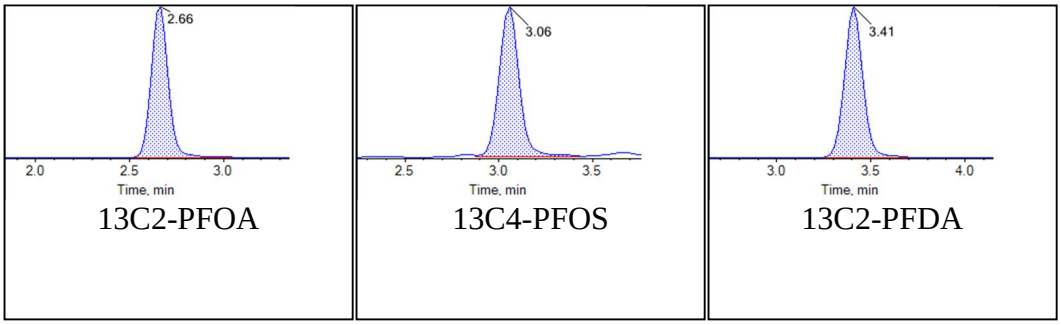
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:25 PM

Internal Standards:



BATTELLE

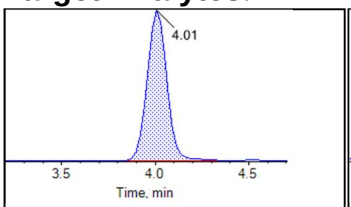
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:29 PM

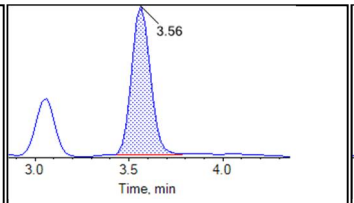
Sample Name	CR891LCS-FS(0)	**Injection Vial**	11
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:39:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

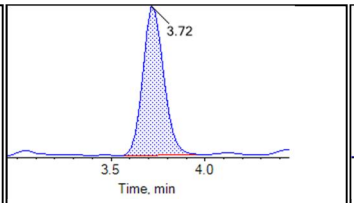
Target Analytes:



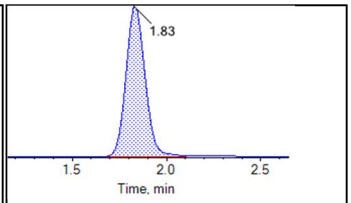
13C2-PFDoA



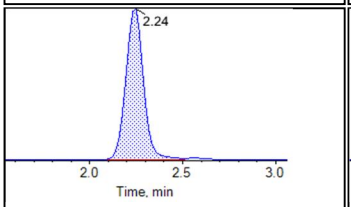
d3-MeFOSAA



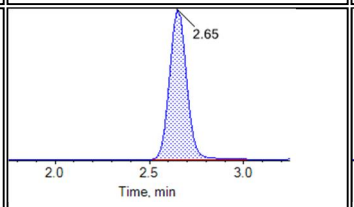
d5-EtFOSAA



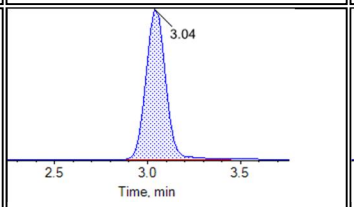
13C5-PFHxA



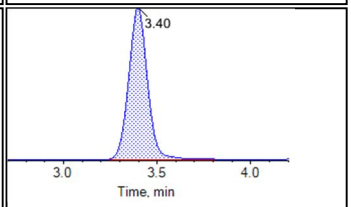
13C4-PFHpA



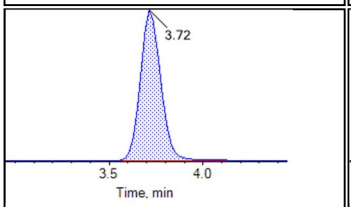
13C8-PFOA



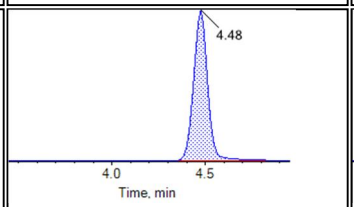
13C9-PFNA



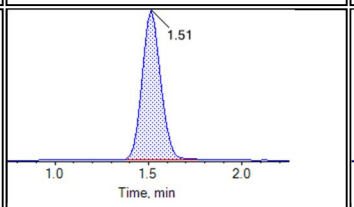
13C6-PFDA



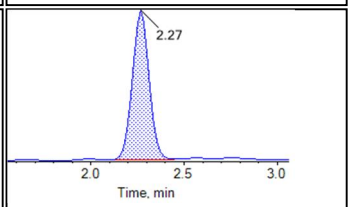
13C7-PFUnA



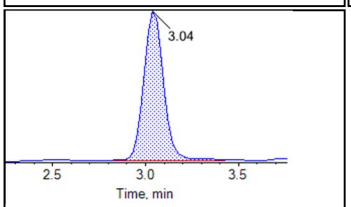
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



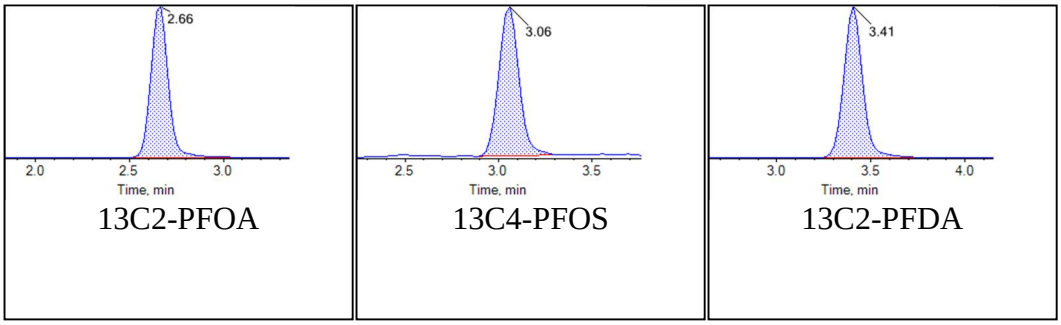
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:29 PM

Internal Standards:



BATTELLE

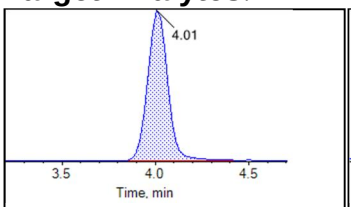
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:37 PM

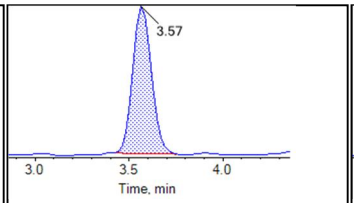
Sample Name	J8358-FS-D(3)	**Injection Vial**	13
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:00:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

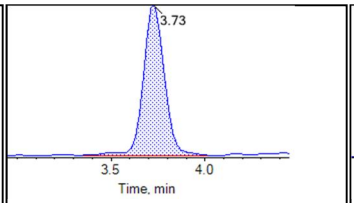
Target Analytes:



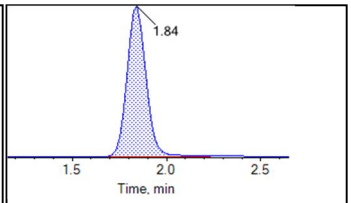
13C2-PFDoA



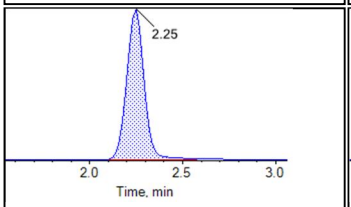
d3-MeFOSAA



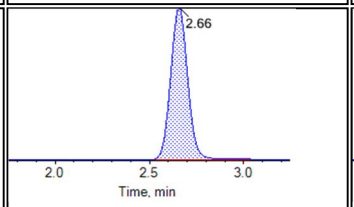
d5-EtFOSAA



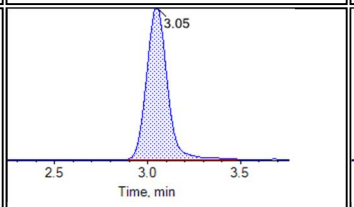
13C5-PFHxA



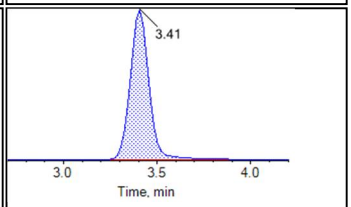
13C4-PFHpA



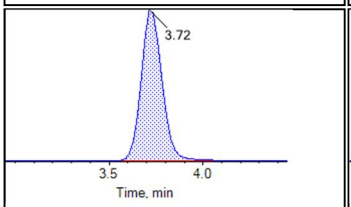
13C8-PFOA



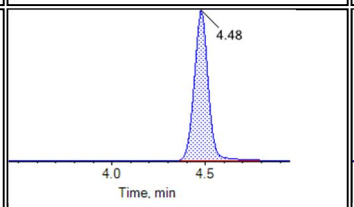
13C9-PFNA



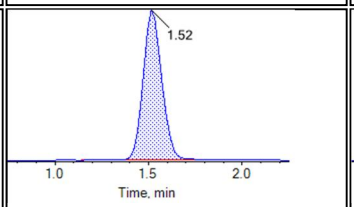
13C6-PFDA



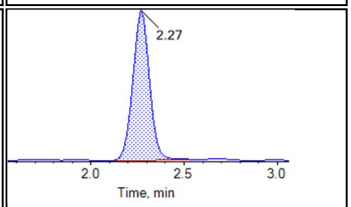
13C7-PFUnA



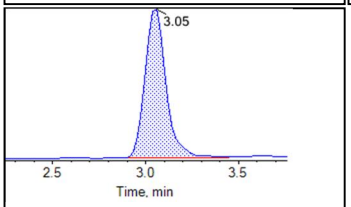
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



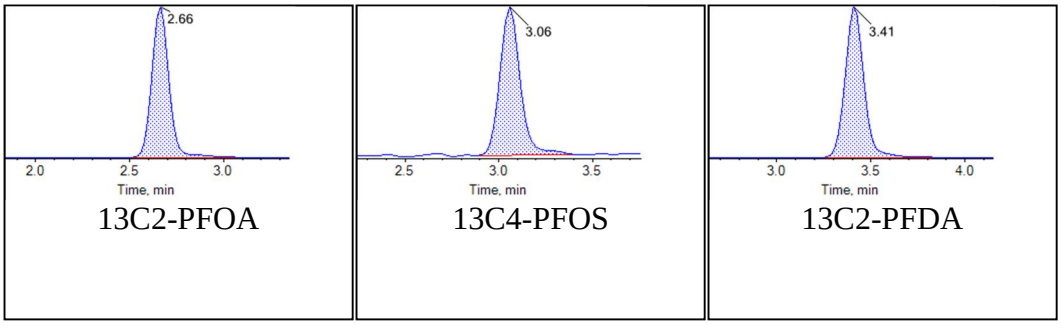
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:37 PM

Internal Standards:



BATTELLE

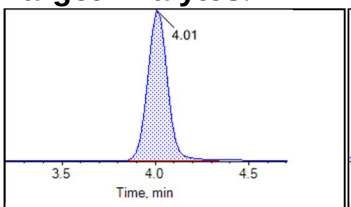
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:41 PM

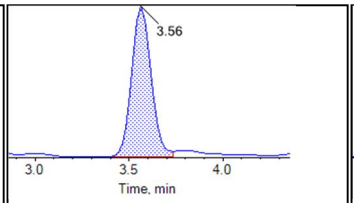
Sample Name	J8358-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:11:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

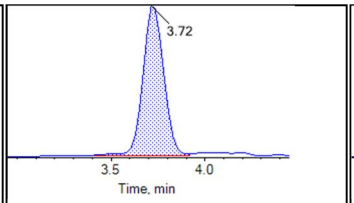
Target Analytes:



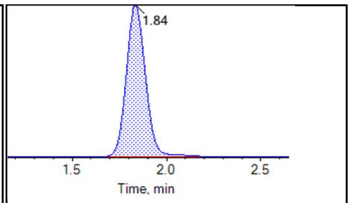
13C2-PFDoA



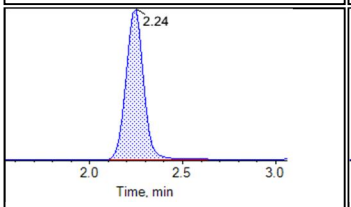
d3-MeFOSAA



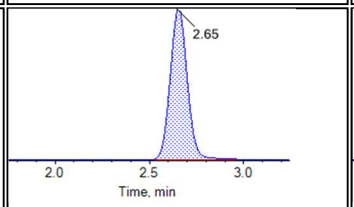
d5-EtFOSAA



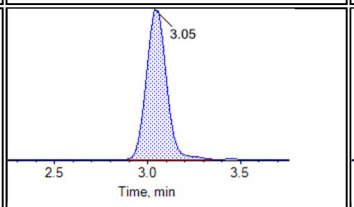
13C5-PFHxA



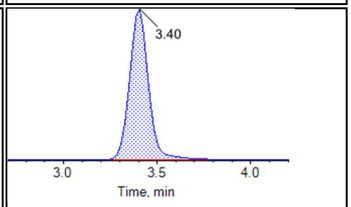
13C4-PFHpA



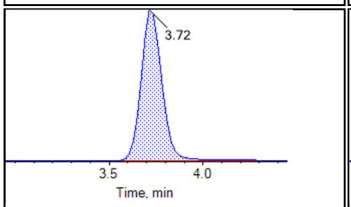
13C8-PFOA



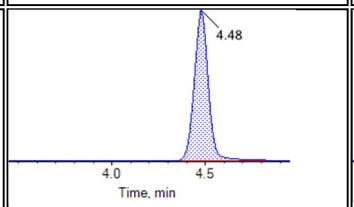
13C9-PFNA



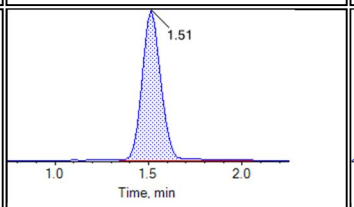
13C6-PFDA



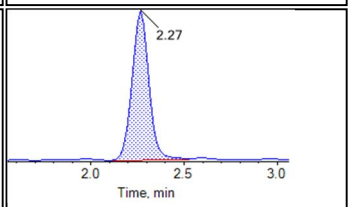
13C7-PFUnA



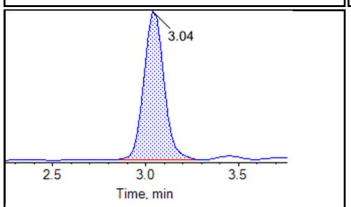
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



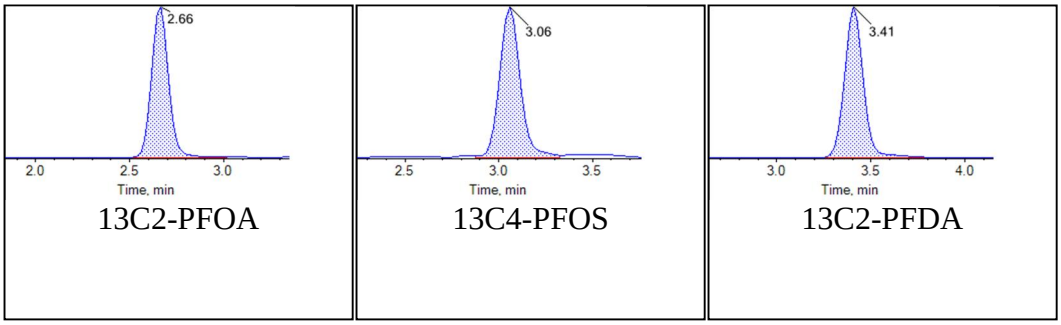
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:41 PM

Internal Standards:



BATTELLE

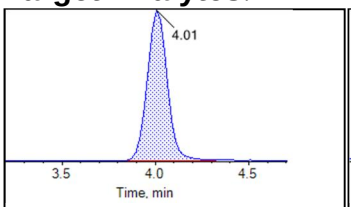
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:45 PM

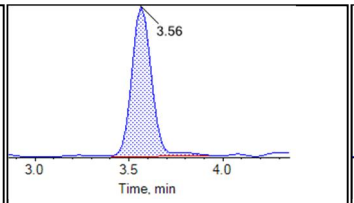
Sample Name	J8358-FS-D(7)	**Injection Vial**	15
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:22:34	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

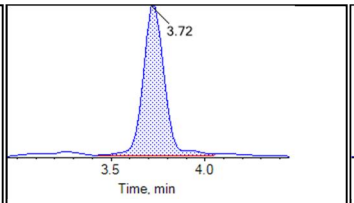
Target Analytes:



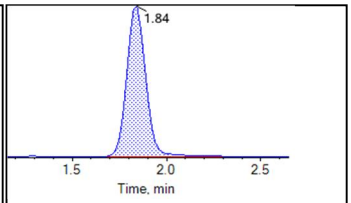
13C2-PFDoA



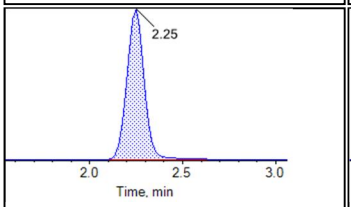
d3-MeFOSAA



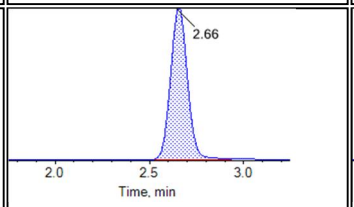
d5-EtFOSAA



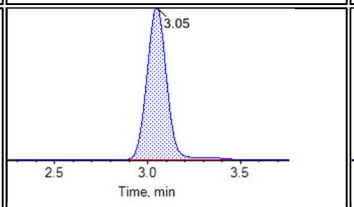
13C5-PFHxA



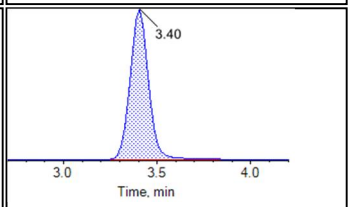
13C4-PFHpA



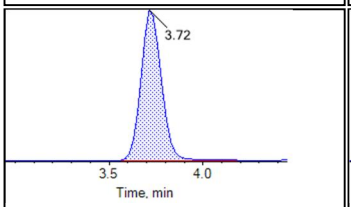
13C8-PFOA



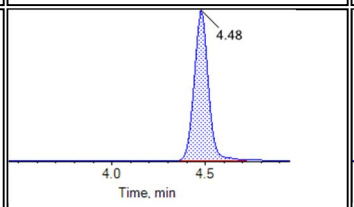
13C9-PFNA



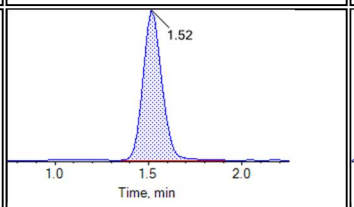
13C6-PFDA



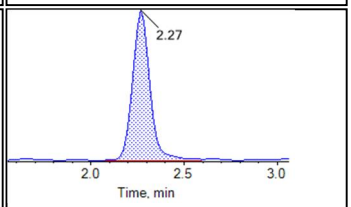
13C7-PFUnA



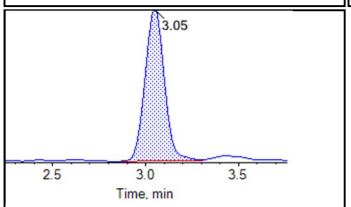
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



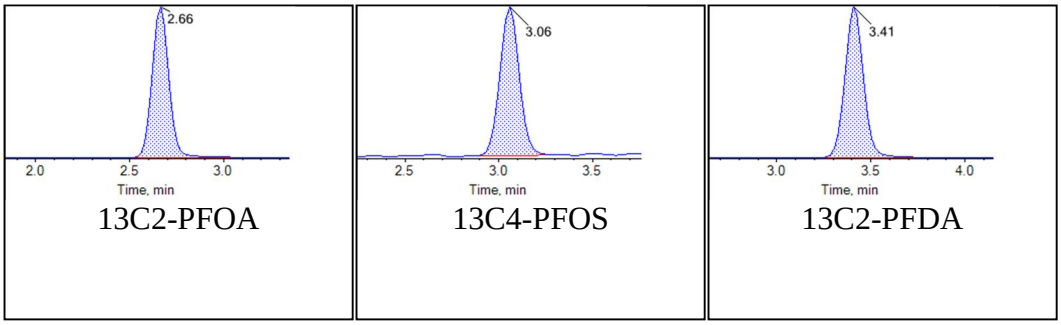
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:45 PM

Internal Standards:



BATTELLE

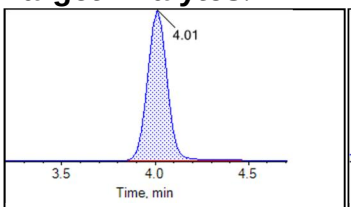
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:49 PM

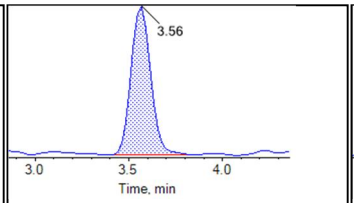
Sample Name	J8359-FS(0)	**Injection Vial**	16
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:33:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

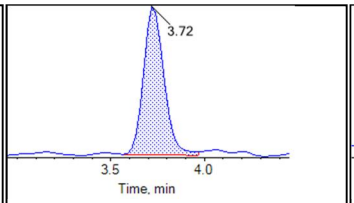
Target Analytes:



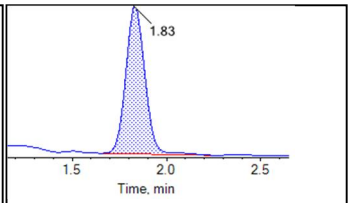
13C2-PFDoA



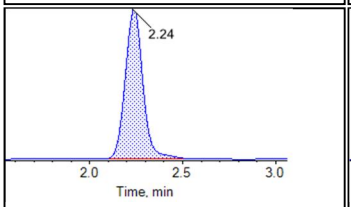
d3-MeFOSAA



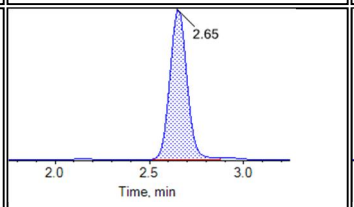
d5-EtFOSAA



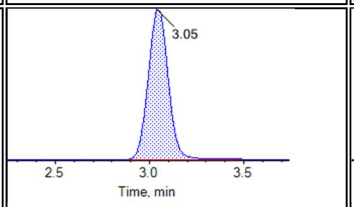
13C5-PFHxA



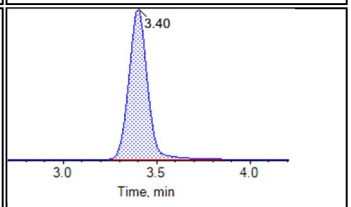
13C4-PFHpA



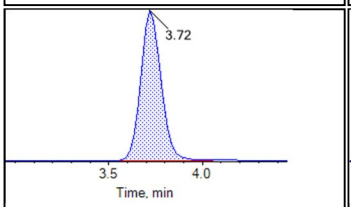
13C8-PFOA



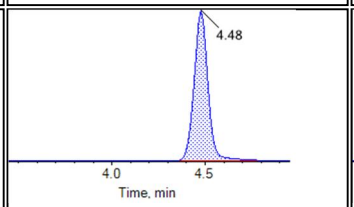
13C9-PFNA



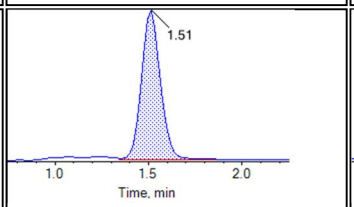
13C6-PFDA



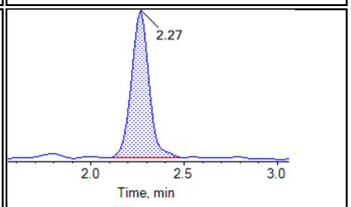
13C7-PFUnA



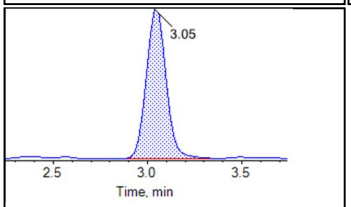
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



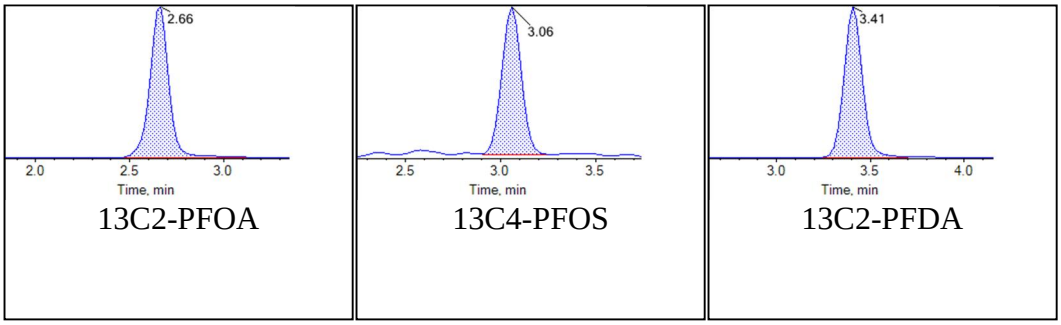
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:49 PM

Internal Standards:



BATTELLE

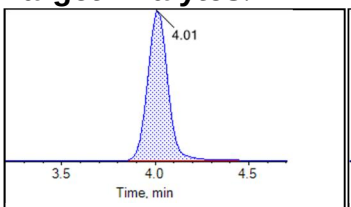
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:53 PM

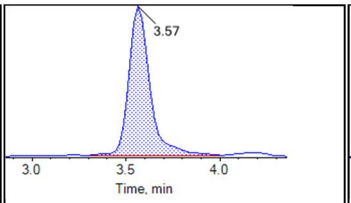
Sample Name	J8359-FS-D(3)	**Injection Vial**	17
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:44:17	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

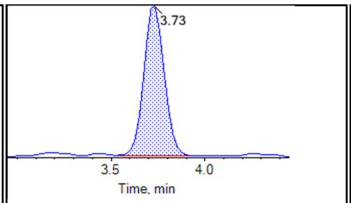
Target Analytes:



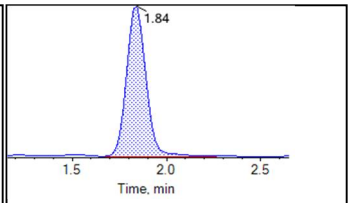
13C2-PFDoA



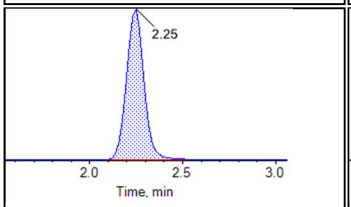
d3-MeFOSAA



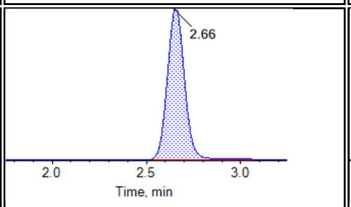
d5-EtFOSAA



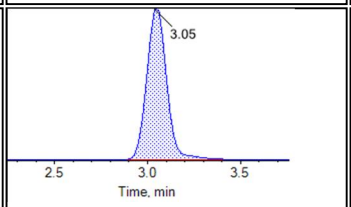
13C5-PFHxA



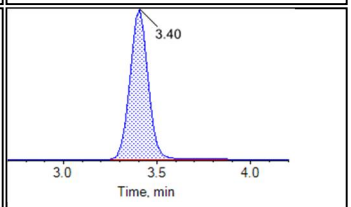
13C4-PFHpA



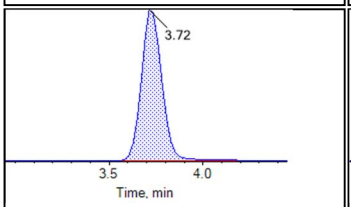
13C8-PFOA



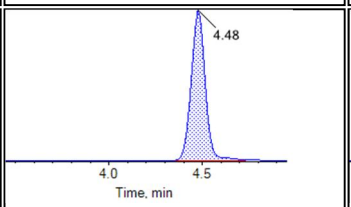
13C9-PFNA



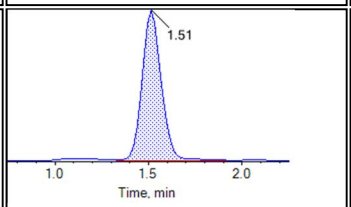
13C6-PFDA



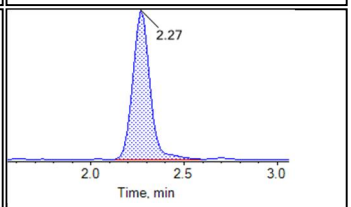
13C7-PFUnA



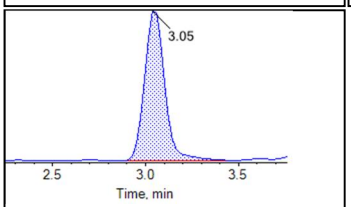
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

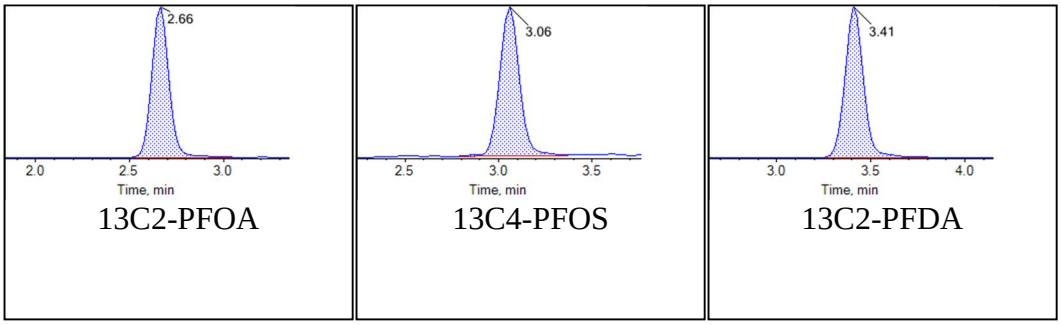


13C8-PFOS

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:53 PM

Internal Standards:



BATTELLE

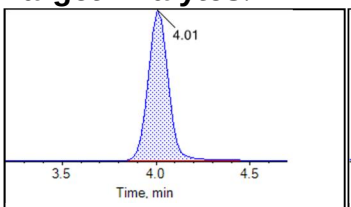
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:58 PM

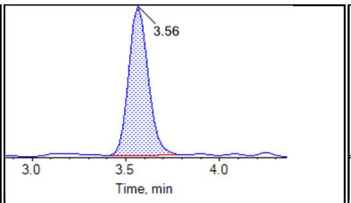
Sample Name	J8359-FS-D(5)	**Injection Vial**	18
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T22:55:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

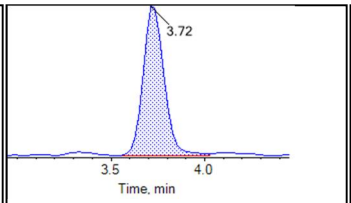
Target Analytes:



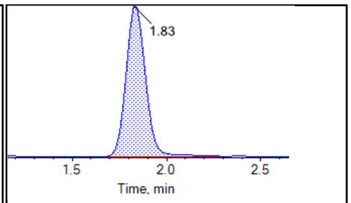
13C2-PFDoA



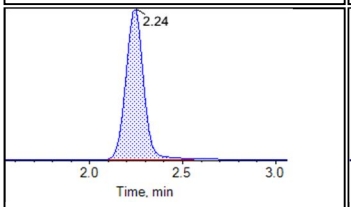
d3-MeFOSAA



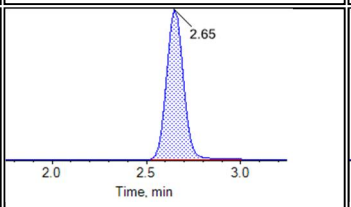
d5-EtFOSAA



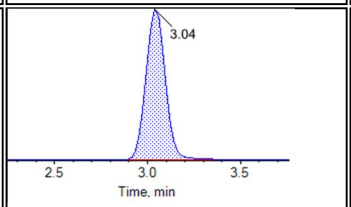
13C5-PFHxA



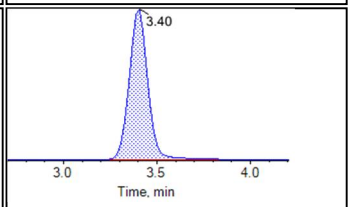
13C4-PFHpA



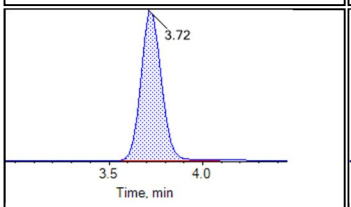
13C8-PFOA



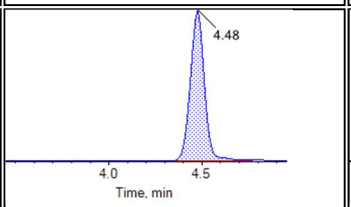
13C9-PFNA



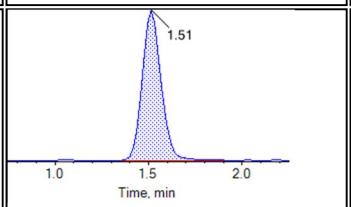
13C6-PFDA



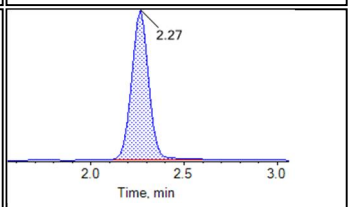
13C7-PFUnA



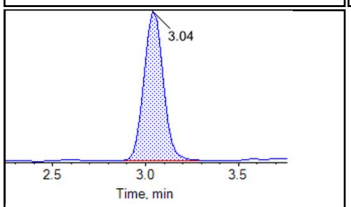
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



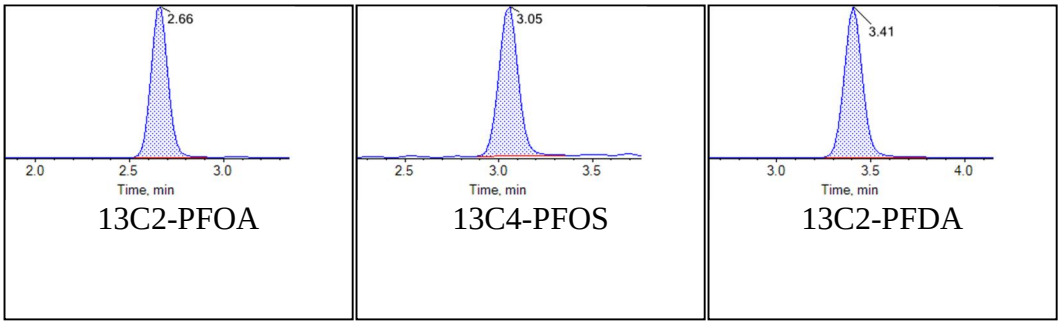
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:58 PM

Internal Standards:



BATTELLE

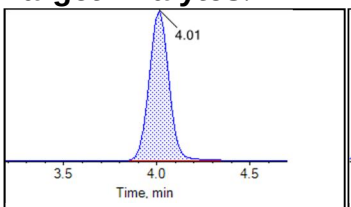
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:02 PM

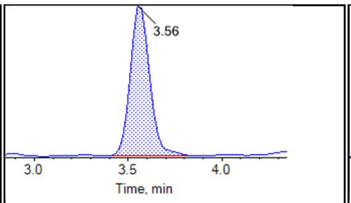
Sample Name	J8359-FS-D(7)	**Injection Vial**	19
Sample ID	VC-PM323-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:06:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

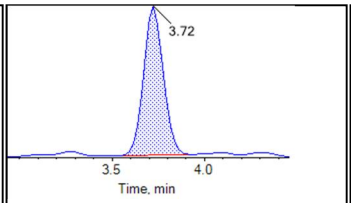
Target Analytes:



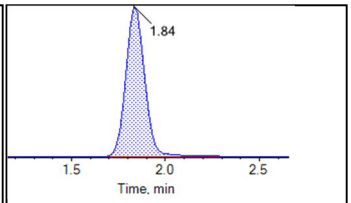
13C2-PFDoA



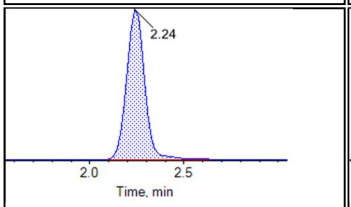
d3-MeFOSAA



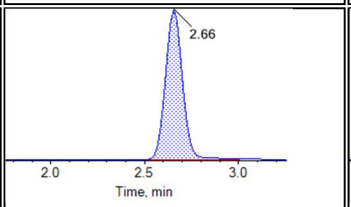
d5-EtFOSAA



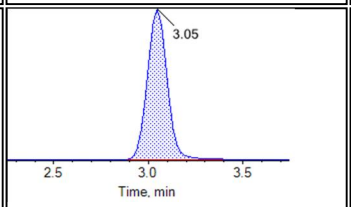
13C5-PFHxA



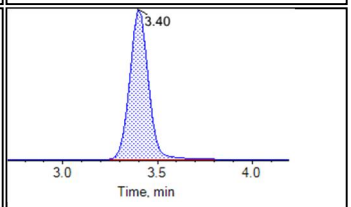
13C4-PFHpA



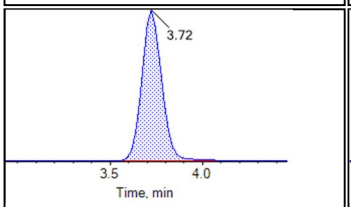
13C8-PFOA



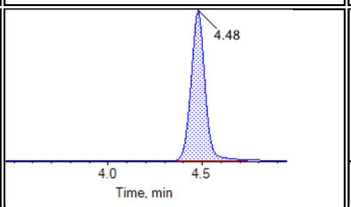
13C9-PFNA



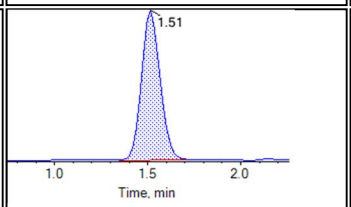
13C6-PFDA



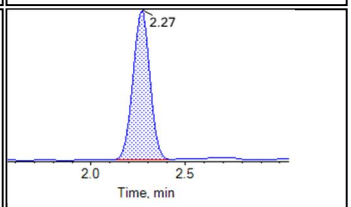
13C7-PFUnA



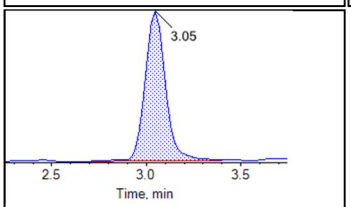
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



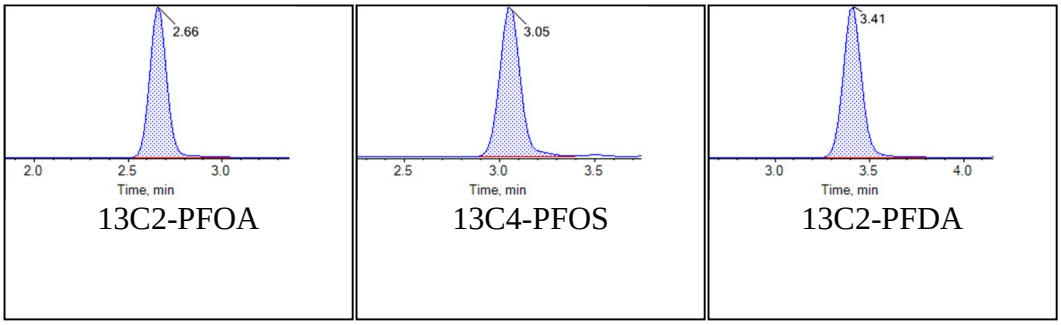
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:02 PM

Internal Standards:



BATTELLE

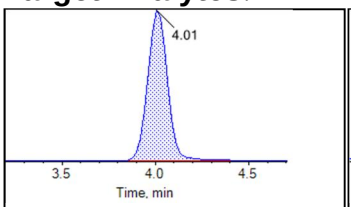
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:06 PM

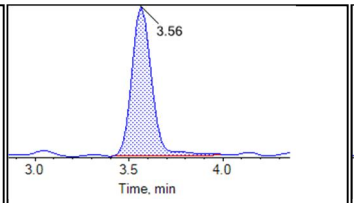
Sample Name	KB76 CCV	**Injection Vial**	20
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:16:58	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

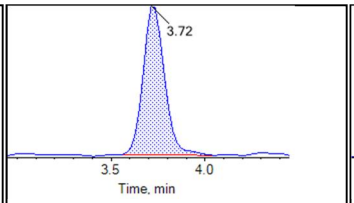
Target Analytes:



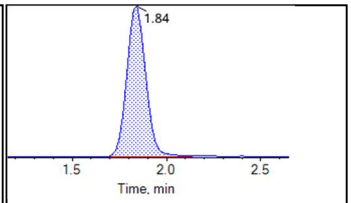
13C2-PFDoA



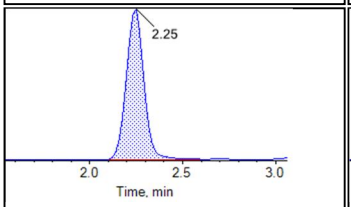
d3-MeFOSAA



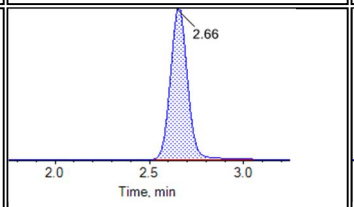
d5-EtFOSAA



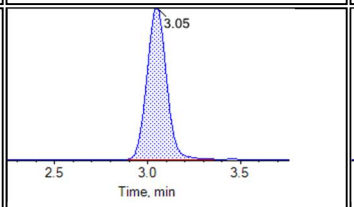
13C5-PFHxA



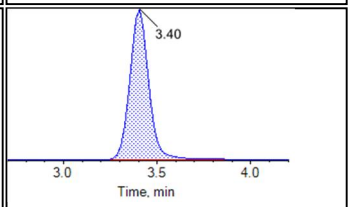
13C4-PFHpA



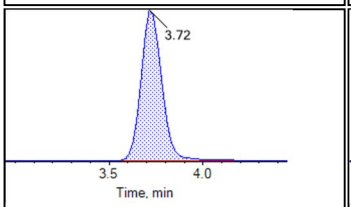
13C8-PFOA



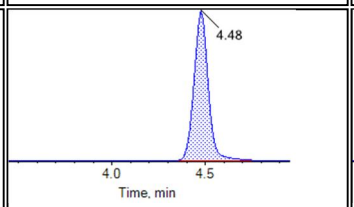
13C9-PFNA



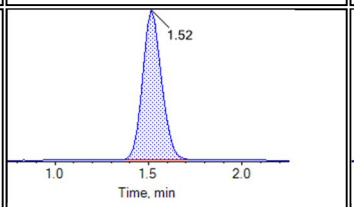
13C6-PFDA



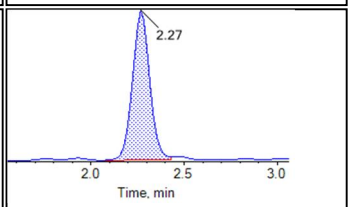
13C7-PFUnA



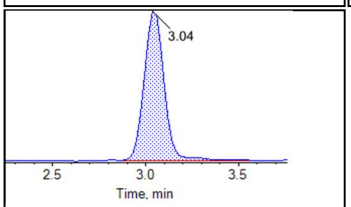
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



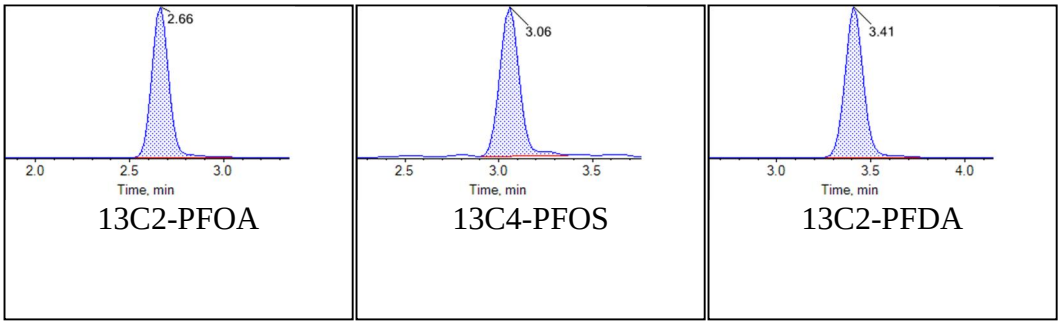
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:06 PM

Internal Standards:



BATTELLE

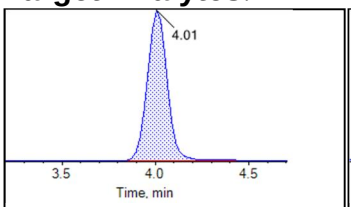
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:15 PM

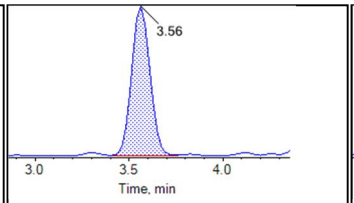
Sample Name	J8368-FS(0)	**Injection Vial**	22
Sample ID	VC-SO-FB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:38:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

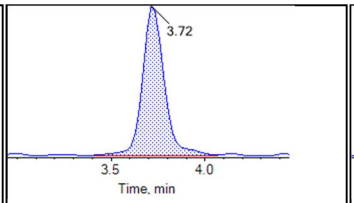
Target Analytes:



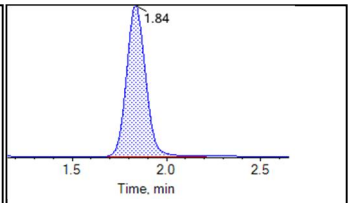
13C2-PFDoA



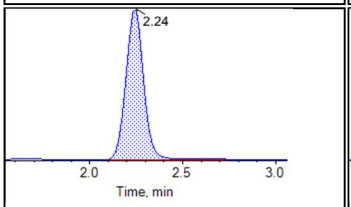
d3-MeFOSAA



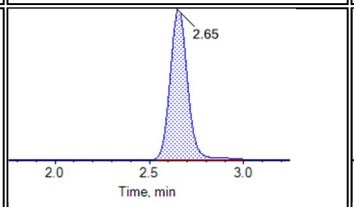
d5-EtFOSAA



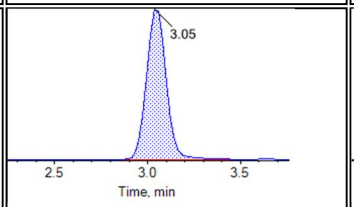
13C5-PFHxA



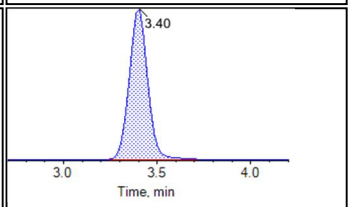
13C4-PFHpA



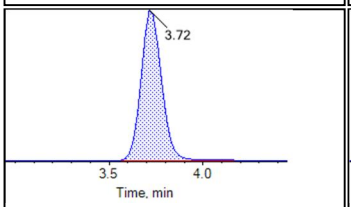
13C8-PFOA



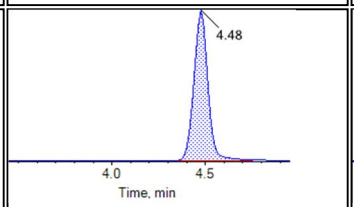
13C9-PFNA



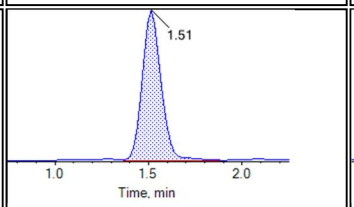
13C6-PFDA



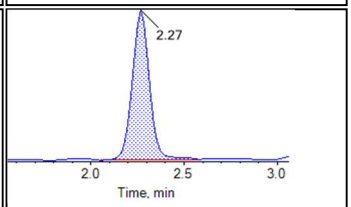
13C7-PFUnA



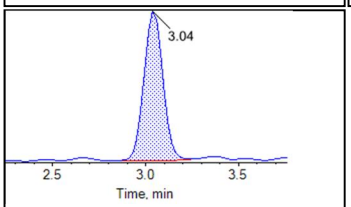
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



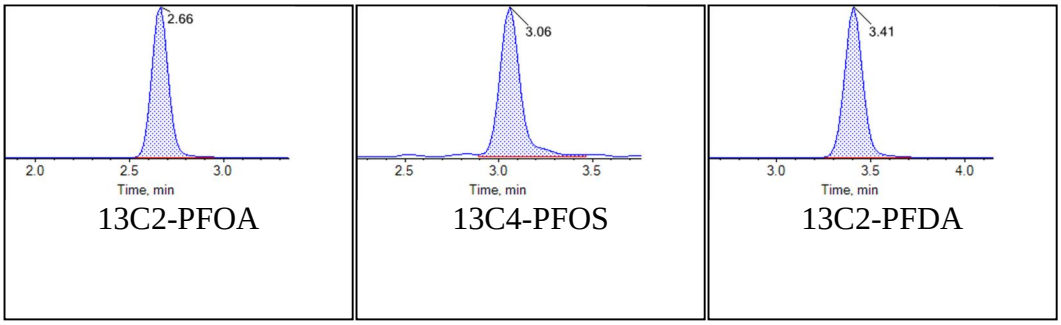
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:15 PM

Internal Standards:



BATTELLE

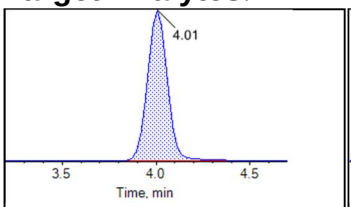
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:19 PM

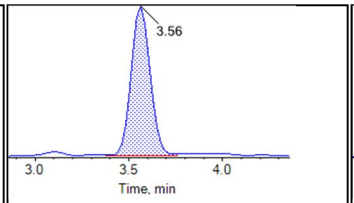
Sample Name	J8369-FS(0)	**Injection Vial**	23
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T23:49:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

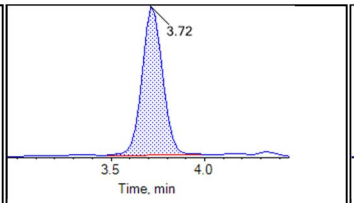
Target Analytes:



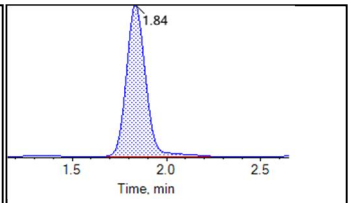
13C2-PFDoA



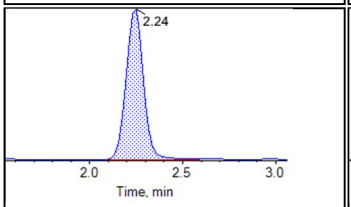
d3-MeFOSAA



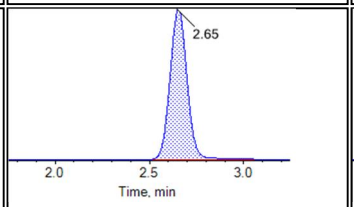
d5-EtFOSAA



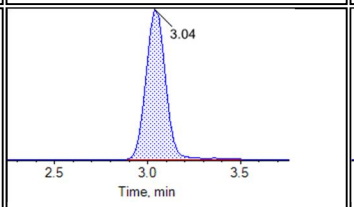
13C5-PFHxA



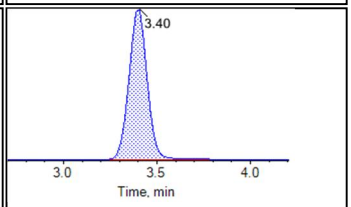
13C4-PFHpA



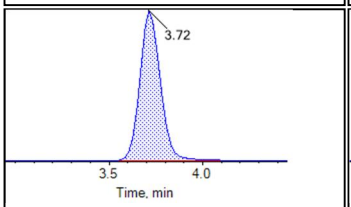
13C8-PFOA



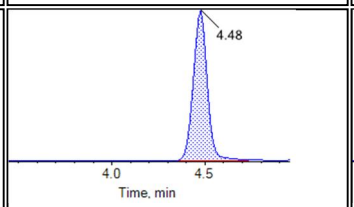
13C9-PFNA



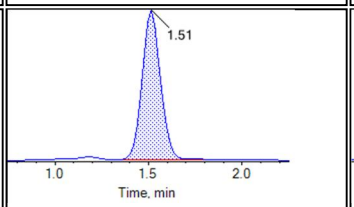
13C6-PFDA



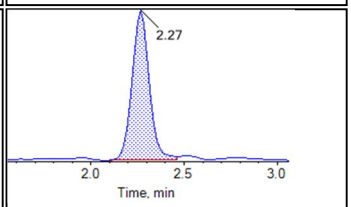
13C7-PFUnA



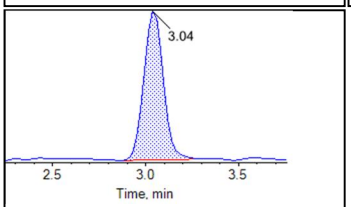
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



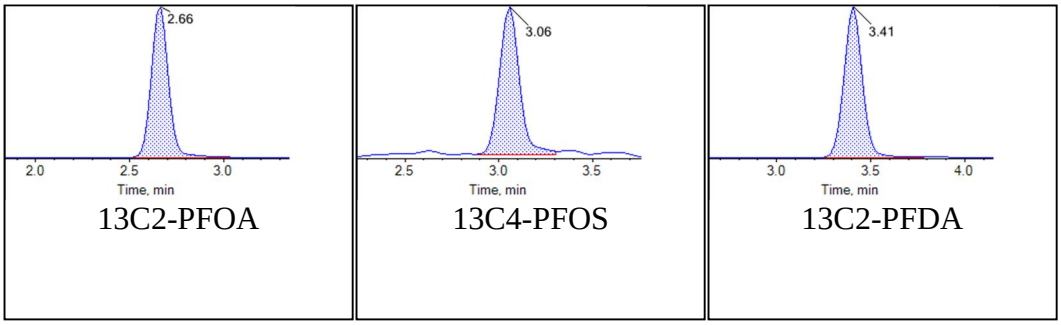
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:19 PM

Internal Standards:



BATTELLE

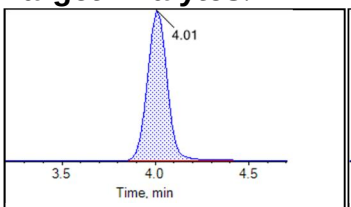
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:24 PM

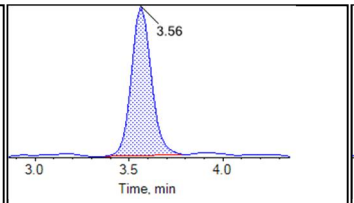
Sample Name	J8370-FS(0)	**Injection Vial**	24
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:00:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

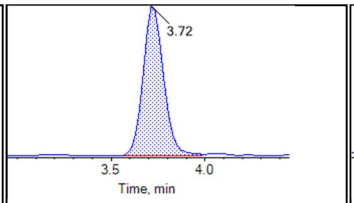
Target Analytes:



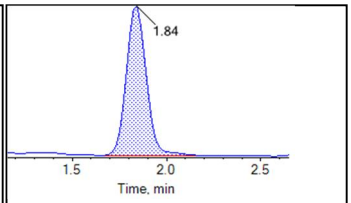
13C2-PFDoA



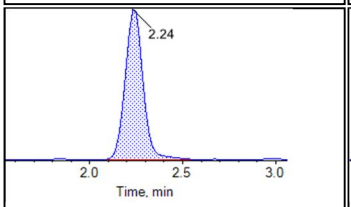
d3-MeFOSAA



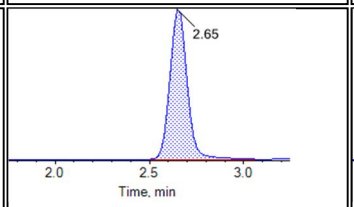
d5-EtFOSAA



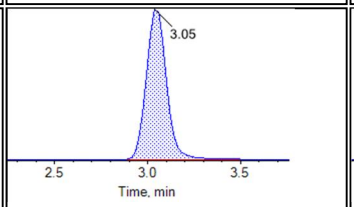
13C5-PFHxA



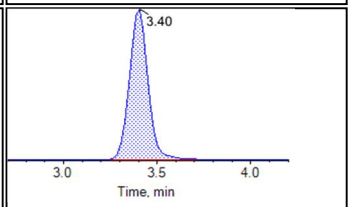
13C4-PFHpA



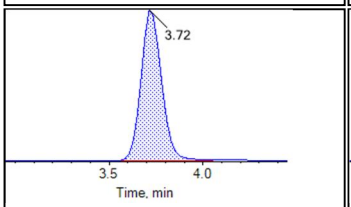
13C8-PFOA



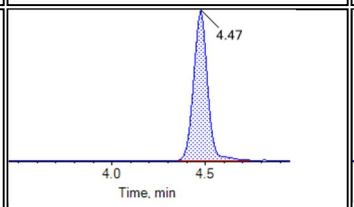
13C9-PFNA



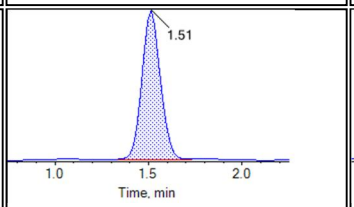
13C6-PFDA



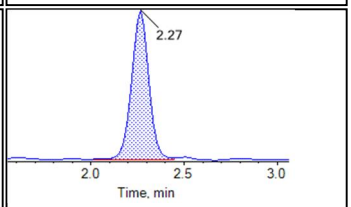
13C7-PFUnA



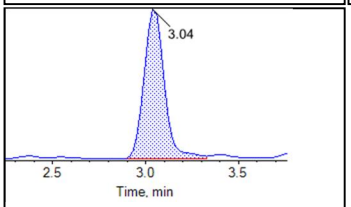
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



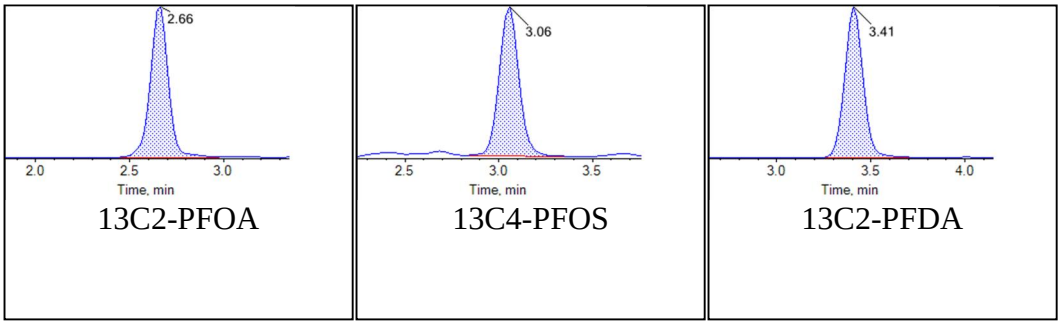
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:24 PM

Internal Standards:



BATTELLE

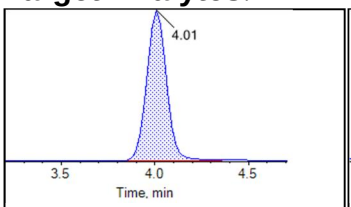
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:28 PM

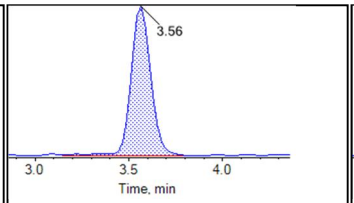
Sample Name	J8370-FS-D(3)	**Injection Vial**	25
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:11:23	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

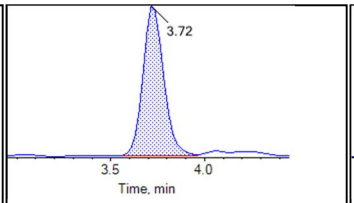
Target Analytes:



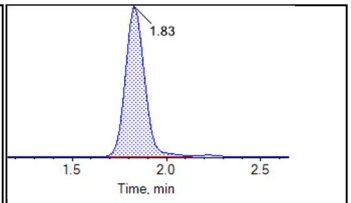
13C2-PFDoA



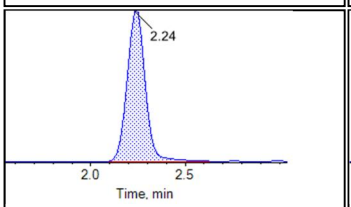
d3-MeFOSAA



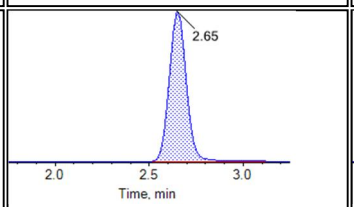
d5-EtFOSAA



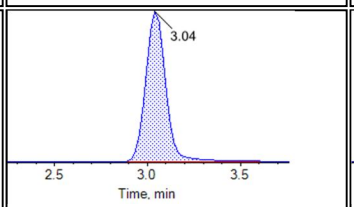
13C5-PFHxA



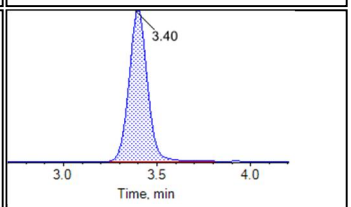
13C4-PFHpA



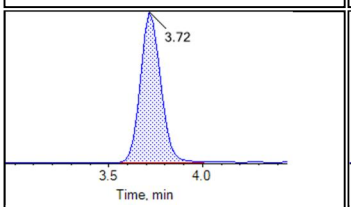
13C8-PFOA



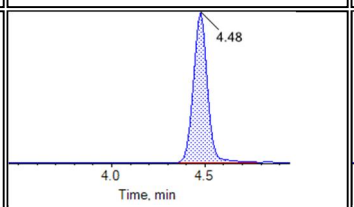
13C9-PFNA



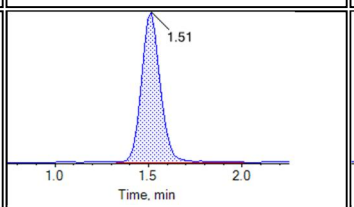
13C6-PFDA



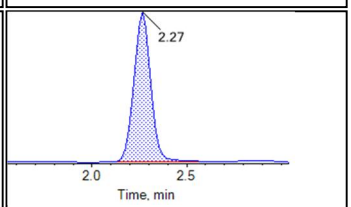
13C7-PFUnA



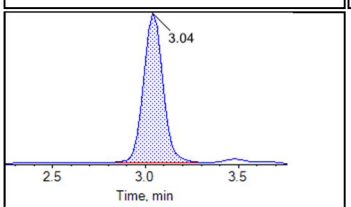
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



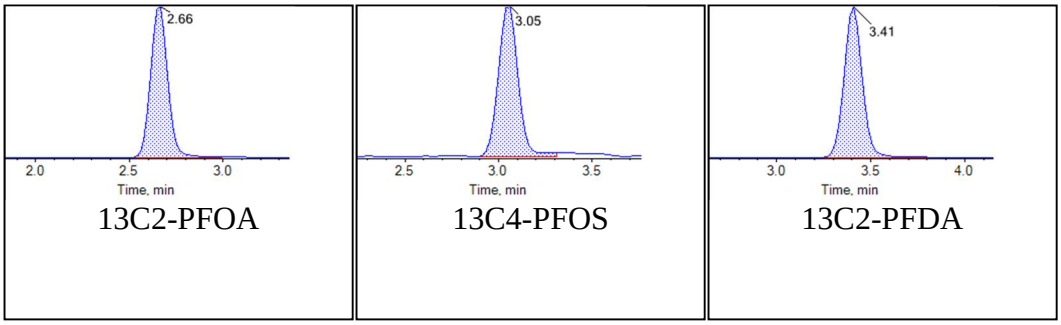
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:28 PM

Internal Standards:



BATTELLE

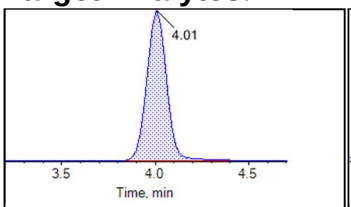
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:33 PM

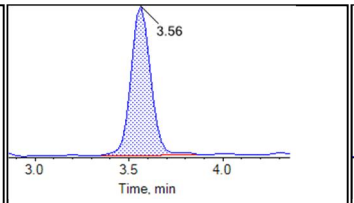
Sample Name	J8370-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM324-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:22:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

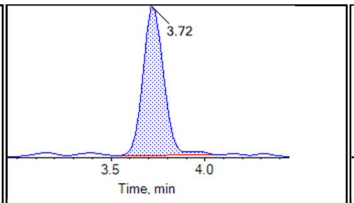
Target Analytes:



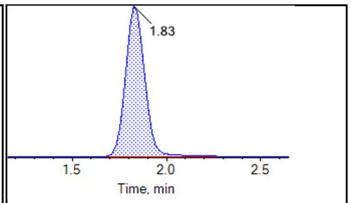
13C2-PFDoA



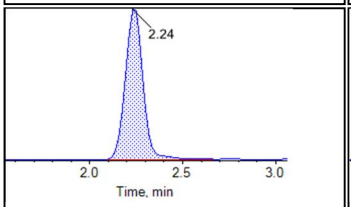
d3-MeFOSAA



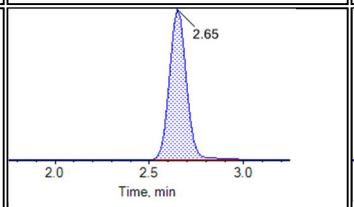
d5-EtFOSAA



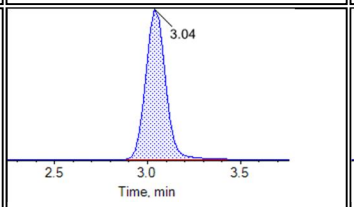
13C5-PFHxA



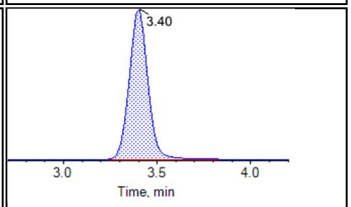
13C4-PFHpA



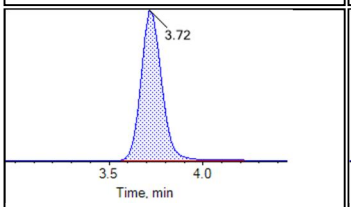
13C8-PFOA



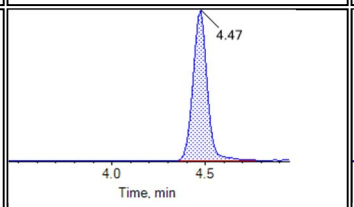
13C9-PFNA



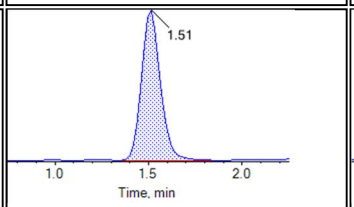
13C6-PFDA



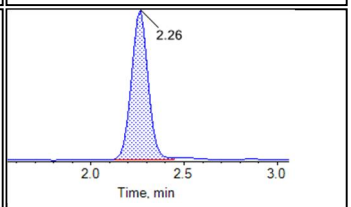
13C7-PFUnA



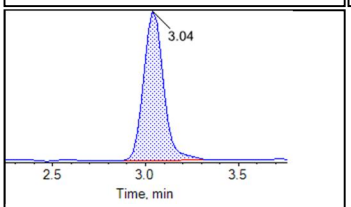
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



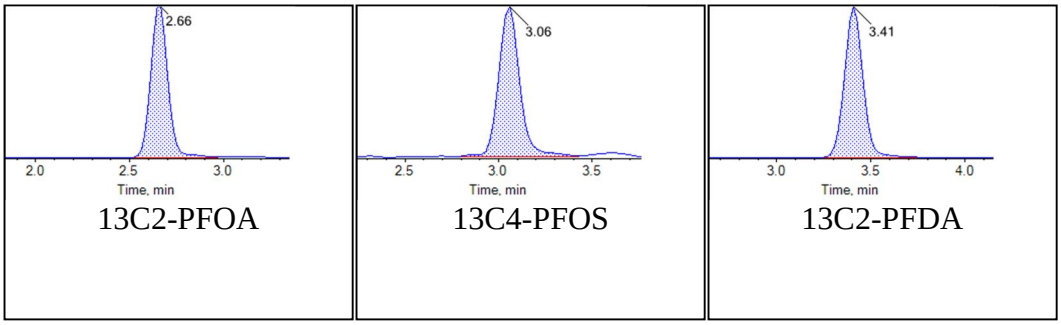
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:33 PM

Internal Standards:



BATTELLE

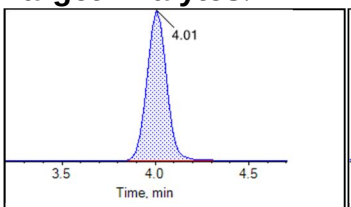
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:42 PM

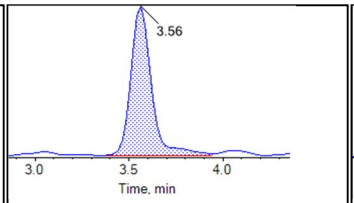
Sample Name	J8371-FS(0)	**Injection Vial**	28
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:43:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

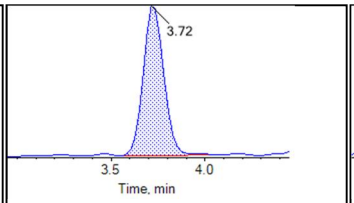
Target Analytes:



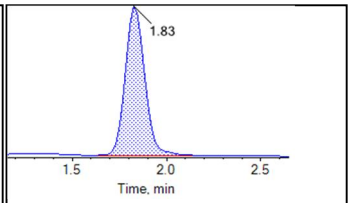
13C2-PFDoA



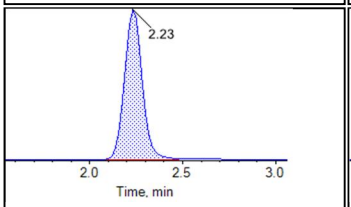
d3-MeFOSAA



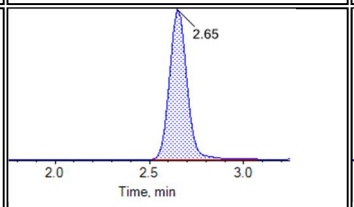
d5-EtFOSAA



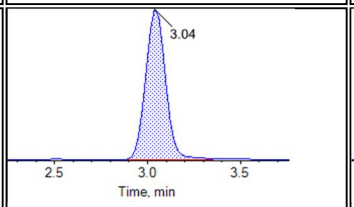
13C5-PFHxA



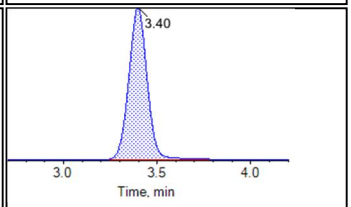
13C4-PFHpA



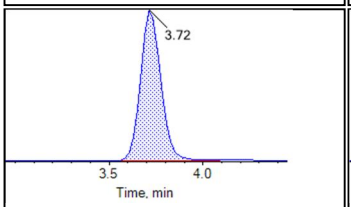
13C8-PFOA



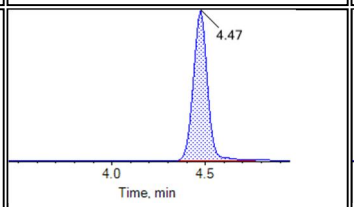
13C9-PFNA



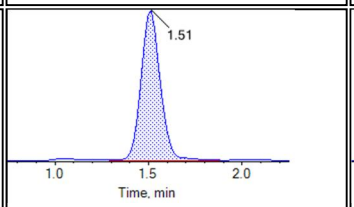
13C6-PFDA



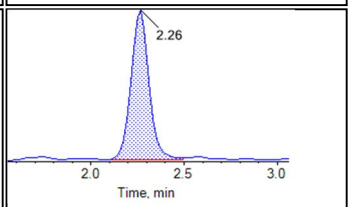
13C7-PFUnA



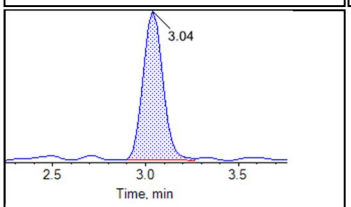
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



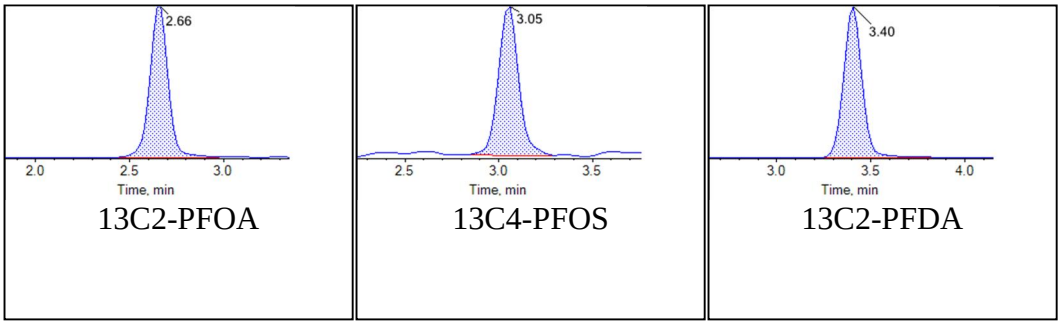
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:42 PM

Internal Standards:



BATTELLE

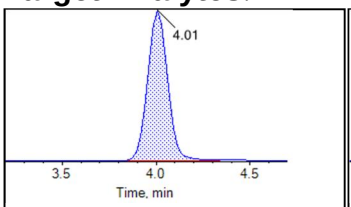
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:47 PM

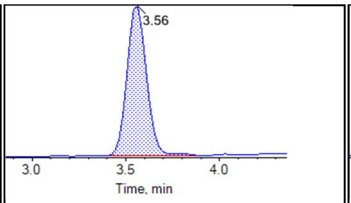
Sample Name	J8371-FS-D(3)	**Injection Vial**	29
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T00:54:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

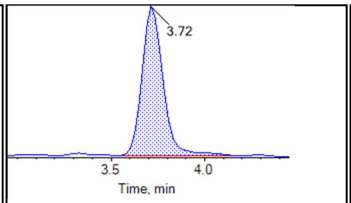
Target Analytes:



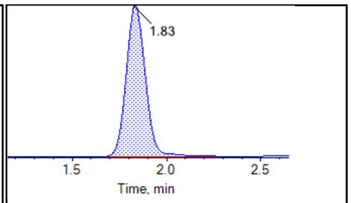
13C2-PFDoA



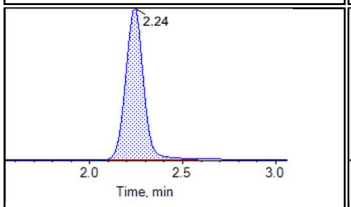
d3-MeFOSAA



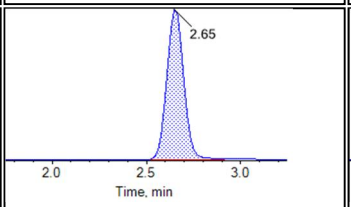
d5-EtFOSAA



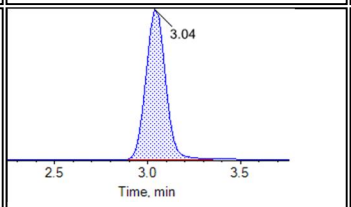
13C5-PFHxA



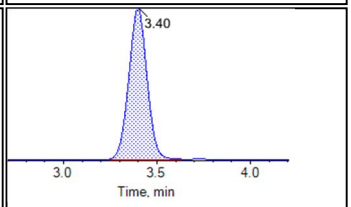
13C4-PFHpA



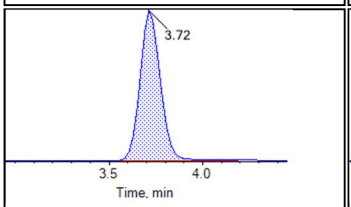
13C8-PFOA



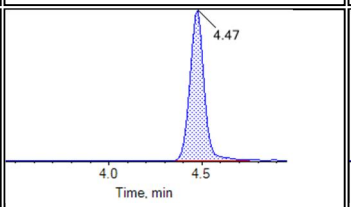
13C9-PFNA



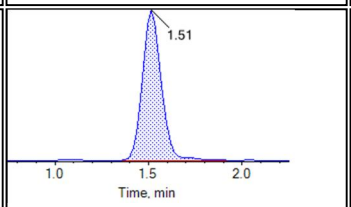
13C6-PFDA



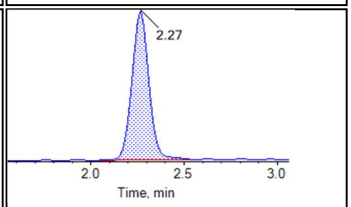
13C7-PFUnA



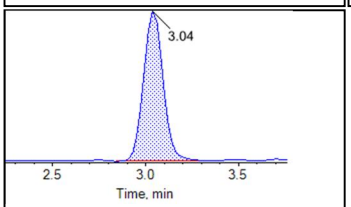
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



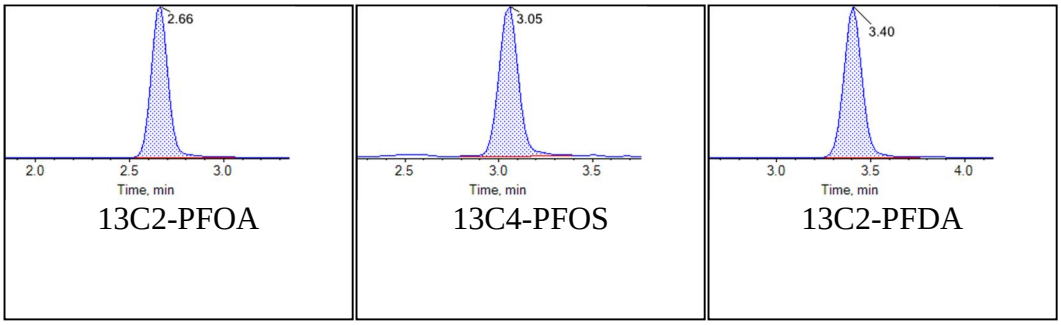
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:47 PM

Internal Standards:



BATTELLE

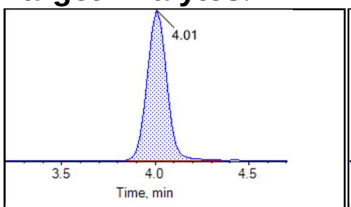
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:51 PM

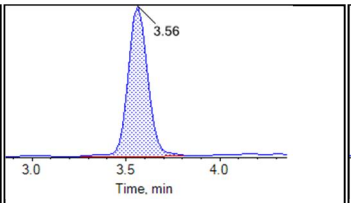
Sample Name	J8371-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:05:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

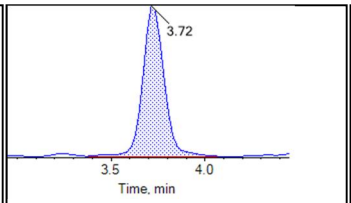
Target Analytes:



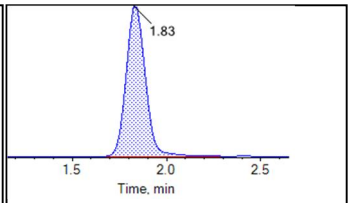
13C2-PFDoA



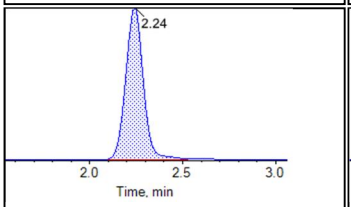
d3-MeFOSAA



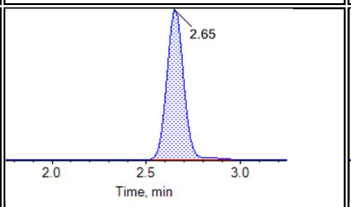
d5-EtFOSAA



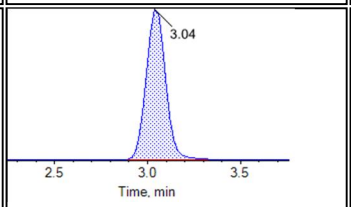
13C5-PFHxA



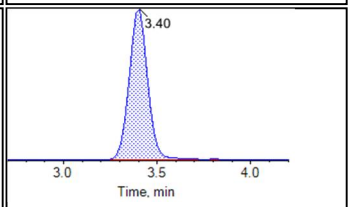
13C4-PFHpA



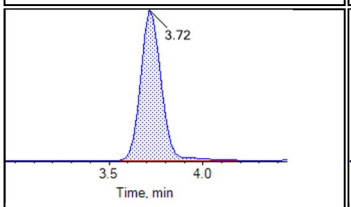
13C8-PFOA



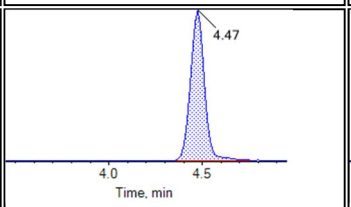
13C9-PFNA



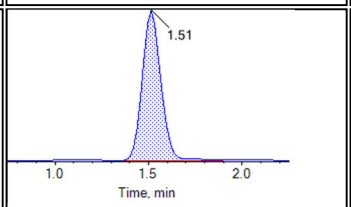
13C6-PFDA



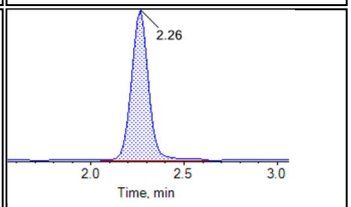
13C7-PFUnA



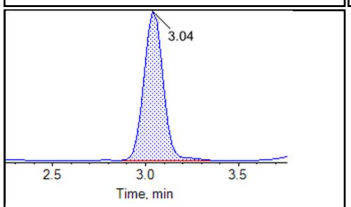
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



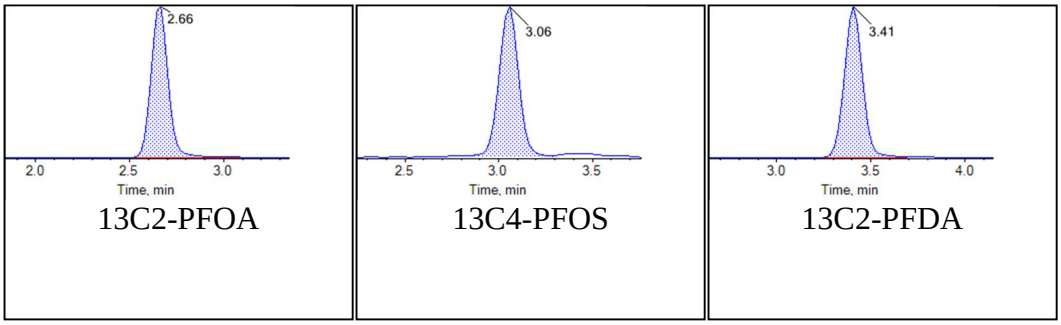
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:51 PM

Internal Standards:



BATTELLE

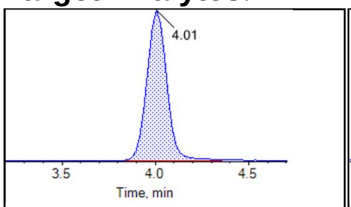
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:55 PM

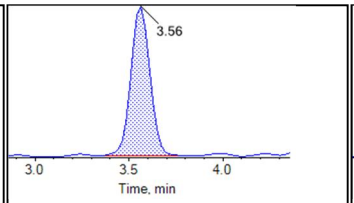
Sample Name	J8371-FS-D(7)	**Injection Vial**	31
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:16:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

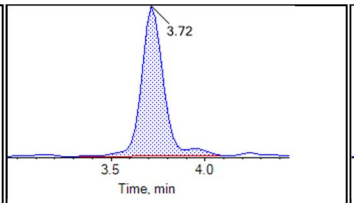
Target Analytes:



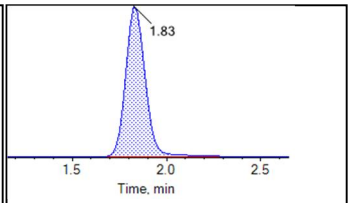
13C2-PFDoA



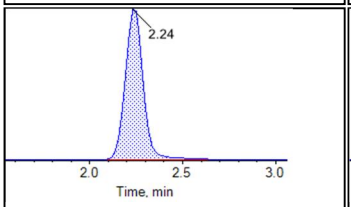
d3-MeFOSAA



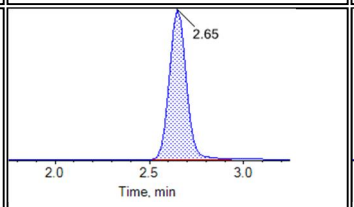
d5-EtFOSAA



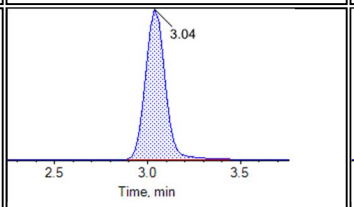
13C5-PFHxA



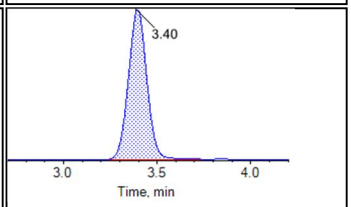
13C4-PFHpA



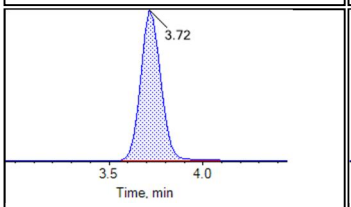
13C8-PFOA



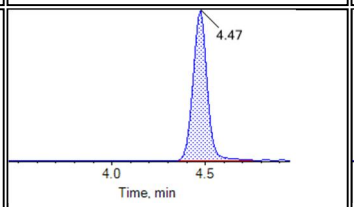
13C9-PFNA



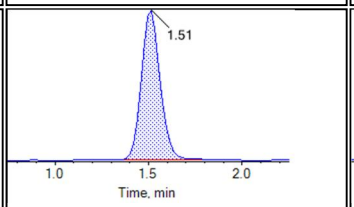
13C6-PFDA



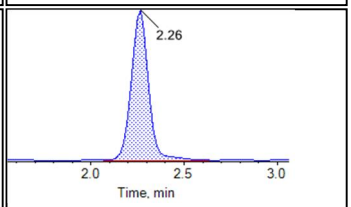
13C7-PFUnA



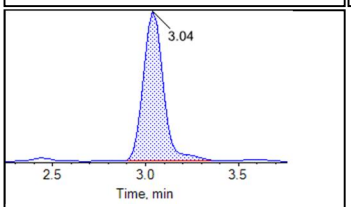
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



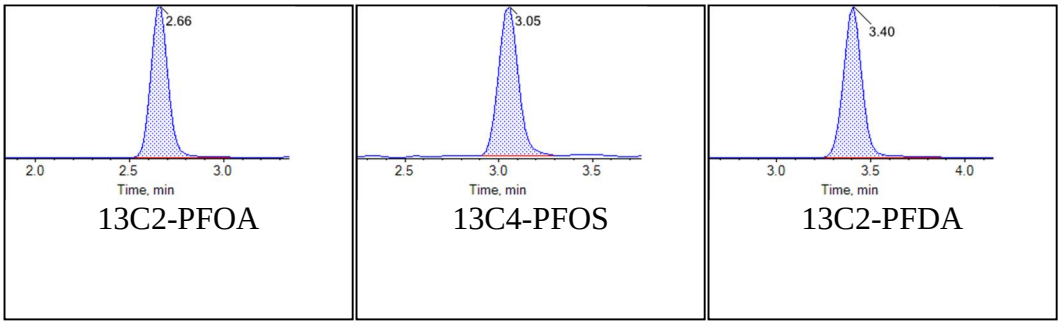
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:55 PM

Internal Standards:



BATTELLE

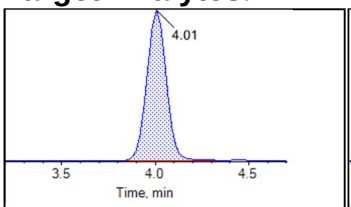
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:59 PM

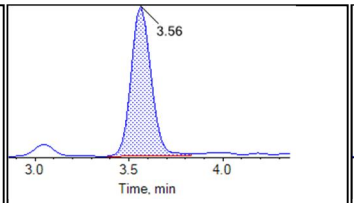
Sample Name	KB77 CCV	**Injection Vial**	32
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:27:30	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

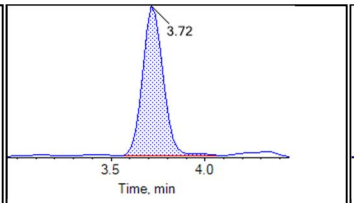
Target Analytes:



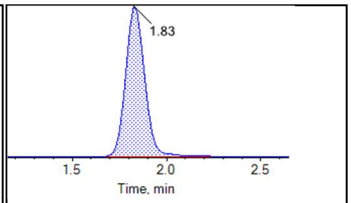
13C2-PFDoA



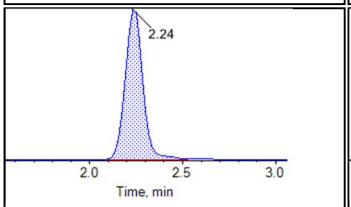
d3-MeFOSAA



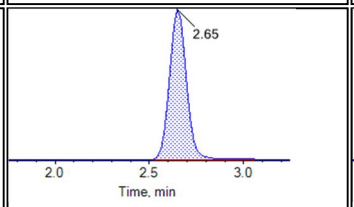
d5-EtFOSAA



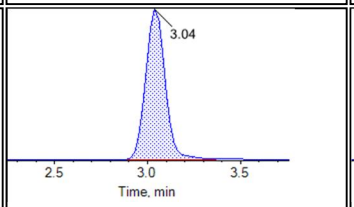
13C5-PFHxA



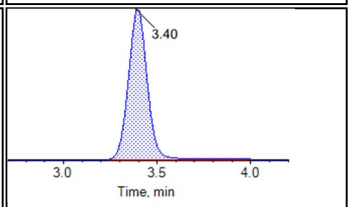
13C4-PFHpA



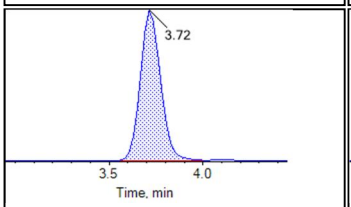
13C8-PFOA



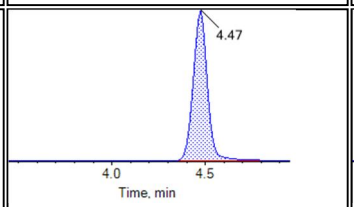
13C9-PFNA



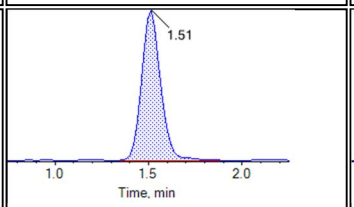
13C6-PFDA



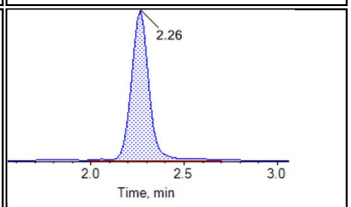
13C7-PFUnA



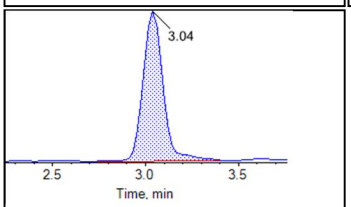
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



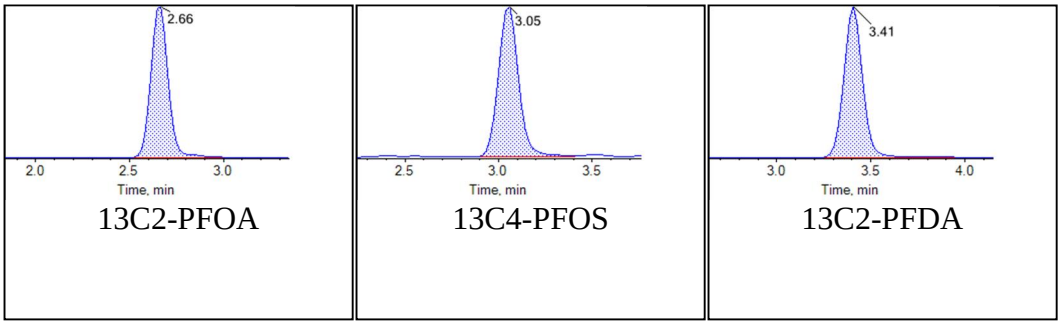
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:06:59 PM

Internal Standards:



BATTELLE

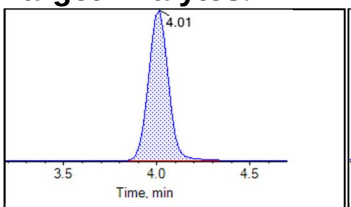
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:07 PM

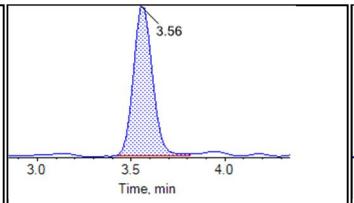
Sample Name	J8372-FS(0)	**Injection Vial**	33
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T01:49:16	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

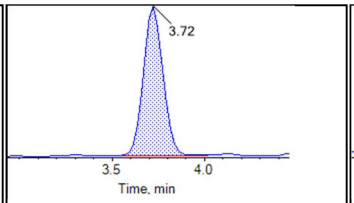
Target Analytes:



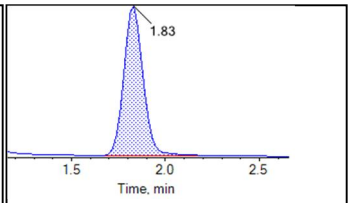
13C2-PFDoA



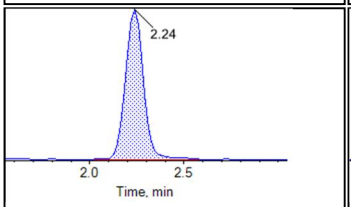
d3-MeFOSAA



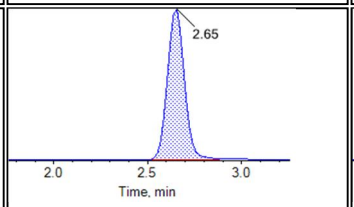
d5-EtFOSAA



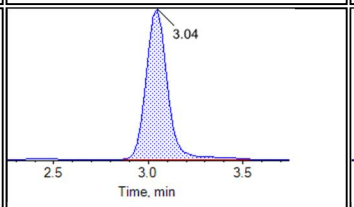
13C5-PFHxA



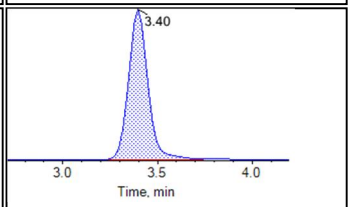
13C4-PFHpA



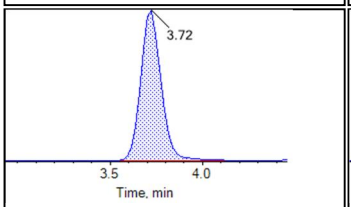
13C8-PFOA



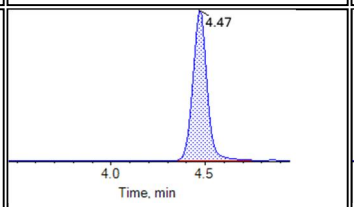
13C9-PFNA



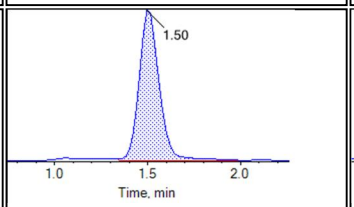
13C6-PFDA



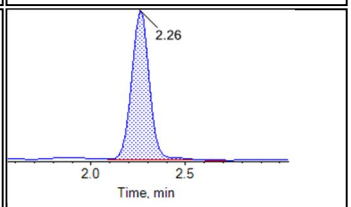
13C7-PFUnA



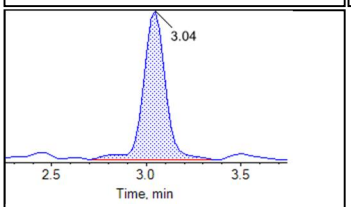
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



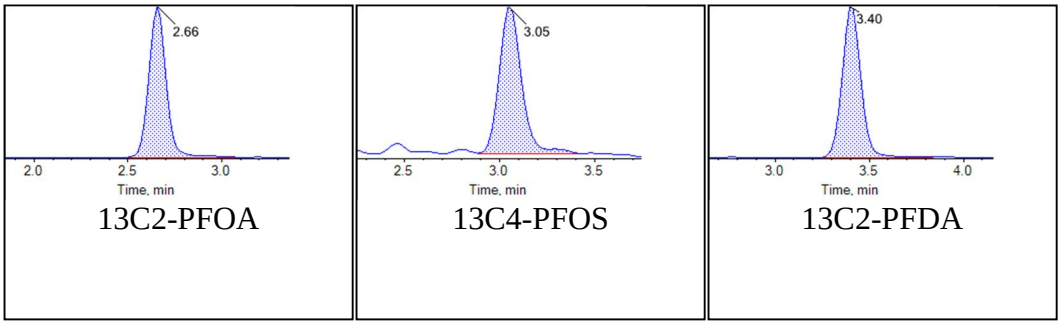
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:07 PM

Internal Standards:



BATTELLE

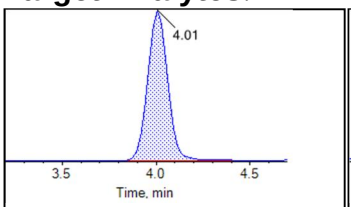
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:11 PM

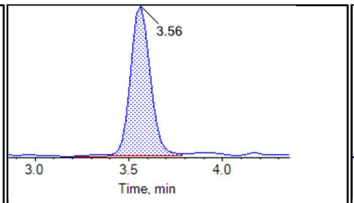
Sample Name	J8372-FS-D(3)	**Injection Vial**	34
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:00:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

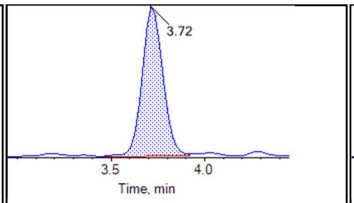
Target Analytes:



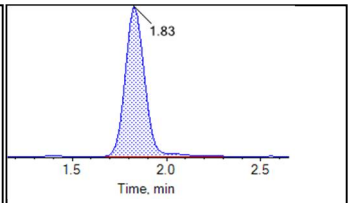
13C2-PFDoA



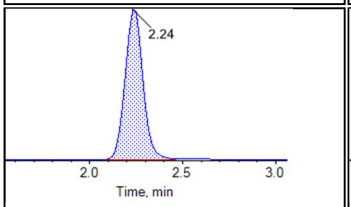
d3-MeFOSAA



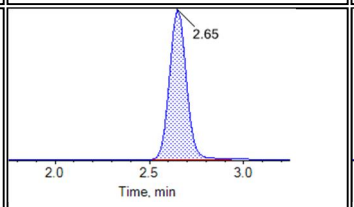
d5-EtFOSAA



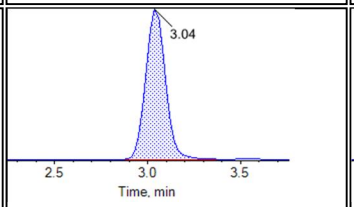
13C5-PFHxA



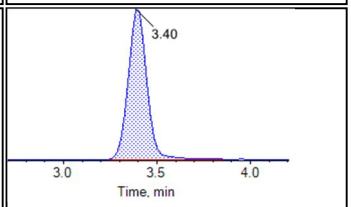
13C4-PFHpA



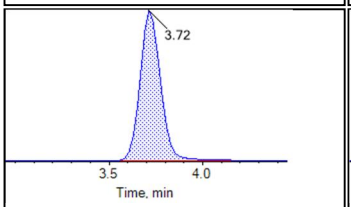
13C8-PFOA



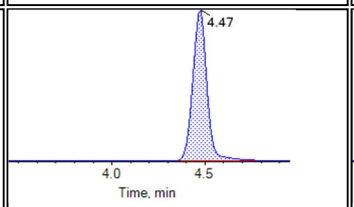
13C9-PFNA



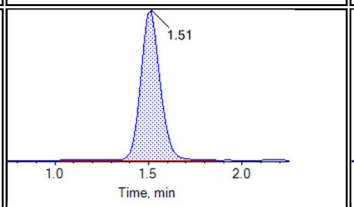
13C6-PFDA



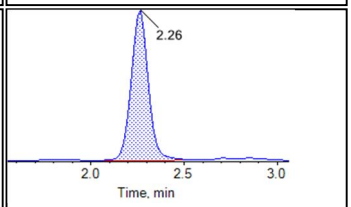
13C7-PFUnA



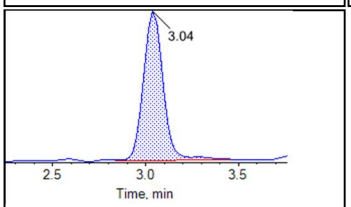
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



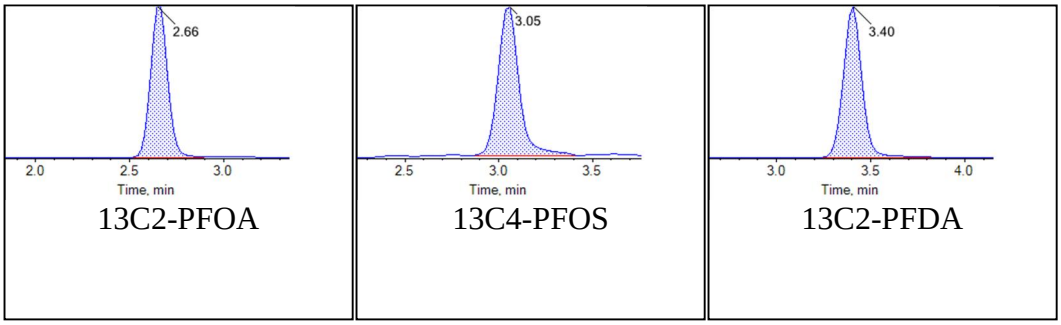
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:11 PM

Internal Standards:



BATTELLE

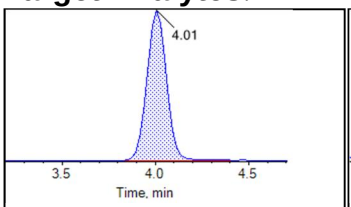
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:16 PM

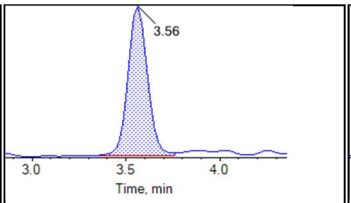
Sample Name	J8372-FS-D(5)	**Injection Vial**	35
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:11:03	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

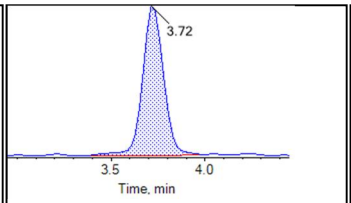
Target Analytes:



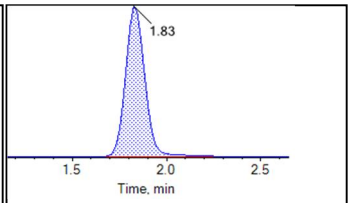
13C2-PFDoA



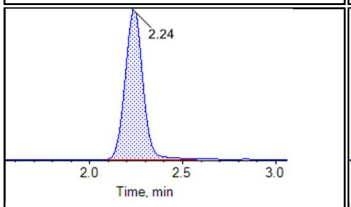
d3-MeFOSAA



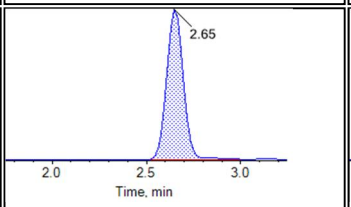
d5-EtFOSAA



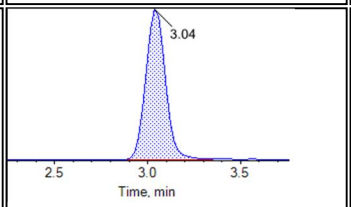
13C5-PFHxA



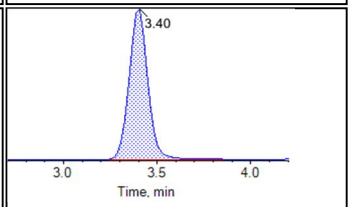
13C4-PFHpA



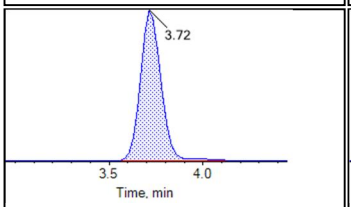
13C8-PFOA



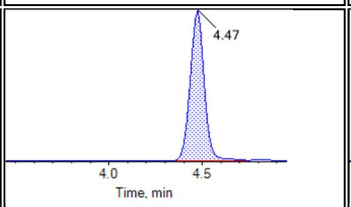
13C9-PFNA



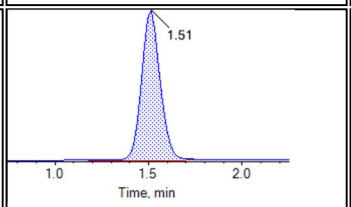
13C6-PFDA



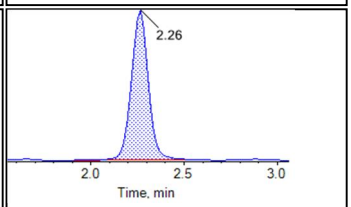
13C7-PFUnA



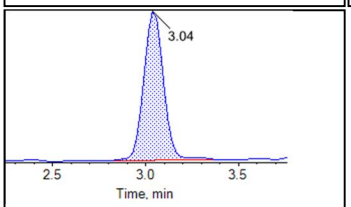
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



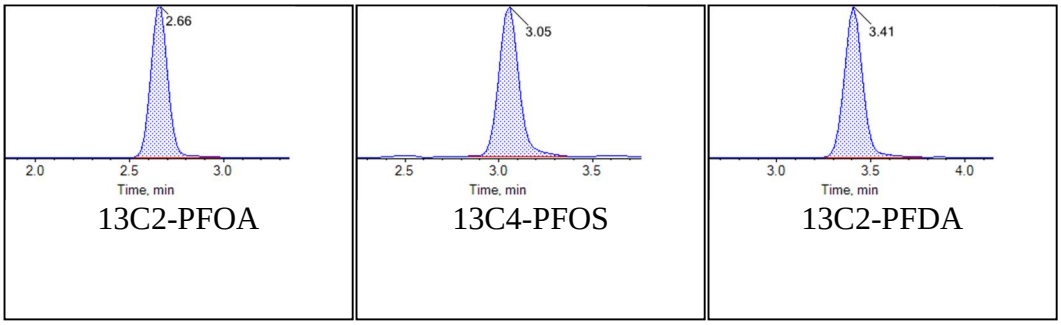
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:16 PM

Internal Standards:



BATTELLE

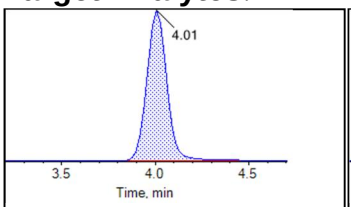
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:20 PM

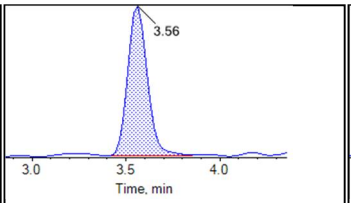
Sample Name	J8372-FS-D(7)	**Injection Vial**	36
Sample ID	VC-PM324-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:21:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

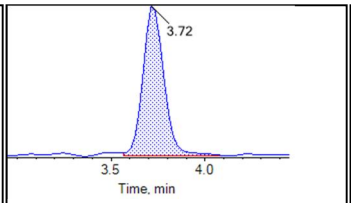
Target Analytes:



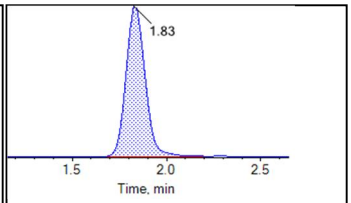
13C2-PFDoA



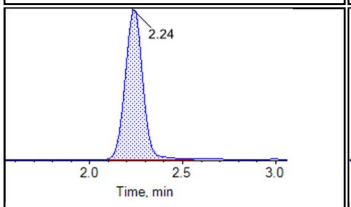
d3-MeFOSAA



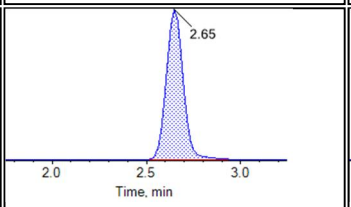
d5-EtFOSAA



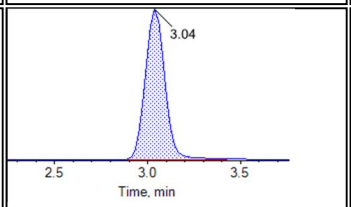
13C5-PFHxA



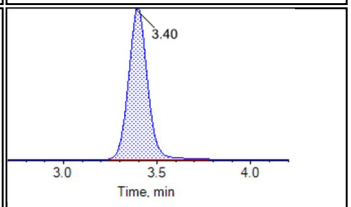
13C4-PFHpA



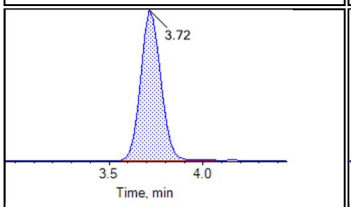
13C8-PFOA



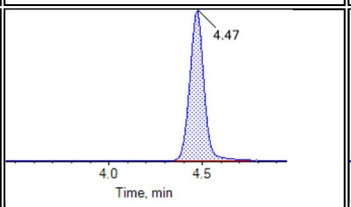
13C9-PFNA



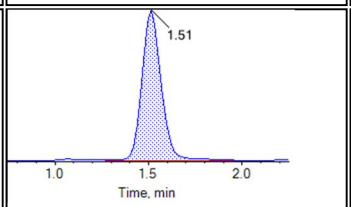
13C6-PFDA



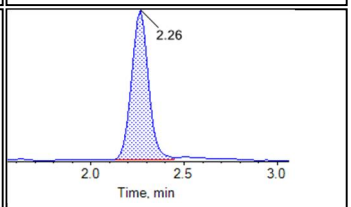
13C7-PFUnA



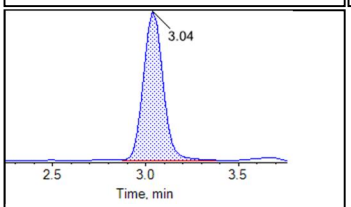
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



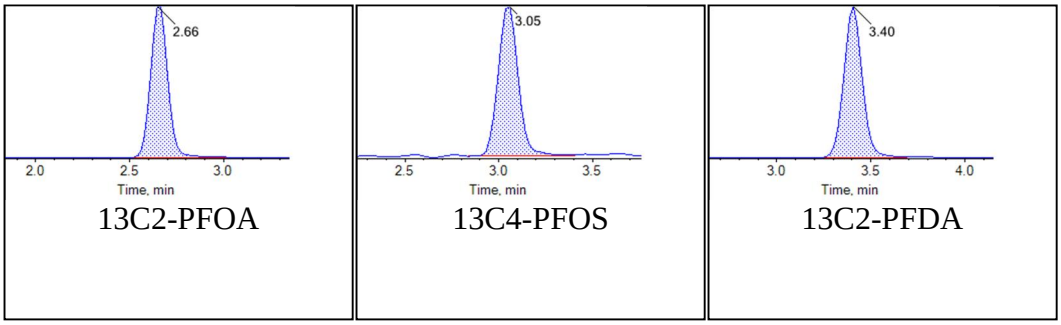
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:20 PM

Internal Standards:



BATTELLE

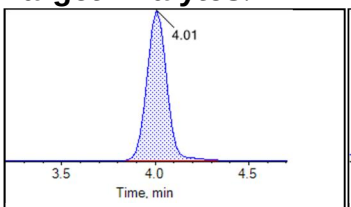
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:24 PM

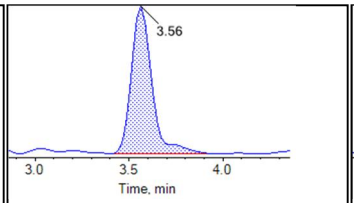
Sample Name	J8382-FS(0)	**Injection Vial**	37
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:32:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

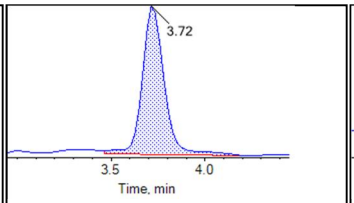
Target Analytes:



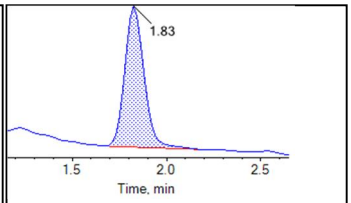
13C2-PFDoA



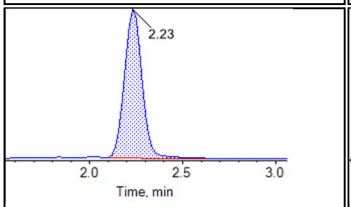
d3-MeFOSAA



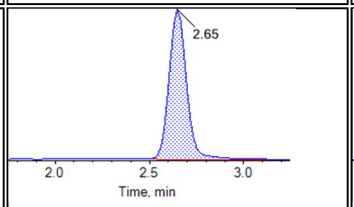
d5-EtFOSAA



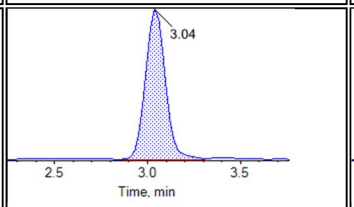
13C5-PFHxA



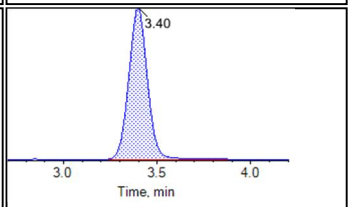
13C4-PFHpA



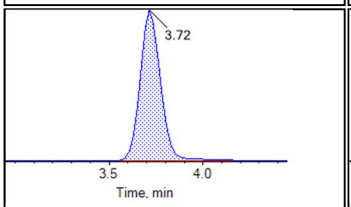
13C8-PFOA



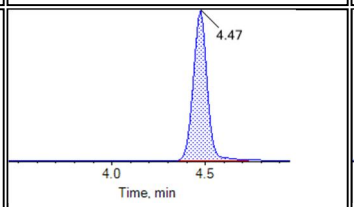
13C9-PFNA



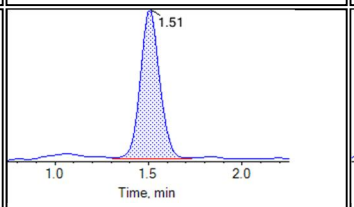
13C6-PFDA



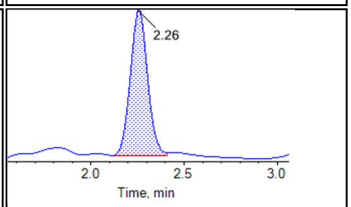
13C7-PFUnA



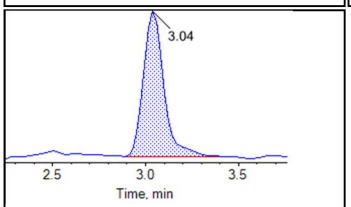
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



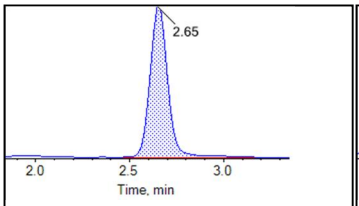
13C8-PFOS

BATTELLE

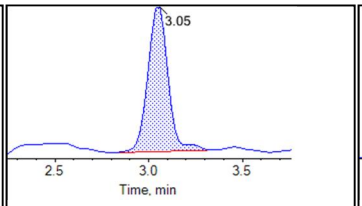
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:24 PM

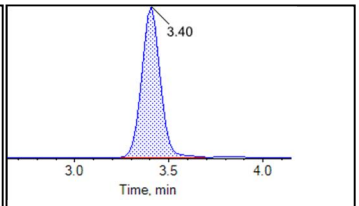
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

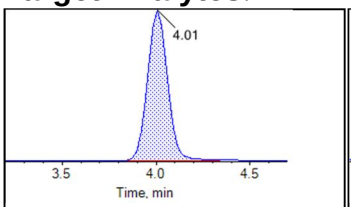
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:29 PM

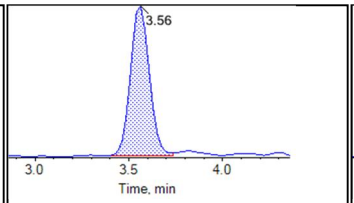
Sample Name	J8382-FS-D(3)	**Injection Vial**	38
Sample ID	VC-PM64B-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:43:42	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

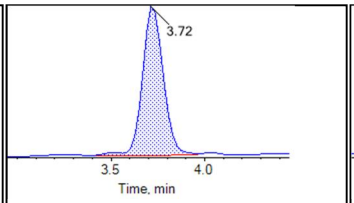
Target Analytes:



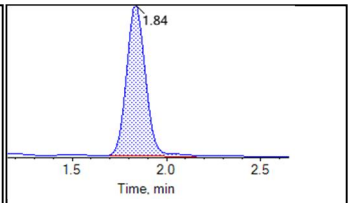
13C2-PFDoA



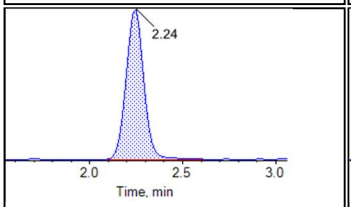
d3-MeFOSAA



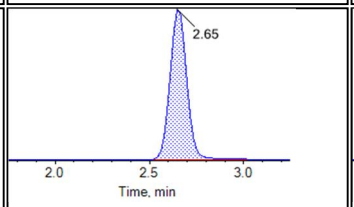
d5-EtFOSAA



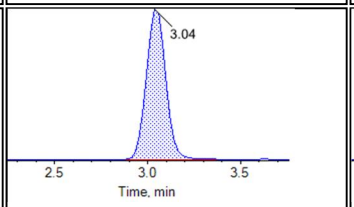
13C5-PFHxA



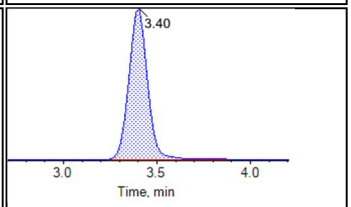
13C4-PFHpA



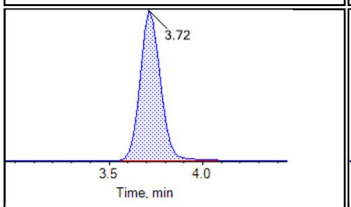
13C8-PFOA



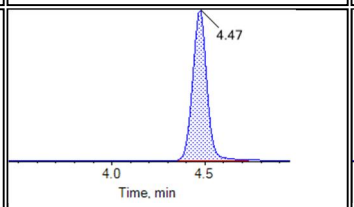
13C9-PFNA



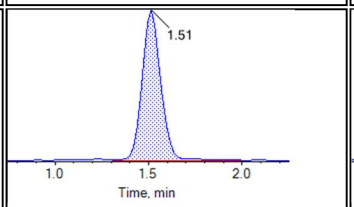
13C6-PFDA



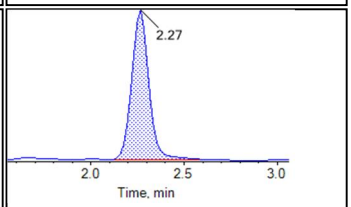
13C7-PFUnA



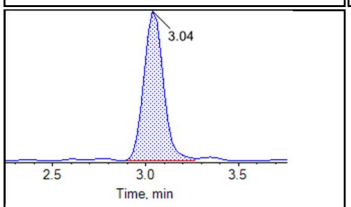
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



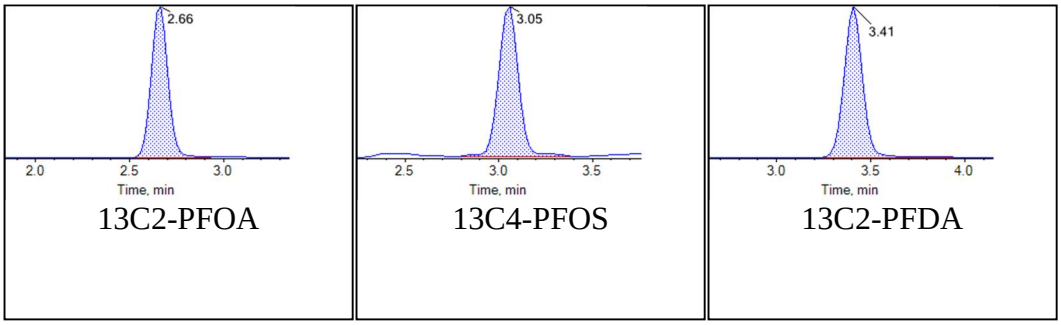
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:29 PM

Internal Standards:



BATTELLE

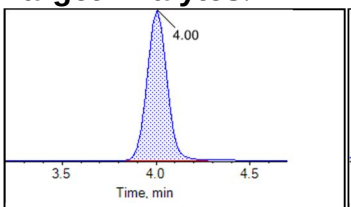
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:34 PM

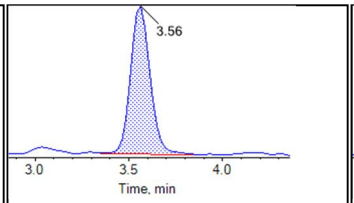
Sample Name	J8383-FS(0)	**Injection Vial**	39
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T02:54:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

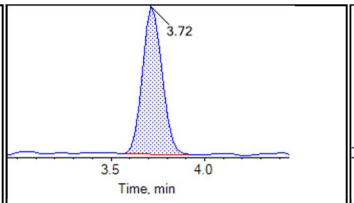
Target Analytes:



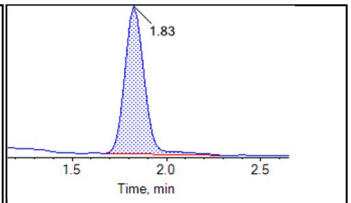
13C2-PFDoA



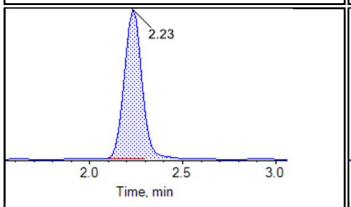
d3-MeFOSAA



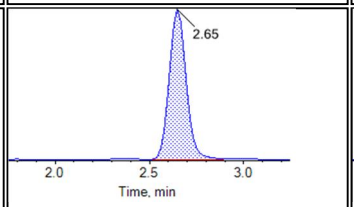
d5-EtFOSAA



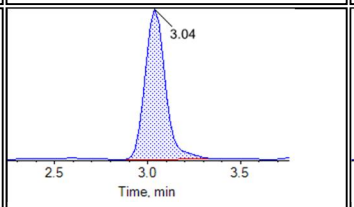
13C5-PFHxA



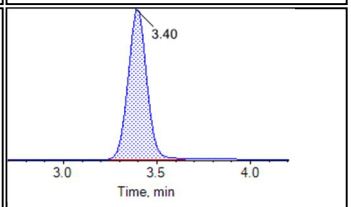
13C4-PFHpA



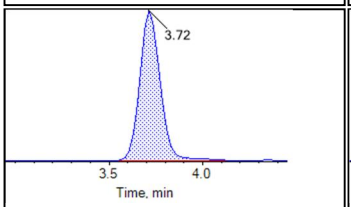
13C8-PFOA



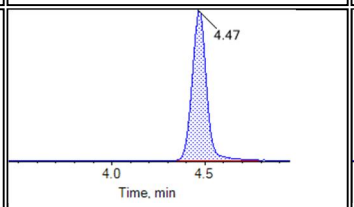
13C9-PFNA



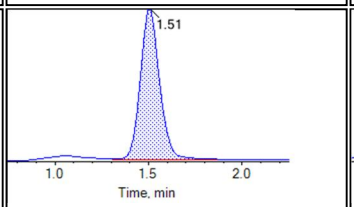
13C6-PFDA



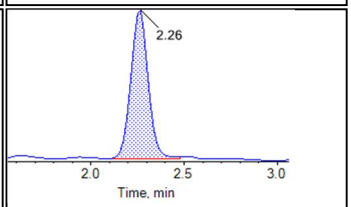
13C7-PFUnA



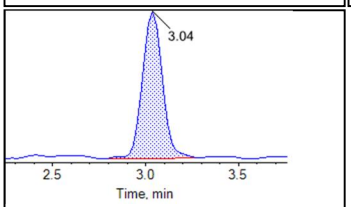
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



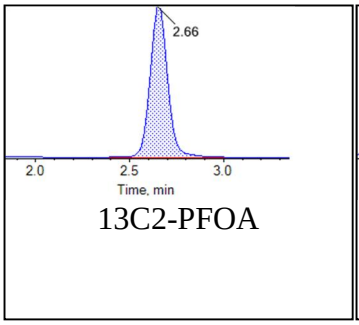
13C8-PFOS

BATTELLE

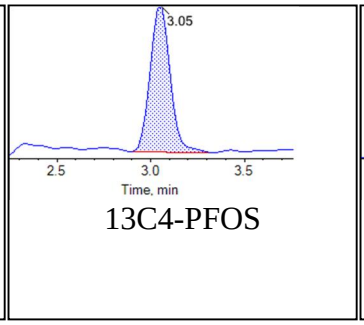
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:34 PM

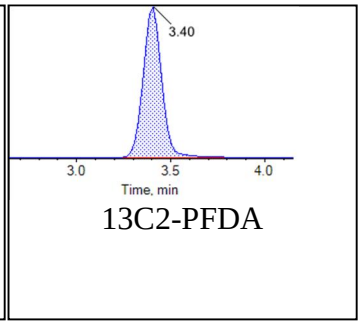
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

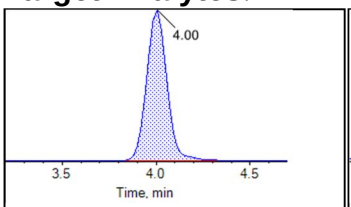
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:39 PM

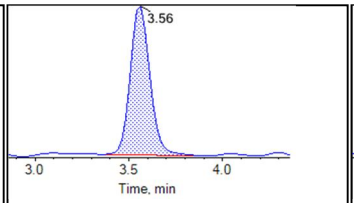
Sample Name	J8383-FS-D(3)	**Injection Vial**	40
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:05:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

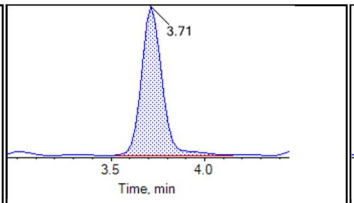
Target Analytes:



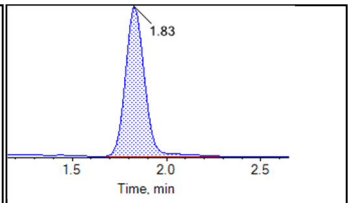
13C2-PFDoA



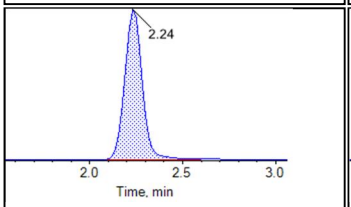
d3-MeFOSAA



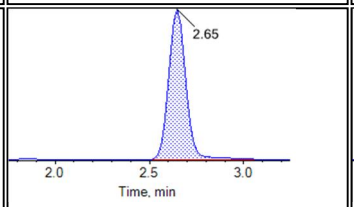
d5-EtFOSAA



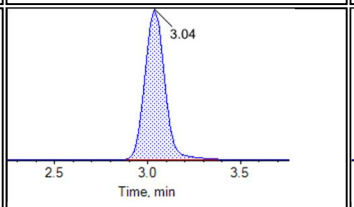
13C5-PFHxA



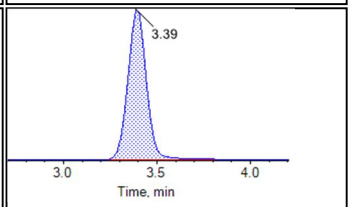
13C4-PFHpA



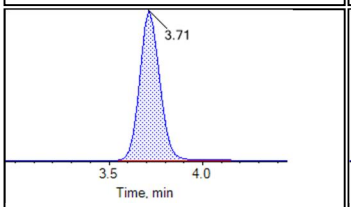
13C8-PFOA



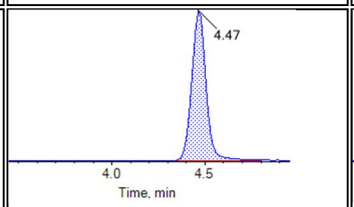
13C9-PFNA



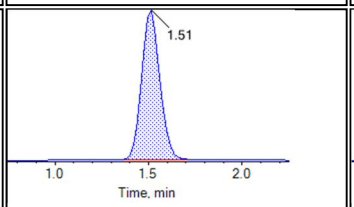
13C6-PFDA



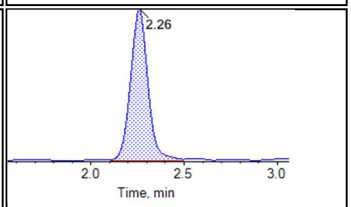
13C7-PFUnA



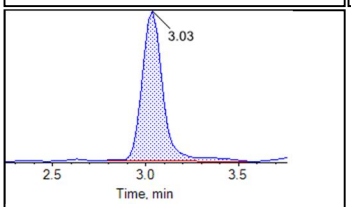
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



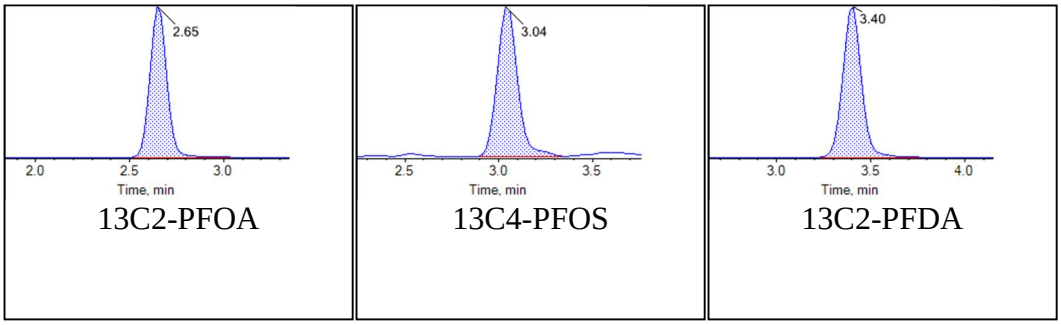
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:39 PM

Internal Standards:



BATTELLE

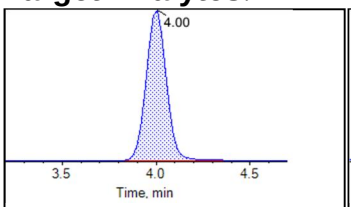
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:44 PM

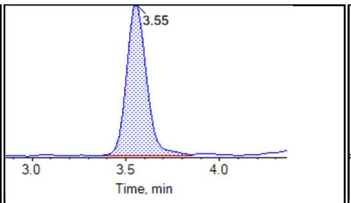
Sample Name	J8383-FS-D(5)	**Injection Vial**	41
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:16:22	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

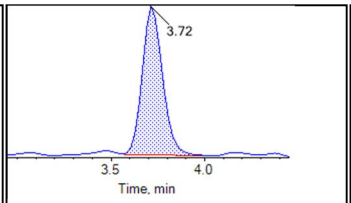
Target Analytes:



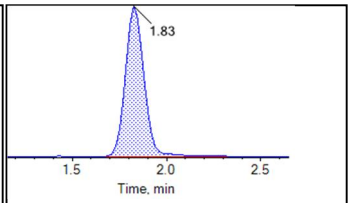
13C2-PFDoA



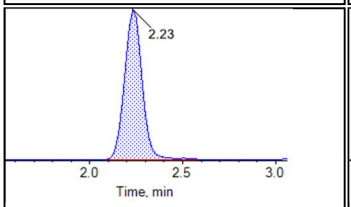
d3-MeFOSAA



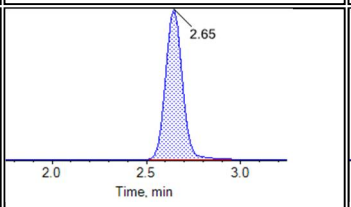
d5-EtFOSAA



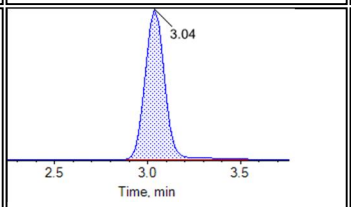
13C5-PFHxA



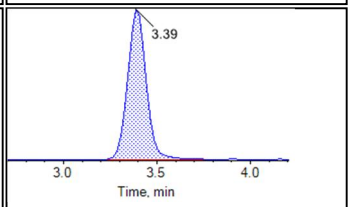
13C4-PFHpA



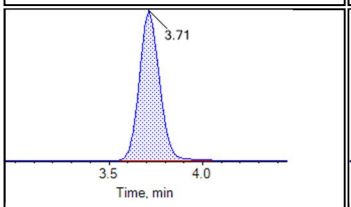
13C8-PFOA



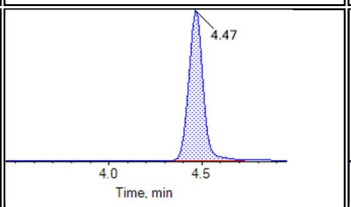
13C9-PFNA



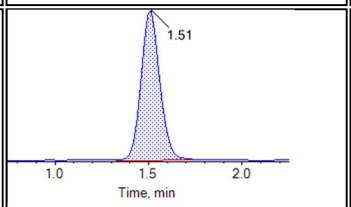
13C6-PFDA



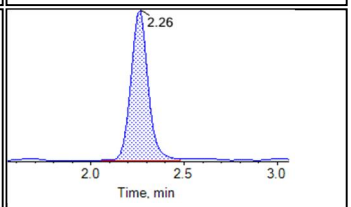
13C7-PFUnA



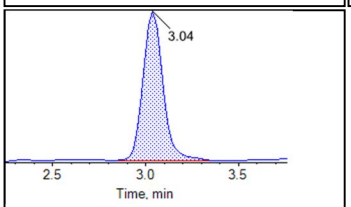
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



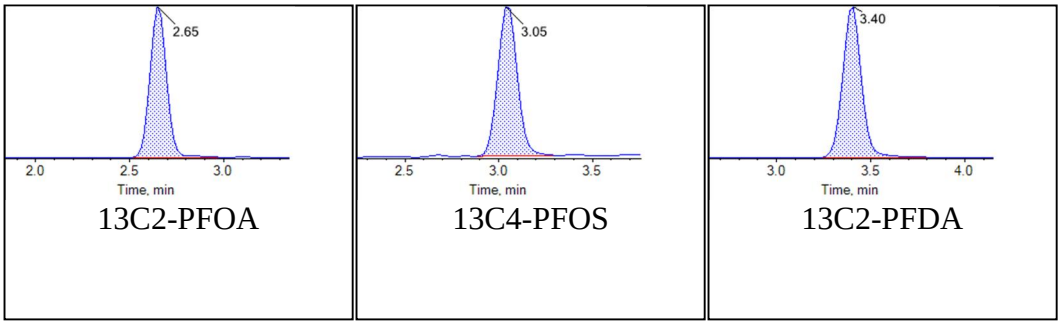
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:44 PM

Internal Standards:



BATTELLE

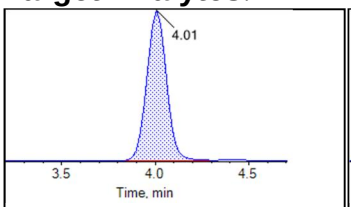
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:49 PM

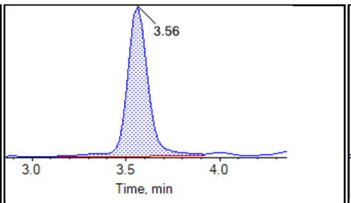
Sample Name	J8383-FS-D(7)	**Injection Vial**	42
Sample ID	VC-PM64B-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:27:15	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

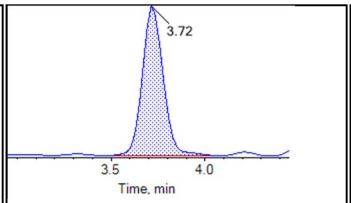
Target Analytes:



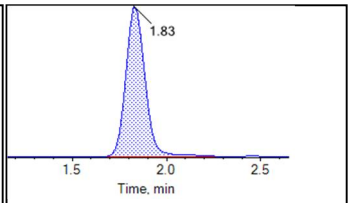
13C2-PFDoA



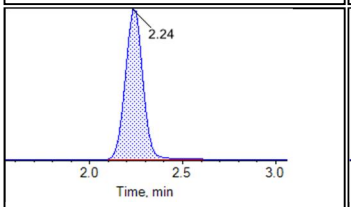
d3-MeFOSAA



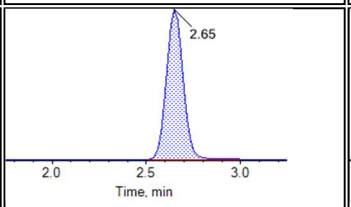
d5-EtFOSAA



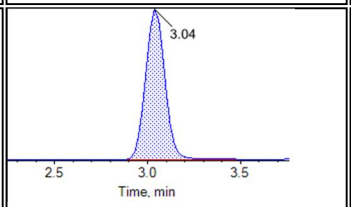
13C5-PFHxA



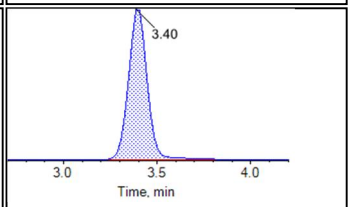
13C4-PFHpA



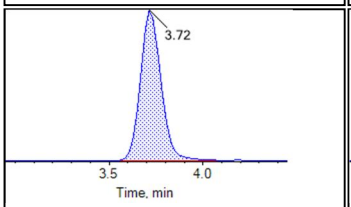
13C8-PFOA



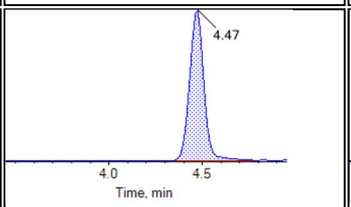
13C9-PFNA



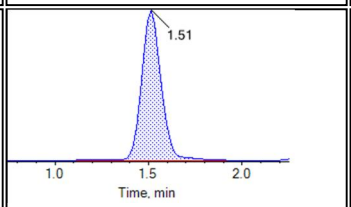
13C6-PFDA



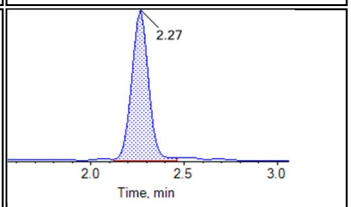
13C7-PFUnA



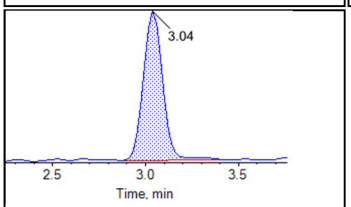
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



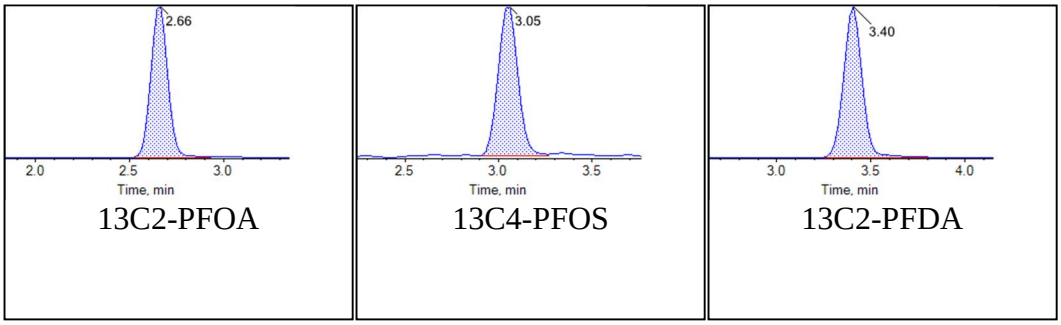
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:49 PM

Internal Standards:



BATTELLE

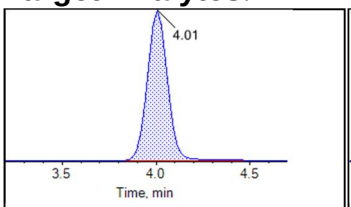
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:53 PM

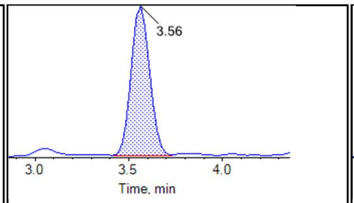
Sample Name	KB76 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:38:09	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

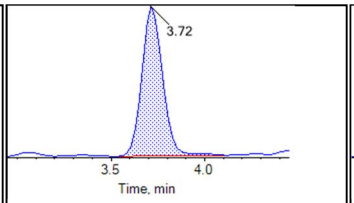
Target Analytes:



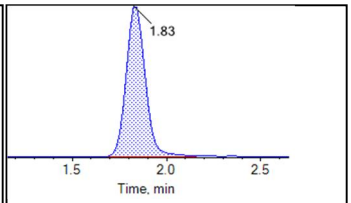
13C2-PFDoA



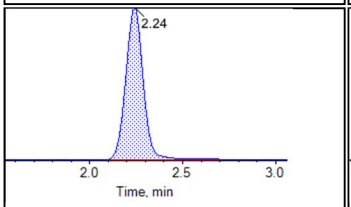
d3-MeFOSAA



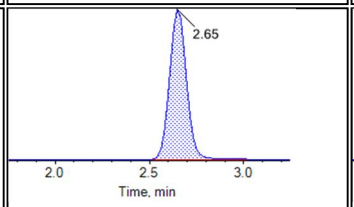
d5-EtFOSAA



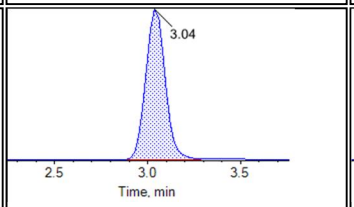
13C5-PFHxA



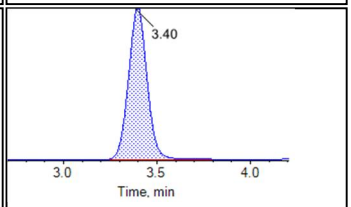
13C4-PFHpA



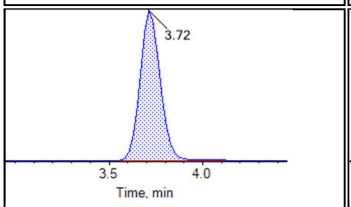
13C8-PFOA



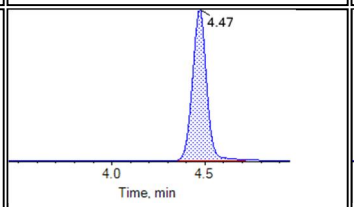
13C9-PFNA



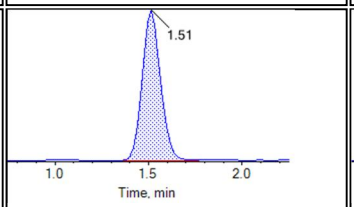
13C6-PFDA



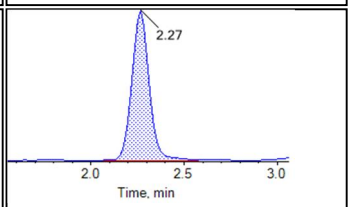
13C7-PFUnA



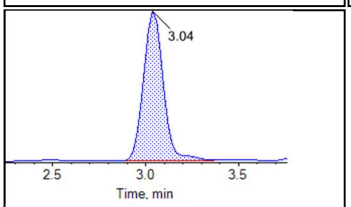
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



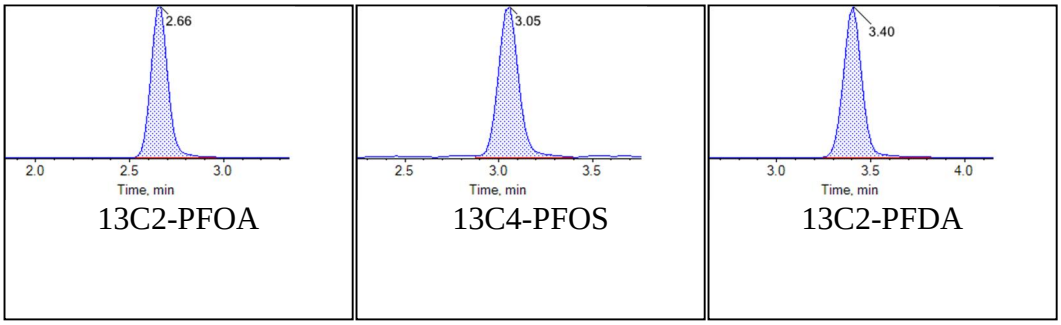
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:07:53 PM

Internal Standards:



BATTELLE

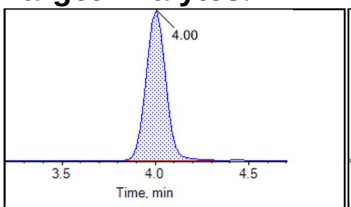
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:04 PM

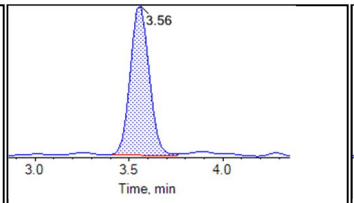
Sample Name	J8384-FS(0)	**Injection Vial**	44
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T03:59:56	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

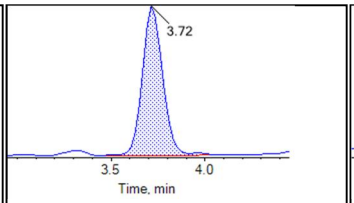
Target Analytes:



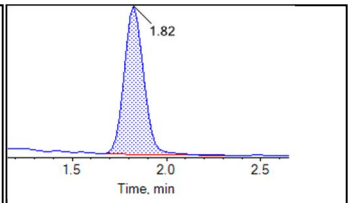
13C2-PFDoA



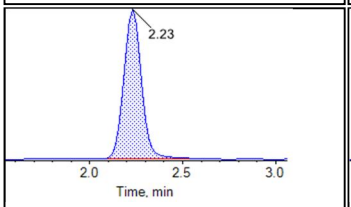
d3-MeFOSAA



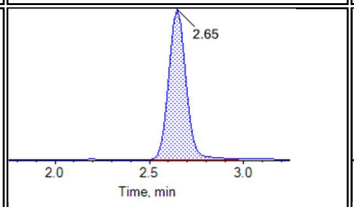
d5-EtFOSAA



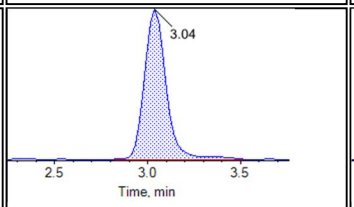
13C5-PFHxA



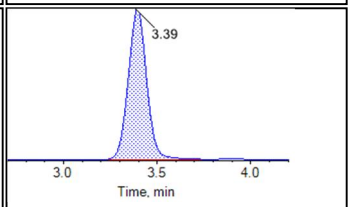
13C4-PFHpA



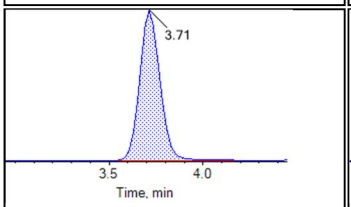
13C8-PFOA



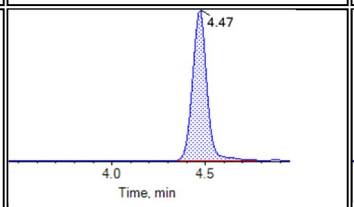
13C9-PFNA



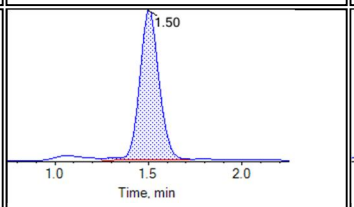
13C6-PFDA



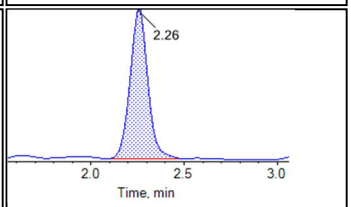
13C7-PFUnA



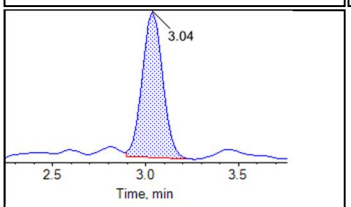
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



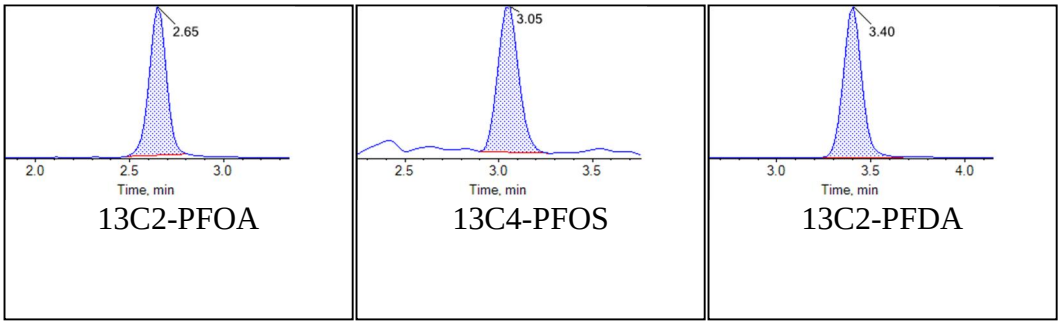
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:04 PM

Internal Standards:



BATTELLE

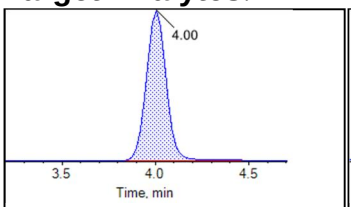
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:09 PM

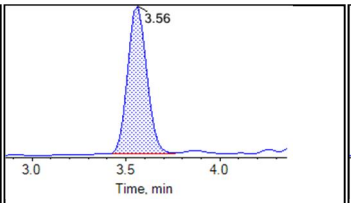
Sample Name	J8384-FS-D(3)	**Injection Vial**	45
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:10:48	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

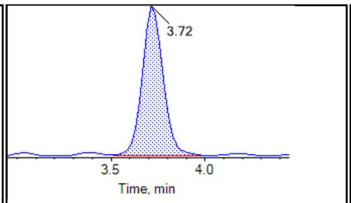
Target Analytes:



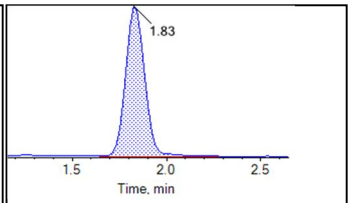
13C2-PFDoA



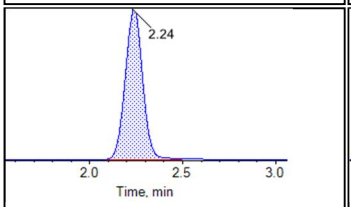
d3-MeFOSAA



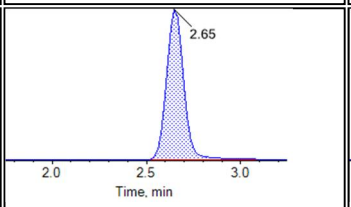
d5-EtFOSAA



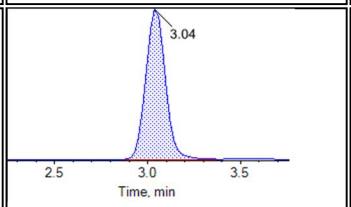
13C5-PFHxA



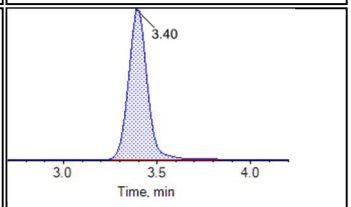
13C4-PFHpA



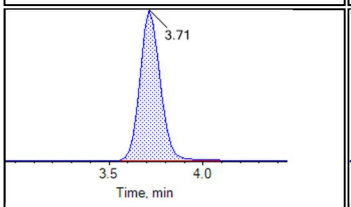
13C8-PFOA



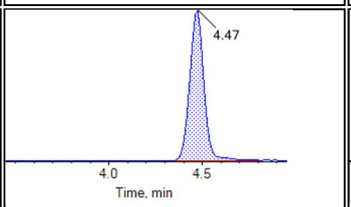
13C9-PFNA



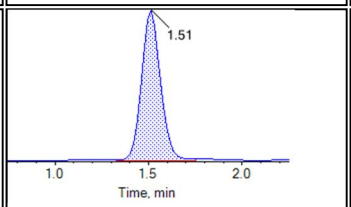
13C6-PFDA



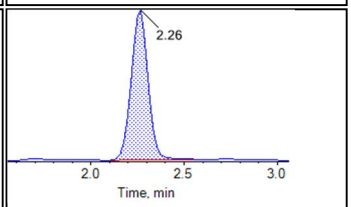
13C7-PFUnA



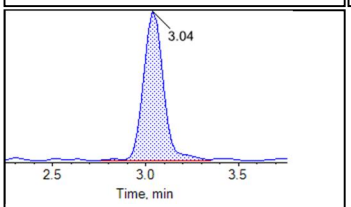
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



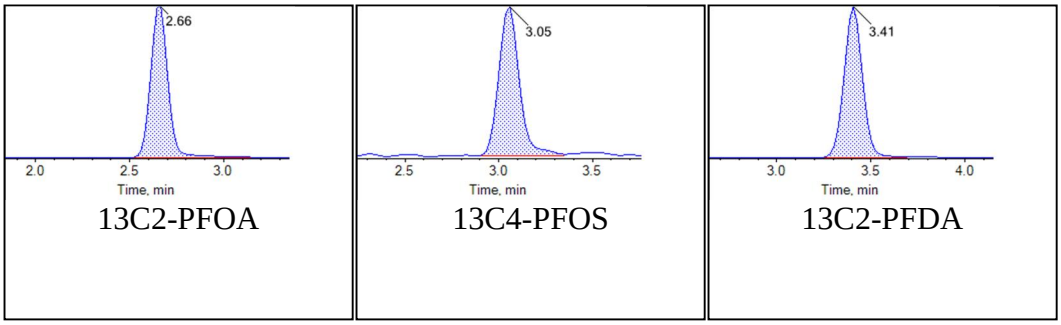
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:09 PM

Internal Standards:



BATTELLE

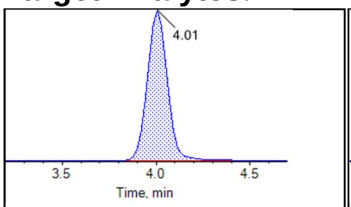
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:18 PM

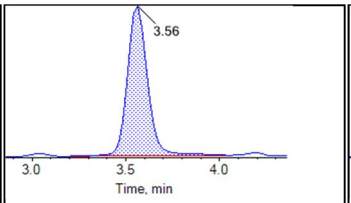
Sample Name	J8384-FS-D(7)	**Injection Vial**	47
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:32:33	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

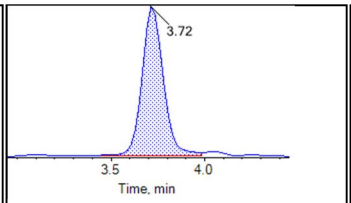
Target Analytes:



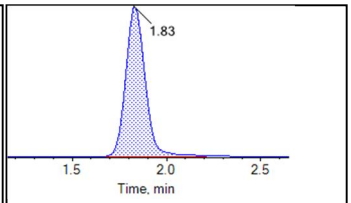
13C2-PFDoA



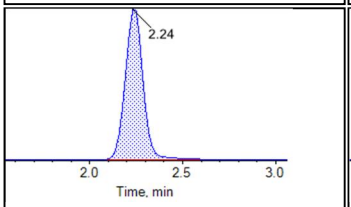
d3-MeFOSAA



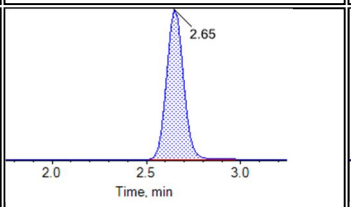
d5-EtFOSAA



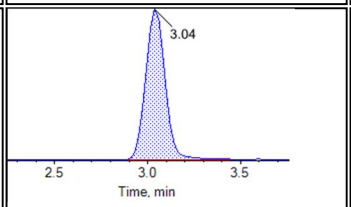
13C5-PFHxA



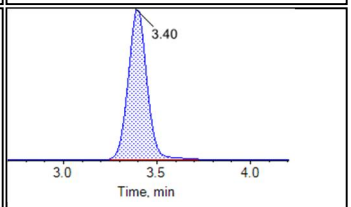
13C4-PFHpA



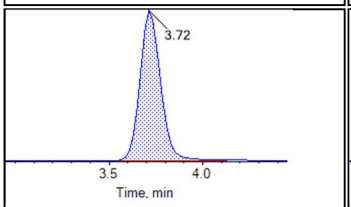
13C8-PFOA



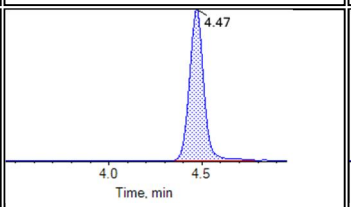
13C9-PFNA



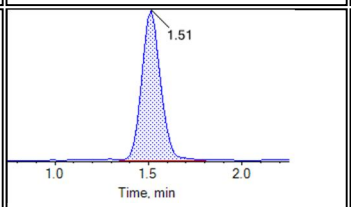
13C6-PFDA



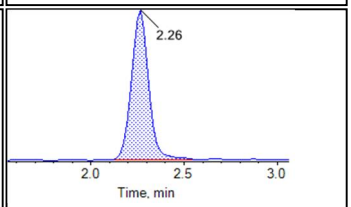
13C7-PFUnA



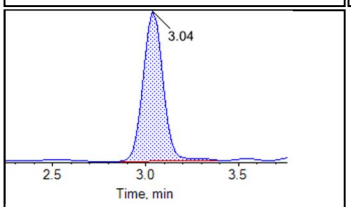
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



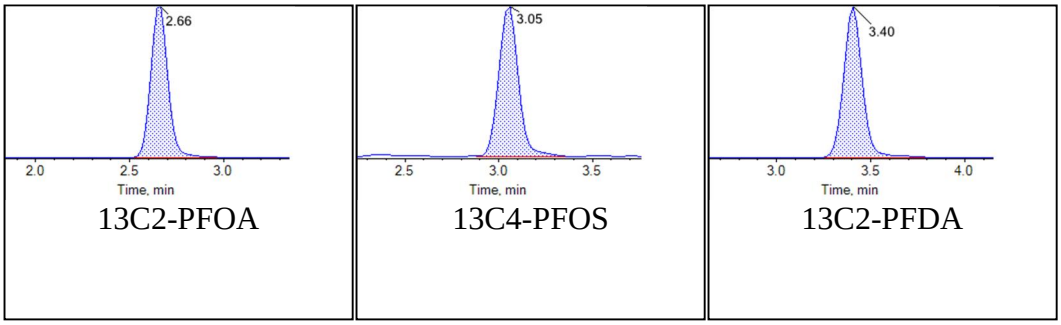
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:18 PM

Internal Standards:



BATTELLE

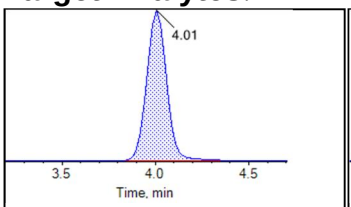
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:23 PM

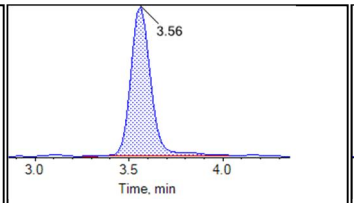
Sample Name	J8384-FS-D(9)	**Injection Vial**	48
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:43:26	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

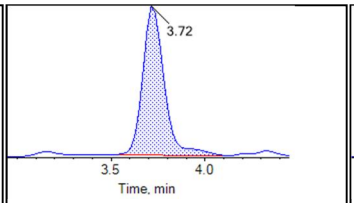
Target Analytes:



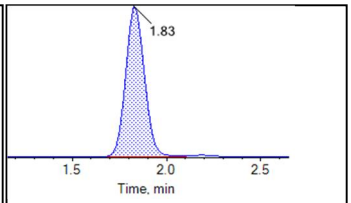
13C2-PFDoA



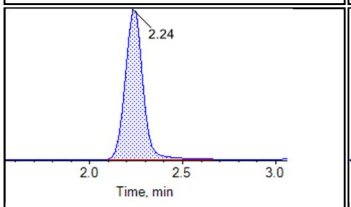
d3-MeFOSAA



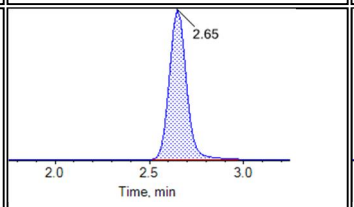
d5-EtFOSAA



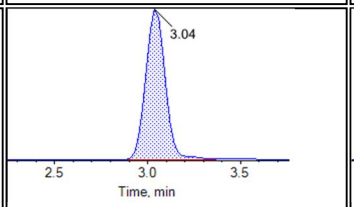
13C5-PFHxA



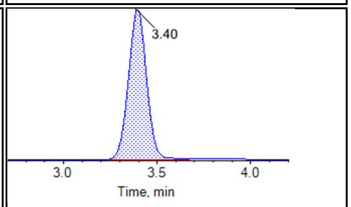
13C4-PFHpA



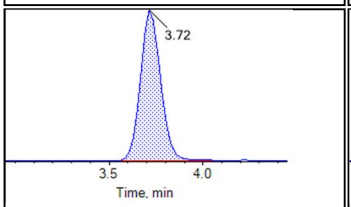
13C8-PFOA



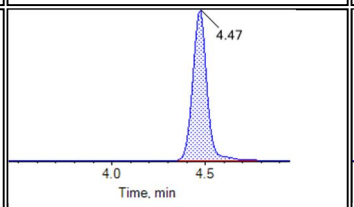
13C9-PFNA



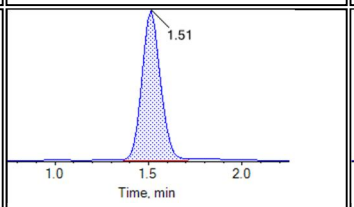
13C6-PFDA



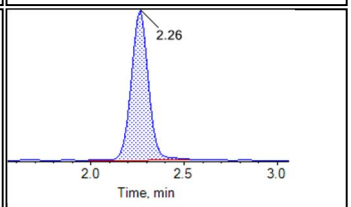
13C7-PFUnA



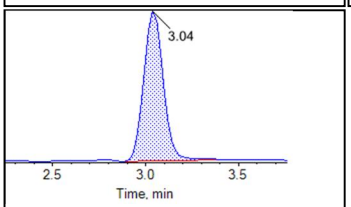
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



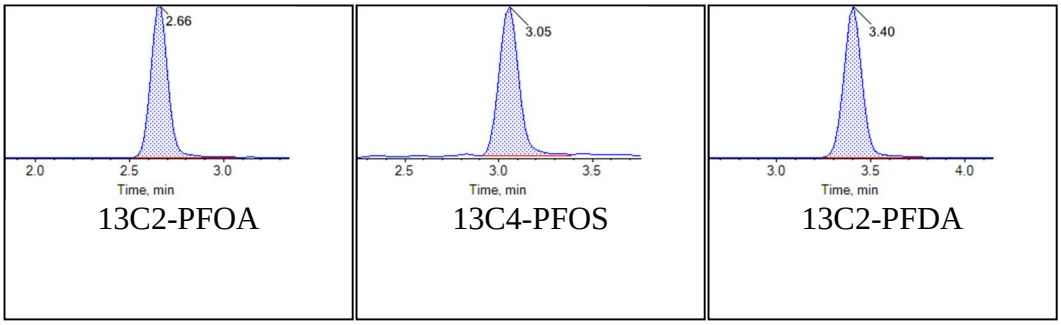
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:23 PM

Internal Standards:



BATTELLE

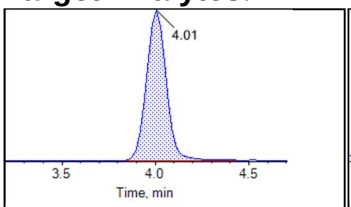
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:28 PM

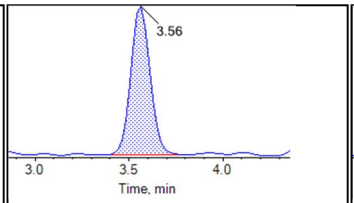
Sample Name	J8385-FS(0)	**Injection Vial**	49
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:54:20	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

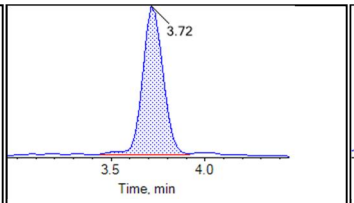
Target Analytes:



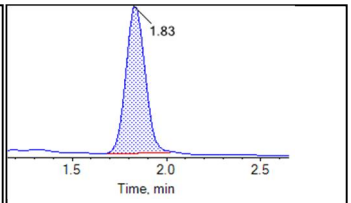
13C2-PFDoA



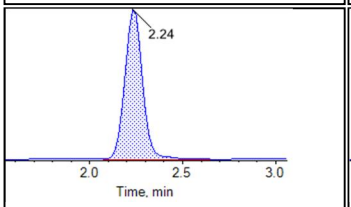
d3-MeFOSAA



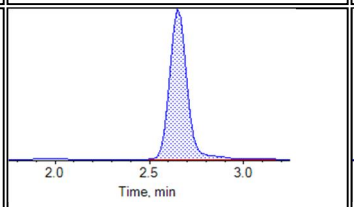
d5-EtFOSAA



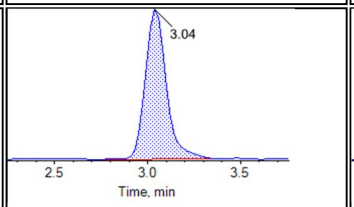
13C5-PFHxA



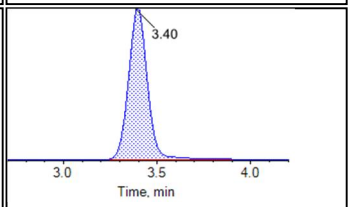
13C4-PFHpA



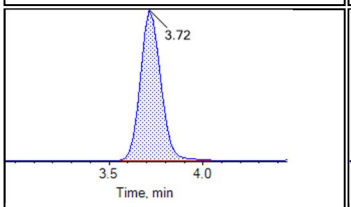
13C8-PFOA



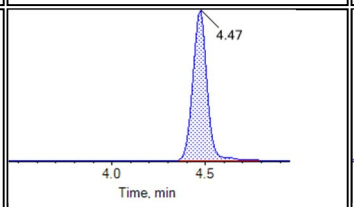
13C9-PFNA



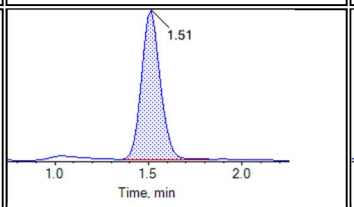
13C6-PFDA



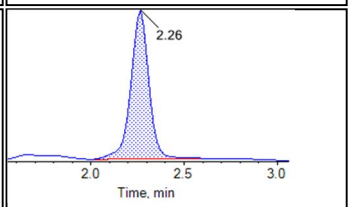
13C7-PFUnA



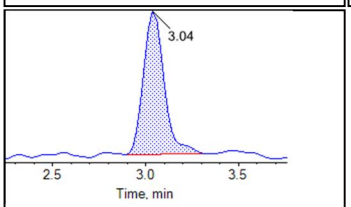
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



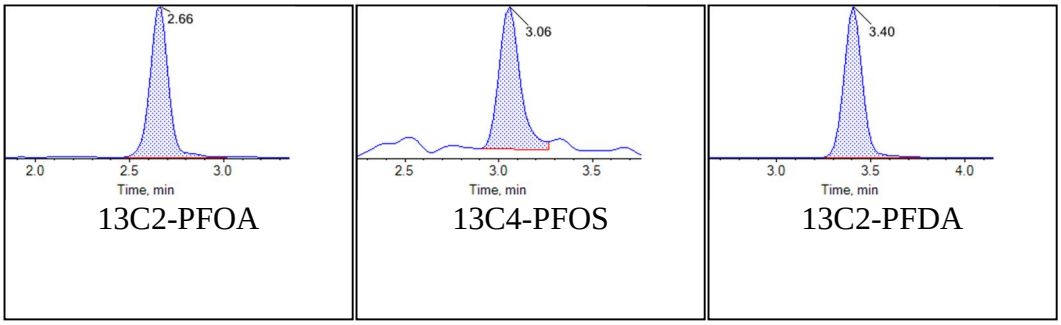
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:28 PM

Internal Standards:



BATTELLE

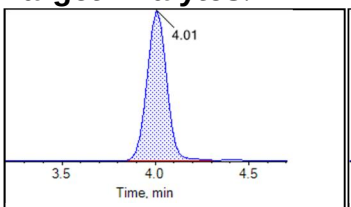
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:33 PM

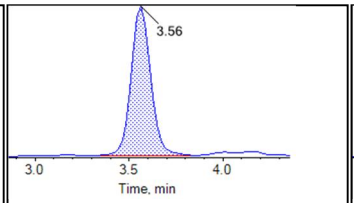
Sample Name	J8385-FS-D(3)	**Injection Vial**	50
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:05:13	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

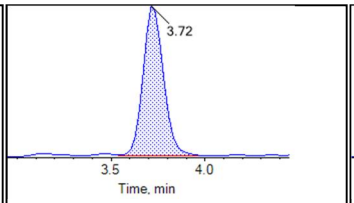
Target Analytes:



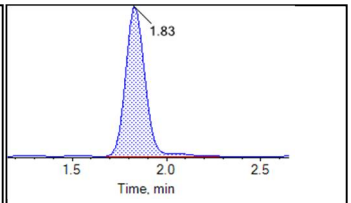
13C2-PFDoA



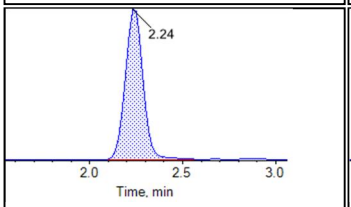
d3-MeFOSAA



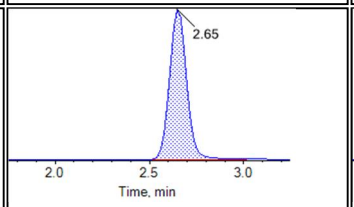
d5-EtFOSAA



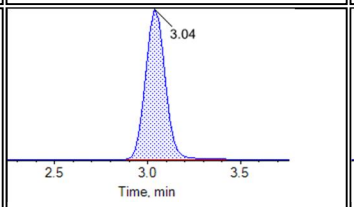
13C5-PFHxA



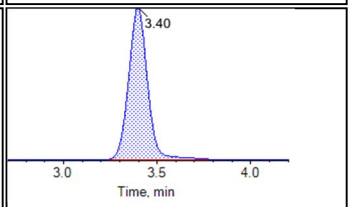
13C4-PFHpA



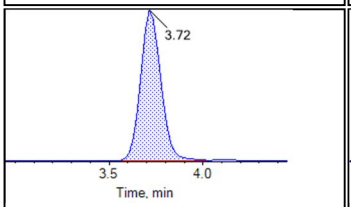
13C8-PFOA



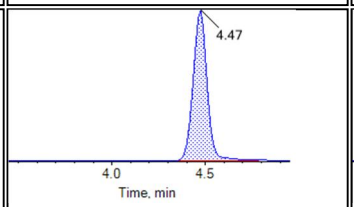
13C9-PFNA



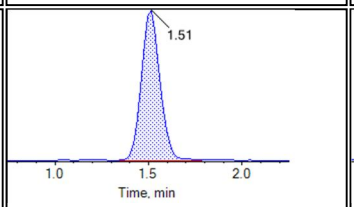
13C6-PFDA



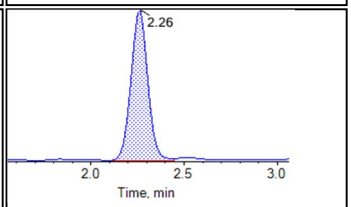
13C7-PFUnA



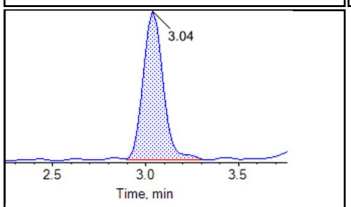
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



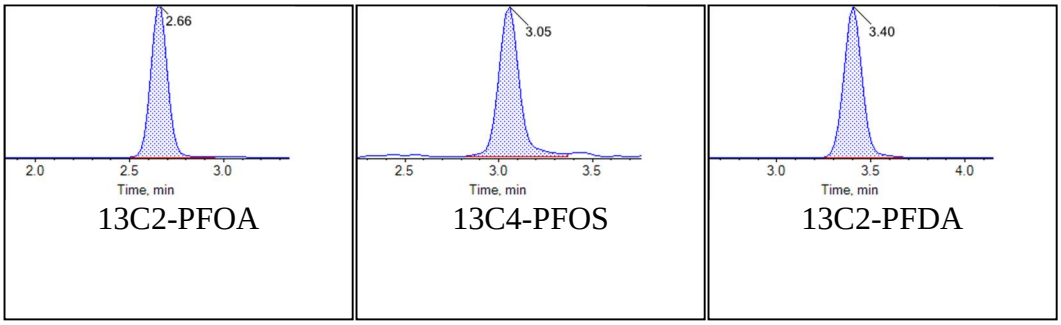
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:33 PM

Internal Standards:



BATTELLE

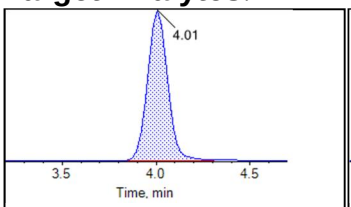
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:37 PM

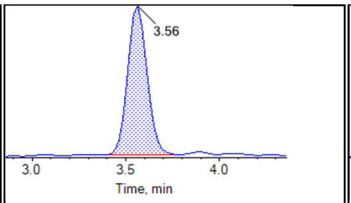
Sample Name	J8385-FS-D(5)	**Injection Vial**	51
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:16:05	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

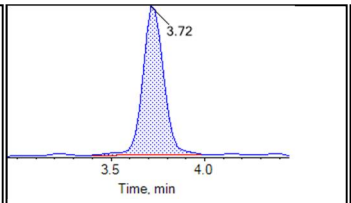
Target Analytes:



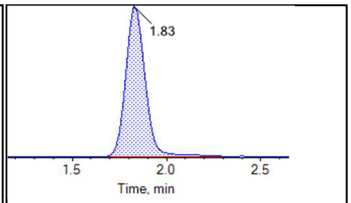
13C2-PFDoA



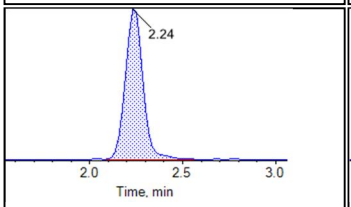
d3-MeFOSAA



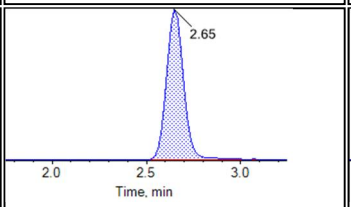
d5-EtFOSAA



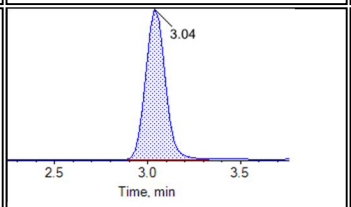
13C5-PFHxA



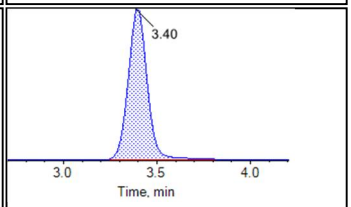
13C4-PFHpA



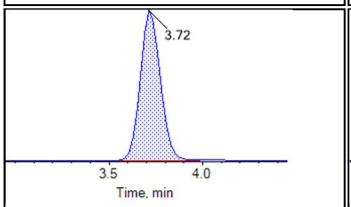
13C8-PFOA



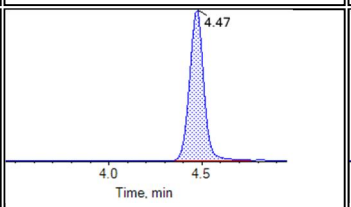
13C9-PFNA



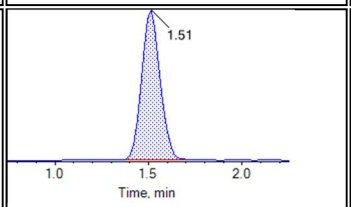
13C6-PFDA



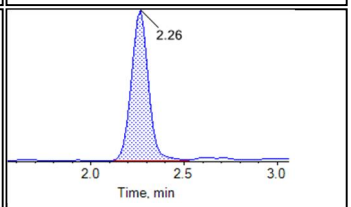
13C7-PFUnA



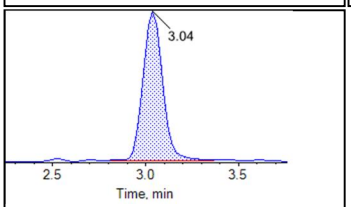
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



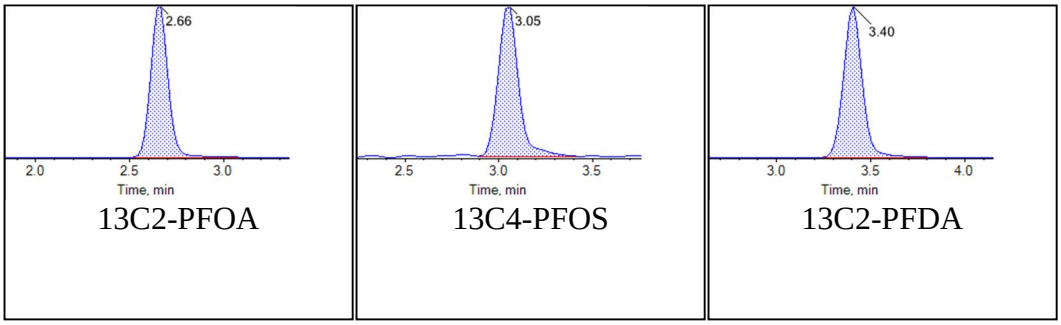
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:37 PM

Internal Standards:



BATTELLE

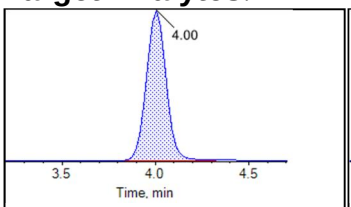
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:42 PM

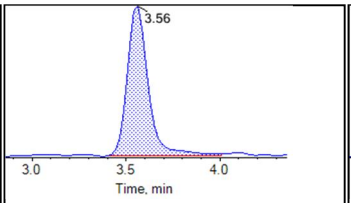
Sample Name	J8385-FS-D(7)	**Injection Vial**	52
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:26:59	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

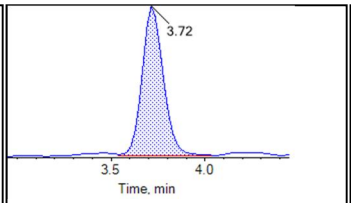
Target Analytes:



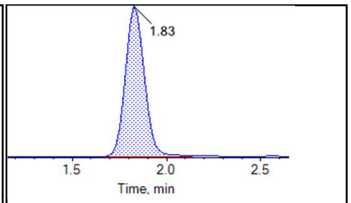
13C2-PFDoA



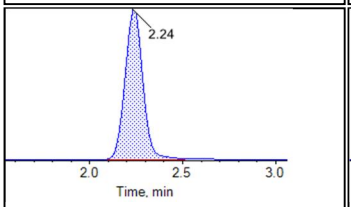
d3-MeFOSAA



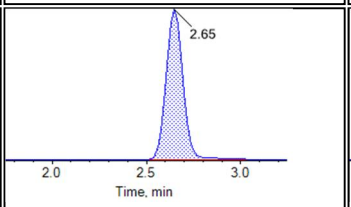
d5-EtFOSAA



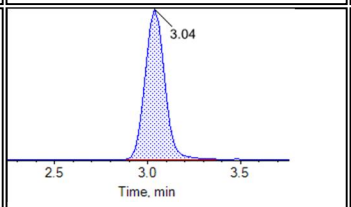
13C5-PFHxA



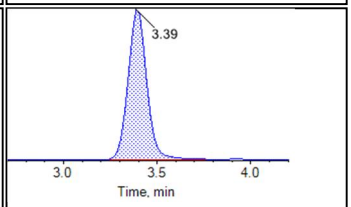
13C4-PFHpA



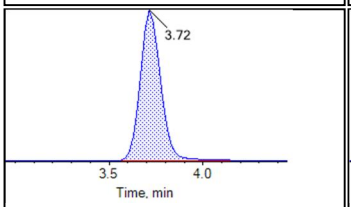
13C8-PFOA



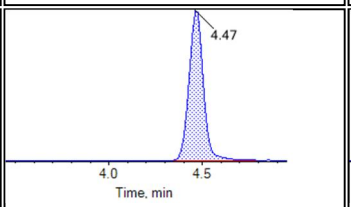
13C9-PFNA



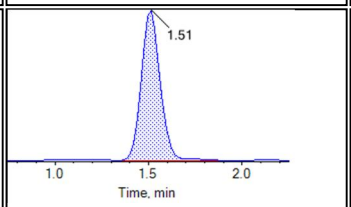
13C6-PFDA



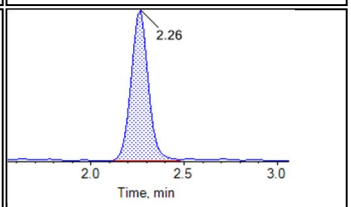
13C7-PFUnA



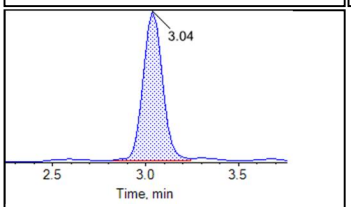
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



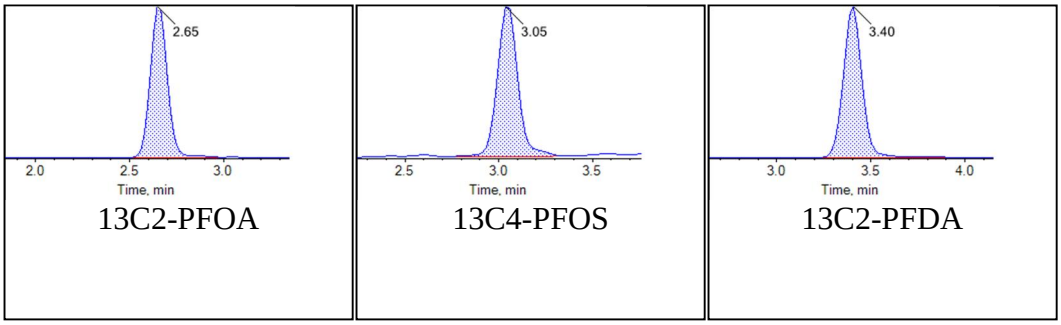
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:42 PM

Internal Standards:



BATTELLE

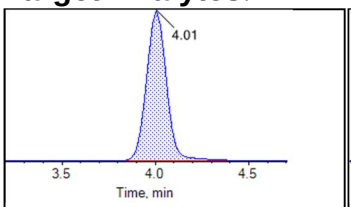
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:48 PM

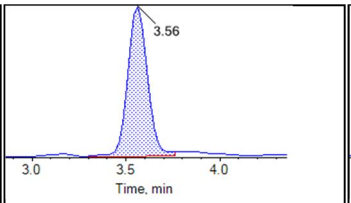
Sample Name	J8385-FS-D(9)	**Injection Vial**	53
Sample ID	VC-PM64B-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:37:52	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

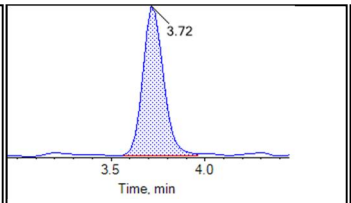
Target Analytes:



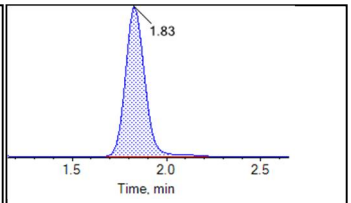
13C2-PFDoA



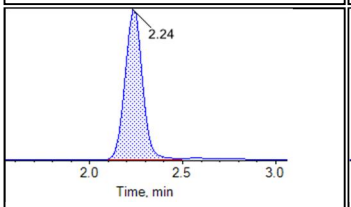
d3-MeFOSAA



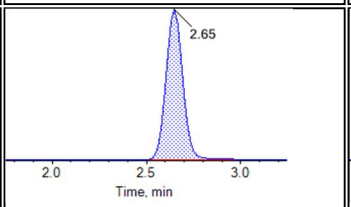
d5-EtFOSAA



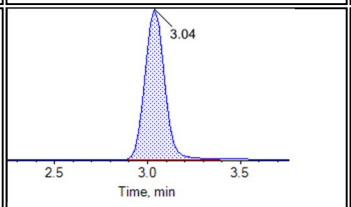
13C5-PFHxA



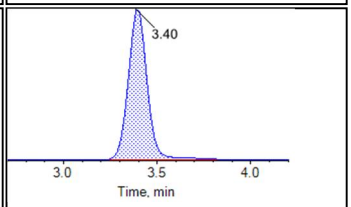
13C4-PFHpA



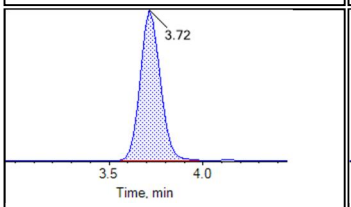
13C8-PFOA



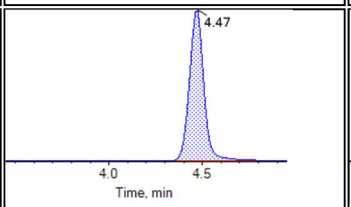
13C9-PFNA



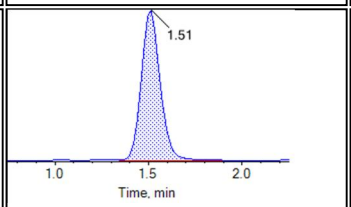
13C6-PFDA



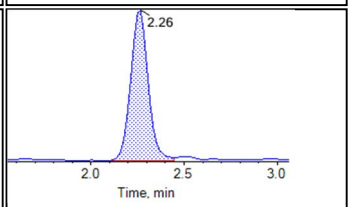
13C7-PFUnA



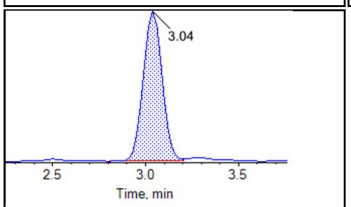
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



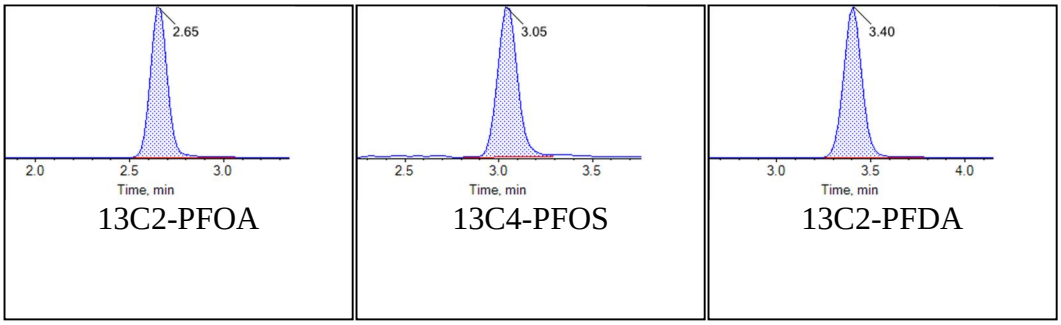
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:48 PM

Internal Standards:



BATTELLE

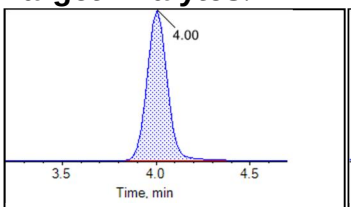
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:52 PM

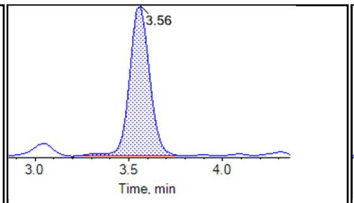
Sample Name	KB77 CCV	**Injection Vial**	54
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T05:48:43	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

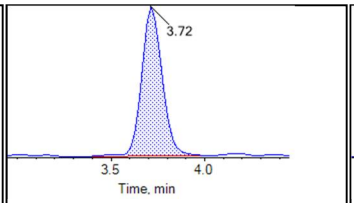
Target Analytes:



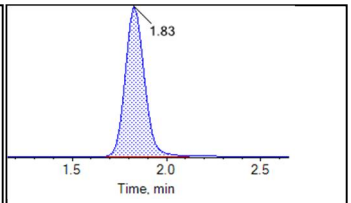
13C2-PFDoA



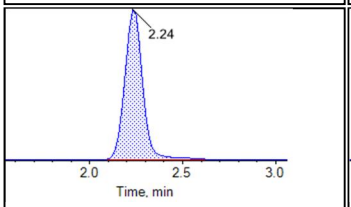
d3-MeFOSAA



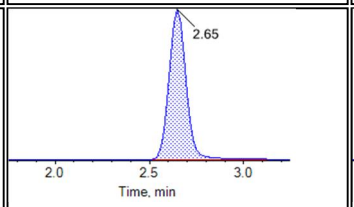
d5-EtFOSAA



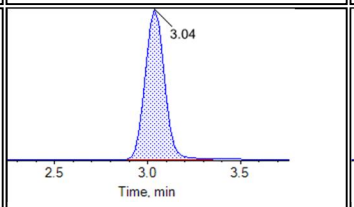
13C5-PFHxA



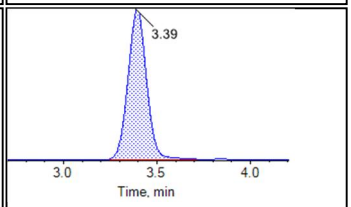
13C4-PFHpA



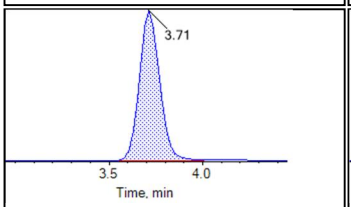
13C8-PFOA



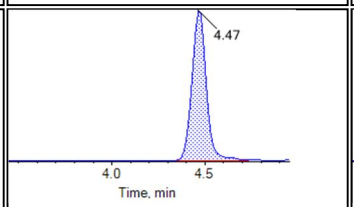
13C9-PFNA



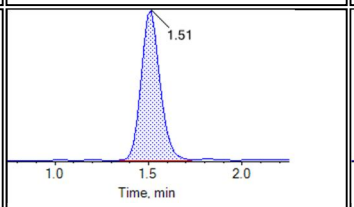
13C6-PFDA



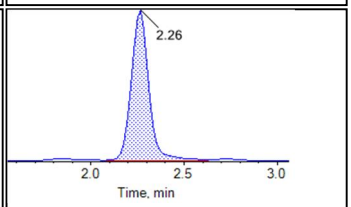
13C7-PFUnA



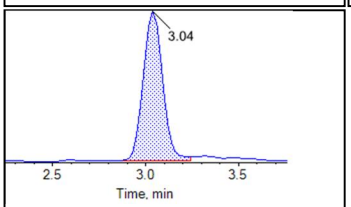
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



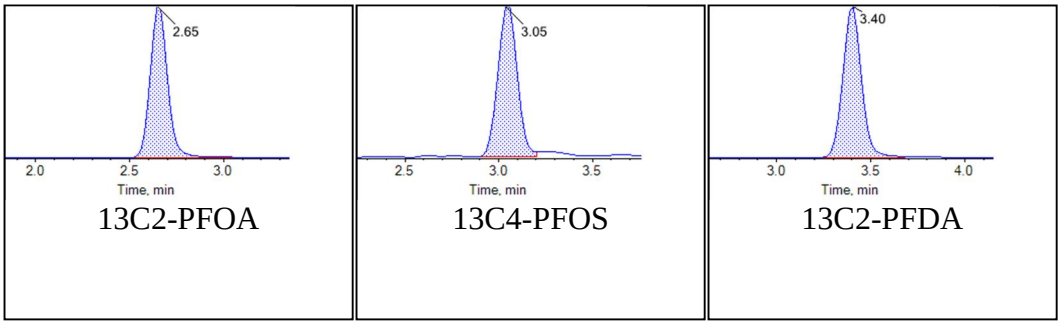
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:52 PM

Internal Standards:



BATTELLE

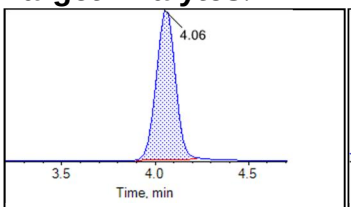
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:01 PM

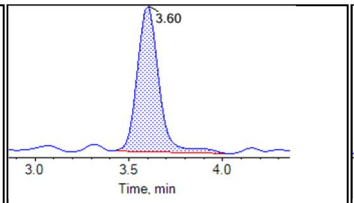
Sample Name	J8395-FS(0)	**Injection Vial**	2
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:44:08	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

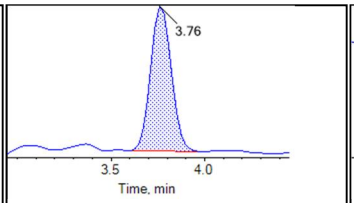
Target Analytes:



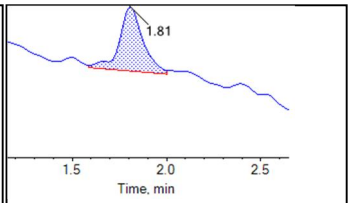
13C2-PFDoA



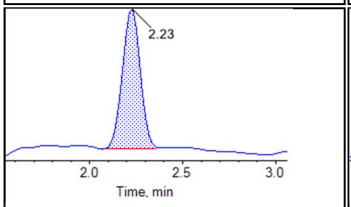
d3-MeFOSAA



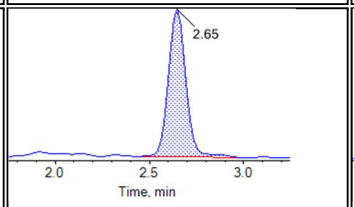
d5-EtFOSAA



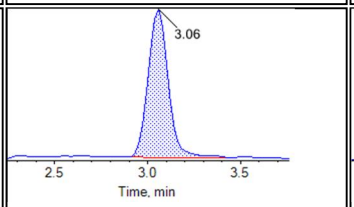
13C5-PFHxA



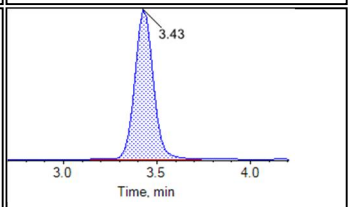
13C4-PFHpA



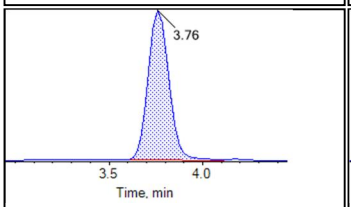
13C8-PFOA



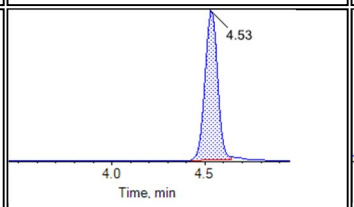
13C9-PFNA



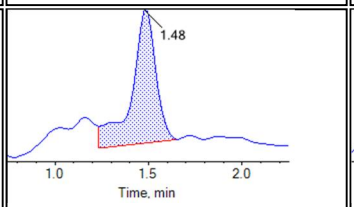
13C6-PFDA



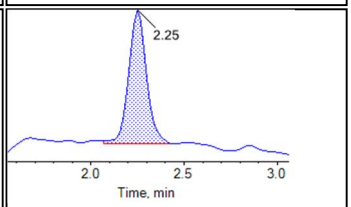
13C7-PFUnA



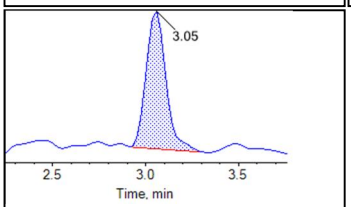
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



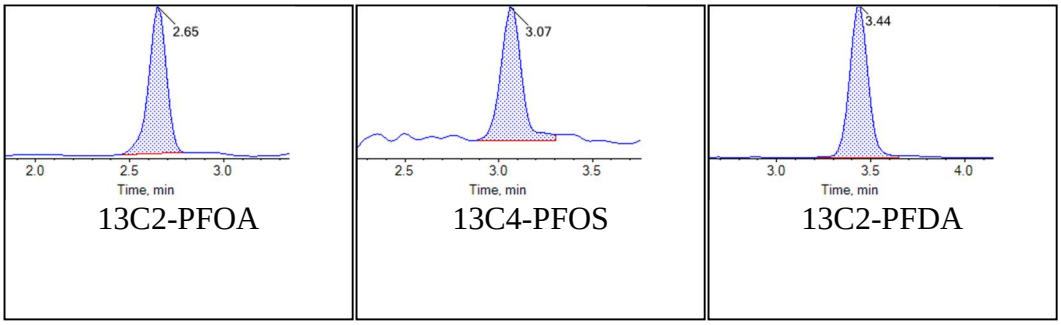
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:01 PM

Internal Standards:



BATTELLE

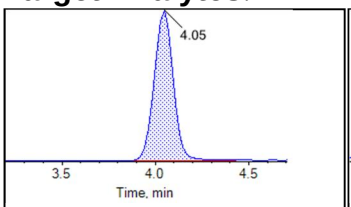
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:05 PM

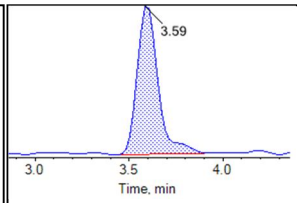
Sample Name	J8395-FS-D(3)	**Injection Vial**	3
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T08:55:00	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

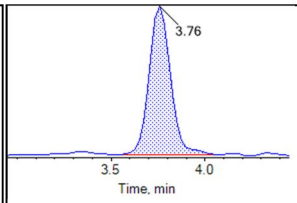
Target Analytes:



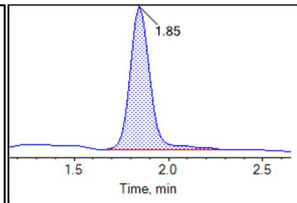
13C2-PFDoA



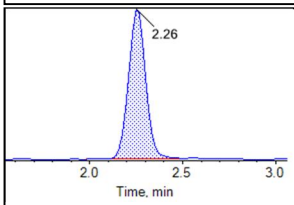
d3-MeFOSAA



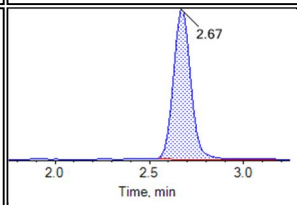
d5-EtFOSAA



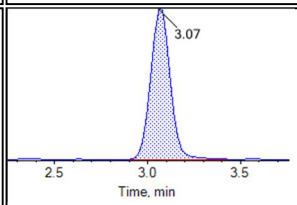
13C5-PFHxA



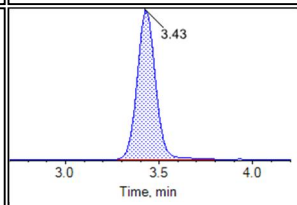
13C4-PFHpA



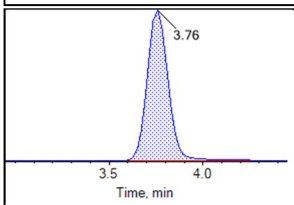
13C8-PFOA



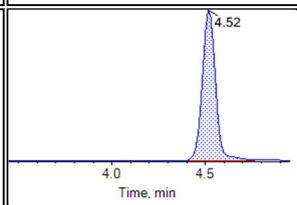
13C9-PFNA



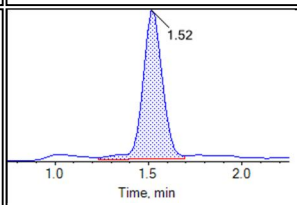
13C6-PFDA



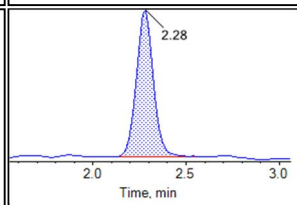
13C7-PFUnA



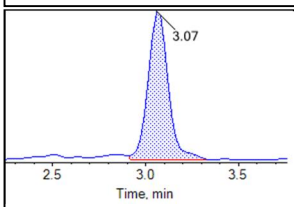
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



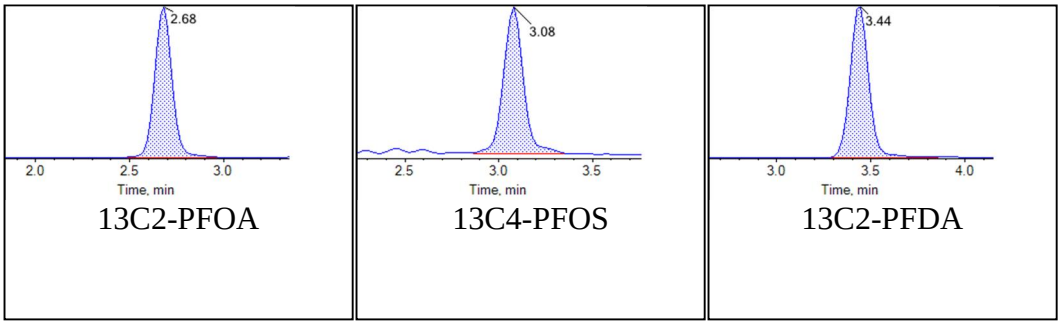
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:05 PM

Internal Standards:



BATTELLE

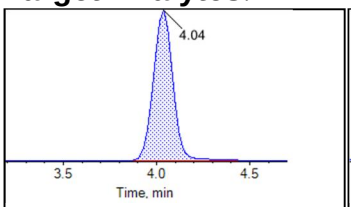
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:10 PM

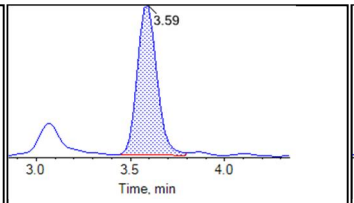
Sample Name	J8396-FS(0)	**Injection Vial**	4
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:05:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

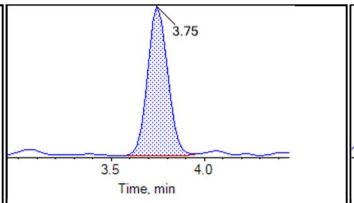
Target Analytes:



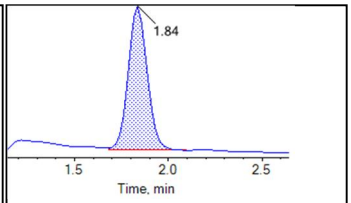
13C2-PFDoA



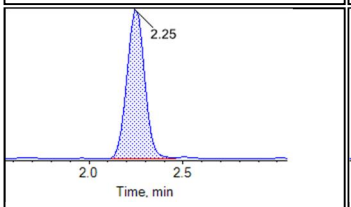
d3-MeFOSAA



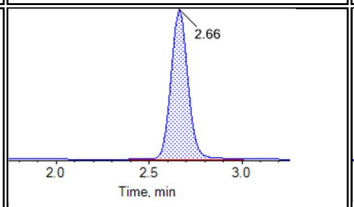
d5-EtFOSAA



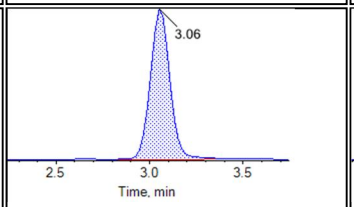
13C5-PFHxA



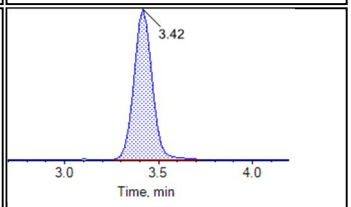
13C4-PFHpA



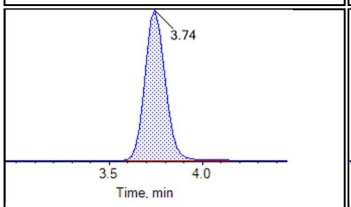
13C8-PFOA



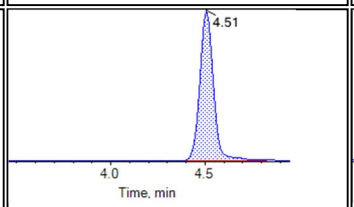
13C9-PFNA



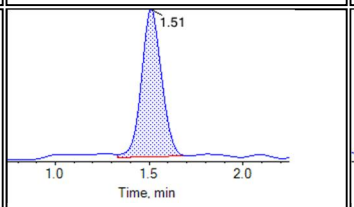
13C6-PFDA



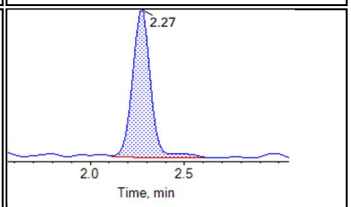
13C7-PFUnA



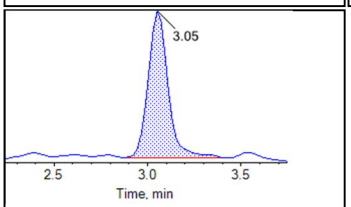
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



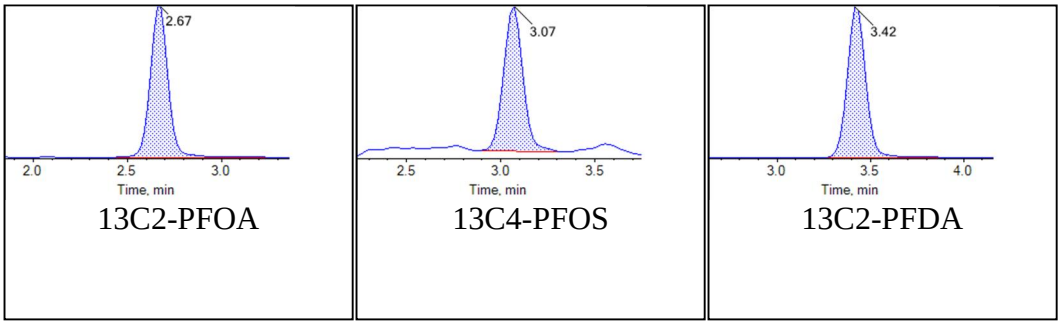
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:10 PM

Internal Standards:



BATTELLE

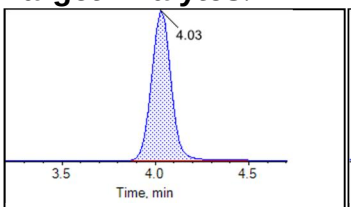
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:15 PM

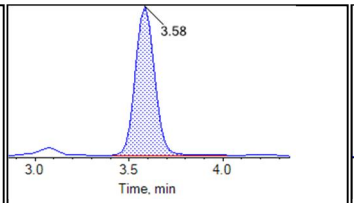
Sample Name	J8396-FS-D(3)	**Injection Vial**	5
Sample ID	VC-HS09-DW02-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:16:45	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

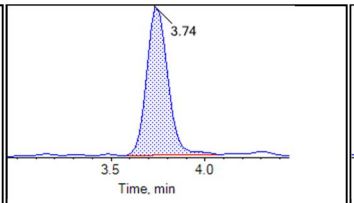
Target Analytes:



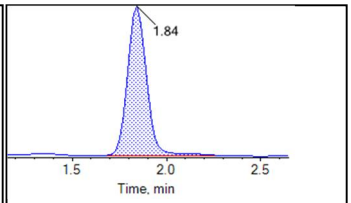
13C2-PFDoA



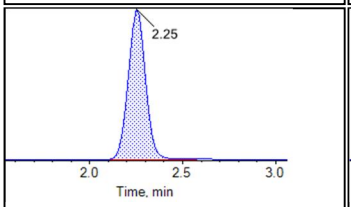
d3-MeFOSAA



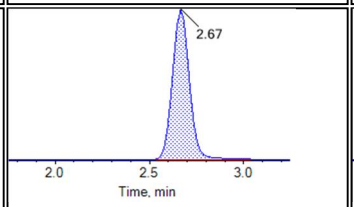
d5-EtFOSAA



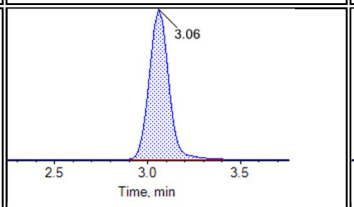
13C5-PFHxA



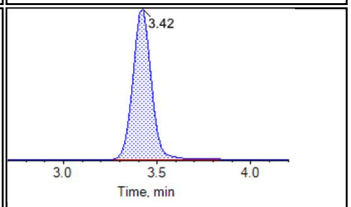
13C4-PFHpA



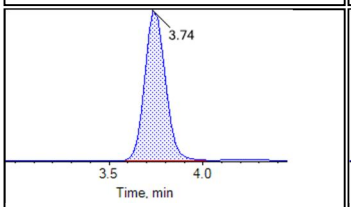
13C8-PFOA



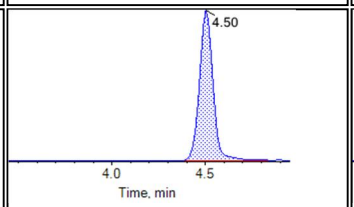
13C9-PFNA



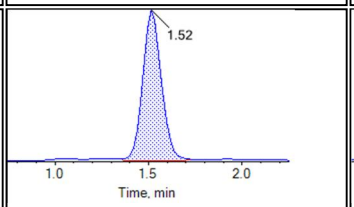
13C6-PFDA



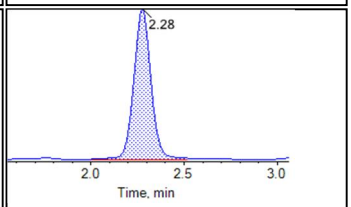
13C7-PFUnA



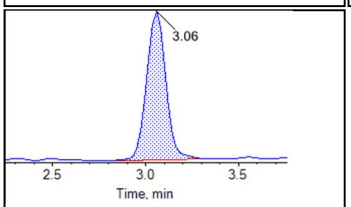
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



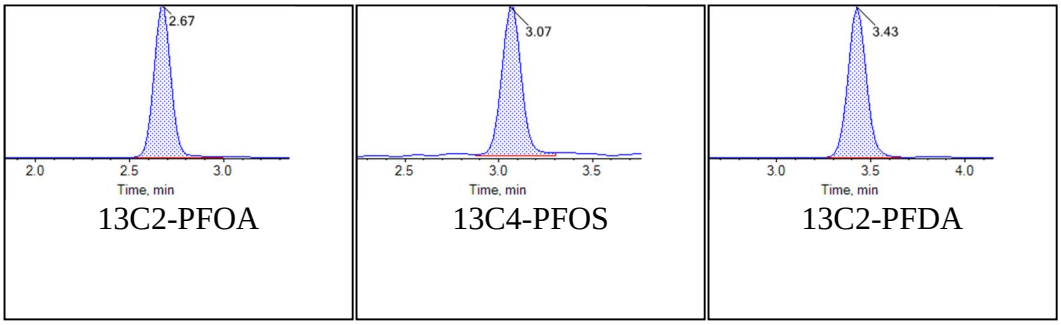
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:15 PM

Internal Standards:



BATTELLE

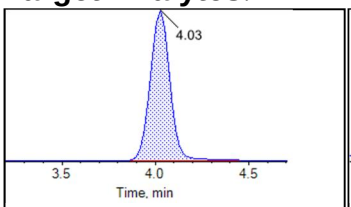
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:20 PM

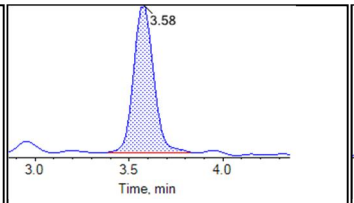
Sample Name	J8397-FS(0)	**Injection Vial**	6
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:27:37	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

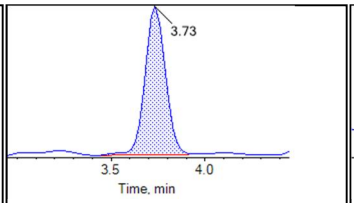
Target Analytes:



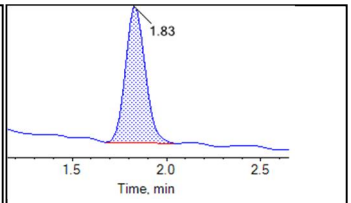
13C2-PFDoA



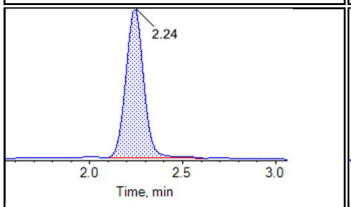
d3-MeFOSAA



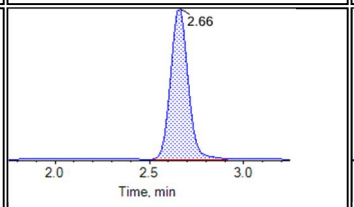
d5-EtFOSAA



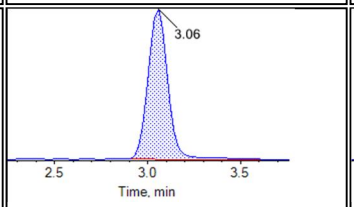
13C5-PFHxA



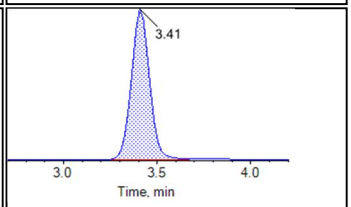
13C4-PFHpA



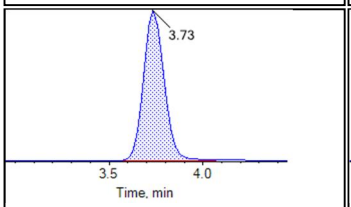
13C8-PFOA



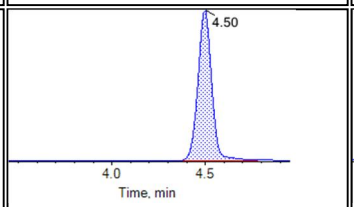
13C9-PFNA



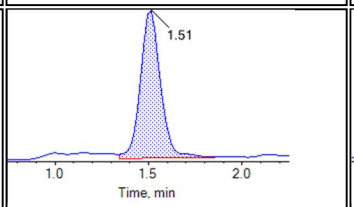
13C6-PFDA



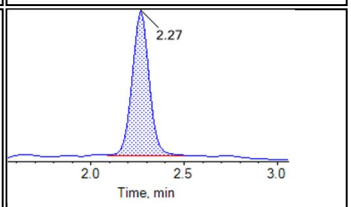
13C7-PFUnA



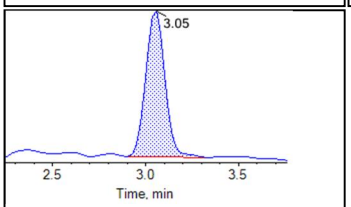
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



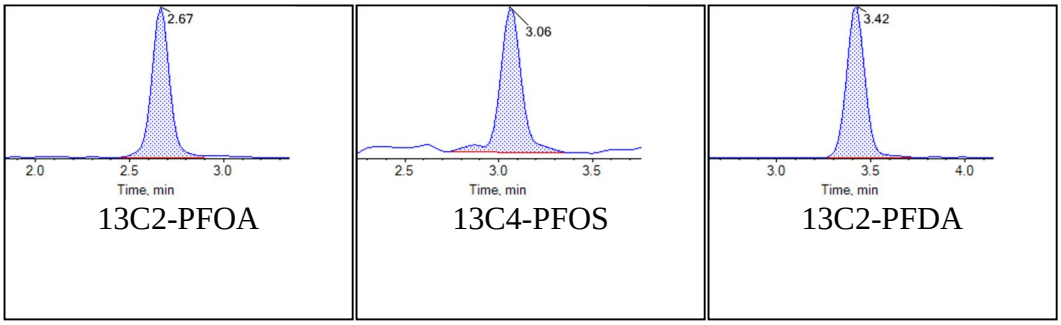
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:20 PM

Internal Standards:



BATTELLE

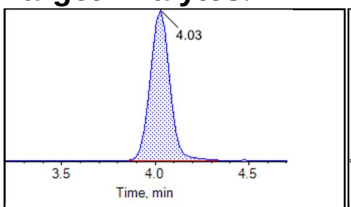
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:24 PM

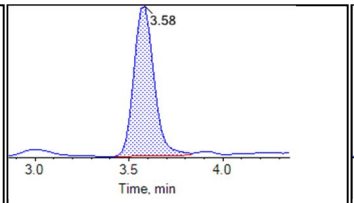
Sample Name	J8397-FS-D(3)	**Injection Vial**	7
Sample ID	VC-HS09-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:38:29	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

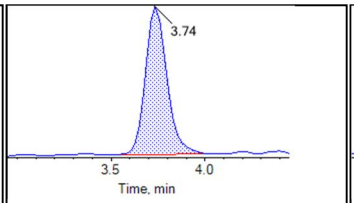
Target Analytes:



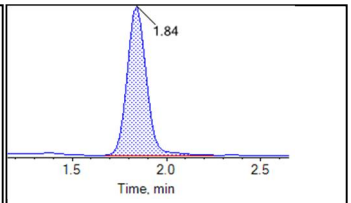
13C2-PFDoA



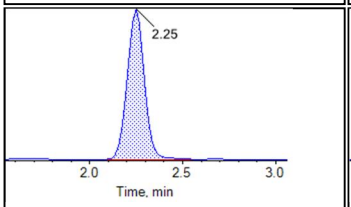
d3-MeFOSAA



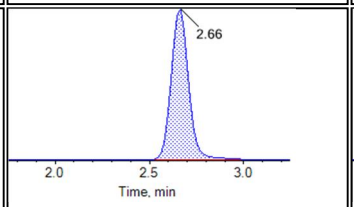
d5-EtFOSAA



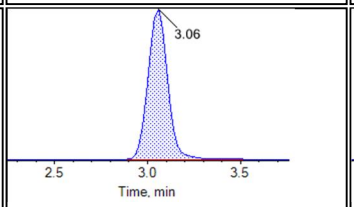
13C5-PFHxA



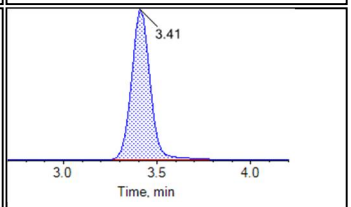
13C4-PFHpA



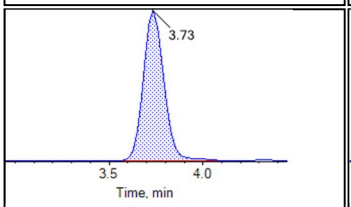
13C8-PFOA



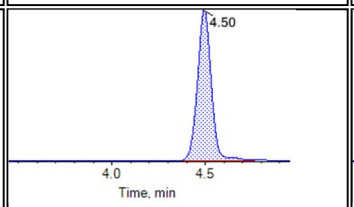
13C9-PFNA



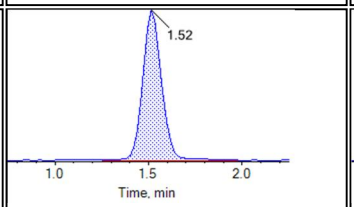
13C6-PFDA



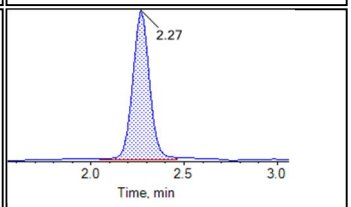
13C7-PFUnA



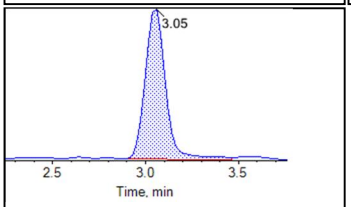
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



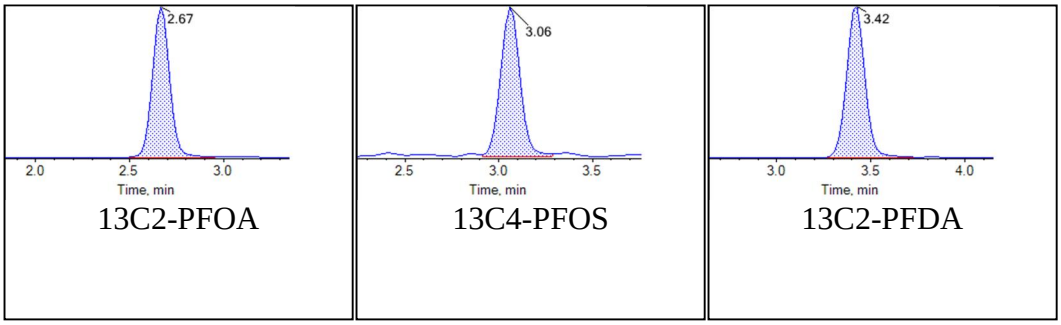
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:24 PM

Internal Standards:



BATTELLE

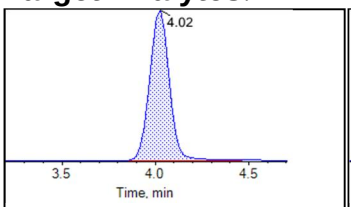
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:28 PM

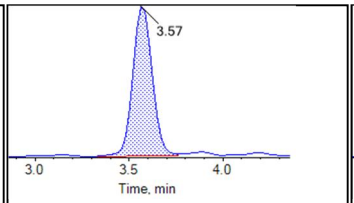
Sample Name	J8398-FS(0)	**Injection Vial**	8
Sample ID	VC-AQ-FB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T09:49:21	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

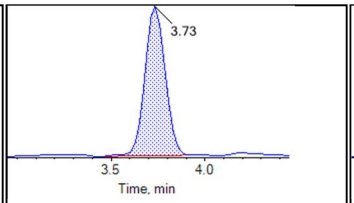
Target Analytes:



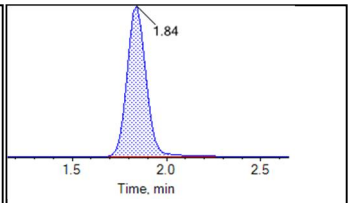
13C2-PFDoA



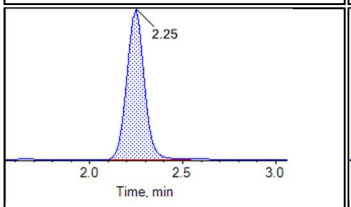
d3-MeFOSAA



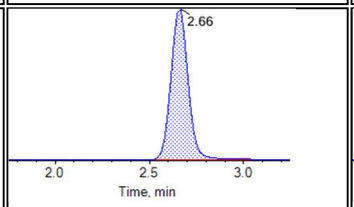
d5-EtFOSAA



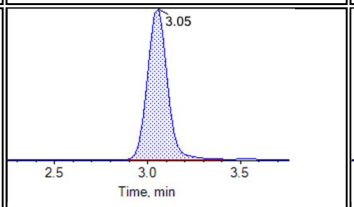
13C5-PFHxA



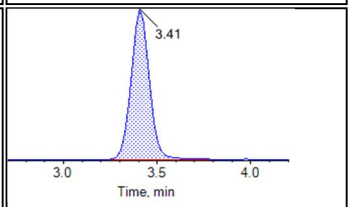
13C4-PFHpA



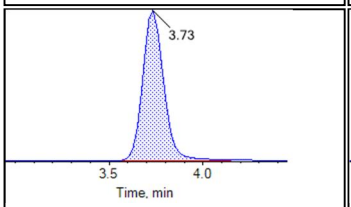
13C8-PFOA



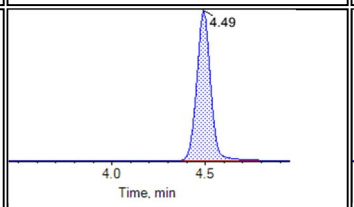
13C9-PFNA



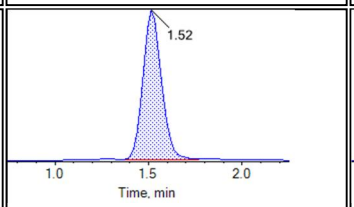
13C6-PFDA



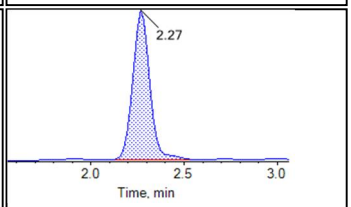
13C7-PFUnA



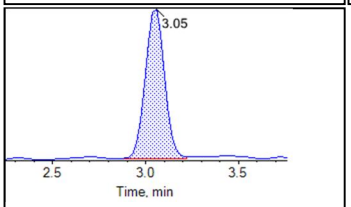
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



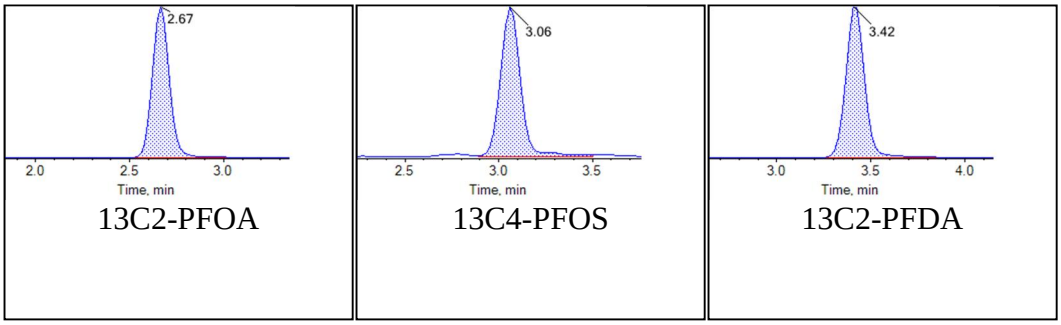
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:28 PM

Internal Standards:



BATTELLE

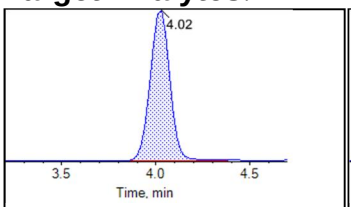
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:33 PM

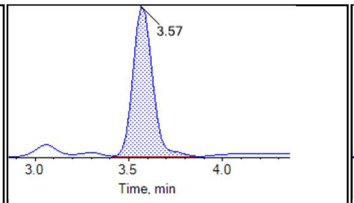
Sample Name	KB76 CCV	**Injection Vial**	9
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:00:12	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

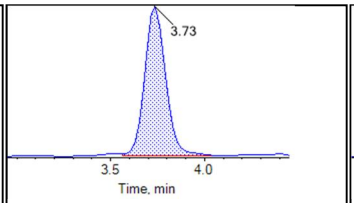
Target Analytes:



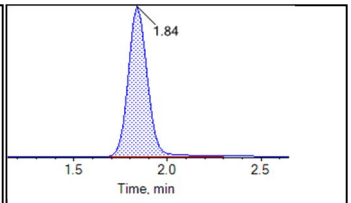
13C2-PFDoA



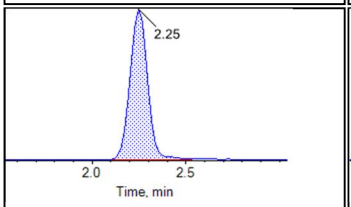
d3-MeFOSAA



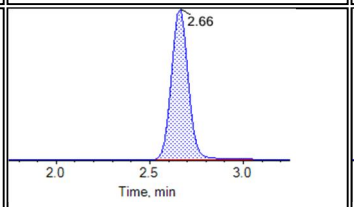
d5-EtFOSAA



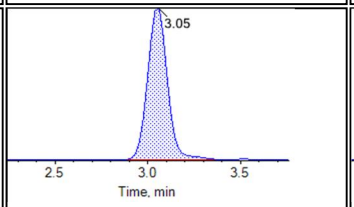
13C5-PFHxA



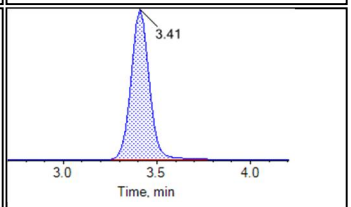
13C4-PFHpA



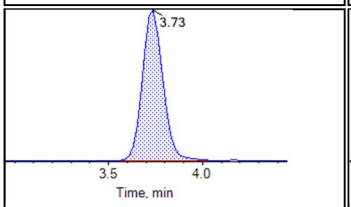
13C8-PFOA



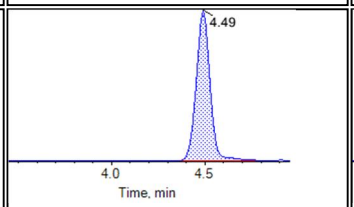
13C9-PFNA



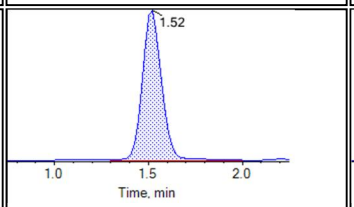
13C6-PFDA



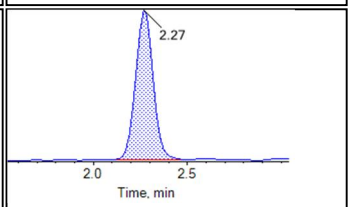
13C7-PFUnA



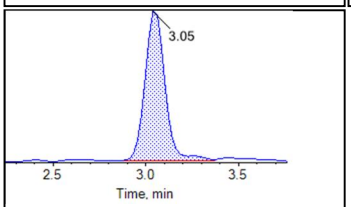
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



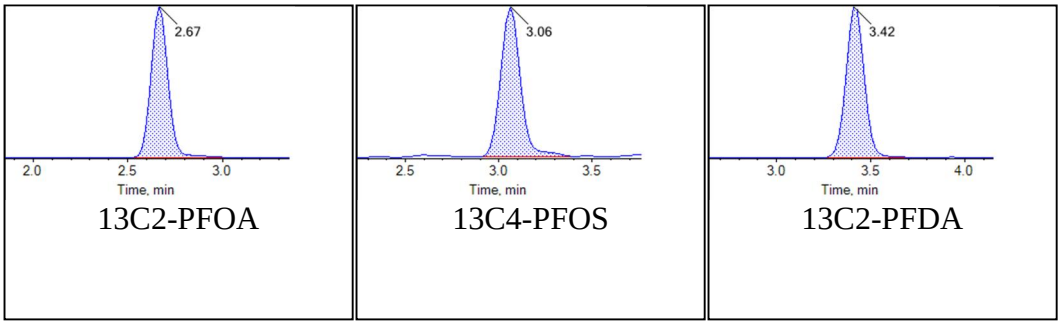
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:33 PM

Internal Standards:



BATTELLE

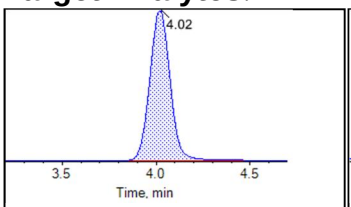
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:41 PM

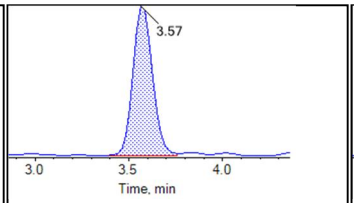
Sample Name	J8399-FS(0)	**Injection Vial**	11
Sample ID	VC-AQ-EB-092518	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:21:57	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

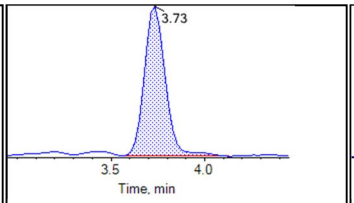
Target Analytes:



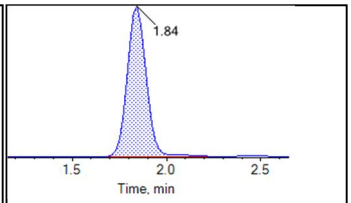
13C2-PFDoA



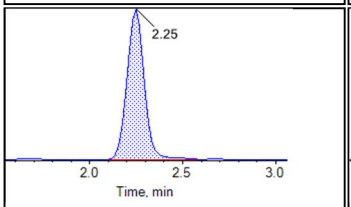
d3-MeFOSAA



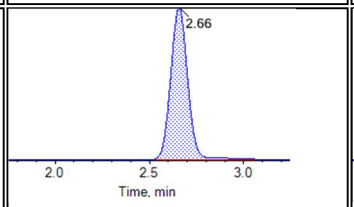
d5-EtFOSAA



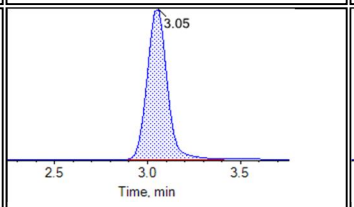
13C5-PFHxA



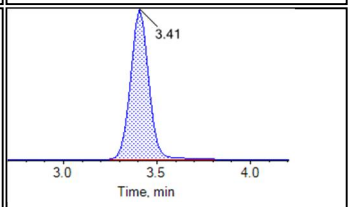
13C4-PFHpA



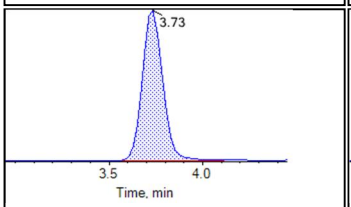
13C8-PFOA



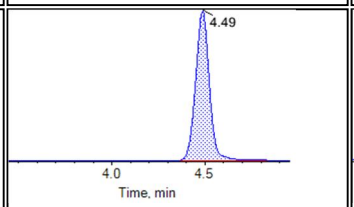
13C9-PFNA



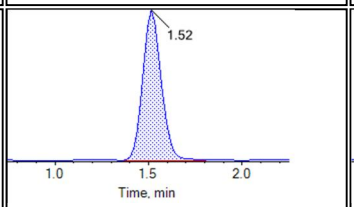
13C6-PFDA



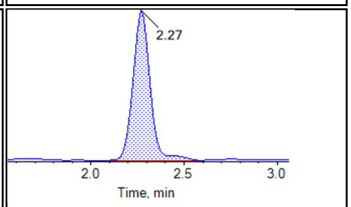
13C7-PFUnA



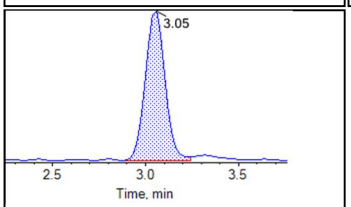
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



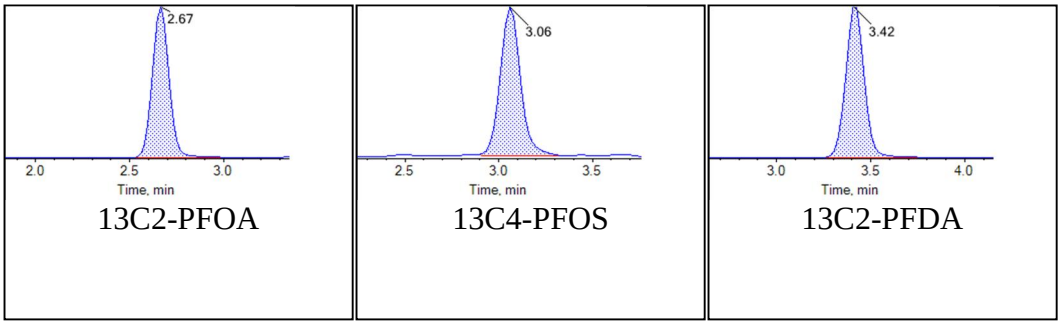
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:41 PM

Internal Standards:



BATTELLE

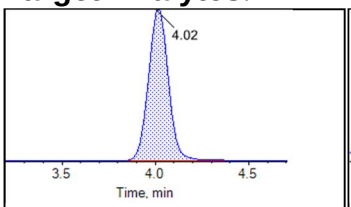
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:45 PM

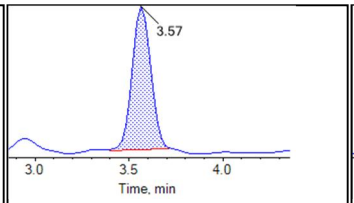
Sample Name	J8400-FS(0)	**Injection Vial**	12
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:32:49	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

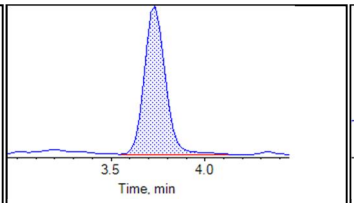
Target Analytes:



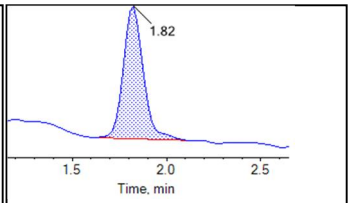
13C2-PFDoA



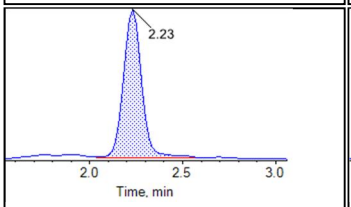
d3-MeFOSAA



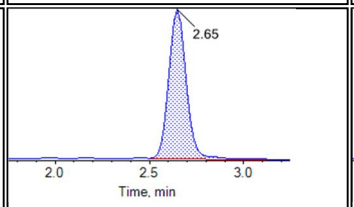
d5-EtFOSAA



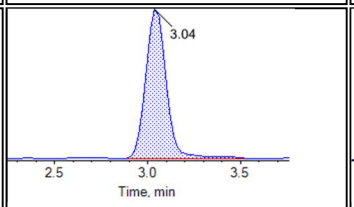
13C5-PFHxA



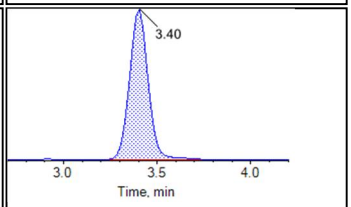
13C4-PFHpA



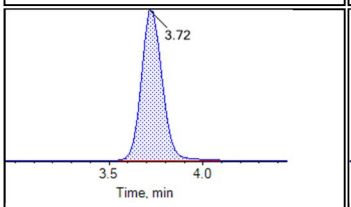
13C8-PFOA



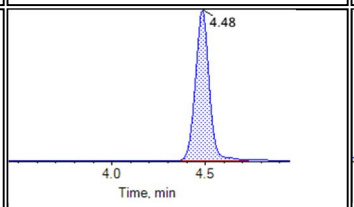
13C9-PFNA



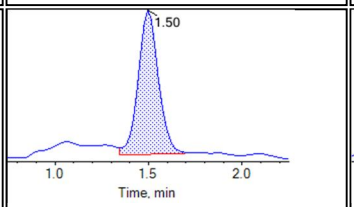
13C6-PFDA



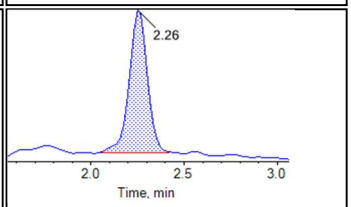
13C7-PFUnA



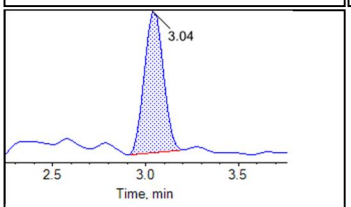
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



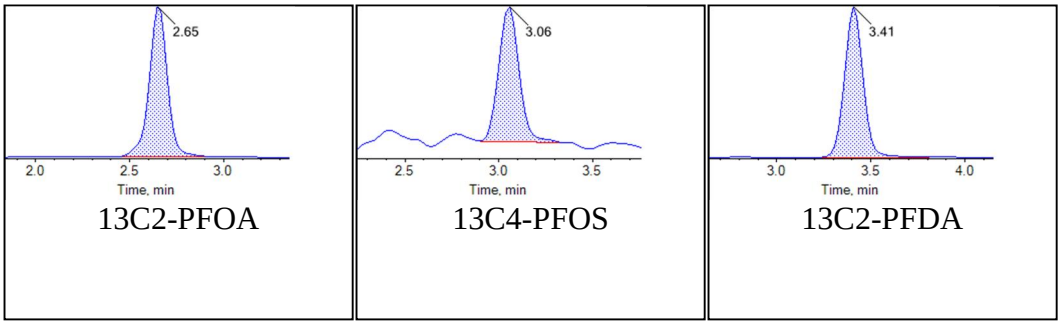
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:45 PM

Internal Standards:



BATTELLE

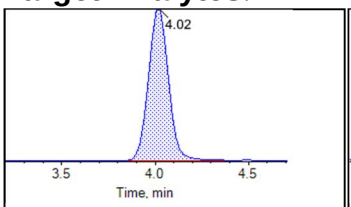
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:50 PM

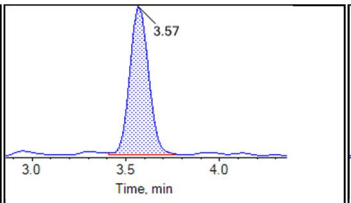
Sample Name	J8400-FS-D(3)	**Injection Vial**	13
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:43:40	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

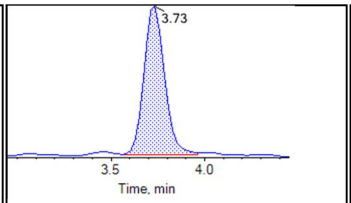
Target Analytes:



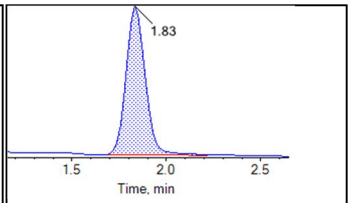
13C2-PFDoA



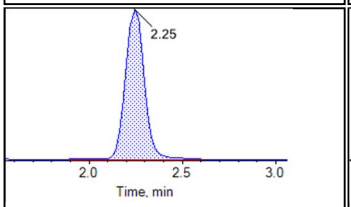
d3-MeFOSAA



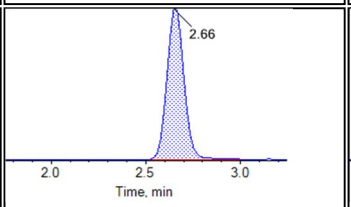
d5-EtFOSAA



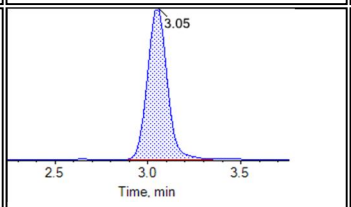
13C5-PFHxA



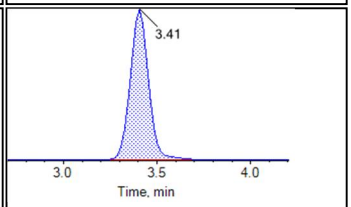
13C4-PFHpA



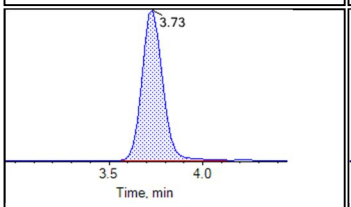
13C8-PFOA



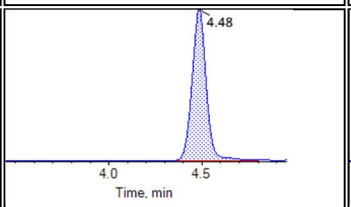
13C9-PFNA



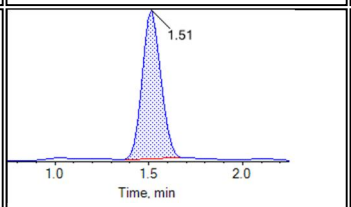
13C6-PFDA



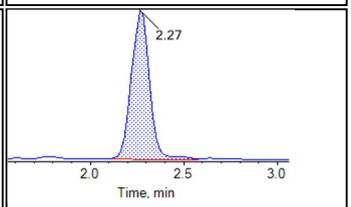
13C7-PFUnA



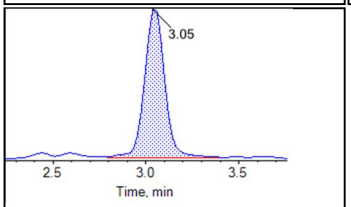
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



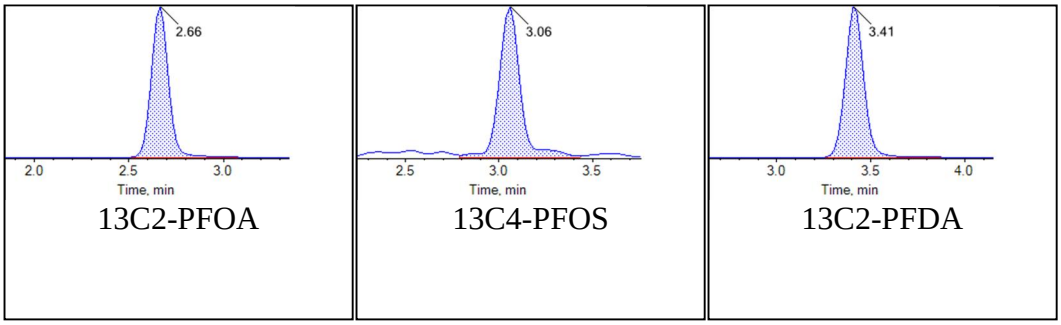
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:50 PM

Internal Standards:



BATTELLE

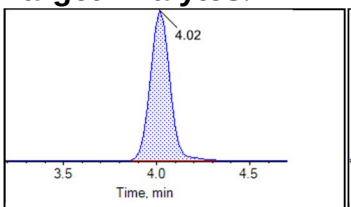
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:54 PM

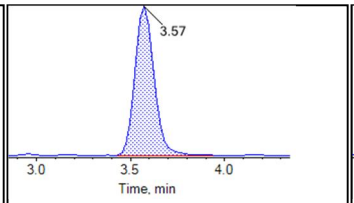
Sample Name	J8400-FS-D(5)	**Injection Vial**	14
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T10:54:32	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

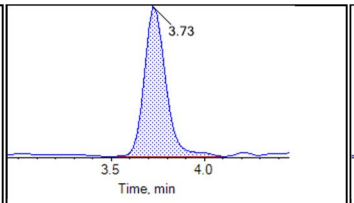
Target Analytes:



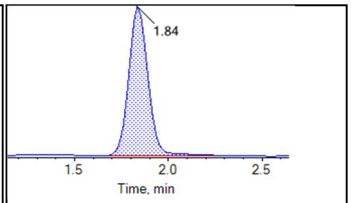
13C2-PFDoA



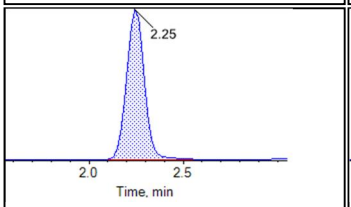
d3-MeFOSAA



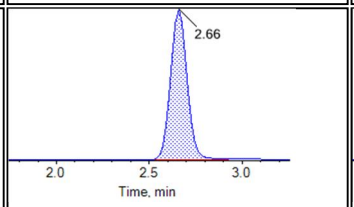
d5-EtFOSAA



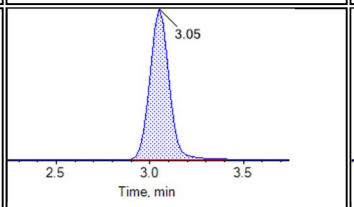
13C5-PFHxA



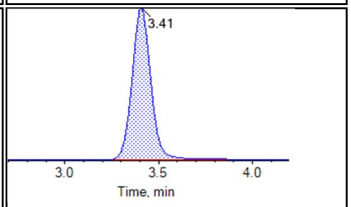
13C4-PFHpA



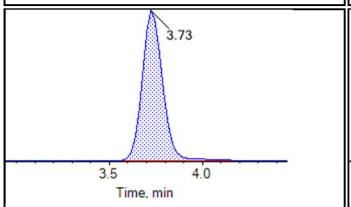
13C8-PFOA



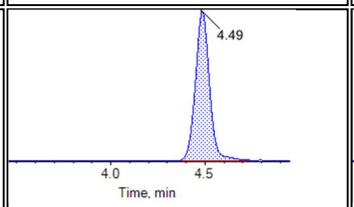
13C9-PFNA



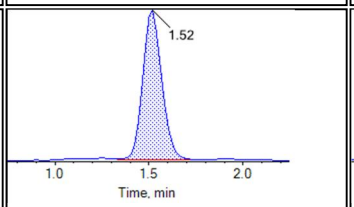
13C6-PFDA



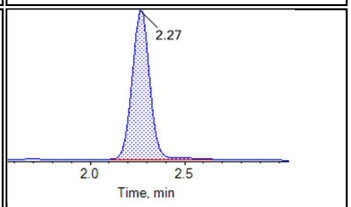
13C7-PFUnA



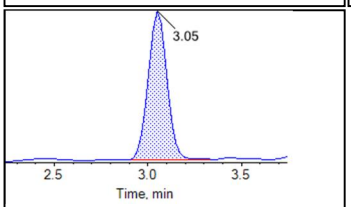
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



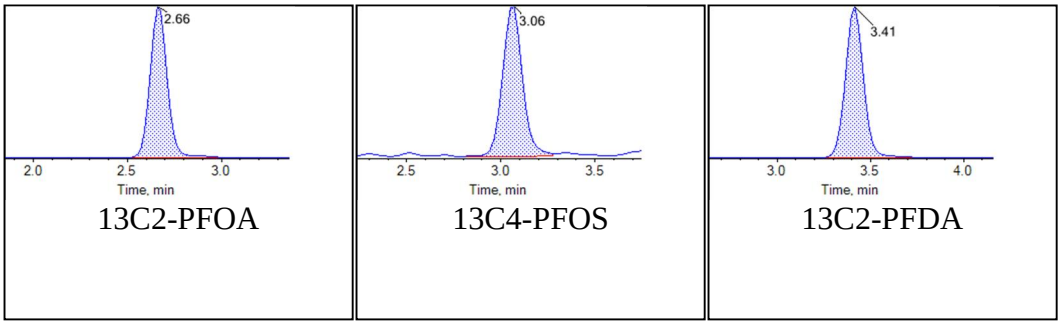
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:54 PM

Internal Standards:



BATTELLE

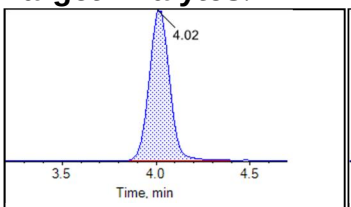
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:58 PM

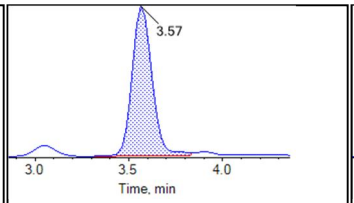
Sample Name	KB77 CCV	**Injection Vial**	15
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T11:05:24	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

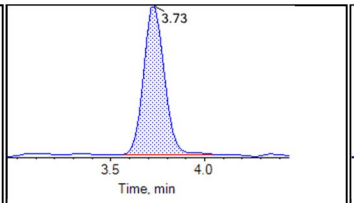
Target Analytes:



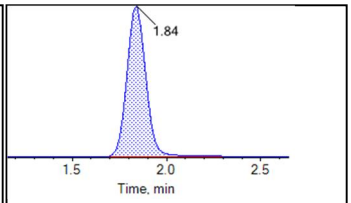
13C2-PFDoA



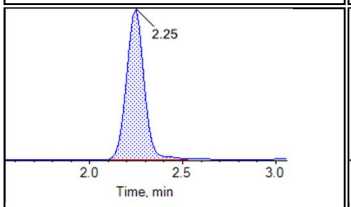
d3-MeFOSAA



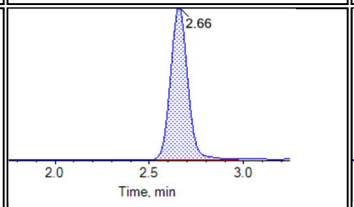
d5-EtFOSAA



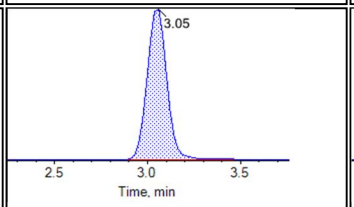
13C5-PFHxA



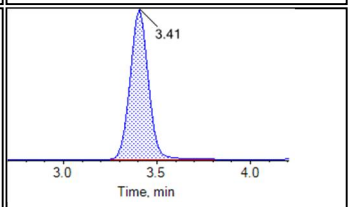
13C4-PFHpA



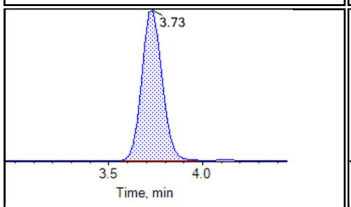
13C8-PFOA



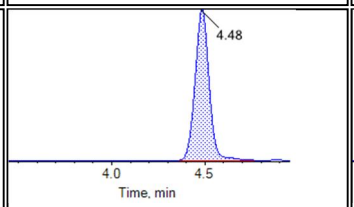
13C9-PFNA



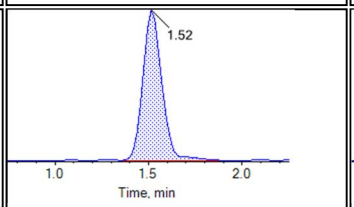
13C6-PFDA



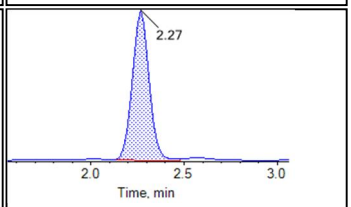
13C7-PFUnA



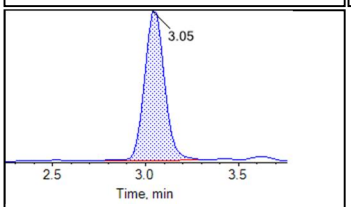
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



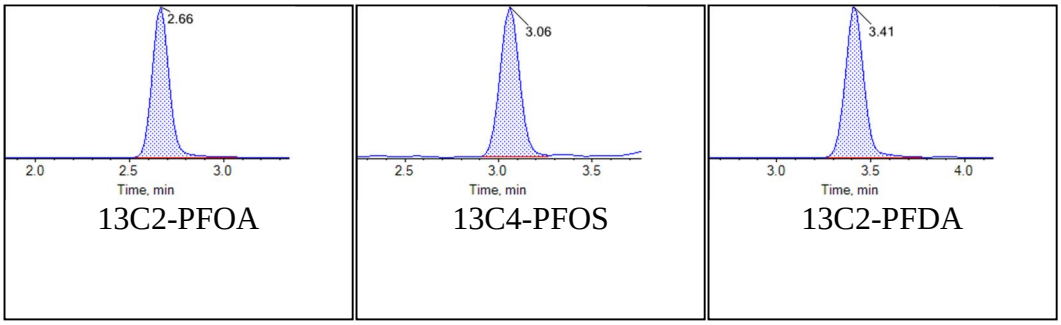
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:09:58 PM

Internal Standards:



BATTELLE

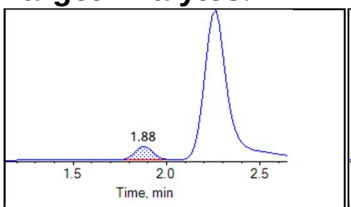
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:51:14 PM

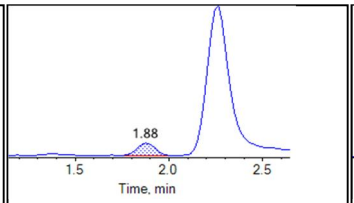
Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T17:53:40	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

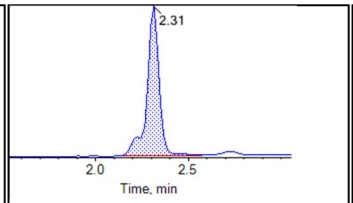
Target Analytes:



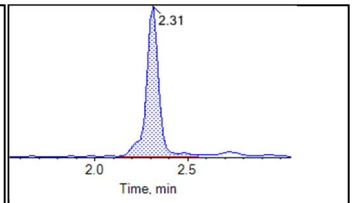
PFHxA_1



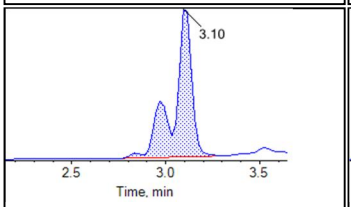
PFHxA_2



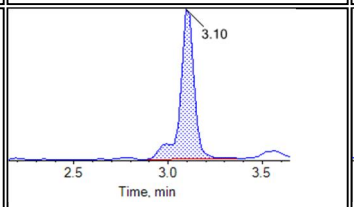
PFHxS_1



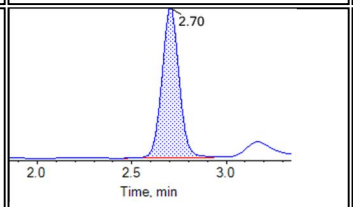
PFHxS_2



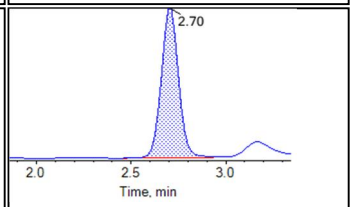
PFOS_1



PFOS_2

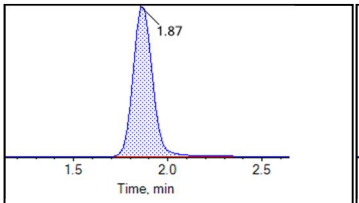


PFOA_1

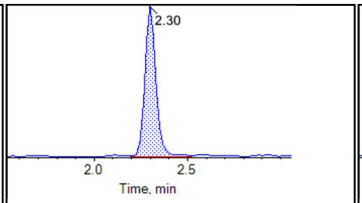


PFOA_2

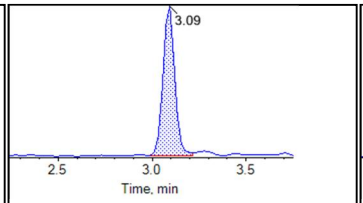
Internal Standards:



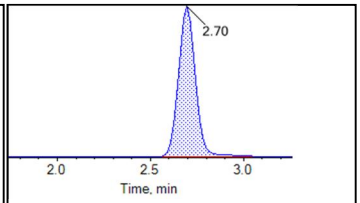
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

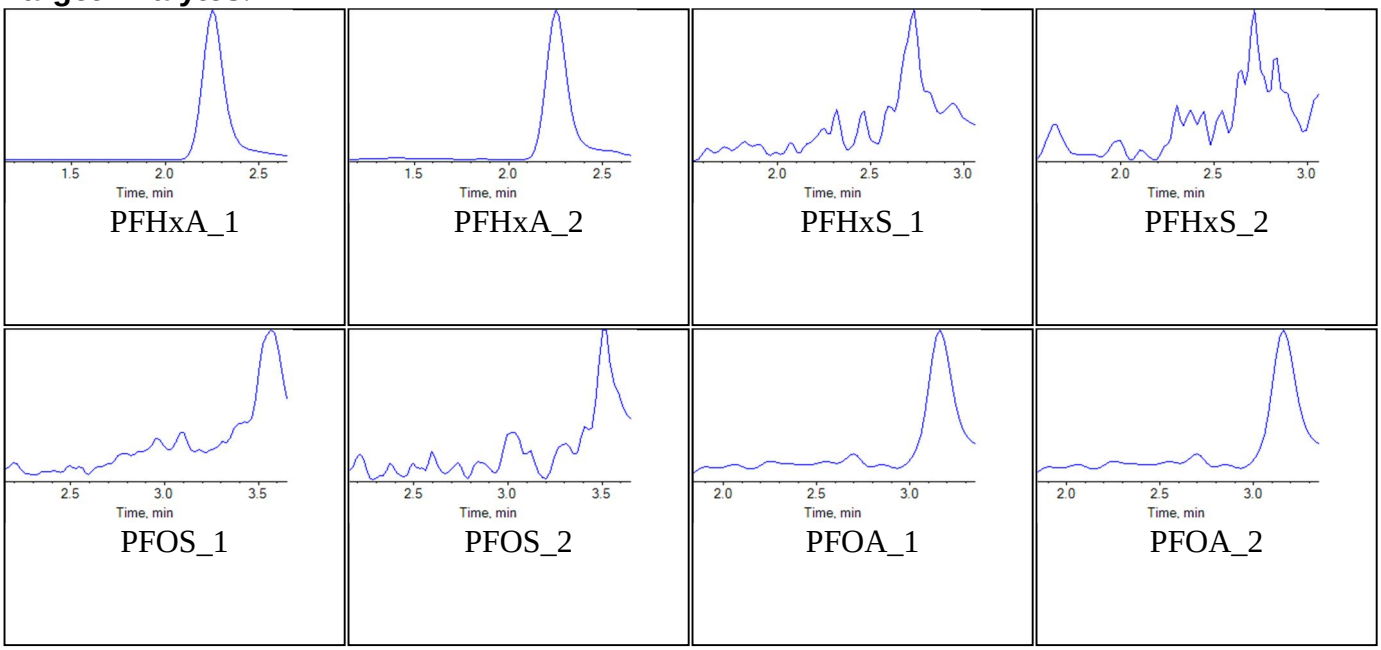
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:51:19 PM

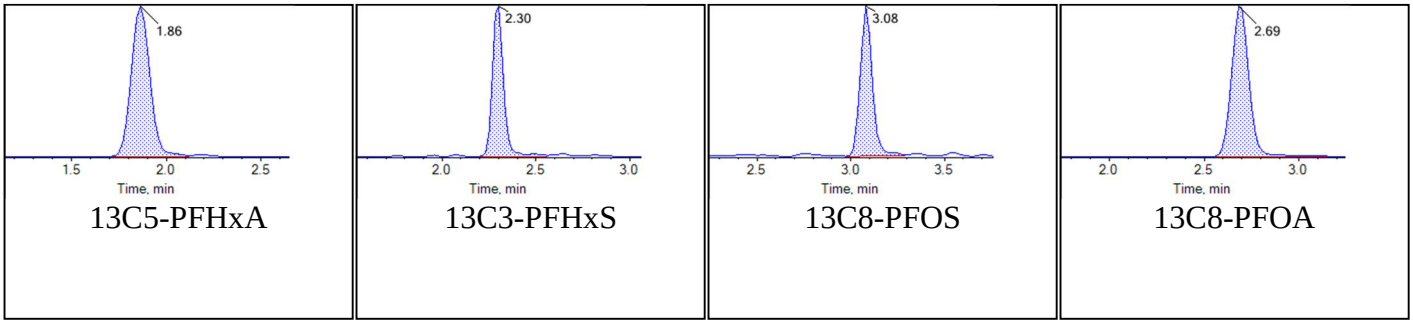
Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:04:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

Target Analytes:



Internal Standards:



BATTELLE

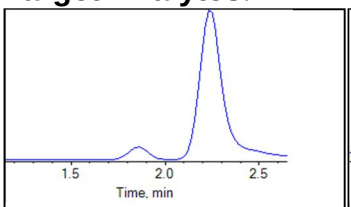
Chromatogram Report

Created with Analyst Reporter
Printed: 26/10/2018 11:08:08 AM

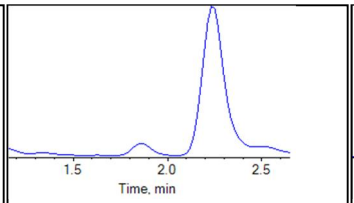
Sample Name	J8369-FS-D(3)	**Injection Vial**	5
Sample ID	VC-SO-EB05-092418	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:37:10	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

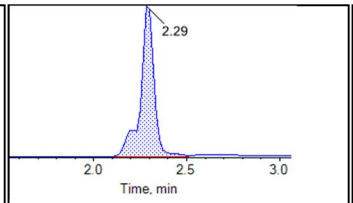
Target Analytes:



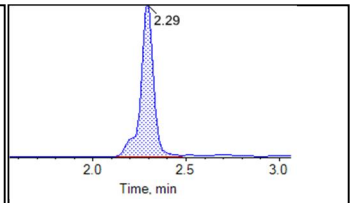
PFHxA_1



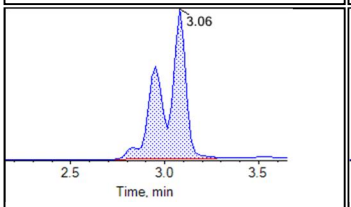
PFHxA_2



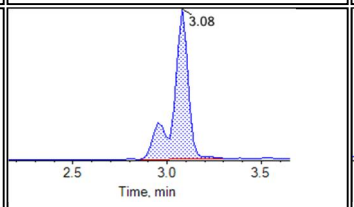
PFHxS_1



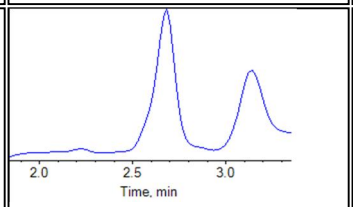
PFHxS_2



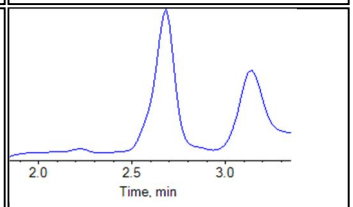
PFOS_1



PFOS_2

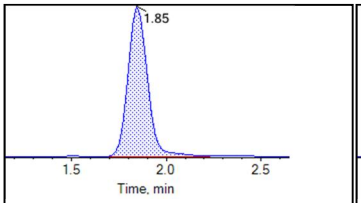


PFOA_1

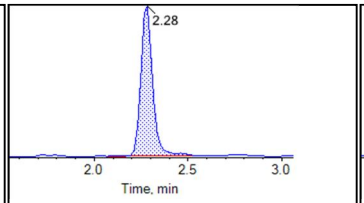


PFOA_2

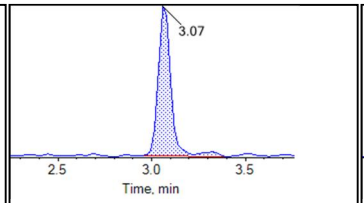
Internal Standards:



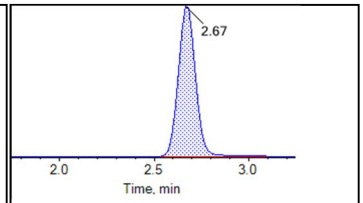
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

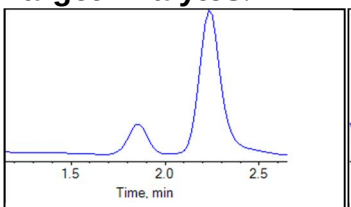
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:51:29 PM

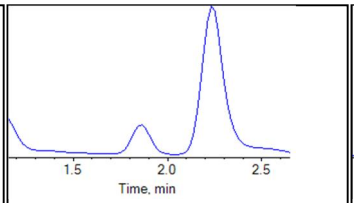
Sample Name	J8395-FS-D(5)	**Injection Vial**	6
Sample ID	VC-HS09-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:48:02	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

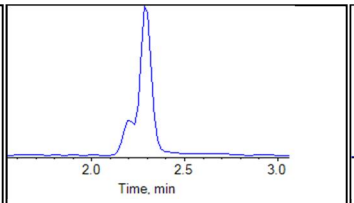
Target Analytes:



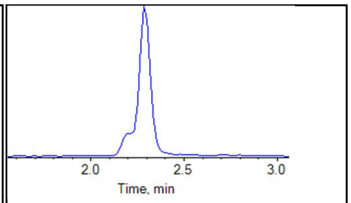
PFHxA_1



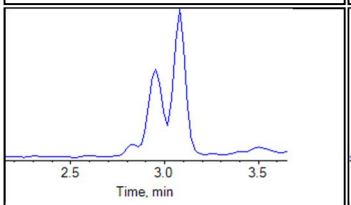
PFHxA_2



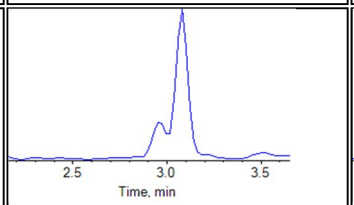
PFHxS_1



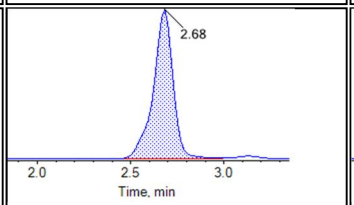
PFHxS_2



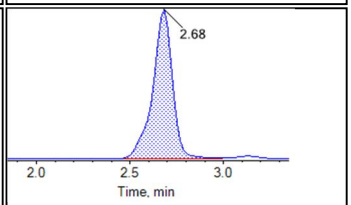
PFOS_1



PFOS_2

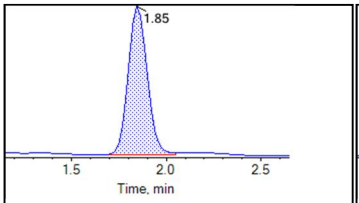


PFOA_1

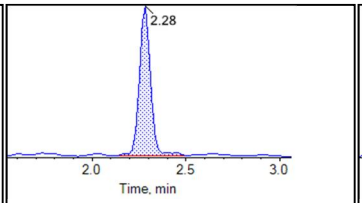


PFOA_2

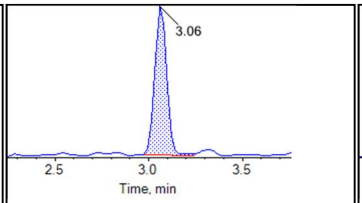
Internal Standards:



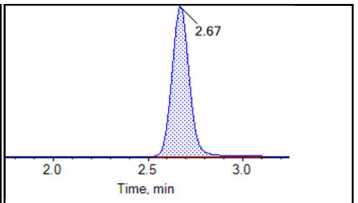
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

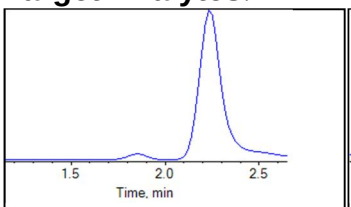
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:51:34 PM

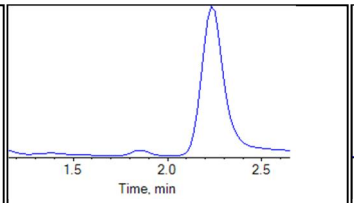
Sample Name	J8400-FS-D(7)	**Injection Vial**	7
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:58:54	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

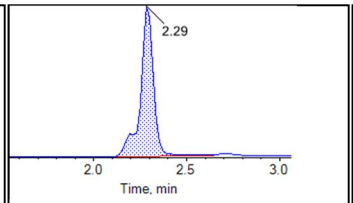
Target Analytes:



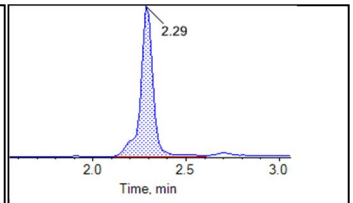
PFHxA_1



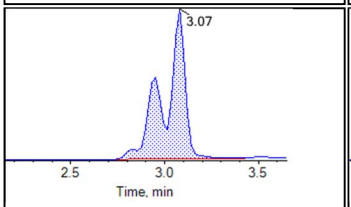
PFHxA_2



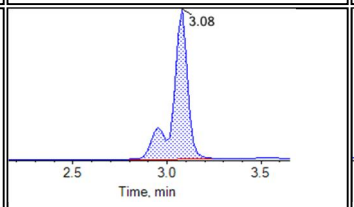
PFHxS_1



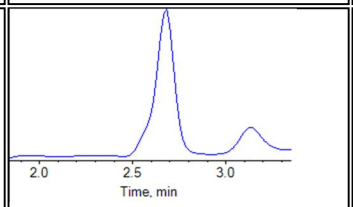
PFHxS_2



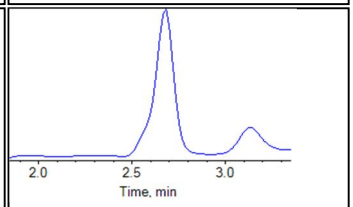
PFOS_1



PFOS_2

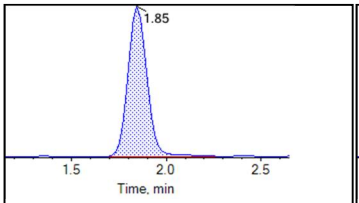


PFOA_1

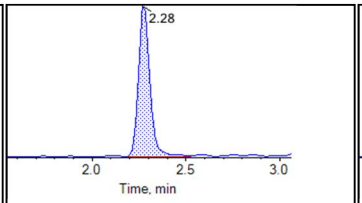


PFOA_2

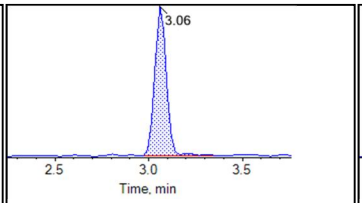
Internal Standards:



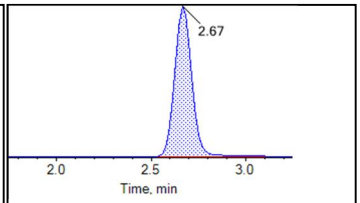
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

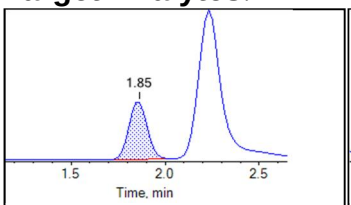
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:51:39 PM

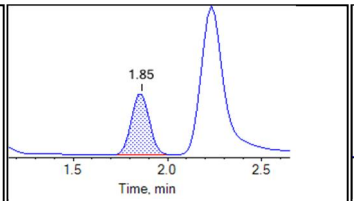
Sample Name	KB77 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:04:05	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

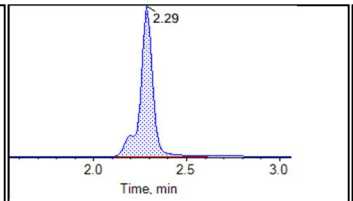
Target Analytes:



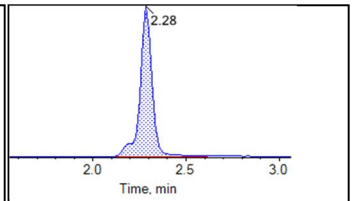
PFHxA_1



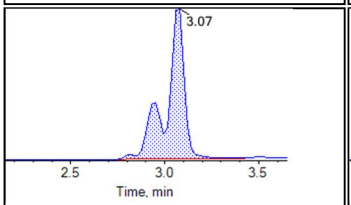
PFHxA_2



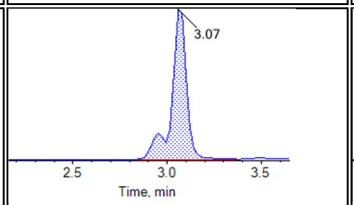
PFHxS_1



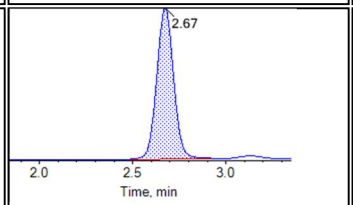
PFHxS_2



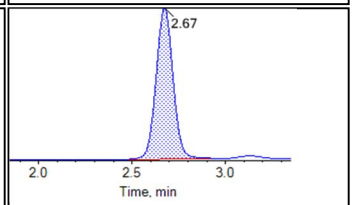
PFOS_1



PFOS_2

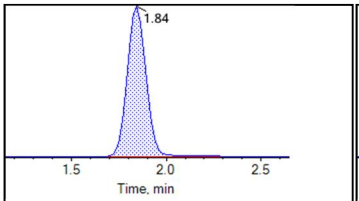


PFOA_1

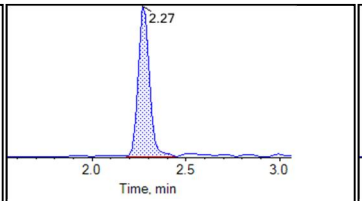


PFOA_2

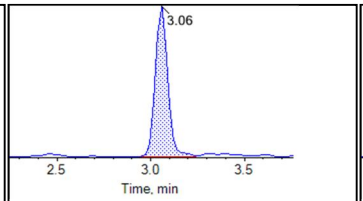
Internal Standards:



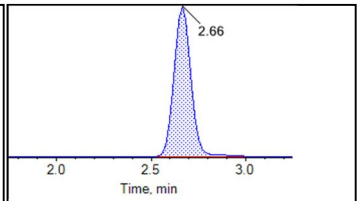
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

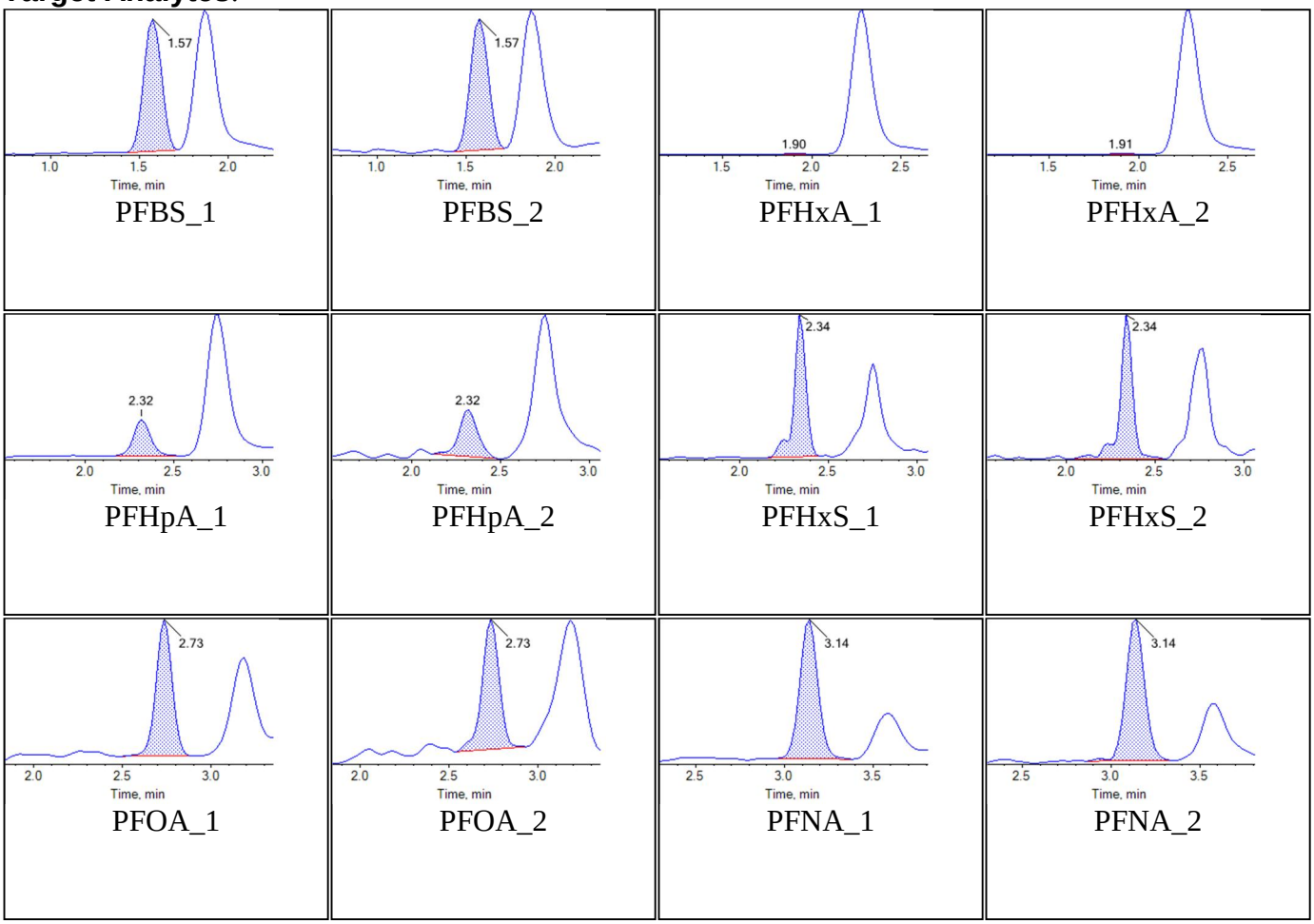
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:40 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

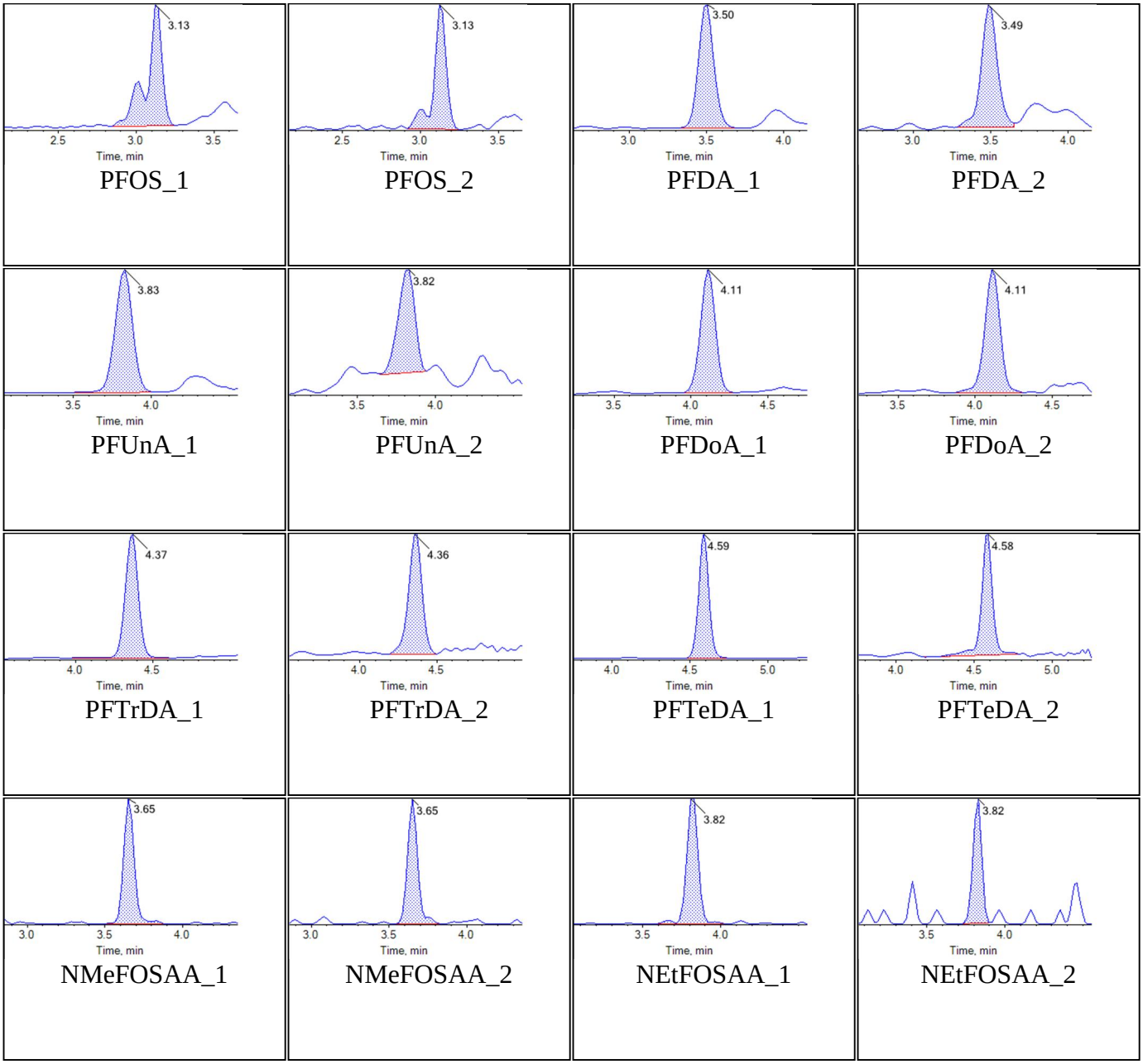
Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:40 PM

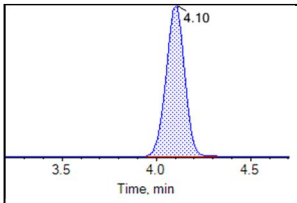


Internal Standards:

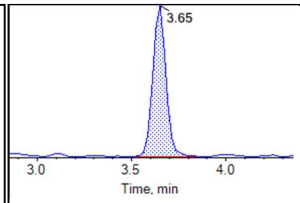
BATTELLE

Chromatogram Report

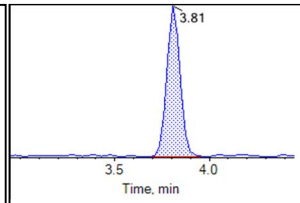
Created with Analyst Reporter
Printed: 23/10/2018 5:26:40 PM



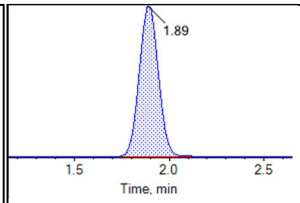
13C2-PFDoA



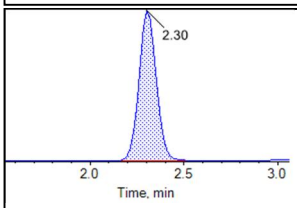
d3-MeFOSAA



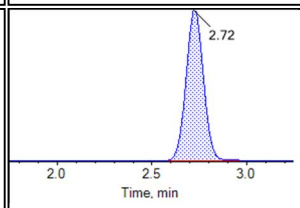
d5-EtFOSAA



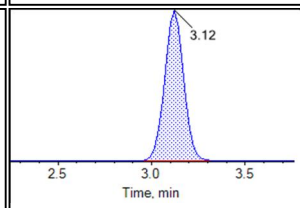
13C5-PFHxA



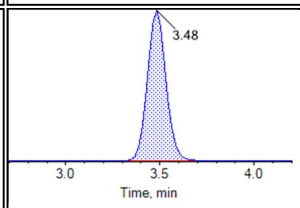
13C4-PFHpA



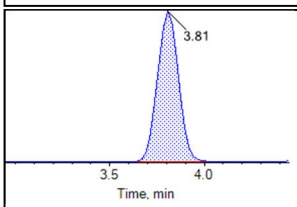
13C8-PFOA



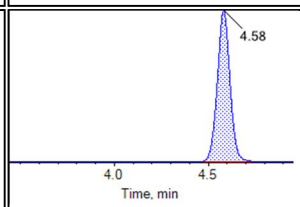
13C9-PFNA



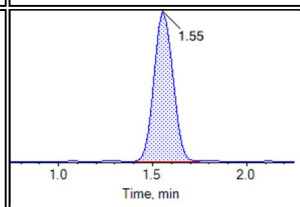
13C6-PFDA



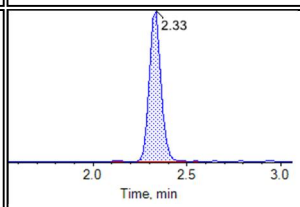
13C7-PFUnA



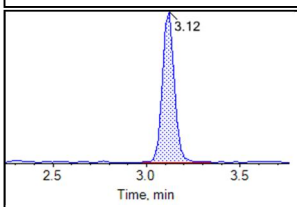
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

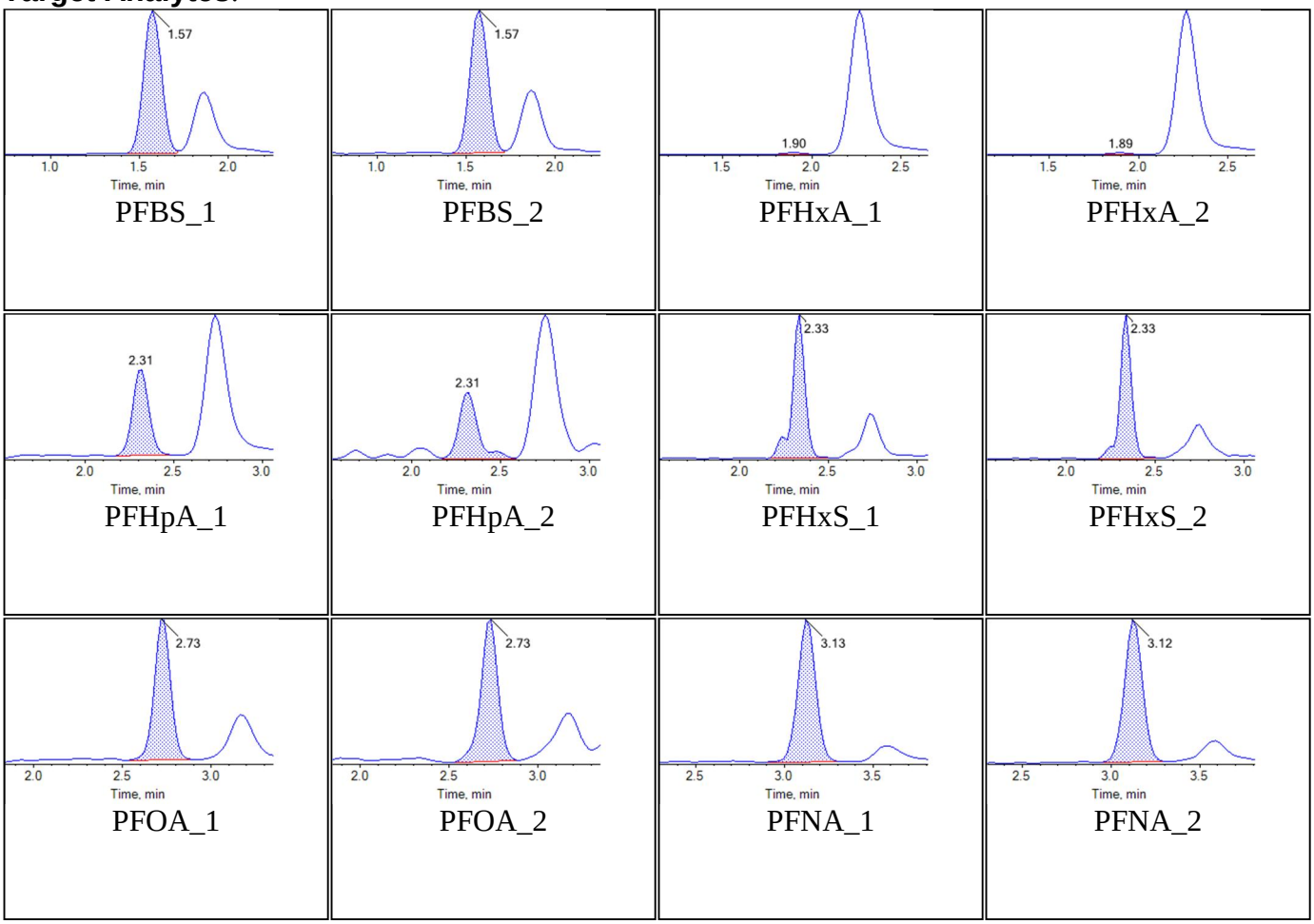
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:44 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

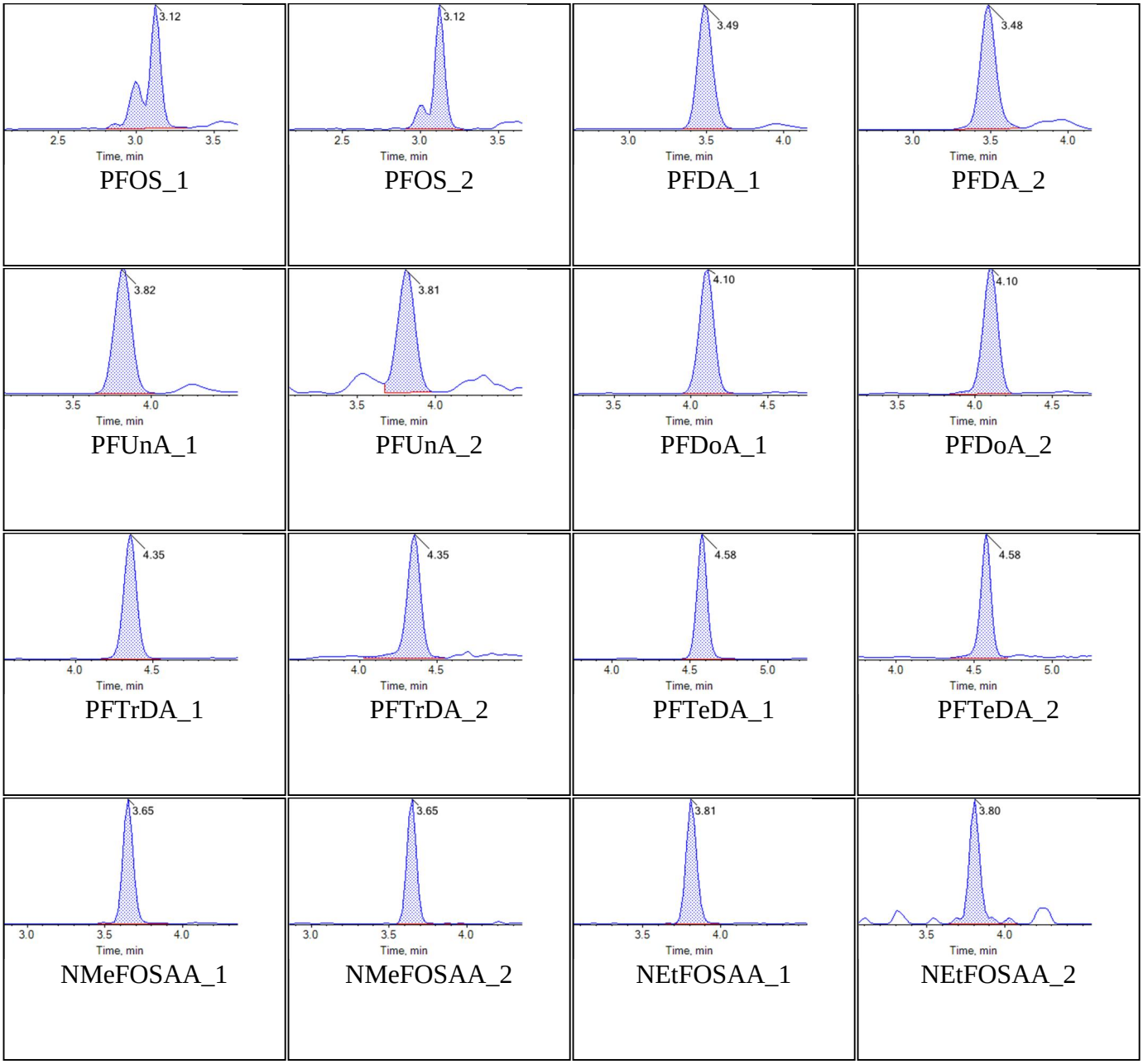
Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:44 PM

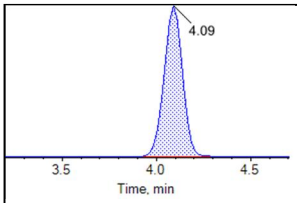


Internal Standards:

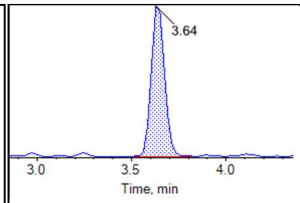
BATTELLE

Chromatogram Report

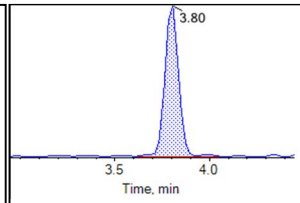
Created with Analyst Reporter
Printed: 23/10/2018 5:26:44 PM



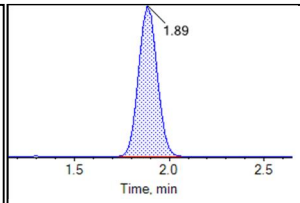
13C2-PFDoA



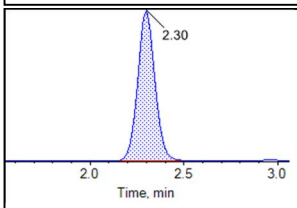
d3-MeFOSAA



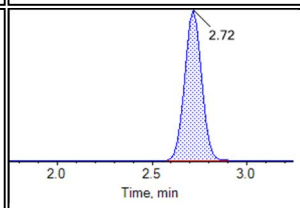
d5-EtFOSAA



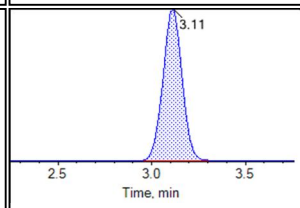
13C5-PFHxA



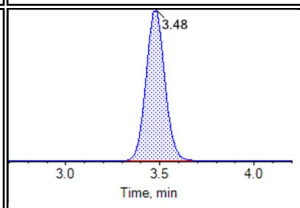
13C4-PFHpA



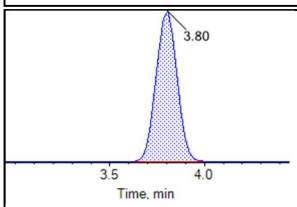
13C8-PFOA



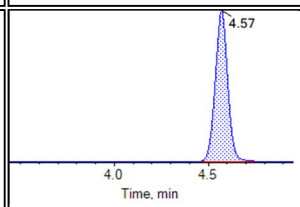
13C9-PFNA



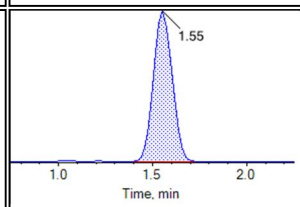
13C6-PFDA



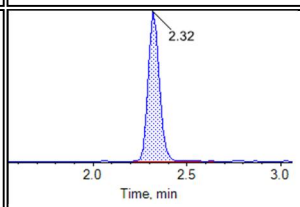
13C7-PFUnA



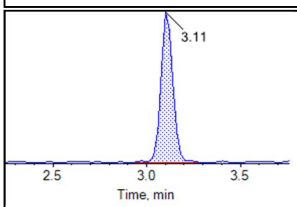
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

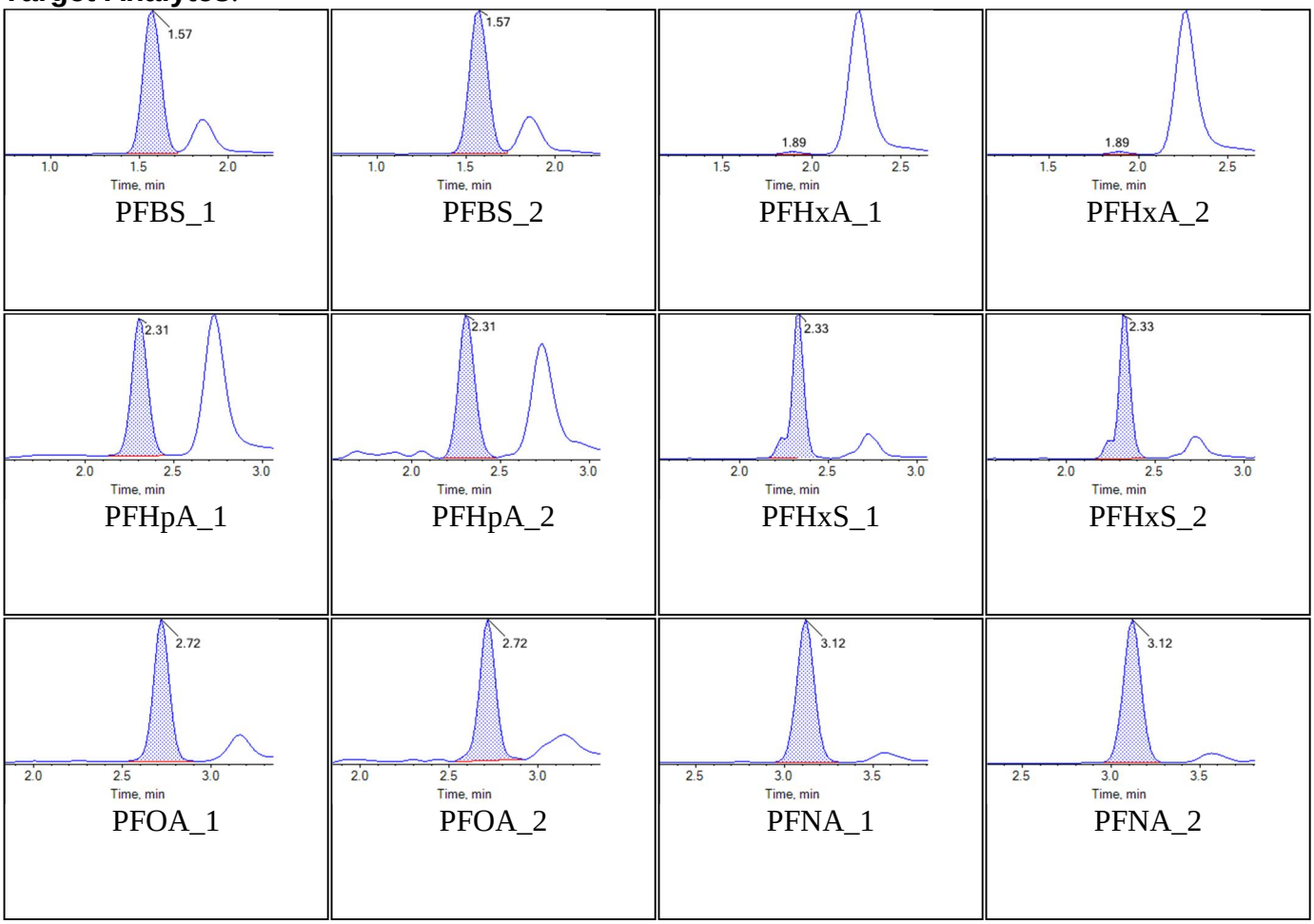
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:49 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

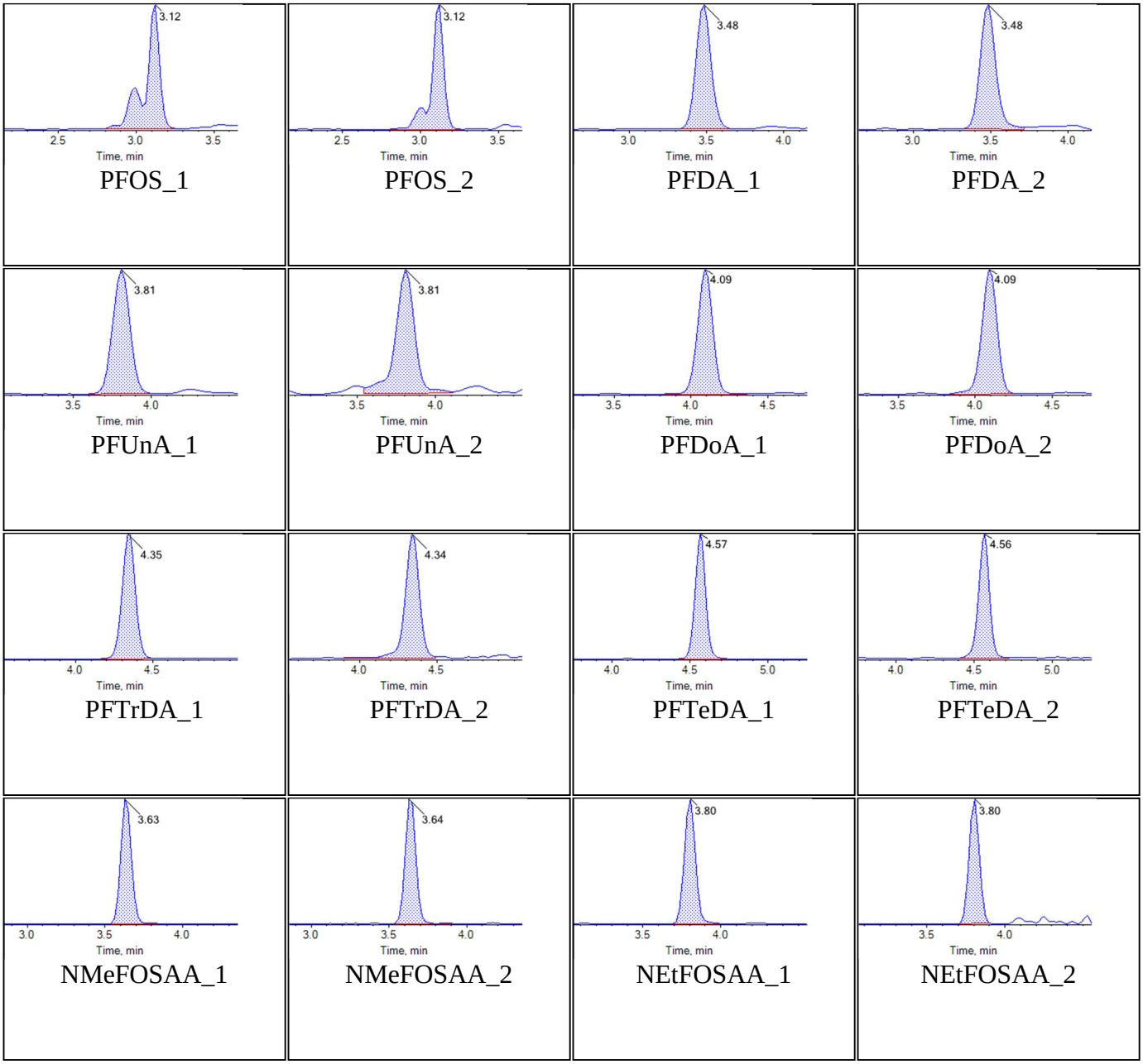
Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:49 PM

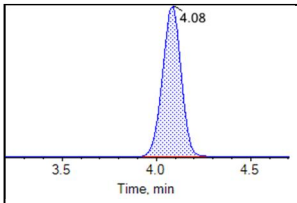


Internal Standards:

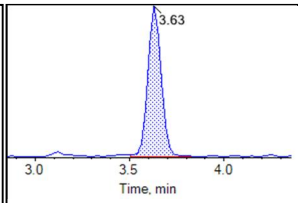
BATTELLE

Chromatogram Report

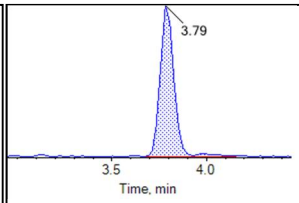
Created with Analyst Reporter
Printed: 23/10/2018 5:26:49 PM



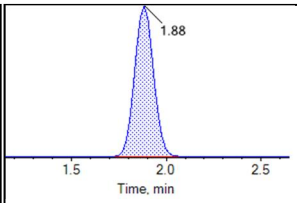
13C2-PFDoA



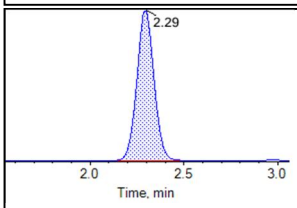
d3-MeFOSAA



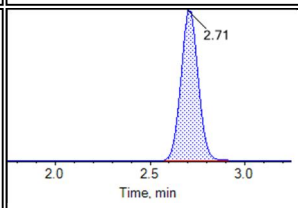
d5-EtFOSAA



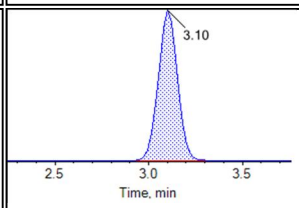
13C5-PFHxA



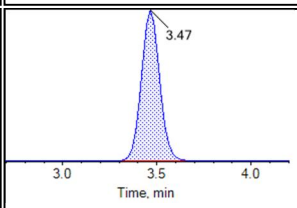
13C4-PFHpA



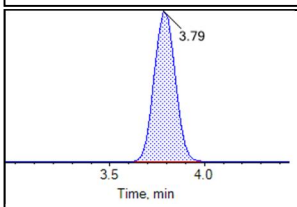
13C8-PFOA



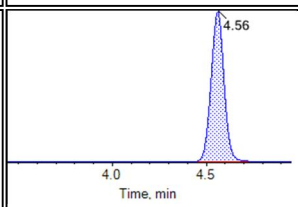
13C9-PFNA



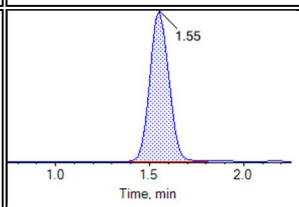
13C6-PFDA



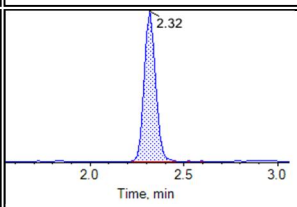
13C7-PFUnA



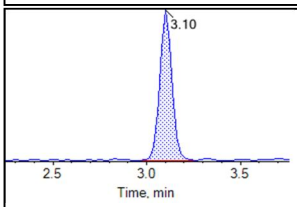
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

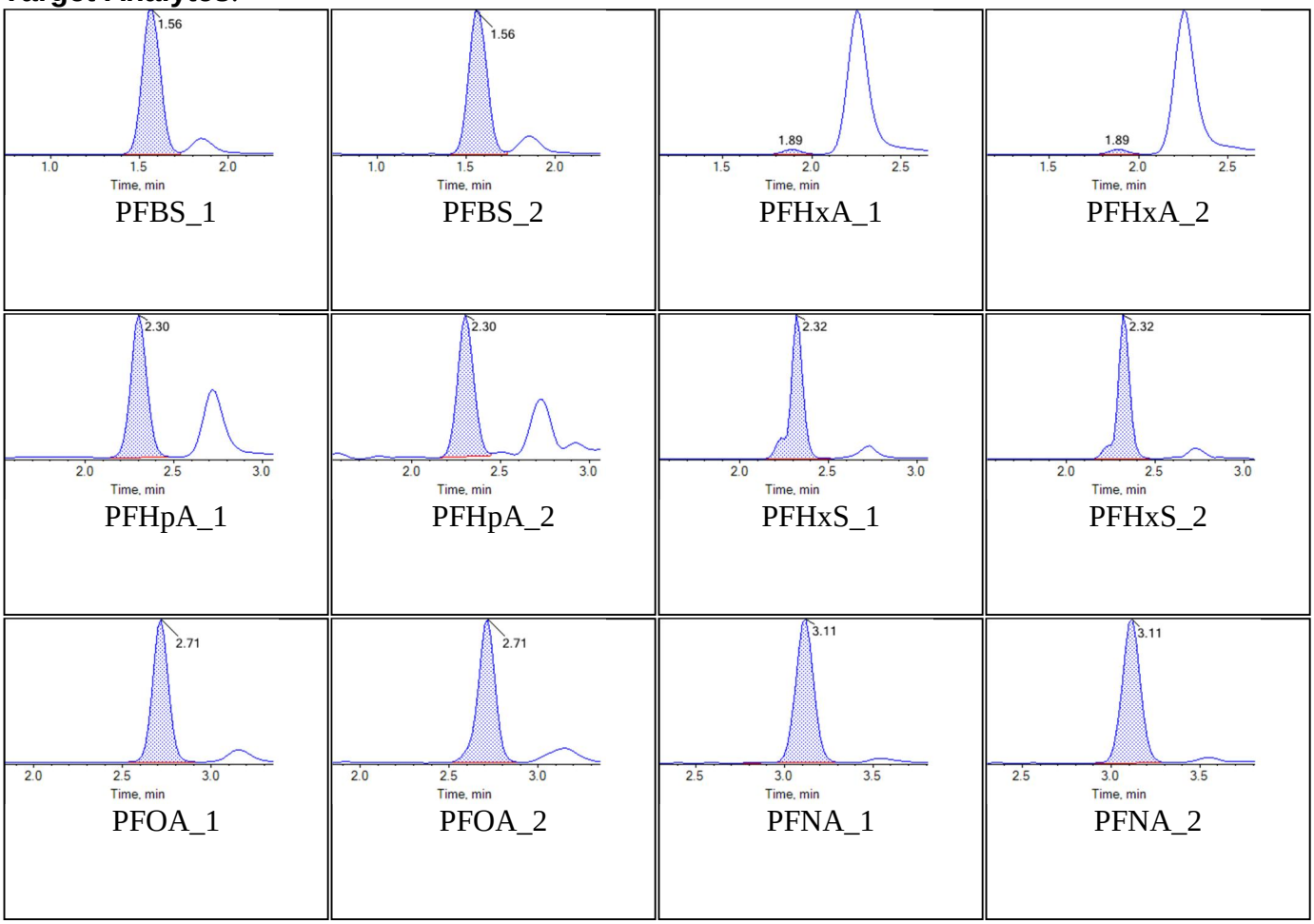
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:54 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

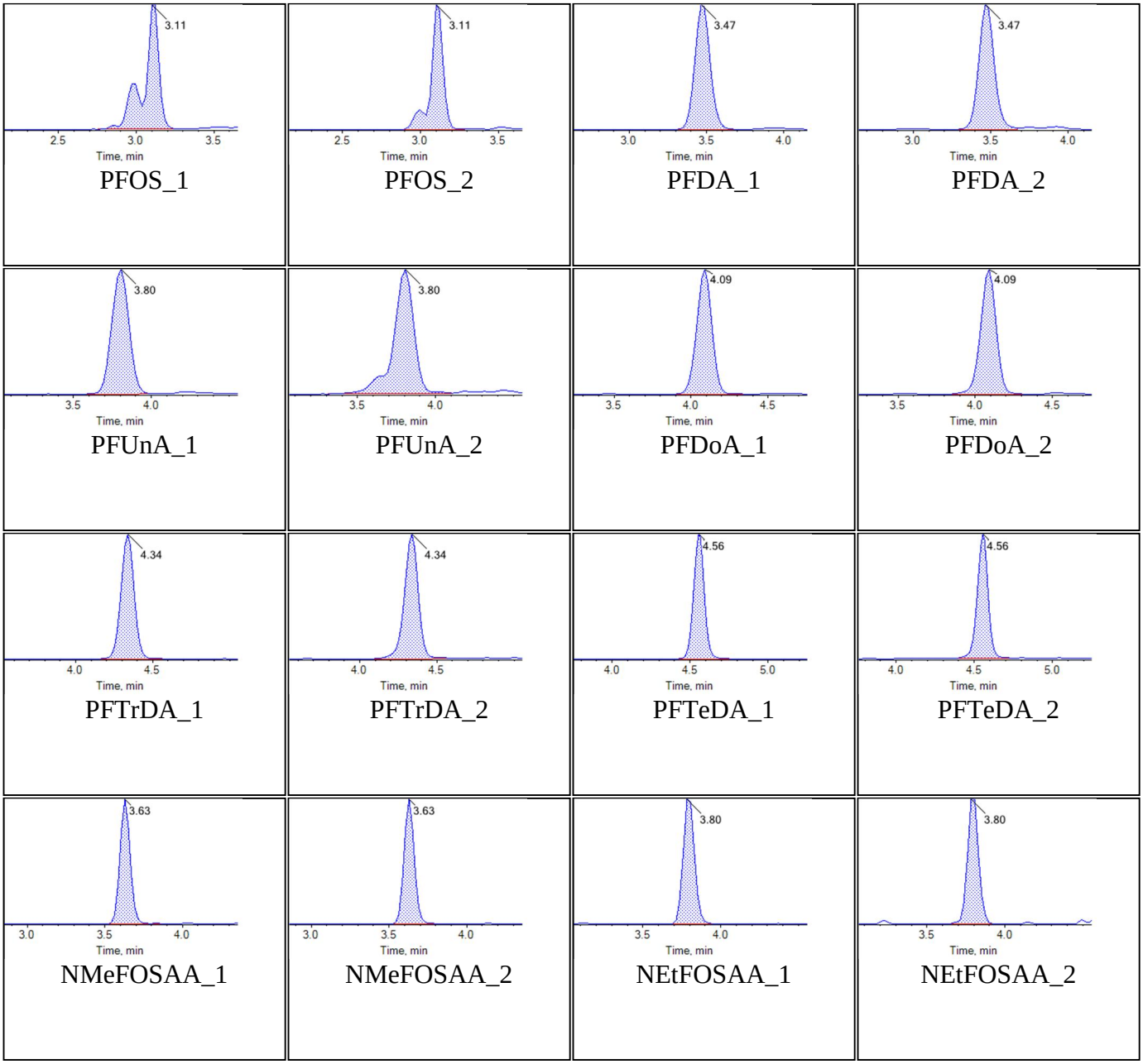
Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:54 PM

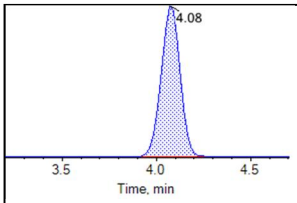


Internal Standards:

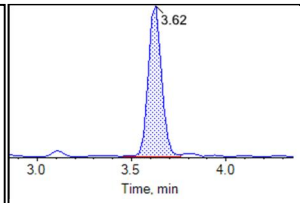
BATTELLE

Chromatogram Report

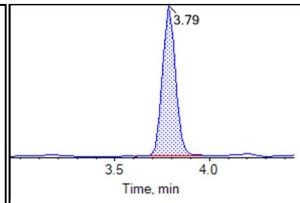
Created with Analyst Reporter
Printed: 23/10/2018 5:26:54 PM



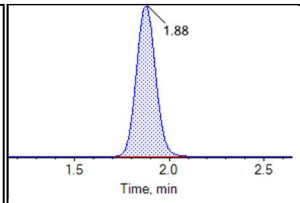
13C2-PFDoA



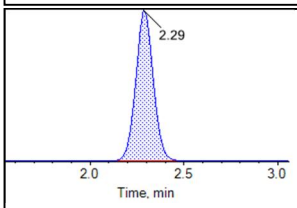
d3-MeFOSAA



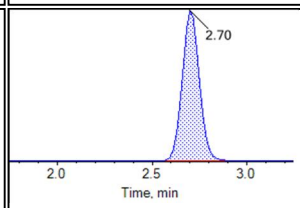
d5-EtFOSAA



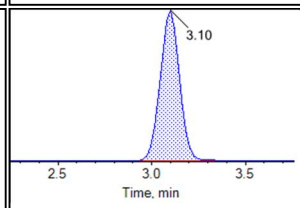
13C5-PFHxA



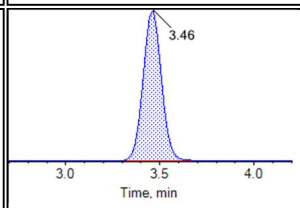
13C4-PFHpA



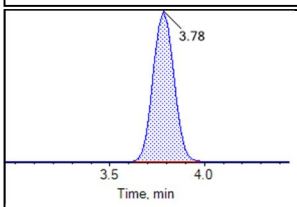
13C8-PFOA



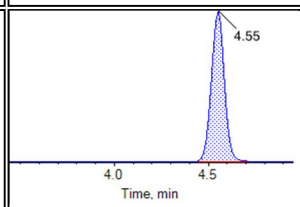
13C9-PFNA



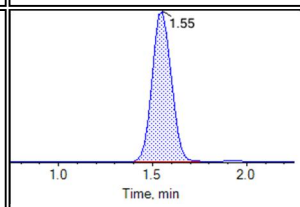
13C6-PFDA



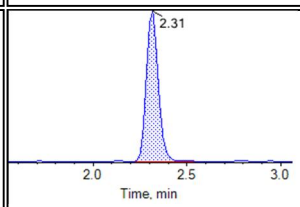
13C7-PFUnA



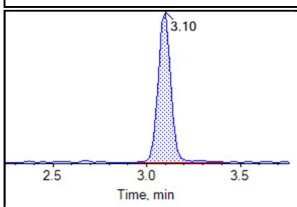
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

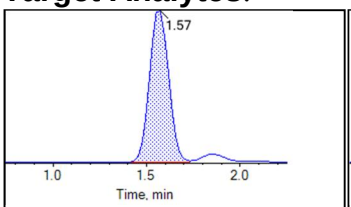
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:59 PM

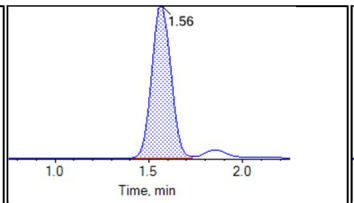
Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

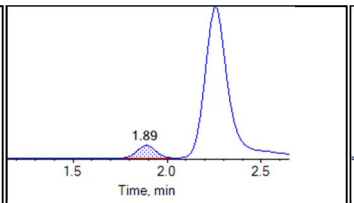
Target Analytes:



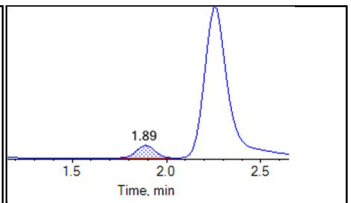
PFBS_1



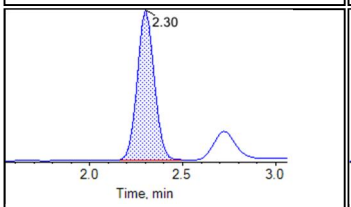
PFBS_2



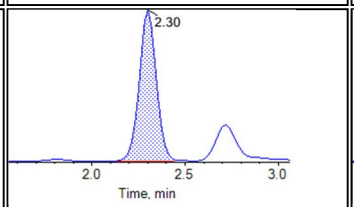
PFHxA_1



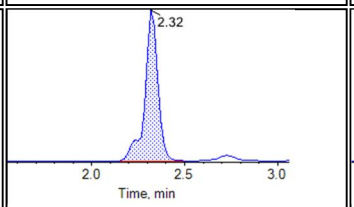
PFHxA_2



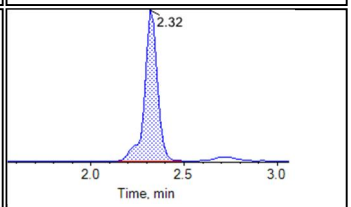
PFHpA_1



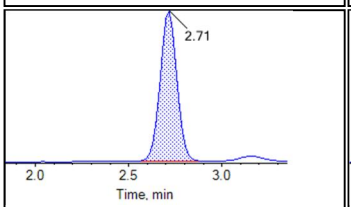
PFHpA_2



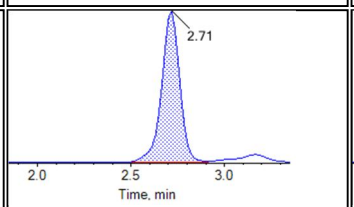
PFHxS_1



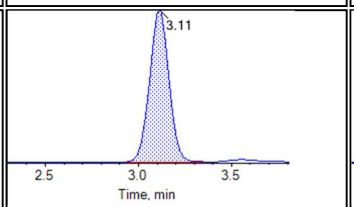
PFHxS_2



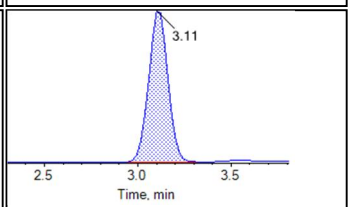
PFOA_1



PFOA_2



PFNA_1

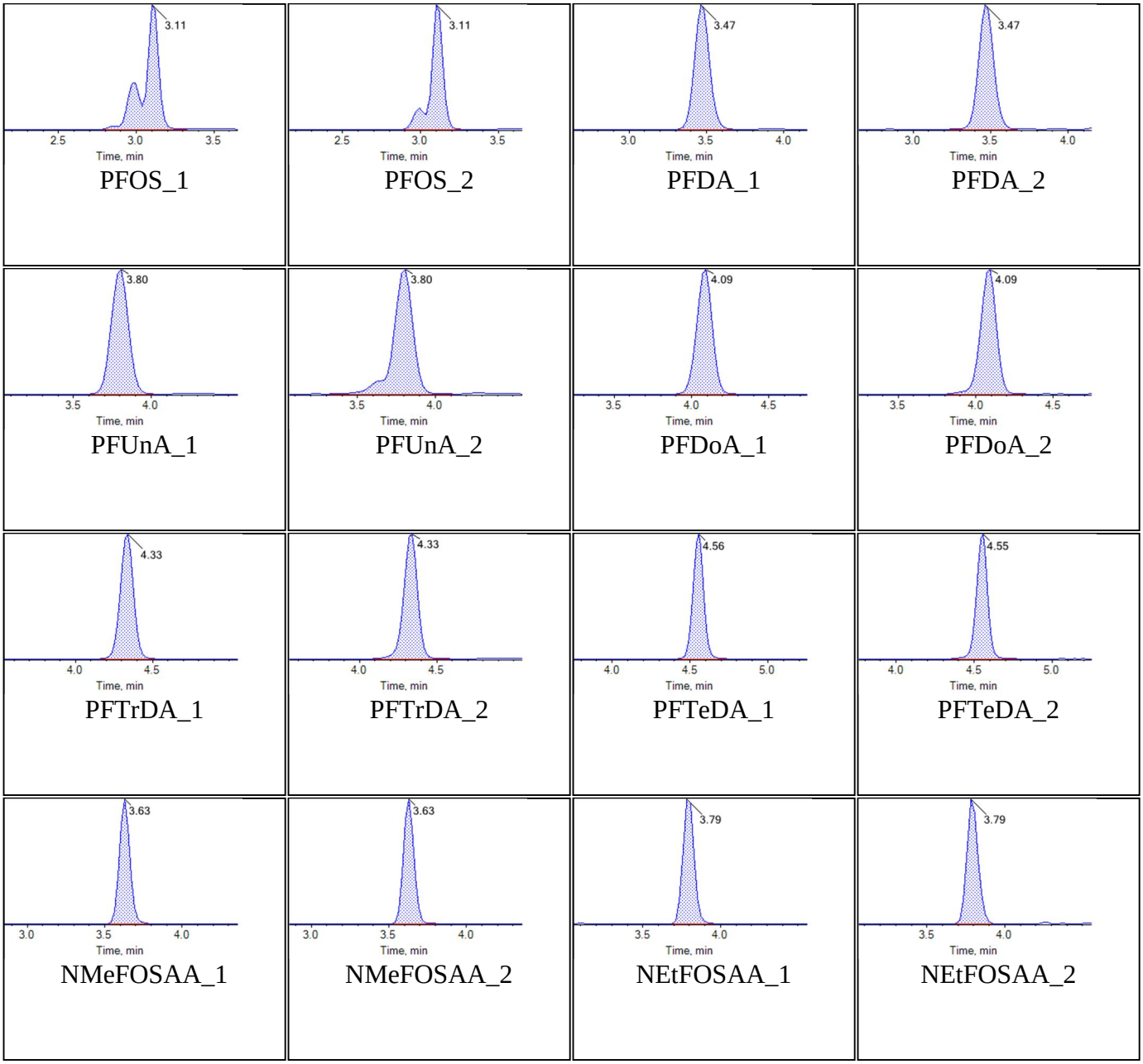


PFNA_2

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:26:59 PM

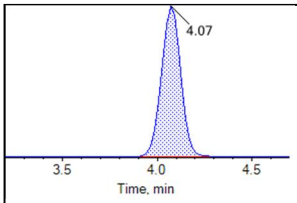


Internal Standards:

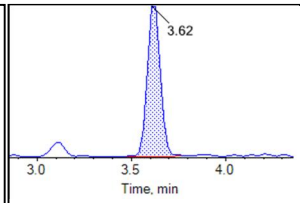
BATTELLE

Chromatogram Report

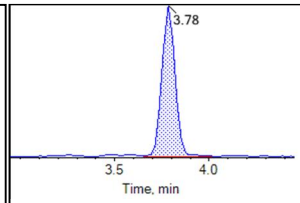
Created with Analyst Reporter
Printed: 23/10/2018 5:26:59 PM



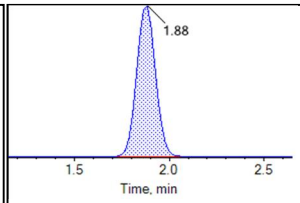
13C2-PFDoA



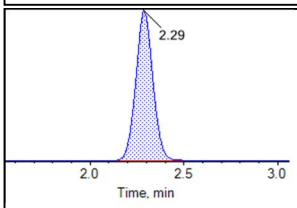
d3-MeFOSAA



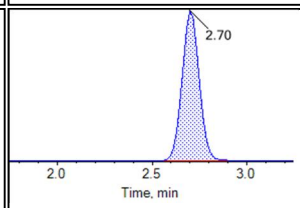
d5-EtFOSAA



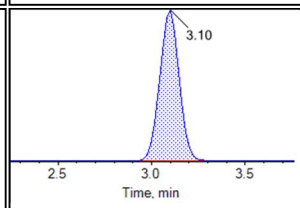
13C5-PFHxA



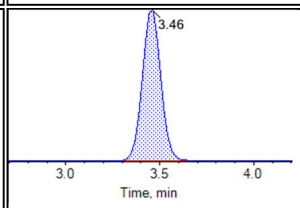
13C4-PFHpA



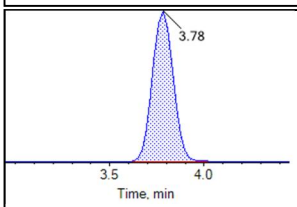
13C8-PFOA



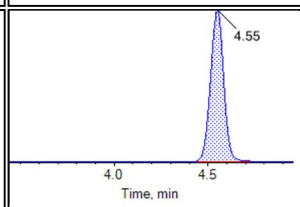
13C9-PFNA



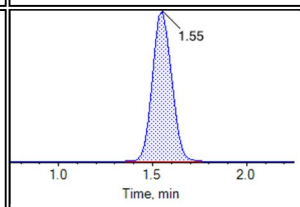
13C6-PFDA



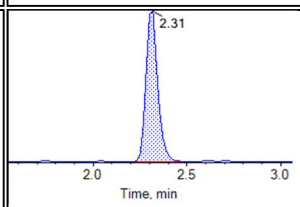
13C7-PFUnA



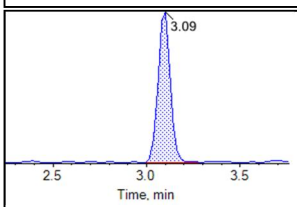
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

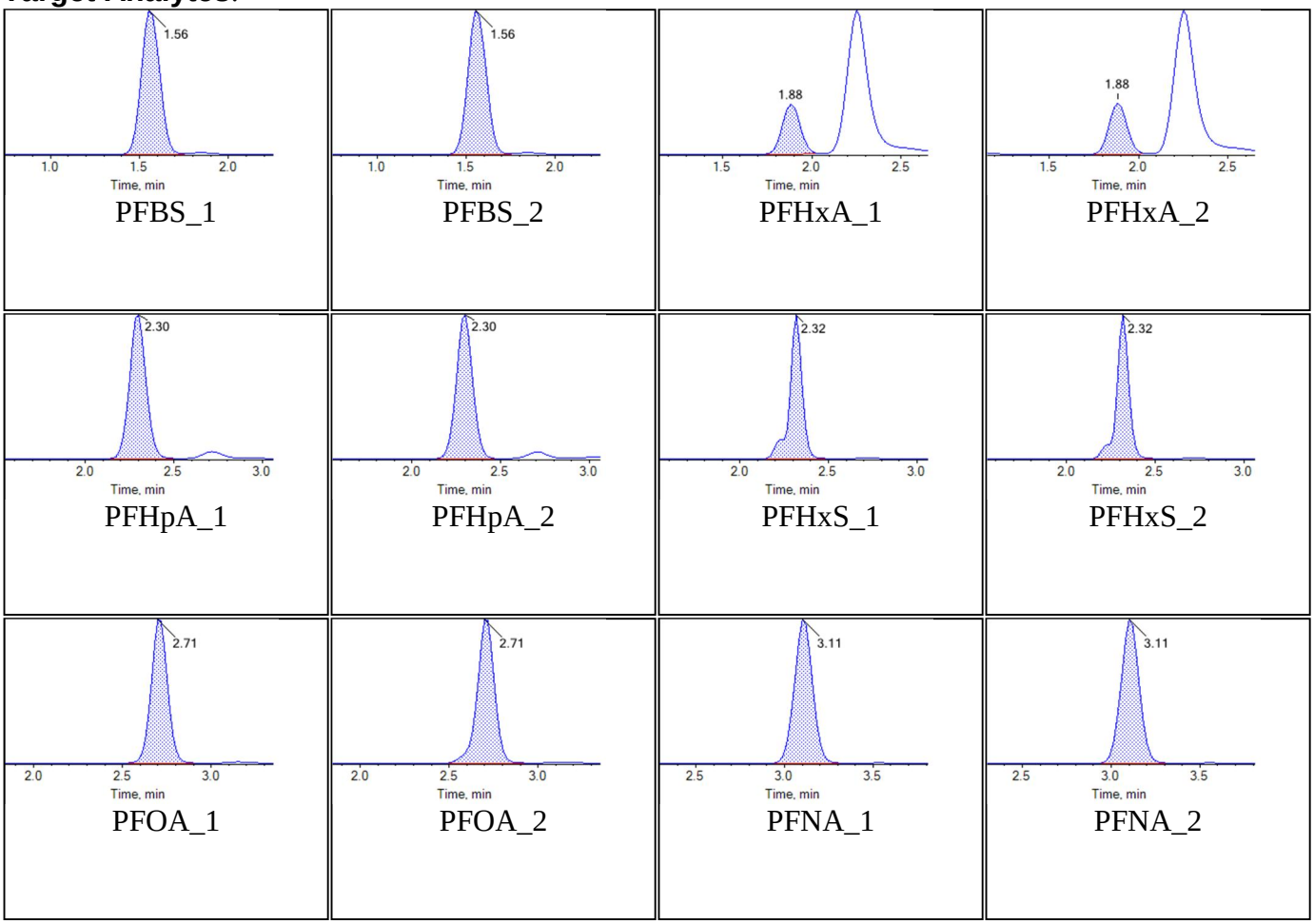
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:05 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

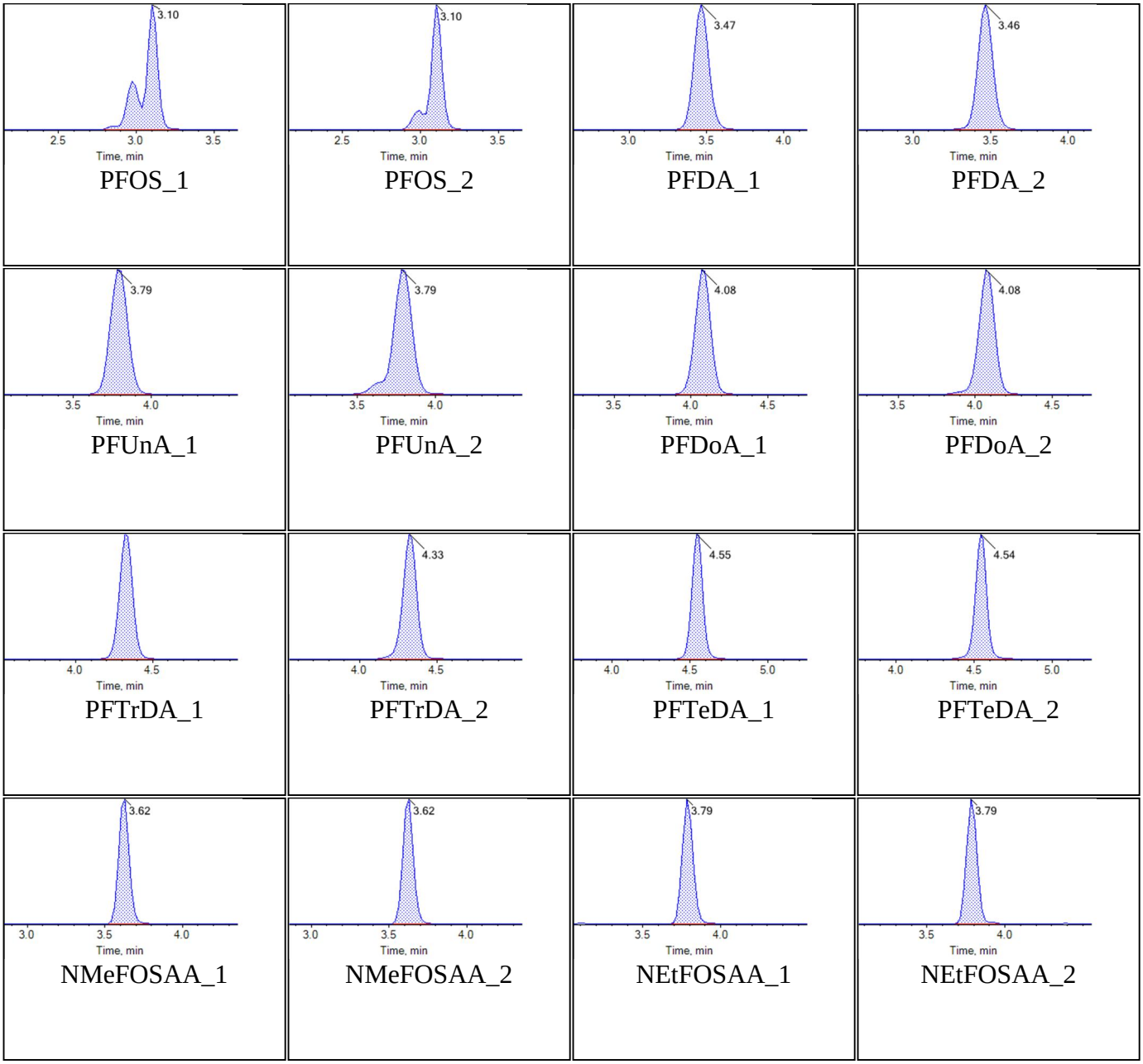
Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:05 PM

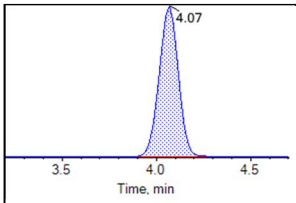


Internal Standards:

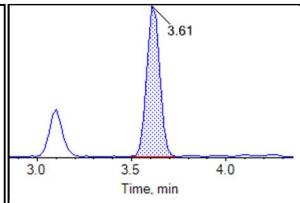
BATTELLE

Chromatogram Report

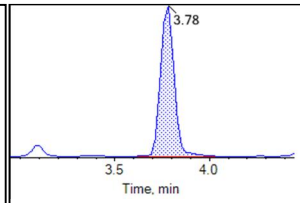
Created with Analyst Reporter
Printed: 23/10/2018 5:27:05 PM



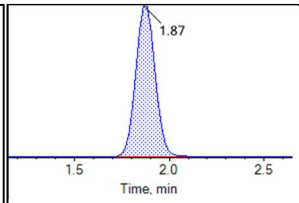
13C2-PFDoA



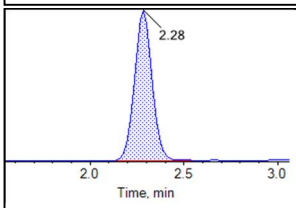
d3-MeFOSAA



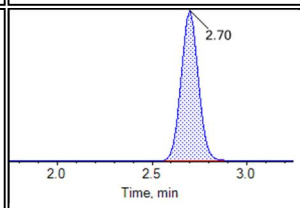
d5-EtFOSAA



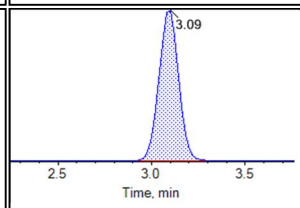
13C5-PFHxA



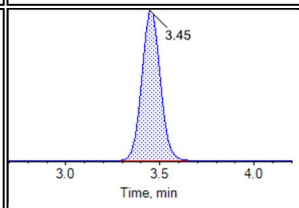
13C4-PFHpA



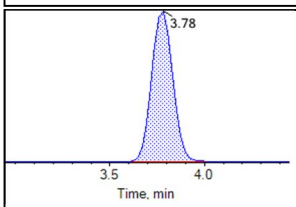
13C8-PFOA



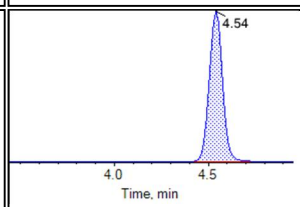
13C9-PFNA



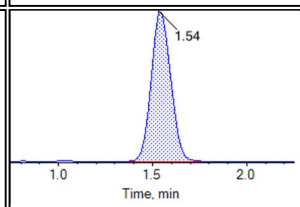
13C6-PFDA



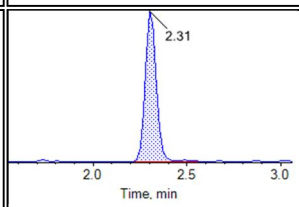
13C7-PFUnA



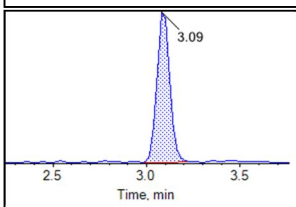
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

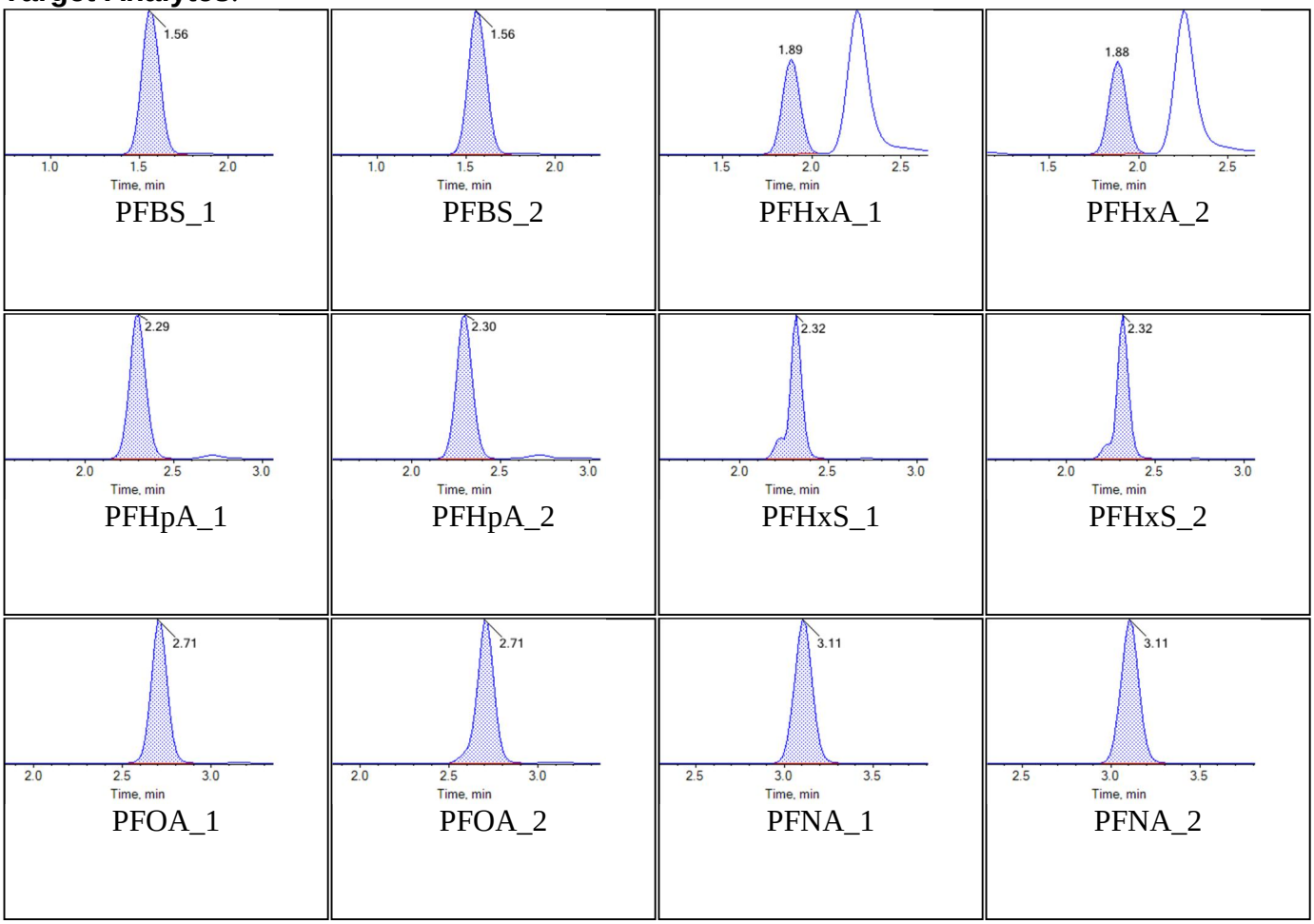
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:10 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

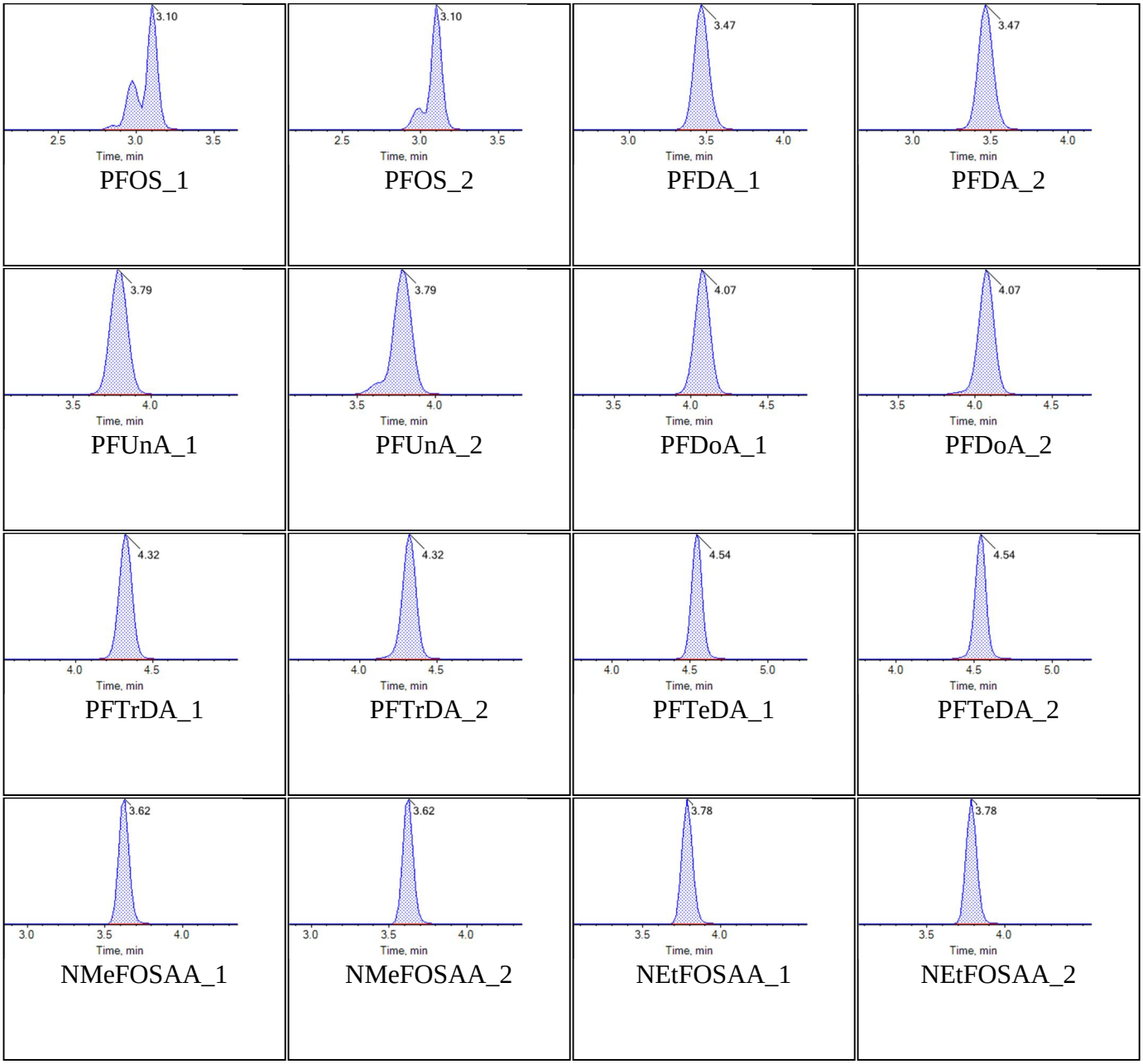
Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:10 PM

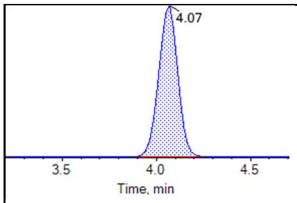


Internal Standards:

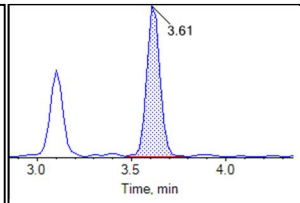
BATTELLE

Chromatogram Report

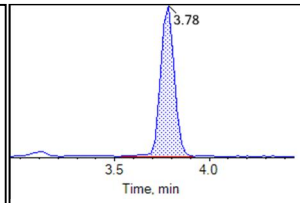
Created with Analyst Reporter
Printed: 23/10/2018 5:27:10 PM



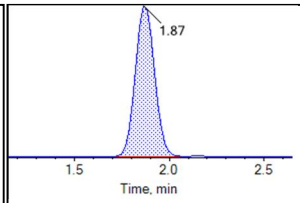
13C2-PFDoA



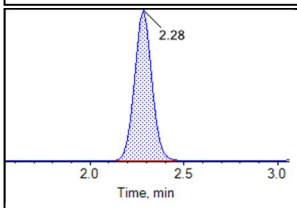
d3-MeFOSAA



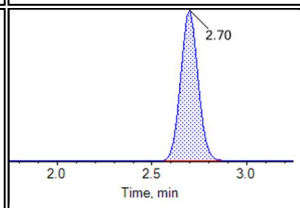
d5-EtFOSAA



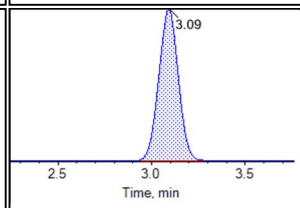
13C5-PFHxA



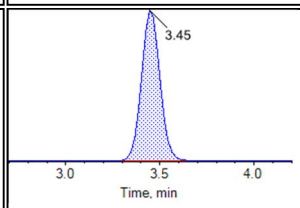
13C4-PFHpA



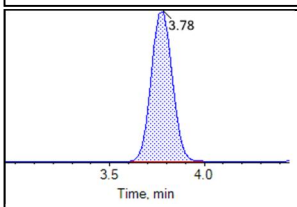
13C8-PFOA



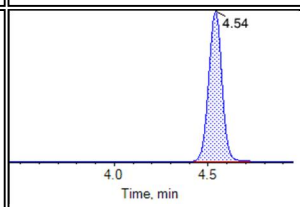
13C9-PFNA



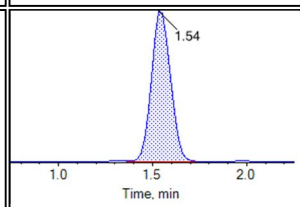
13C6-PFDA



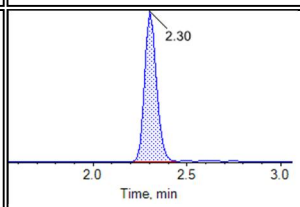
13C7-PFUnA



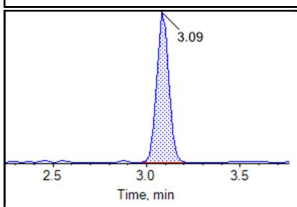
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

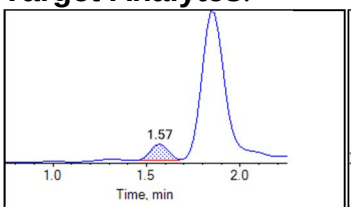
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:15 PM

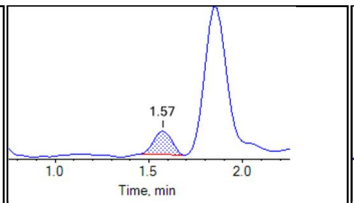
Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

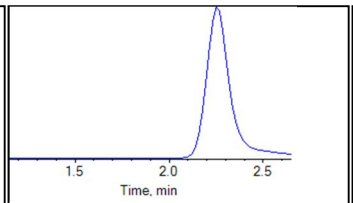
Target Analytes:



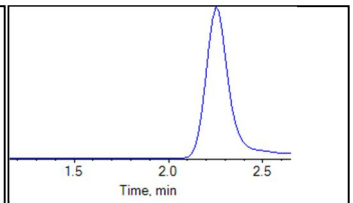
PFBS_1



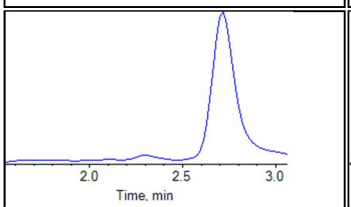
PFBS_2



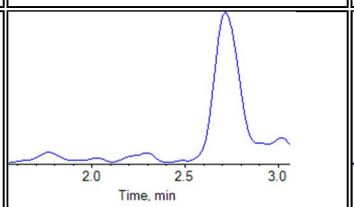
PFHxA_1



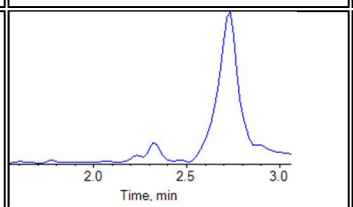
PFHxA_2



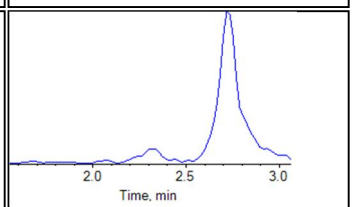
PFHpA_1



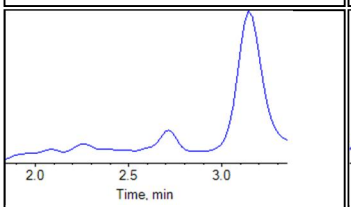
PFHpA_2



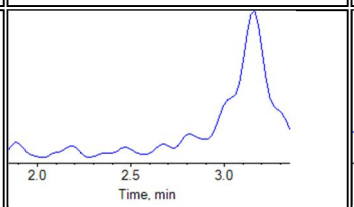
PFHxS_1



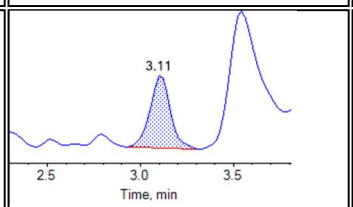
PFHxS_2



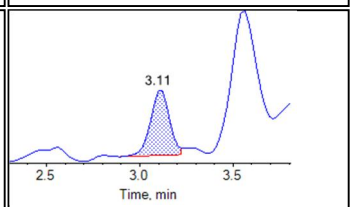
PFOA_1



PFOA_2



PFNA_1

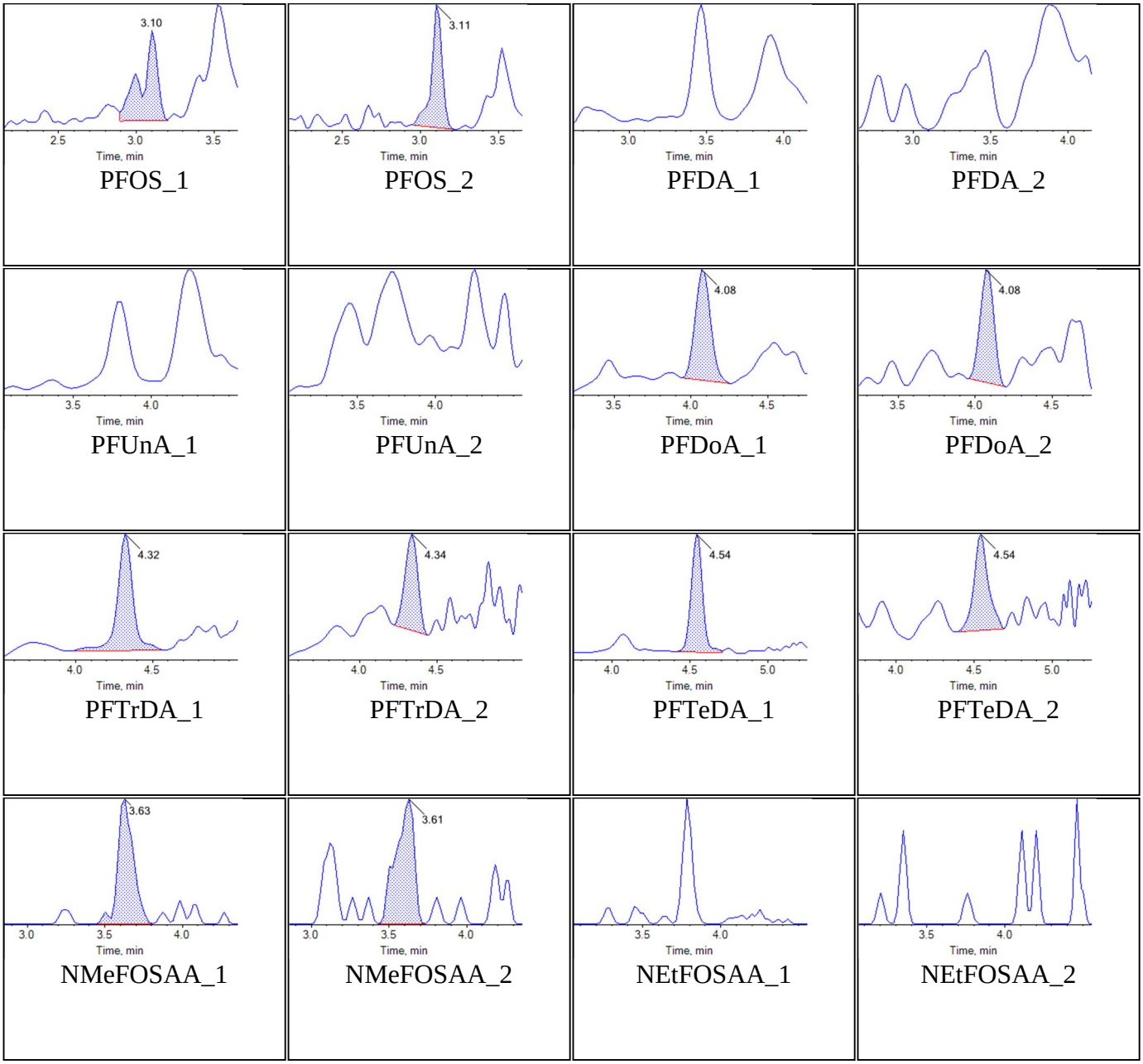


PFNA_2

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:15 PM

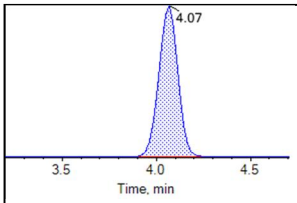


Internal Standards:

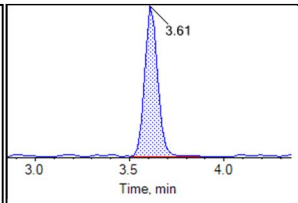
BATTELLE

Chromatogram Report

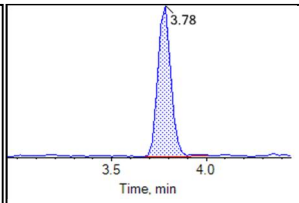
Created with Analyst Reporter
Printed: 23/10/2018 5:27:15 PM



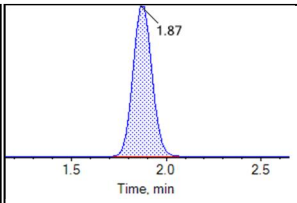
13C2-PFDoA



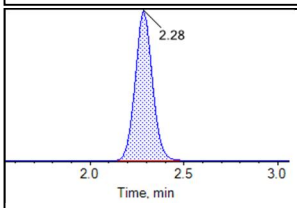
d3-MeFOSAA



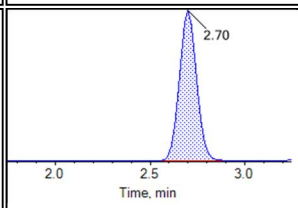
d5-EtFOSAA



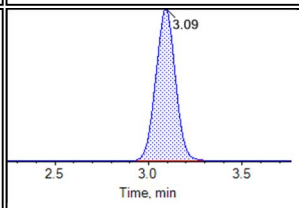
13C5-PFHxA



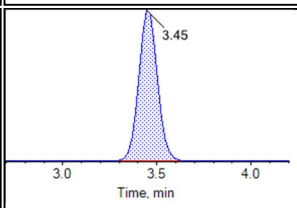
13C4-PFHpA



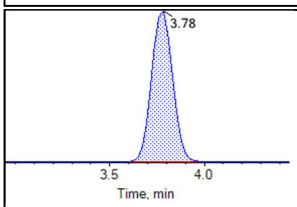
13C8-PFOA



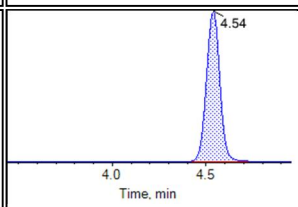
13C9-PFNA



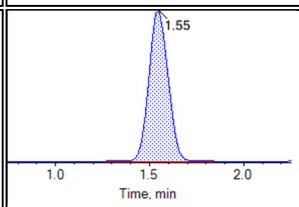
13C6-PFDA



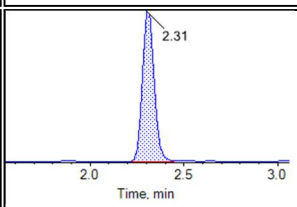
13C7-PFUnA



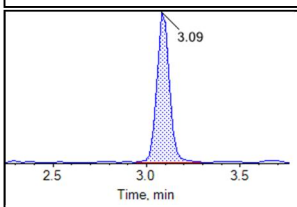
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

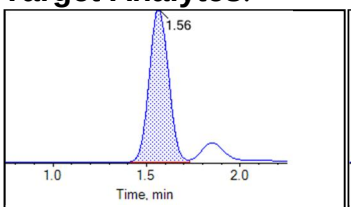
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:20 PM

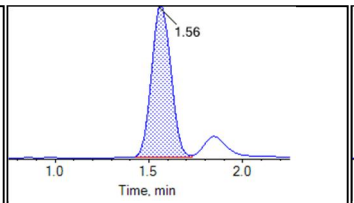
Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

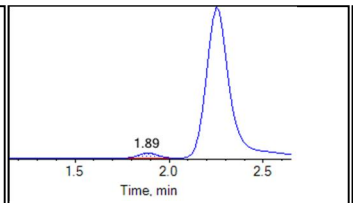
Target Analytes:



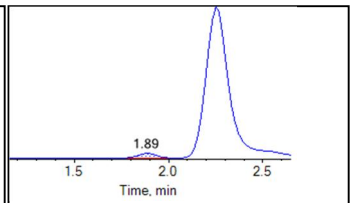
PFBS_1



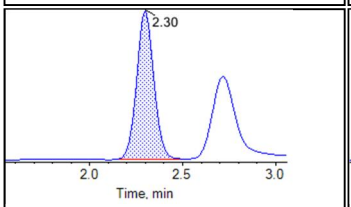
PFBS_2



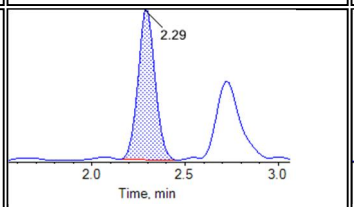
PFHxA_1



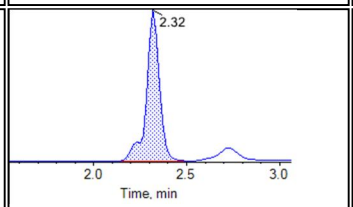
PFHxA_2



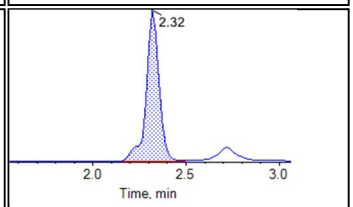
PFHpA_1



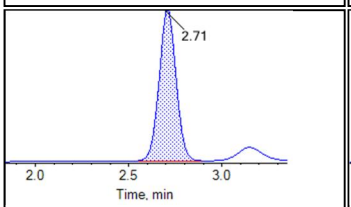
PFHpA_2



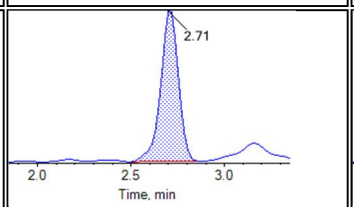
PFHxS_1



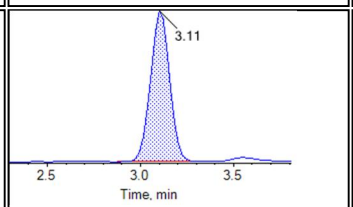
PFHxS_2



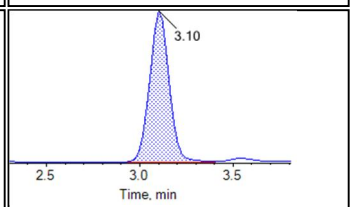
PFOA_1



PFOA_2



PFNA_1

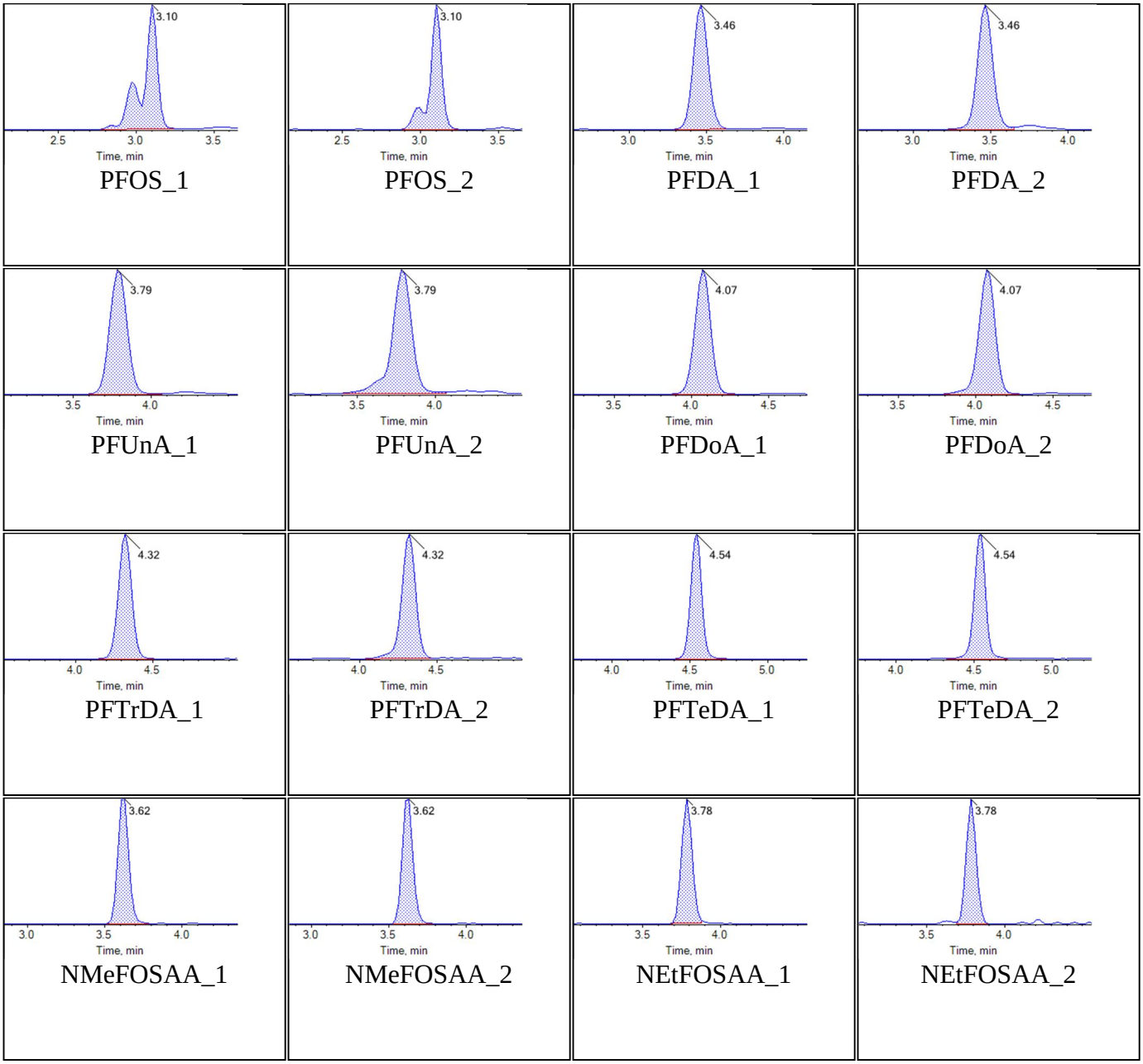


PFNA_2

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:20 PM

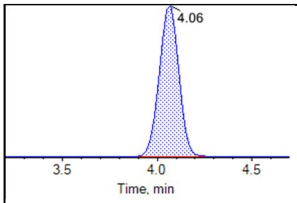


Internal Standards:

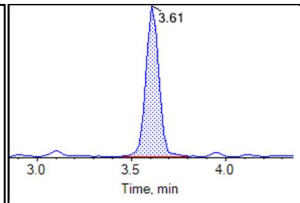
BATTELLE

Chromatogram Report

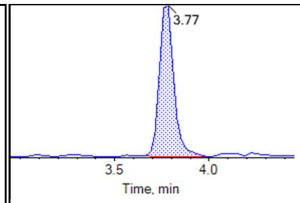
Created with Analyst Reporter
Printed: 23/10/2018 5:27:20 PM



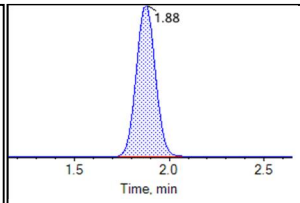
13C2-PFDoA



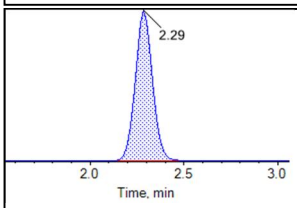
d3-MeFOSAA



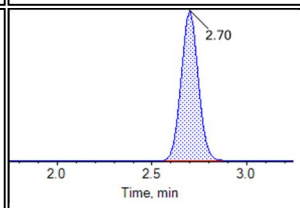
d5-EtFOSAA



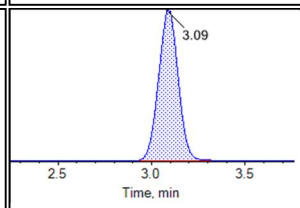
13C5-PFHxA



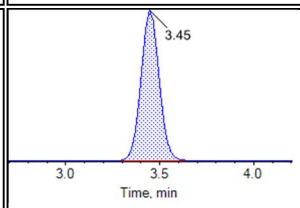
13C4-PFHpA



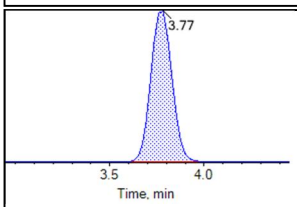
13C8-PFOA



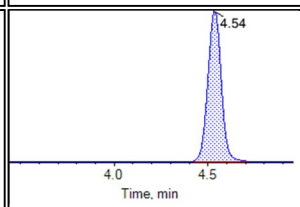
13C9-PFNA



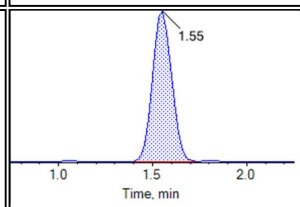
13C6-PFDA



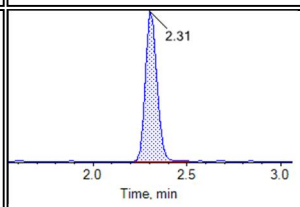
13C7-PFUnA



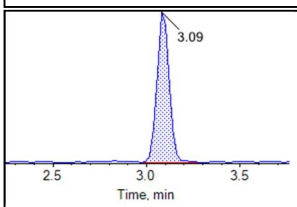
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

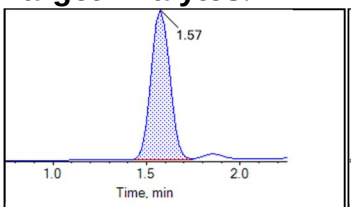
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:26 PM

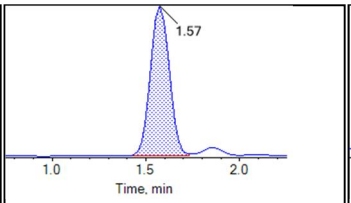
Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

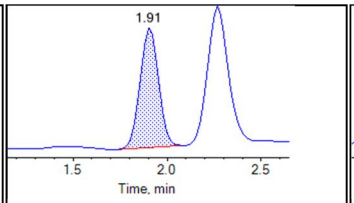
Target Analytes:



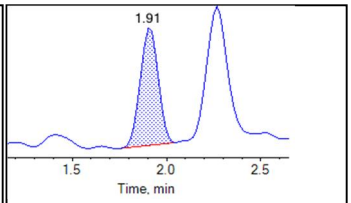
PFBS_1



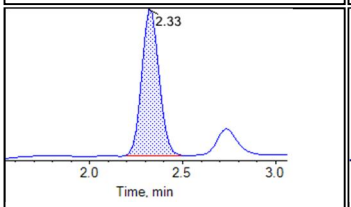
PFBS_2



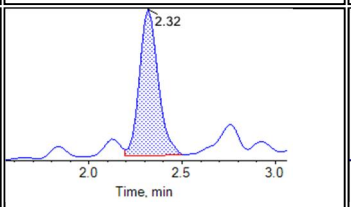
PFHxA_1



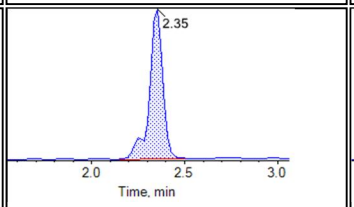
PFHxA_2



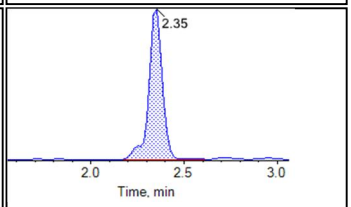
PFHpA_1



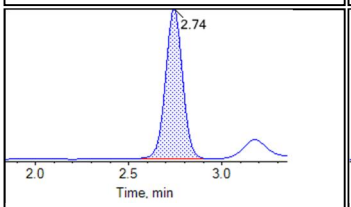
PFHpA_2



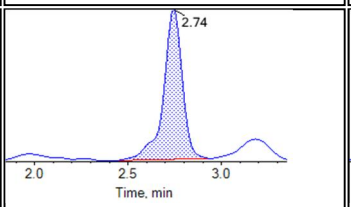
PFHxS_1



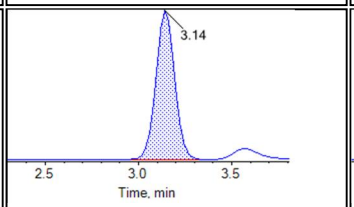
PFHxS_2



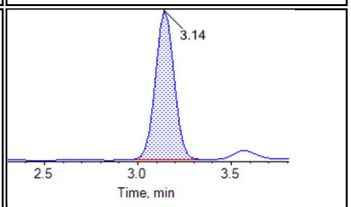
PFOA_1



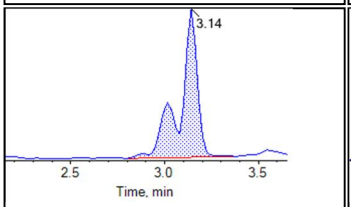
PFOA_2



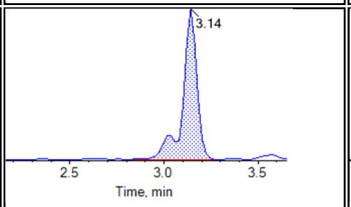
PFNA_1



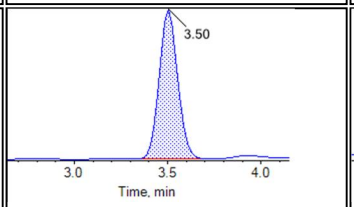
PFNA_2



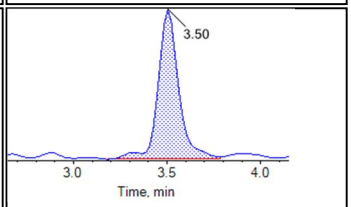
PFOS_1



PFOS_2



PFDA_1

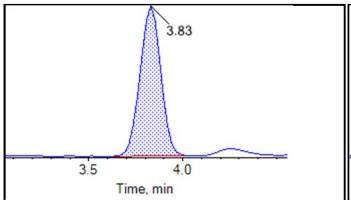


PFDA_2

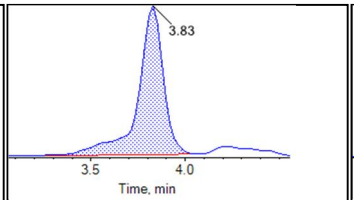
BATTELLE

Chromatogram Report

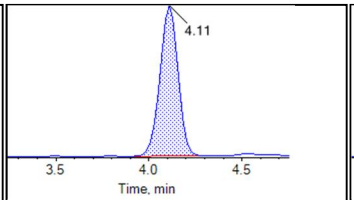
Created with Analyst Reporter
Printed: 23/10/2018 5:27:26 PM



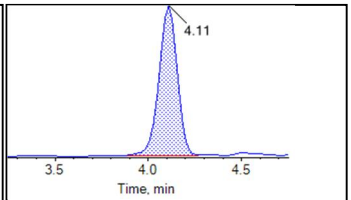
PFUnA_1



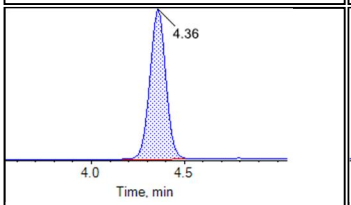
PFUnA_2



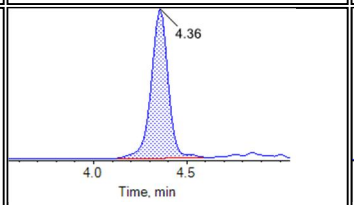
PFDoA_1



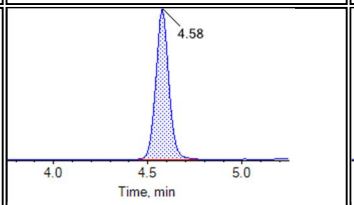
PFDoA_2



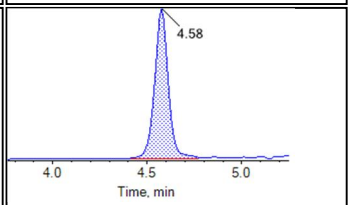
PFTrDA_1



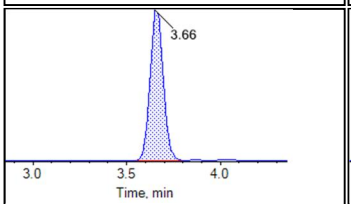
PFTrDA_2



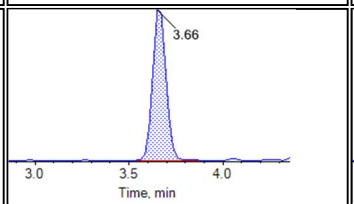
PFTeDA_1



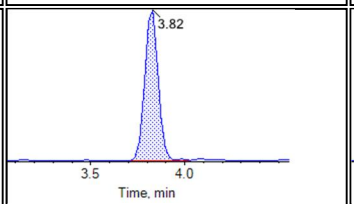
PFTeDA_2



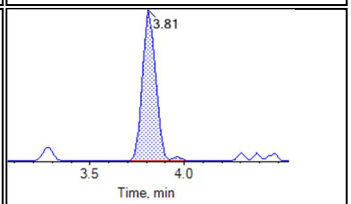
NMeFOSAA_1



NMeFOSAA_2

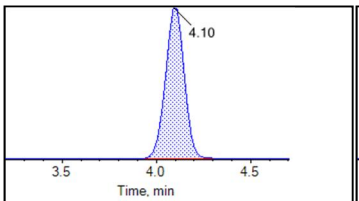


NEtFOSAA_1

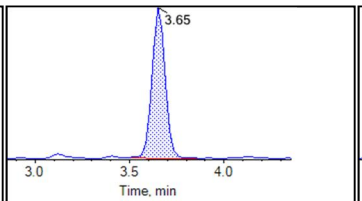


NEtFOSAA_2

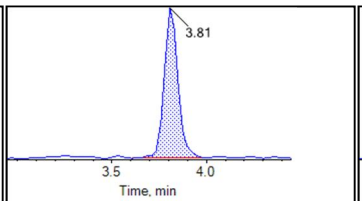
Internal Standards:



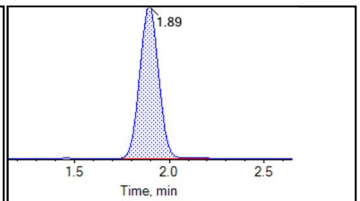
13C2-PFDoA



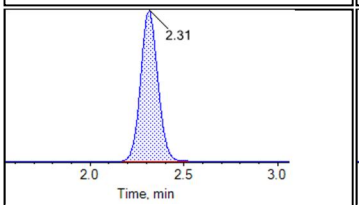
d3-MeFOSAA



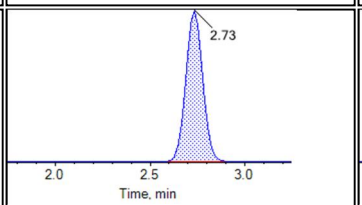
d5-EtFOSAA



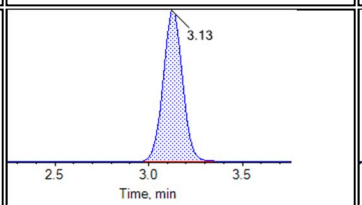
13C5-PFHxA



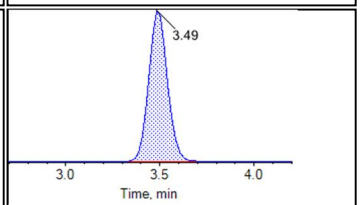
13C4-PFHpA



13C8-PFOA



13C9-PFNA

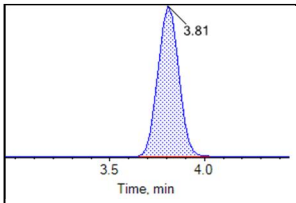


13C6-PFDA

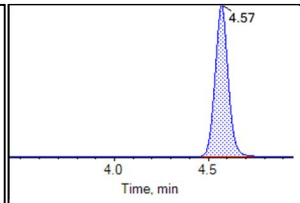
BATTELLE

Chromatogram Report

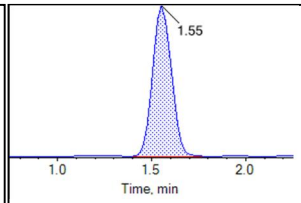
Created with Analyst Reporter
Printed: 23/10/2018 5:27:26 PM



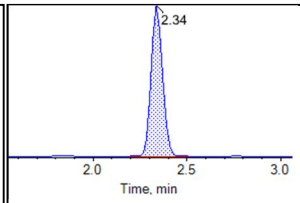
13C7-PFUnA



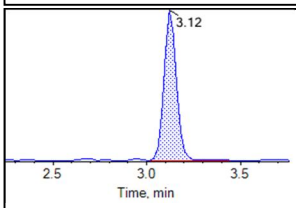
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

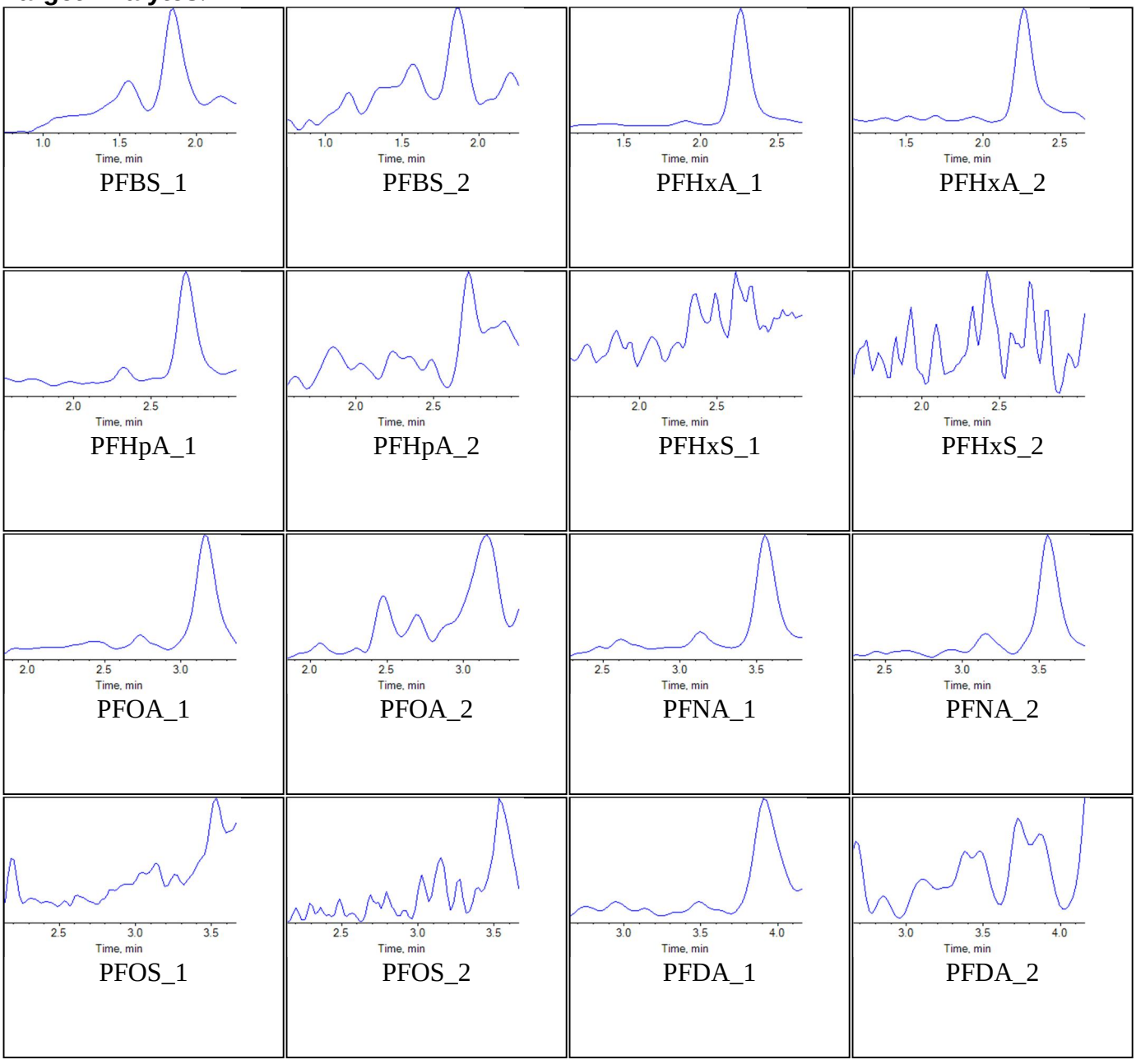
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:32 PM

Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

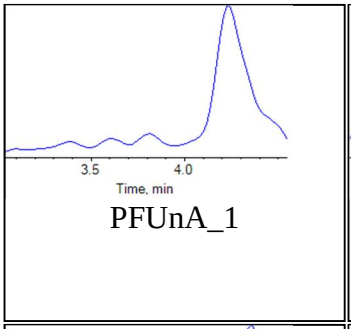
Target Analytes:



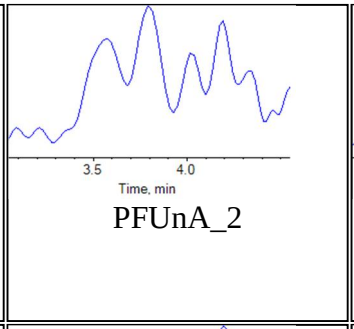
BATTELLE

Chromatogram Report

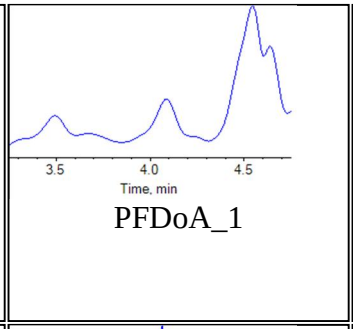
Created with Analyst Reporter
Printed: 23/10/2018 5:27:32 PM



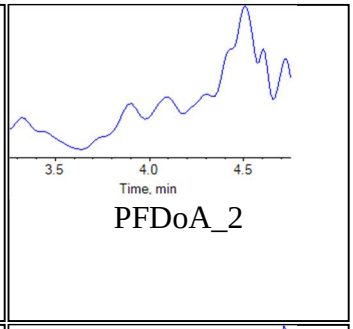
PFUnA_1



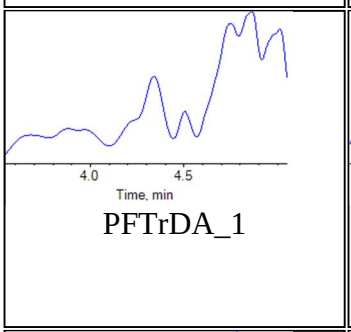
PFUnA_2



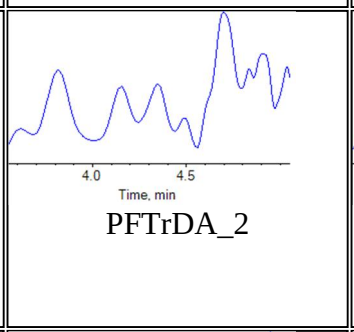
PFDoA_1



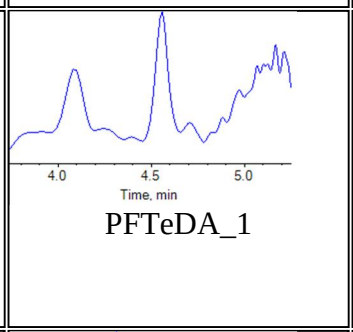
PFDoA_2



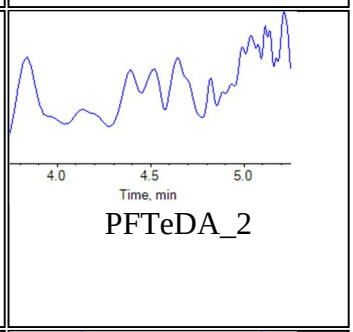
PFTrDA_1



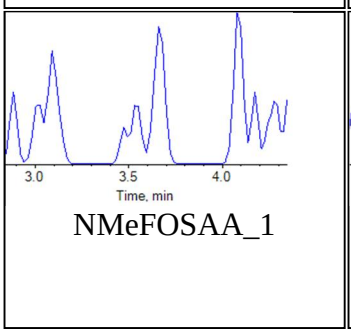
PFTrDA_2



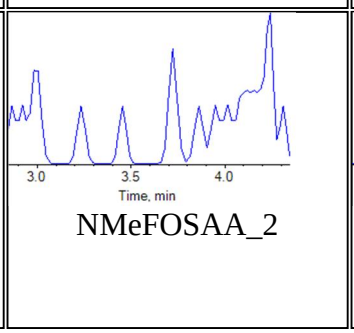
PFTeDA_1



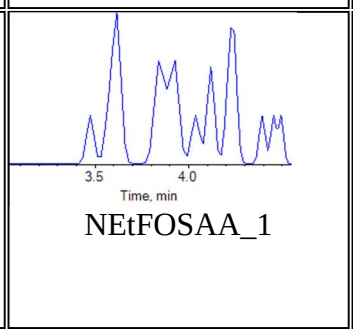
PFTeDA_2



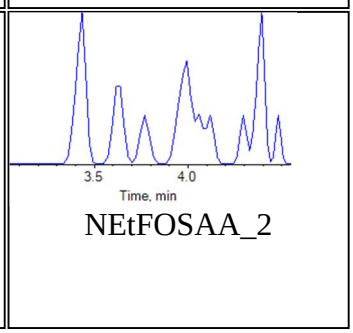
NMeFOSAA_1



NMeFOSAA_2

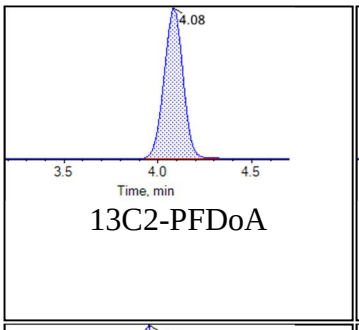


NEtFOSAA_1

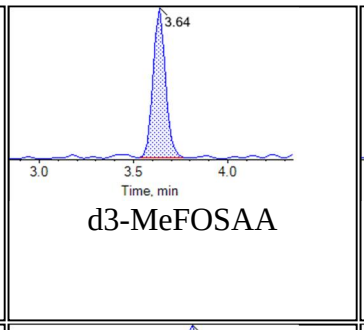


NEtFOSAA_2

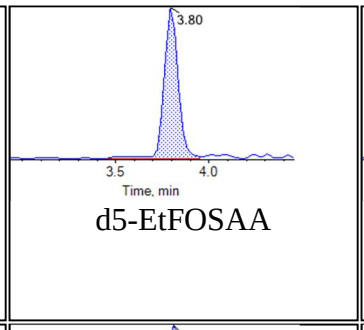
Internal Standards:



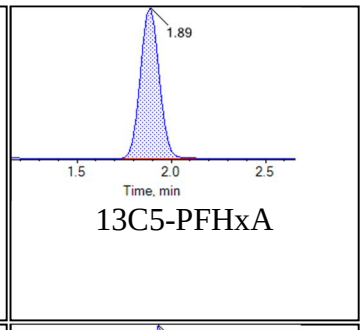
13C2-PFDoA



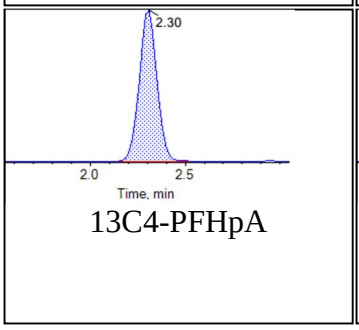
d3-MeFOSAA



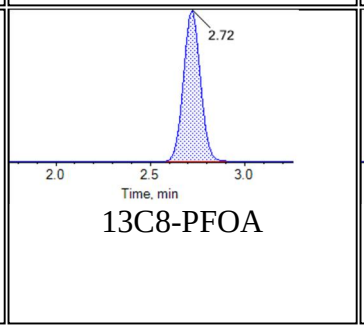
d5-EtFOSAA



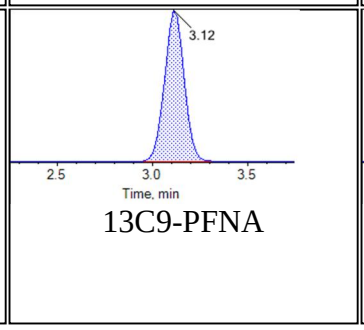
13C5-PFHxA



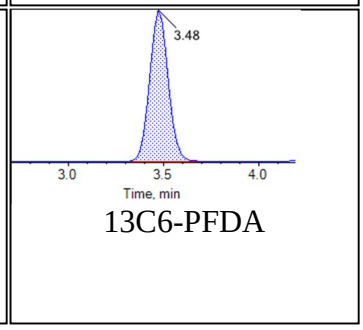
13C4-PFHpA



13C8-PFOA



13C9-PFNA

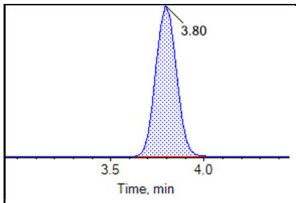


13C6-PFDA

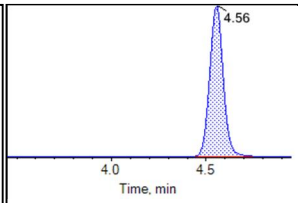
BATTELLE

Chromatogram Report

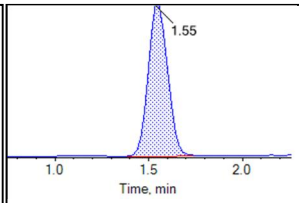
Created with Analyst Reporter
Printed: 23/10/2018 5:27:32 PM



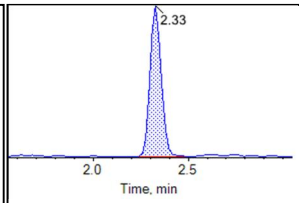
13C7-PFUnA



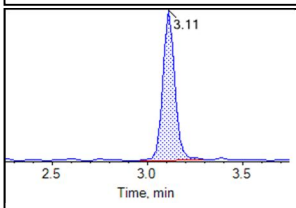
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

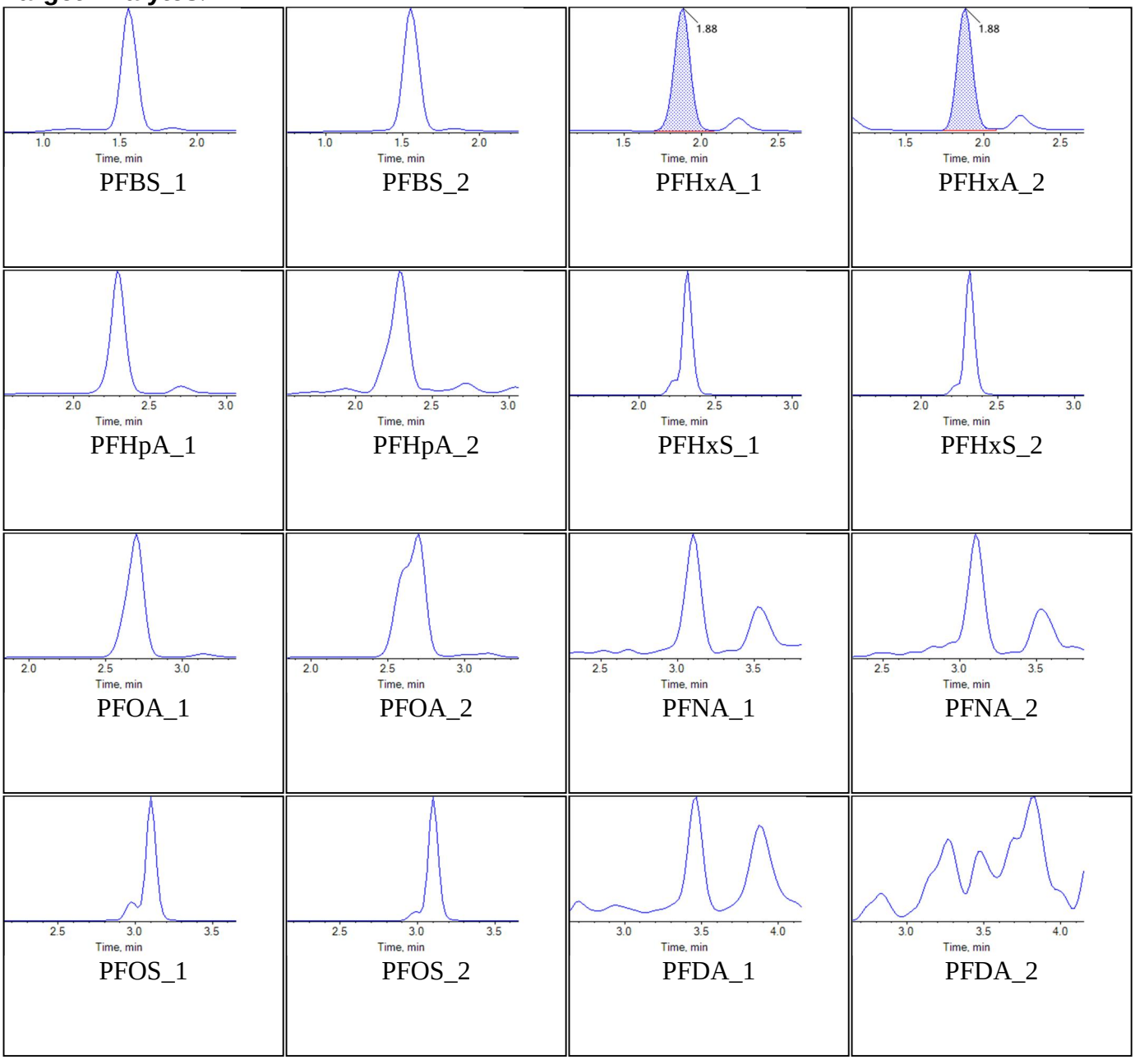
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:43 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	8
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:32:58	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

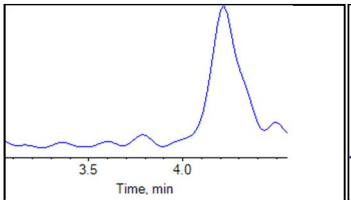
Target Analytes:



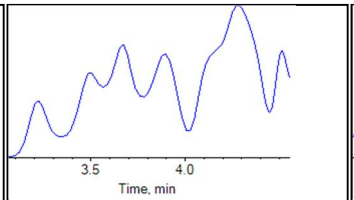
BATTELLE

Chromatogram Report

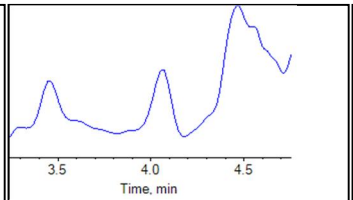
Created with Analyst Reporter
Printed: 23/10/2018 5:27:43 PM



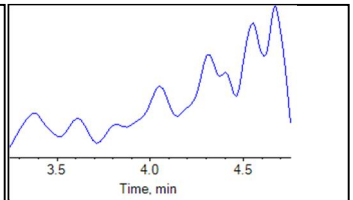
PFUnA_1



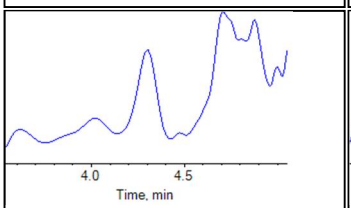
PFUnA_2



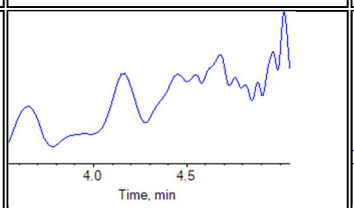
PFDoA_1



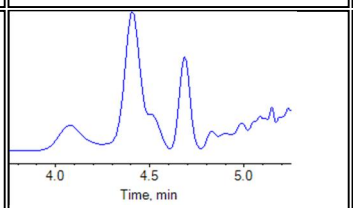
PFDoA_2



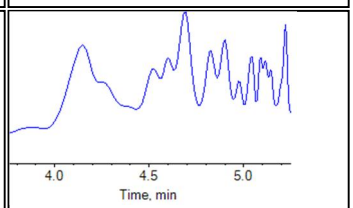
PFTrDA_1



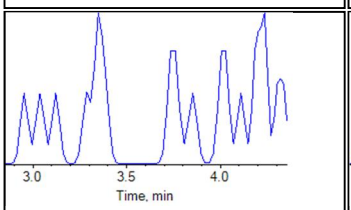
PFTrDA_2



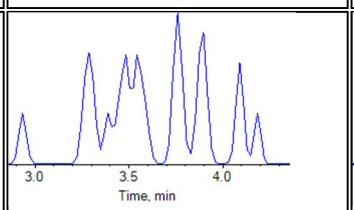
PFTeDA_1



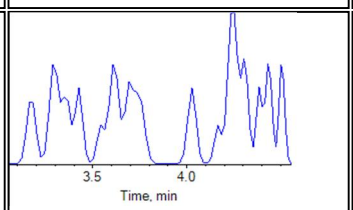
PFTeDA_2



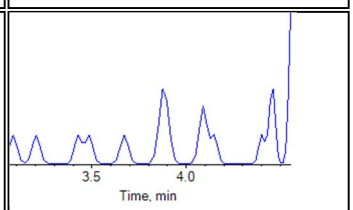
NMeFOSAA_1



NMeFOSAA_2

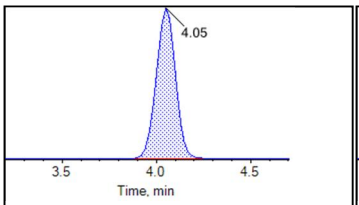


NEtFOSAA_1

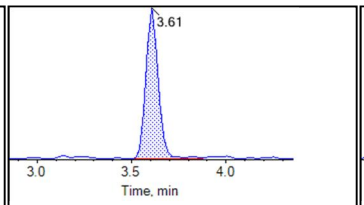


NEtFOSAA_2

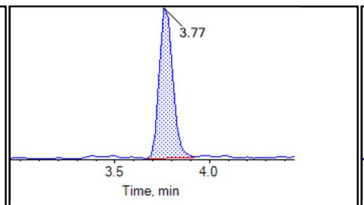
Internal Standards:



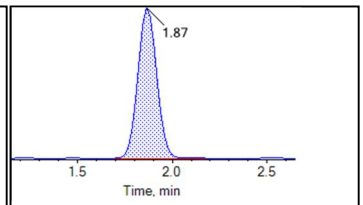
13C2-PFDoA



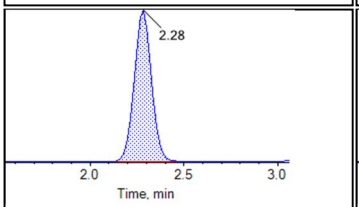
d3-MeFOSAA



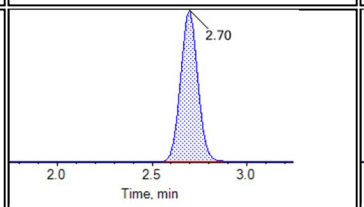
d5-EtFOSAA



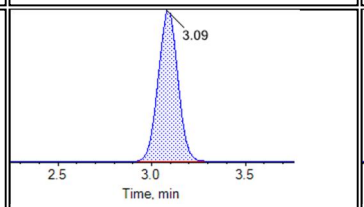
13C5-PFHxA



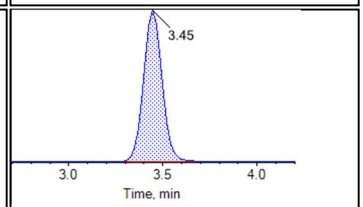
13C4-PFHpA



13C8-PFOA



13C9-PFNA

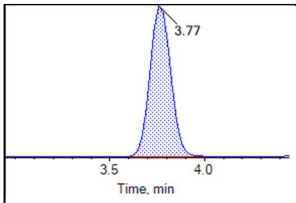


13C6-PFDA

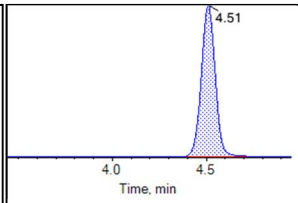
BATTELLE

Chromatogram Report

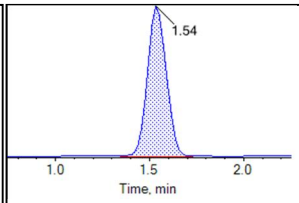
Created with Analyst Reporter
Printed: 23/10/2018 5:27:43 PM



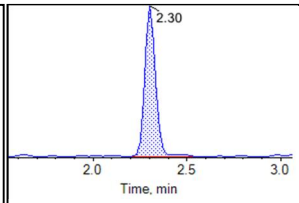
13C7-PFUnA



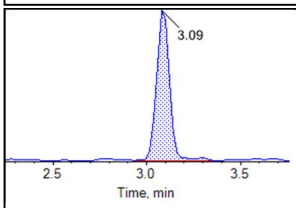
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

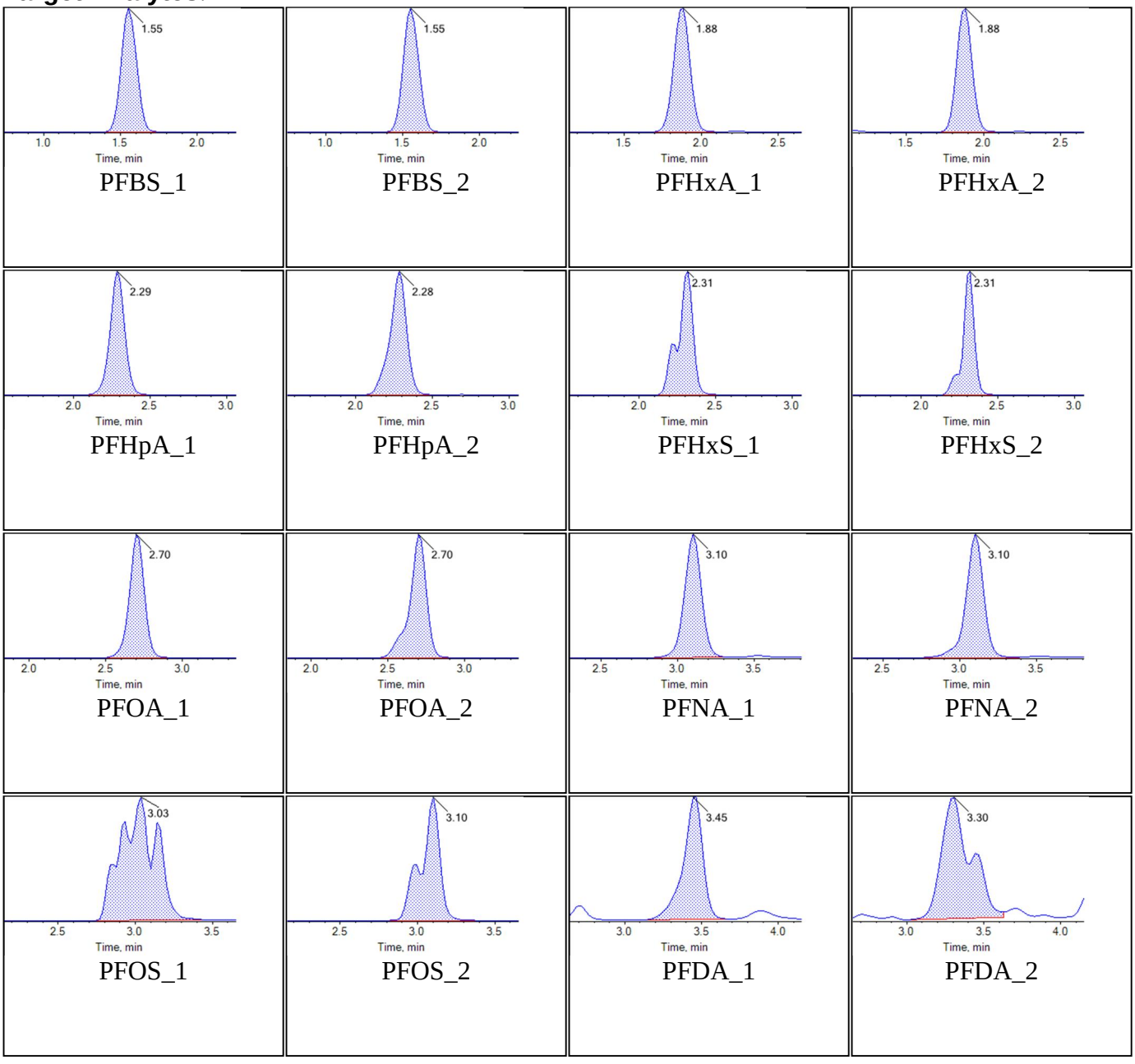
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:49 PM

Sample Name	J8358-FS(0)	**Injection Vial**	9
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:43:49	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

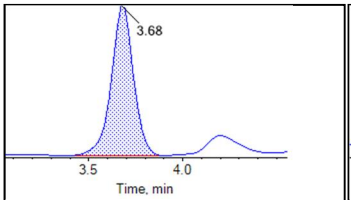
Target Analytes:



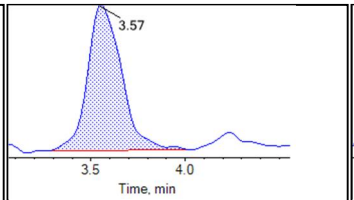
BATTELLE

Chromatogram Report

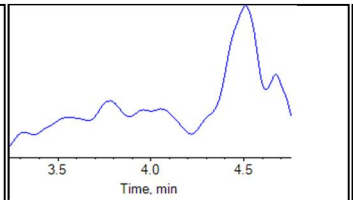
Created with Analyst Reporter
Printed: 23/10/2018 5:27:49 PM



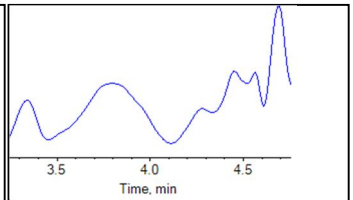
PFUnA_1



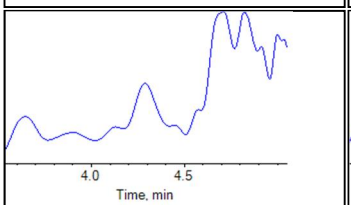
PFUnA_2



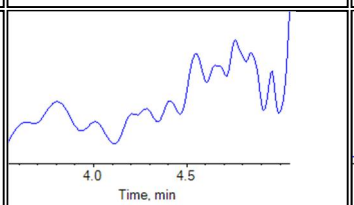
PFDoA_1



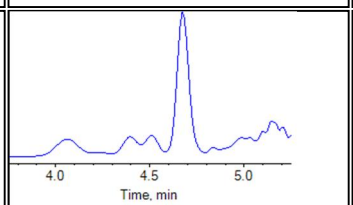
PFDoA_2



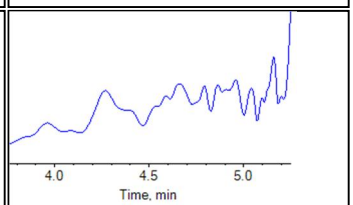
PFTrDA_1



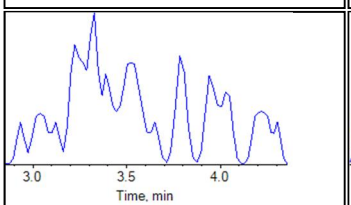
PFTrDA_2



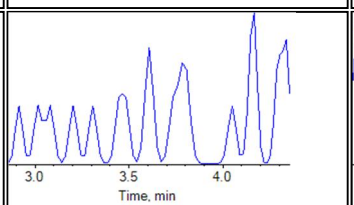
PFTeDA_1



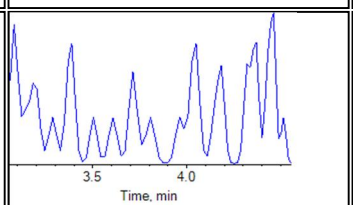
PFTeDA_2



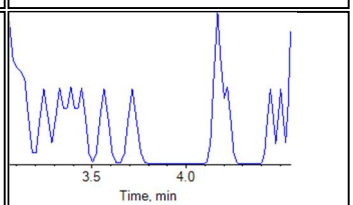
NMeFOSAA_1



NMeFOSAA_2

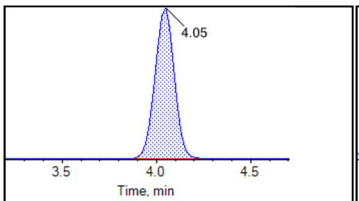


NEtFOSAA_1

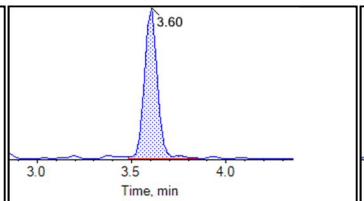


NEtFOSAA_2

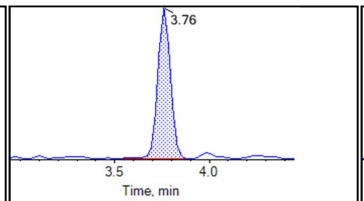
Internal Standards:



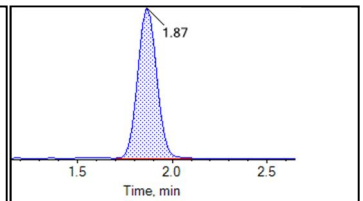
13C2-PFDoA



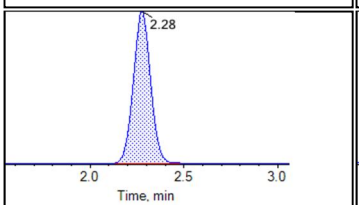
d3-MeFOSAA



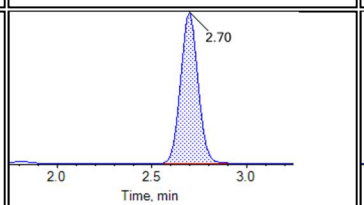
d5-EtFOSAA



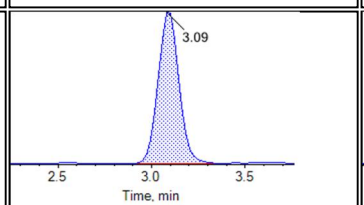
13C5-PFHxA



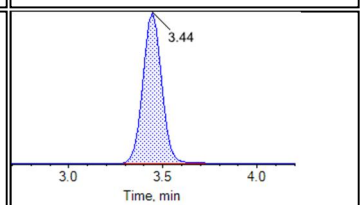
13C4-PFHpA



13C8-PFOA



13C9-PFNA

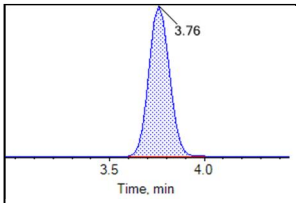


13C6-PFDA

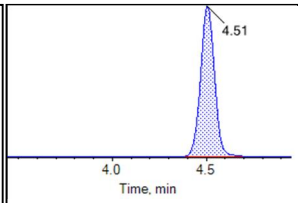
BATTELLE

Chromatogram Report

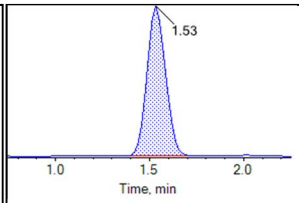
Created with Analyst Reporter
Printed: 23/10/2018 5:27:49 PM



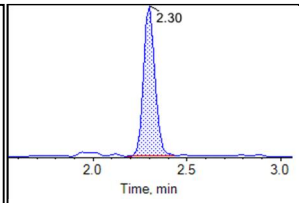
13C7-PFUnA



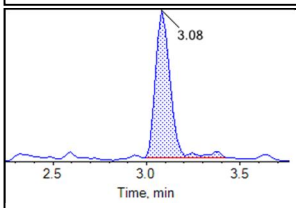
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

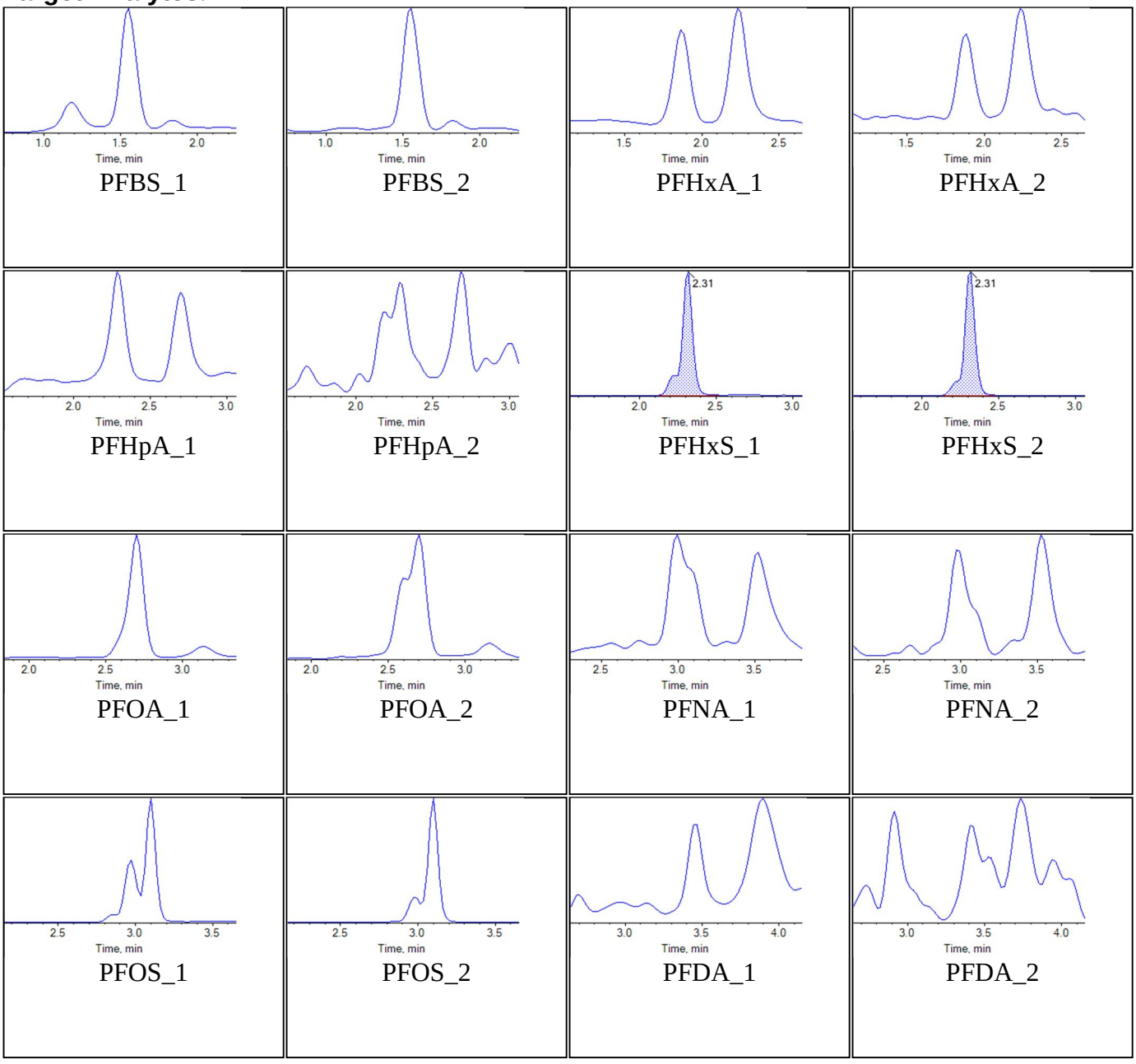
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:27:55 PM

Sample Name	J8400-FS-D(9)	**Injection Vial**	10
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:05:33	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

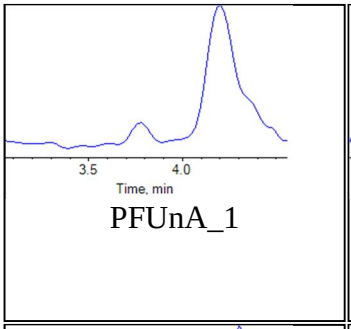
Target Analytes:



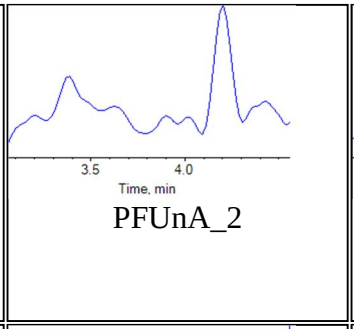
BATTELLE

Chromatogram Report

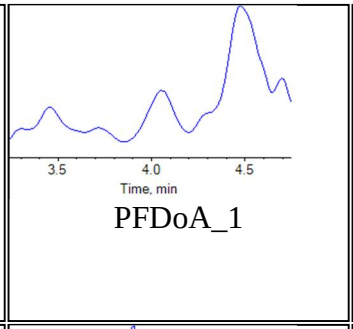
Created with Analyst Reporter
Printed: 23/10/2018 5:27:55 PM



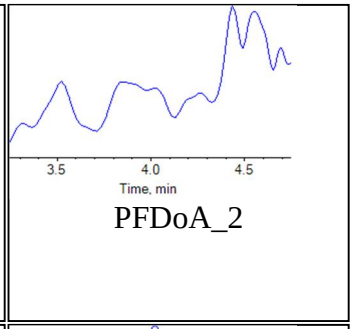
PFUnA_1



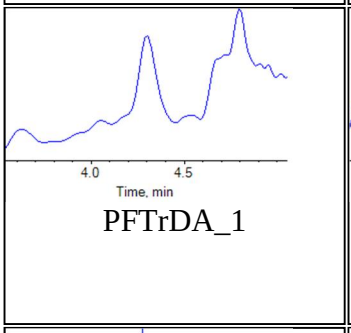
PFUnA_2



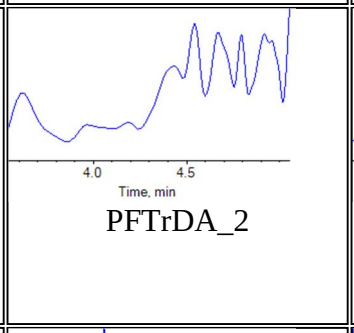
PFDoA_1



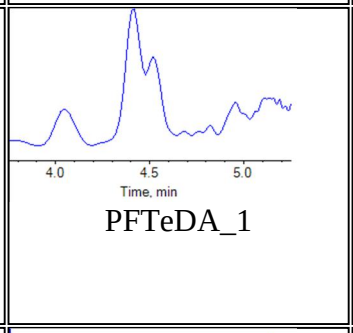
PFDoA_2



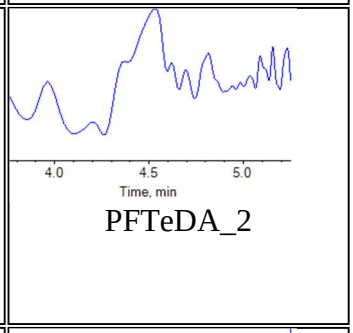
PFTrDA_1



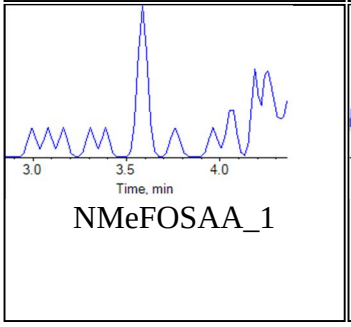
PFTrDA_2



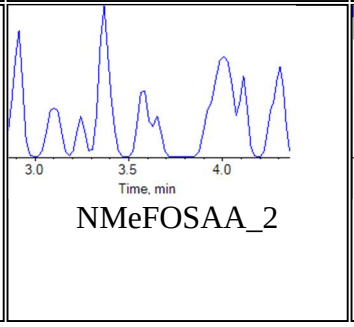
PFTeDA_1



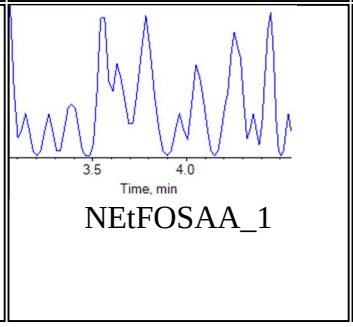
PFTeDA_2



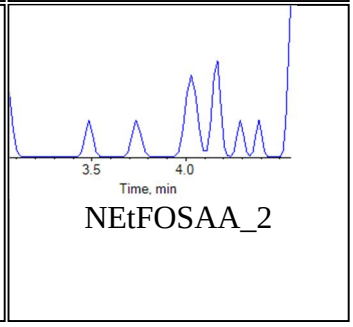
NMeFOSAA_1



NMeFOSAA_2

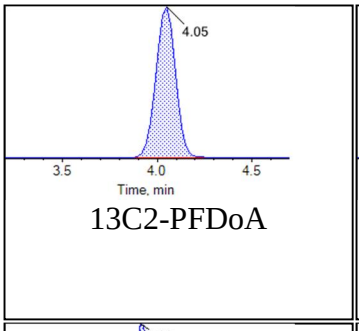


NEtFOSAA_1

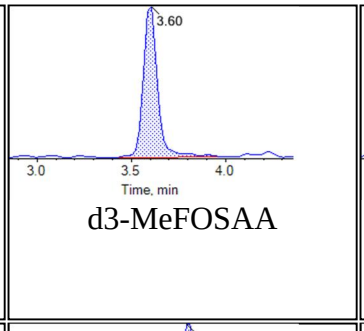


NEtFOSAA_2

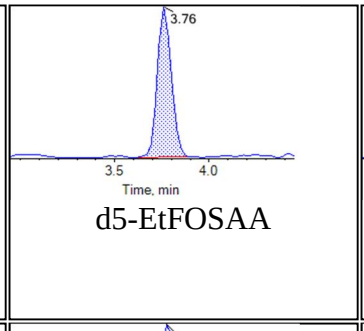
Internal Standards:



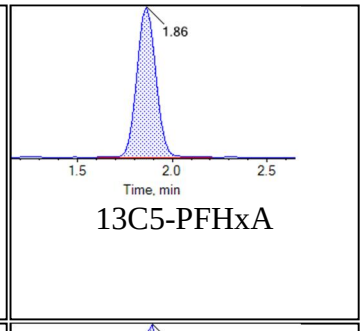
13C2-PFDoA



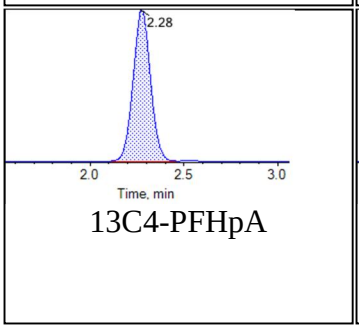
d3-MeFOSAA



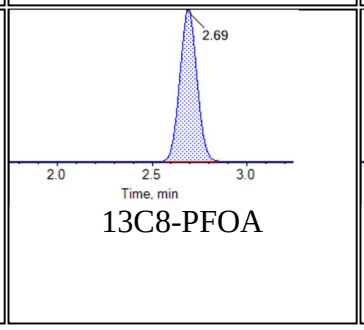
d5-EtFOSAA



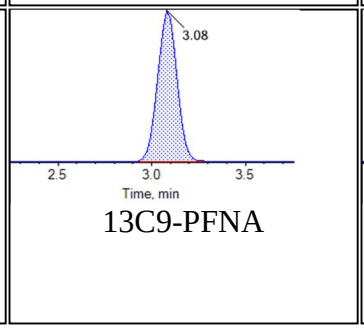
13C5-PFHxA



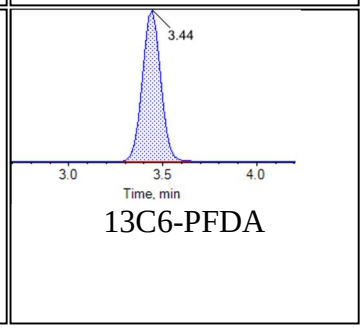
13C4-PFHpA



13C8-PFOA



13C9-PFNA

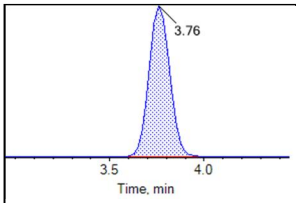


13C6-PFDA

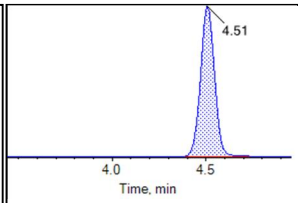
BATTELLE

Chromatogram Report

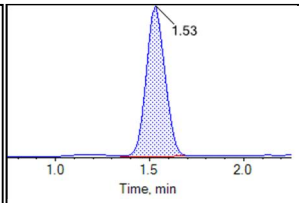
Created with Analyst Reporter
Printed: 23/10/2018 5:27:55 PM



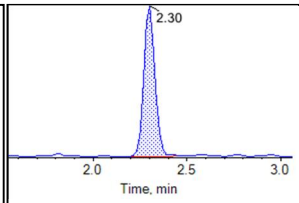
13C7-PFUnA



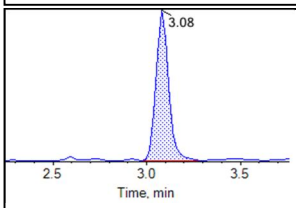
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

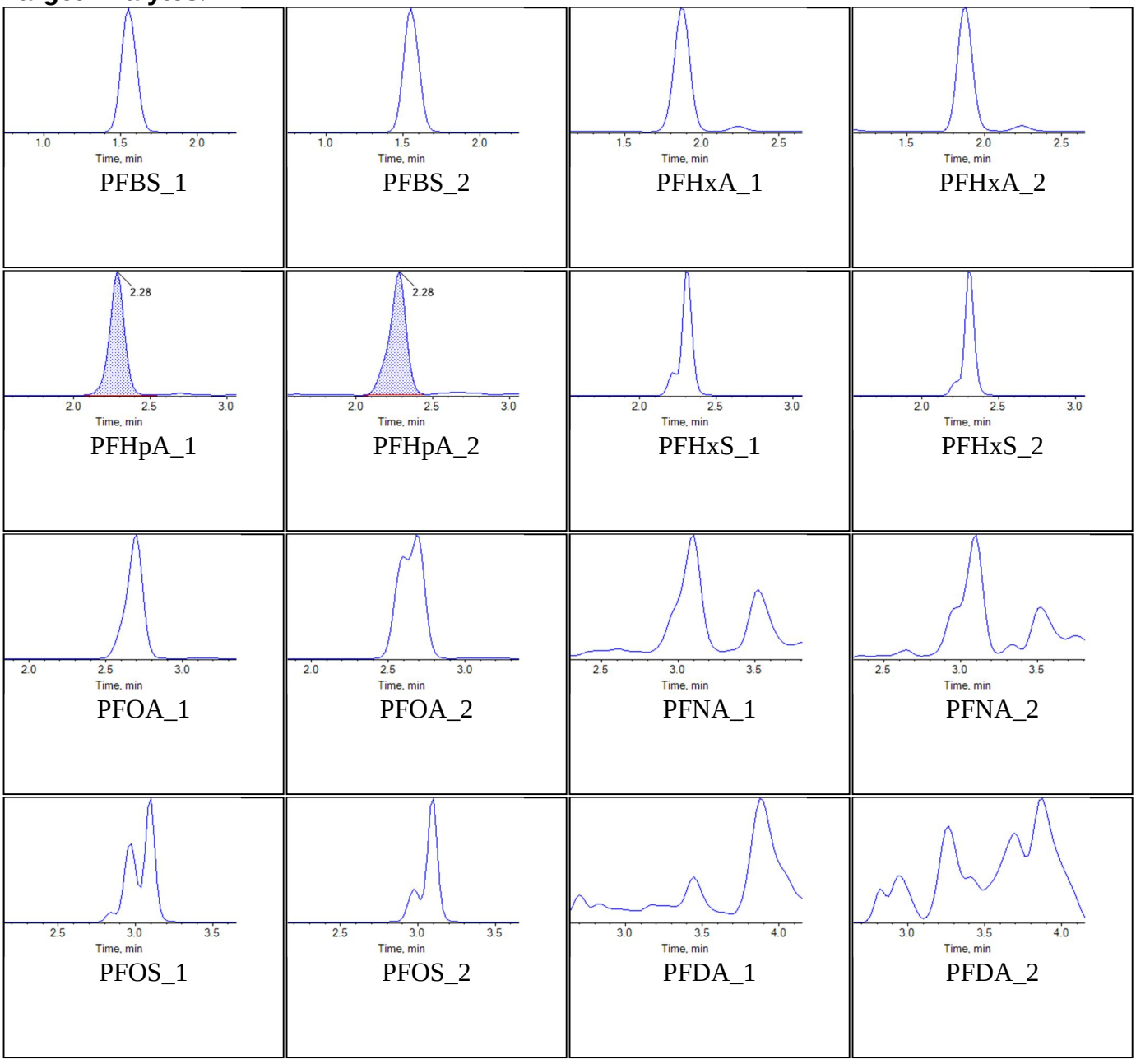
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:28:01 PM

Sample Name	J8371-FS-D(9)	**Injection Vial**	11
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:16:26	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

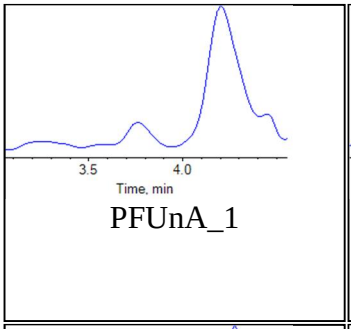
Target Analytes:



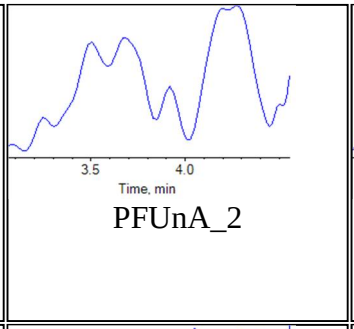
BATTELLE

Chromatogram Report

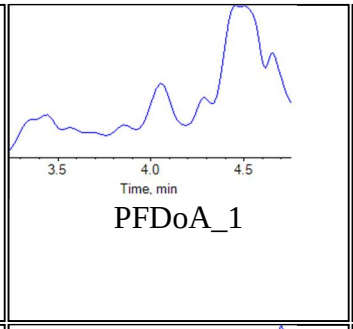
Created with Analyst Reporter
Printed: 23/10/2018 5:28:01 PM



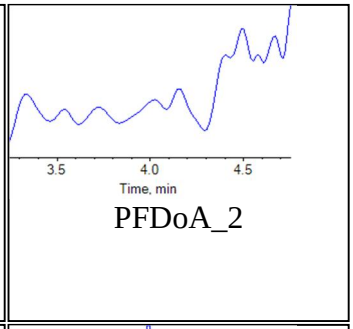
PFUnA_1



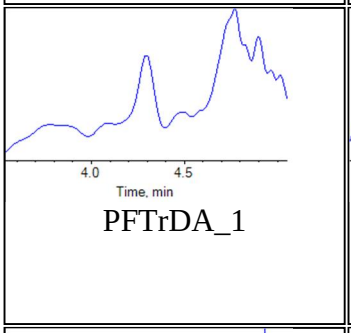
PFUnA_2



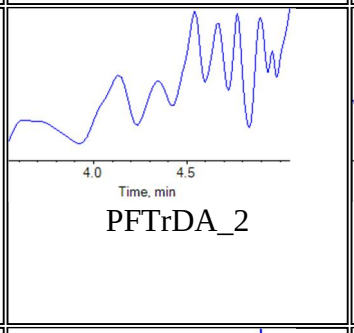
PFDoA_1



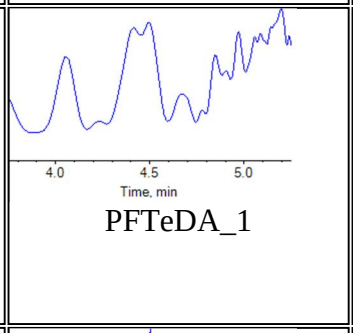
PFDoA_2



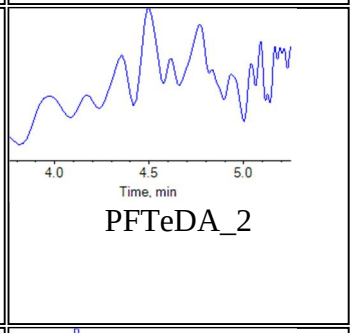
PFTrDA_1



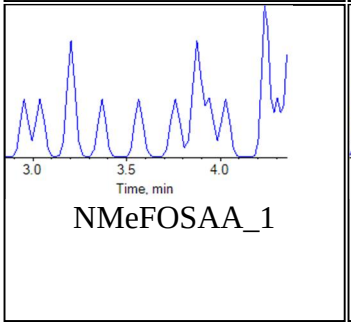
PFTrDA_2



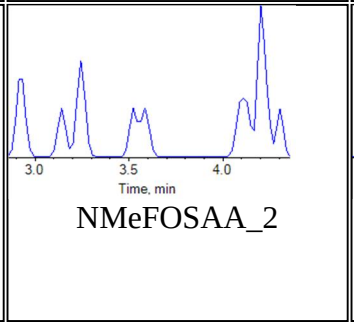
PFTeDA_1



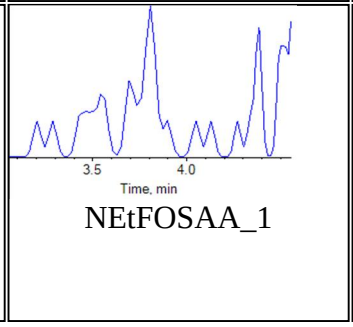
PFTeDA_2



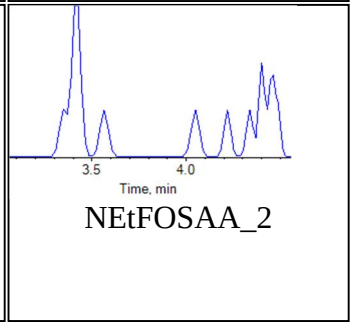
NMeFOSAA_1



NMeFOSAA_2

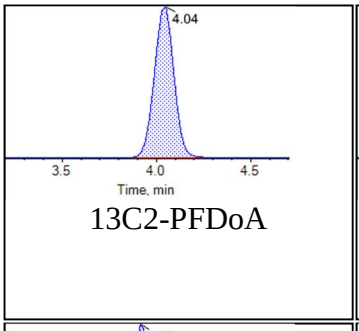


NEtFOSAA_1

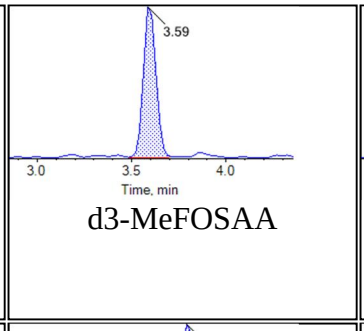


NEtFOSAA_2

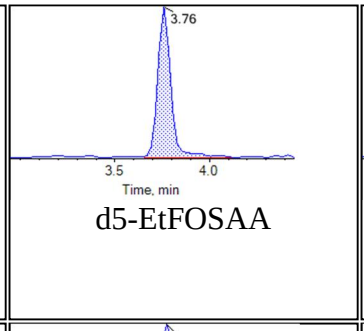
Internal Standards:



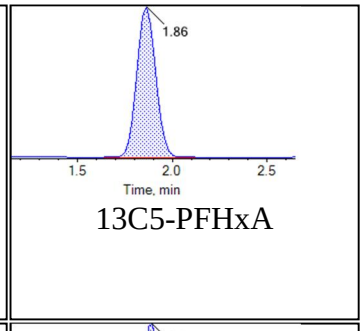
13C2-PFDoA



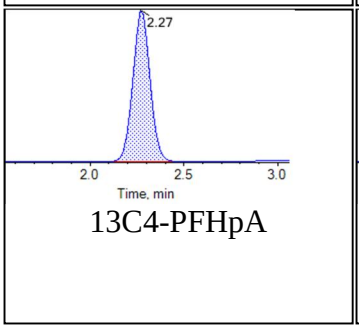
d3-MeFOSAA



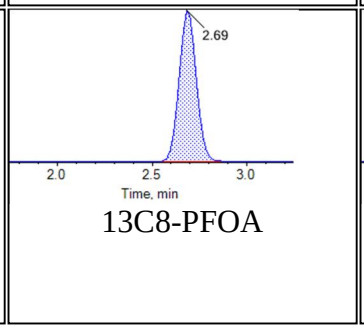
d5-EtFOSAA



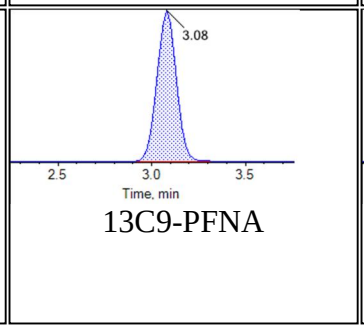
13C5-PFHxA



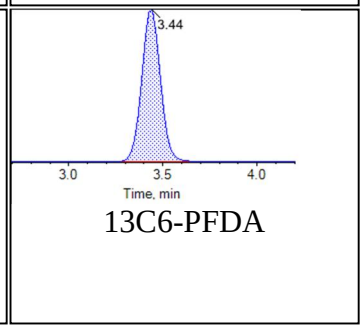
13C4-PFHpA



13C8-PFOA



13C9-PFNA

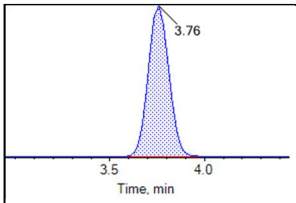


13C6-PFDA

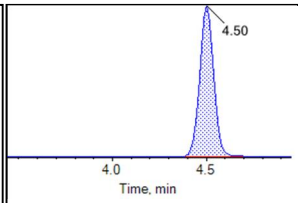
BATTELLE

Chromatogram Report

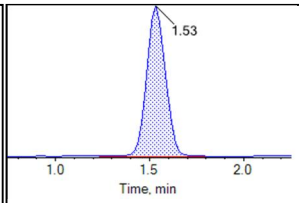
Created with Analyst Reporter
Printed: 23/10/2018 5:28:01 PM



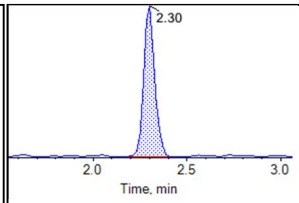
13C7-PFUnA



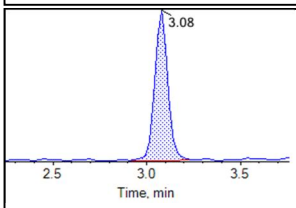
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

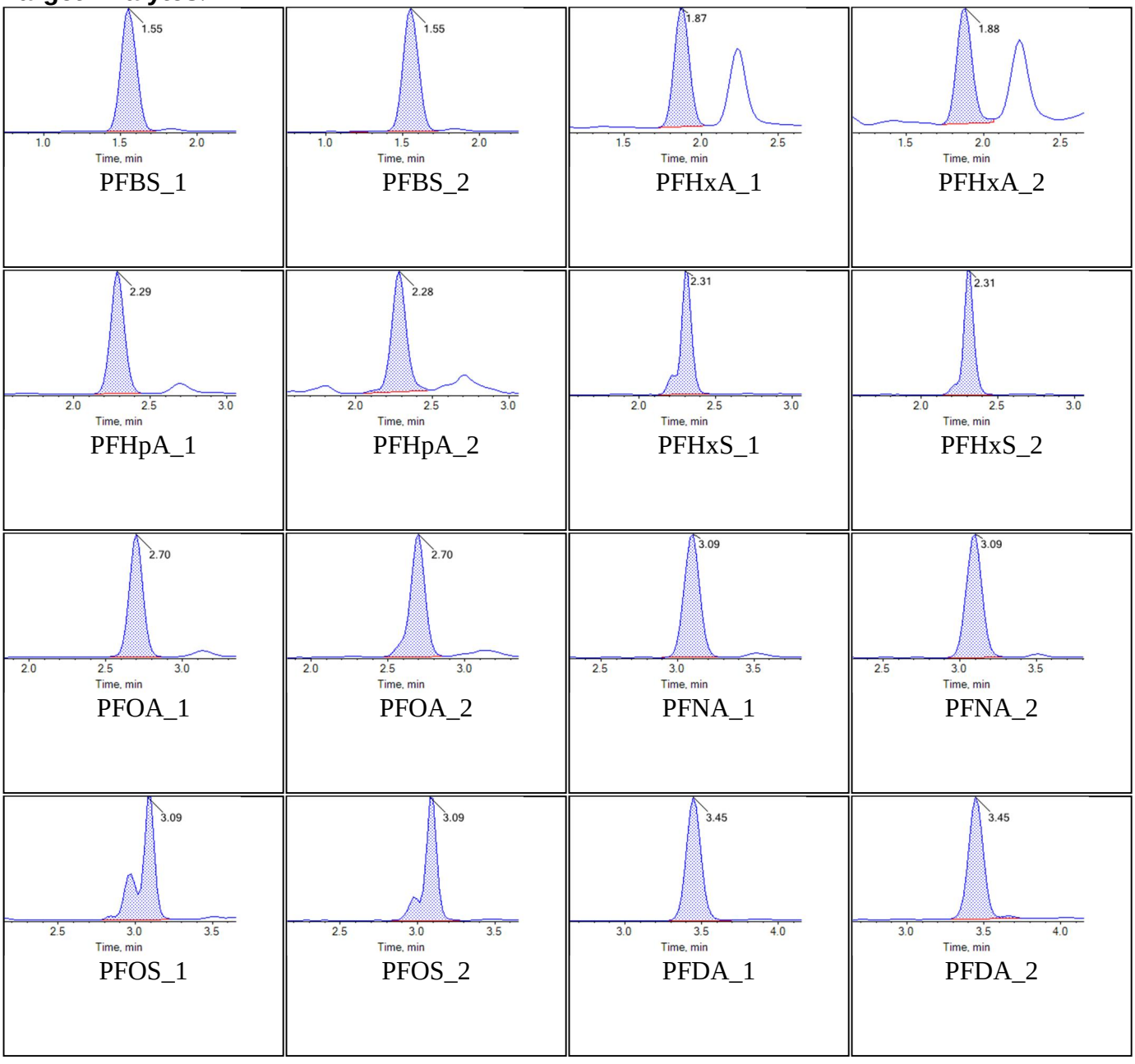
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:28:06 PM

Sample Name	KB76 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_D
Sample Comment			

Chromatograms

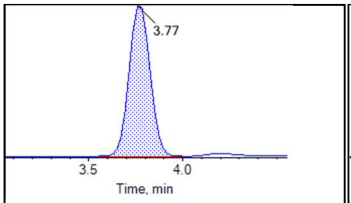
Target Analytes:



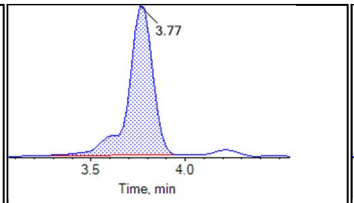
BATTELLE

Chromatogram Report

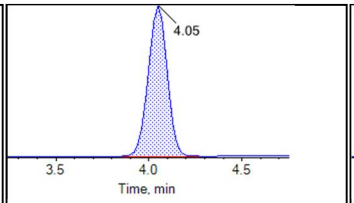
Created with Analyst Reporter
Printed: 23/10/2018 5:28:06 PM



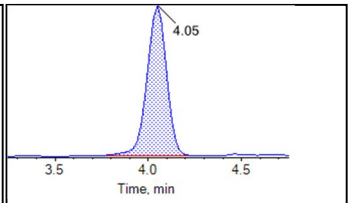
PFUnA_1



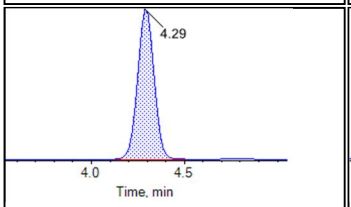
PFUnA_2



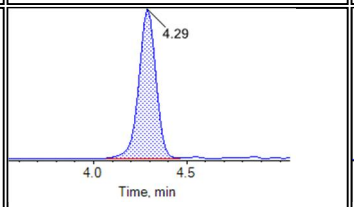
PFDoA_1



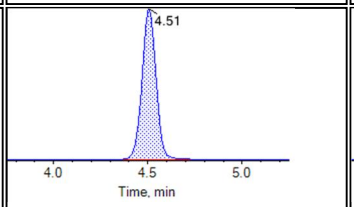
PFDoA_2



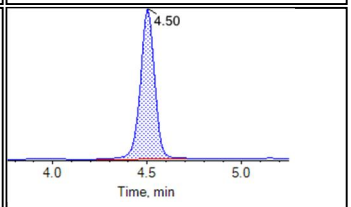
PFTrDA_1



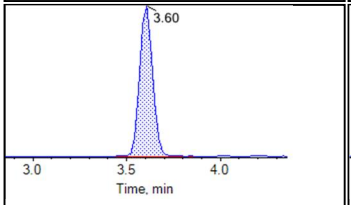
PFTrDA_2



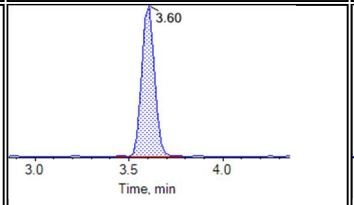
PFTeDA_1



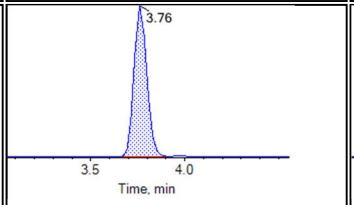
PFTeDA_2



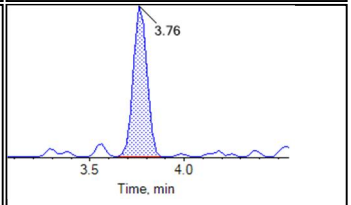
NMeFOSAA_1



NMeFOSAA_2

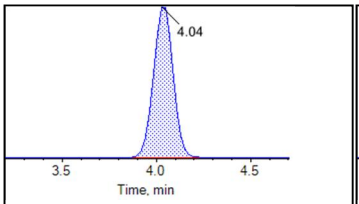


NEtFOSAA_1

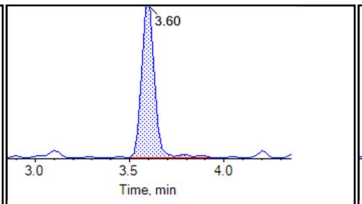


NEtFOSAA_2

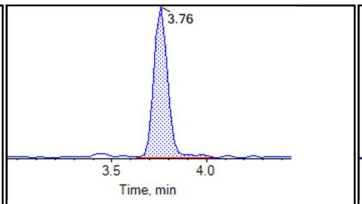
Internal Standards:



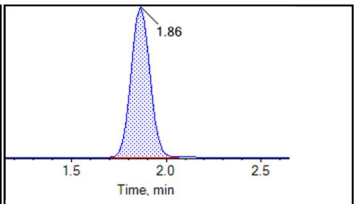
13C2-PFDoA



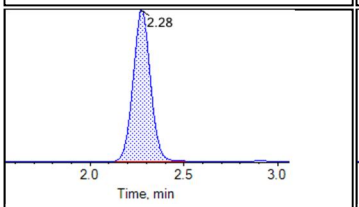
d3-MeFOSAA



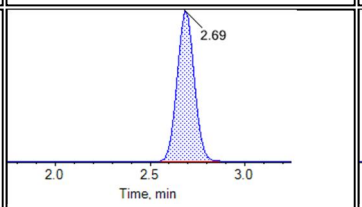
d5-EtFOSAA



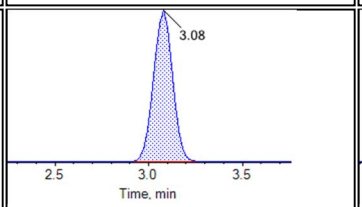
13C5-PFHxA



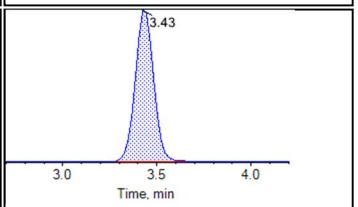
13C4-PFHpA



13C8-PFOA



13C9-PFNA

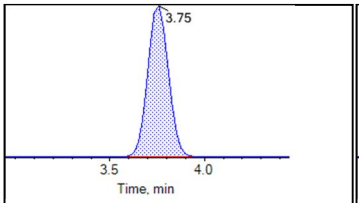


13C6-PFDA

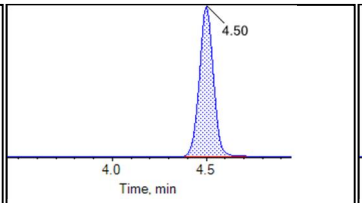
BATTELLE

Chromatogram Report

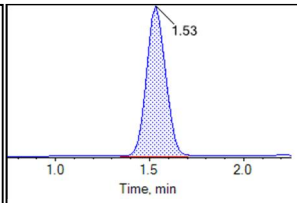
Created with Analyst Reporter
Printed: 23/10/2018 5:28:06 PM



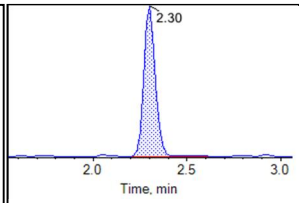
13C7-PFUnA



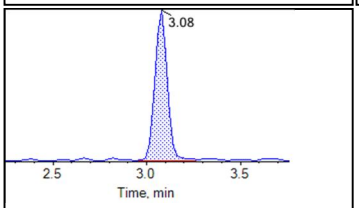
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

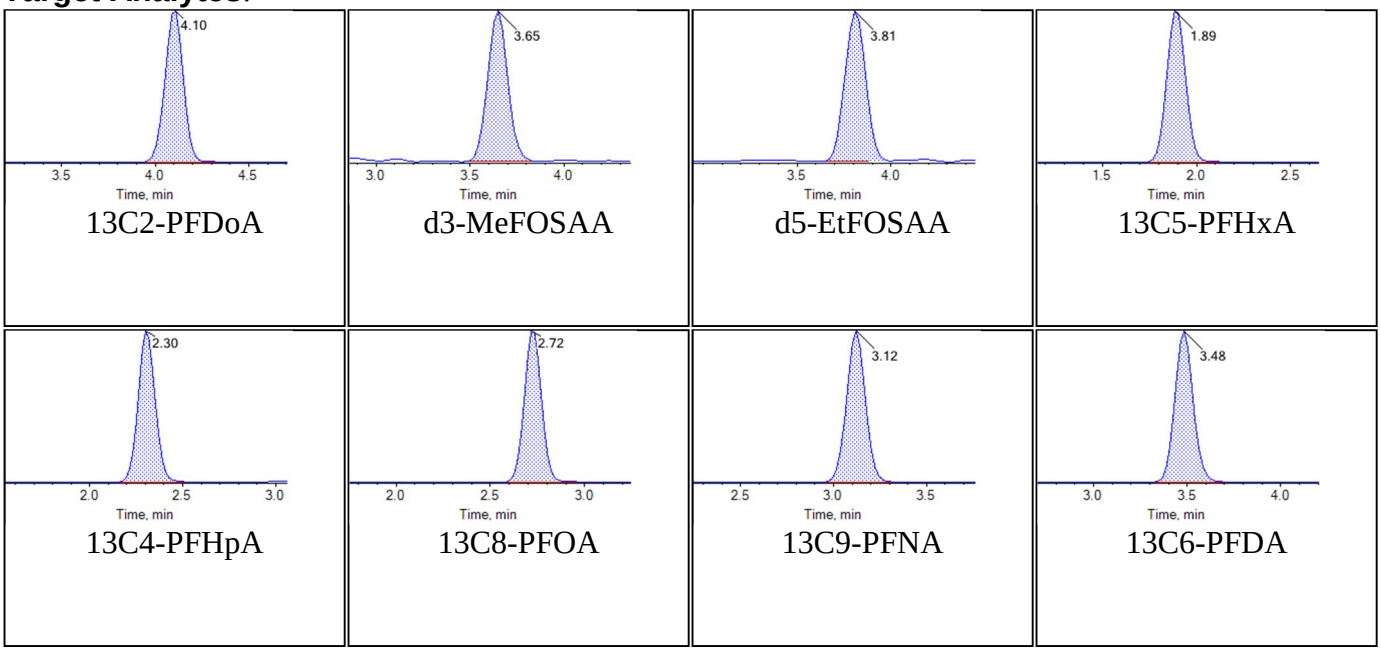
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:03:19 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

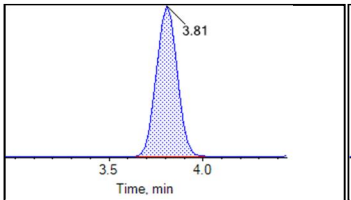
Target Analytes:



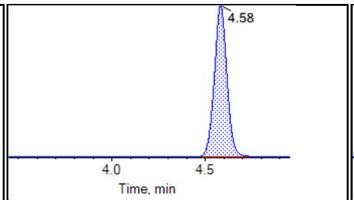
BATTELLE

Chromatogram Report

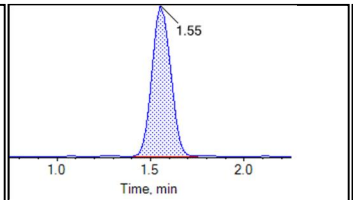
Created with Analyst Reporter
Printed: 23/10/2018 5:03:19 PM



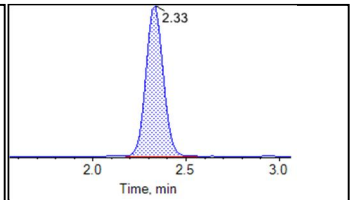
13C7-PFUnA



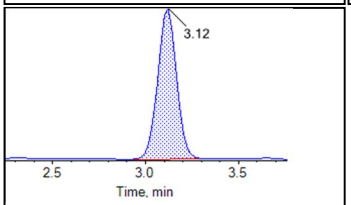
13C2-PFTeDA



13C3-PFBS

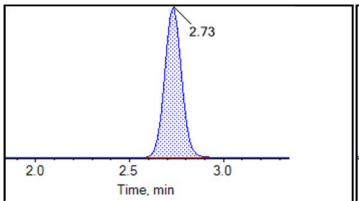


13C3-PFHxS

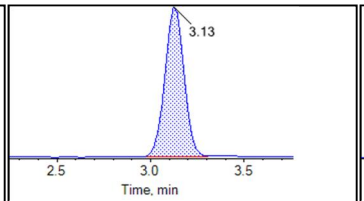


13C8-PFOS

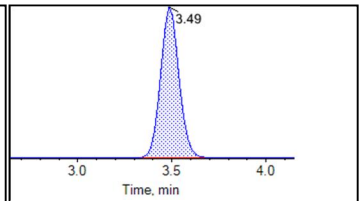
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

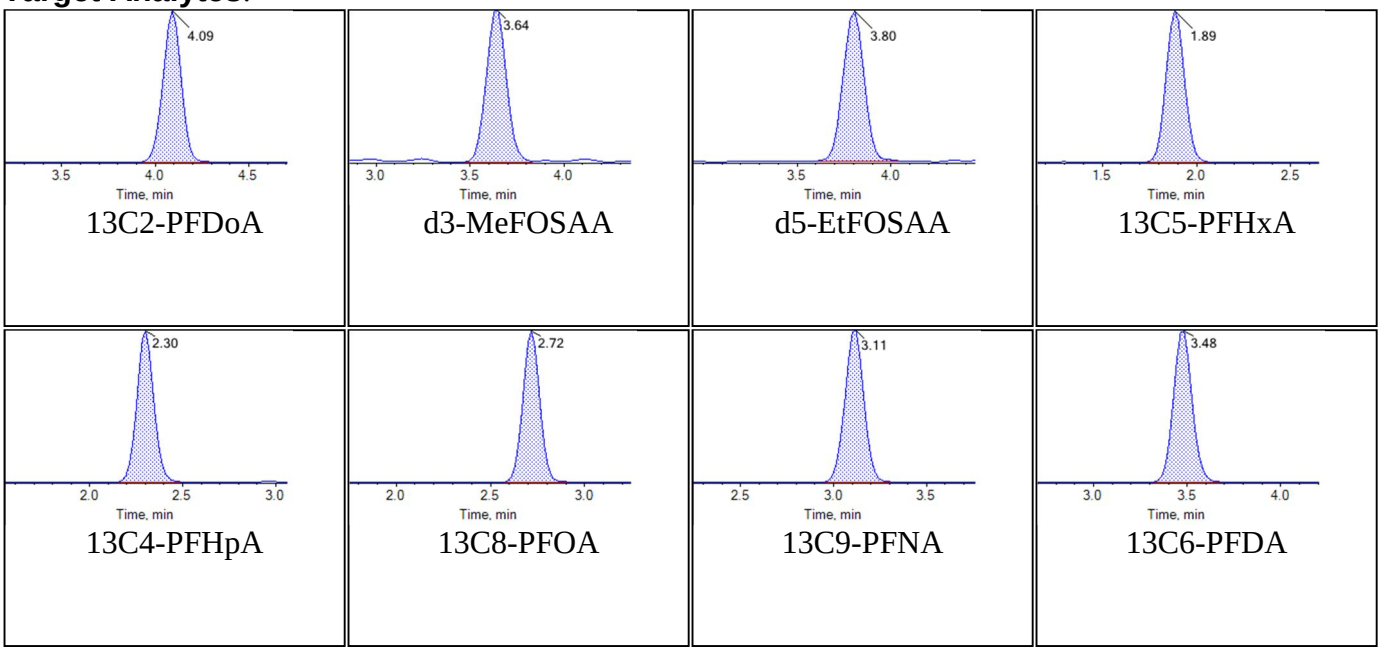
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:03:24 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

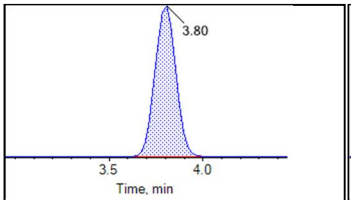
Target Analytes:



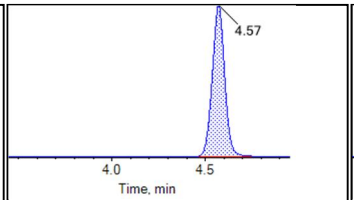
BATTELLE

Chromatogram Report

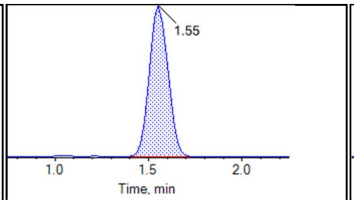
Created with Analyst Reporter
Printed: 23/10/2018 5:03:24 PM



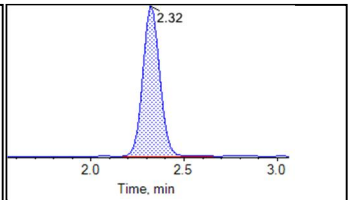
13C7-PFUnA



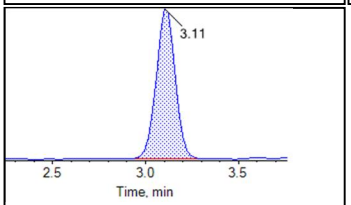
13C2-PFTeDA



13C3-PFBS

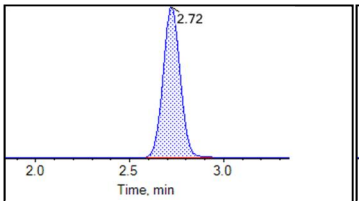


13C3-PFHxS

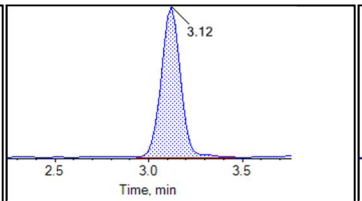


13C8-PFOS

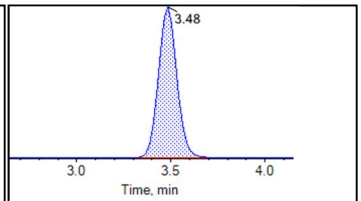
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

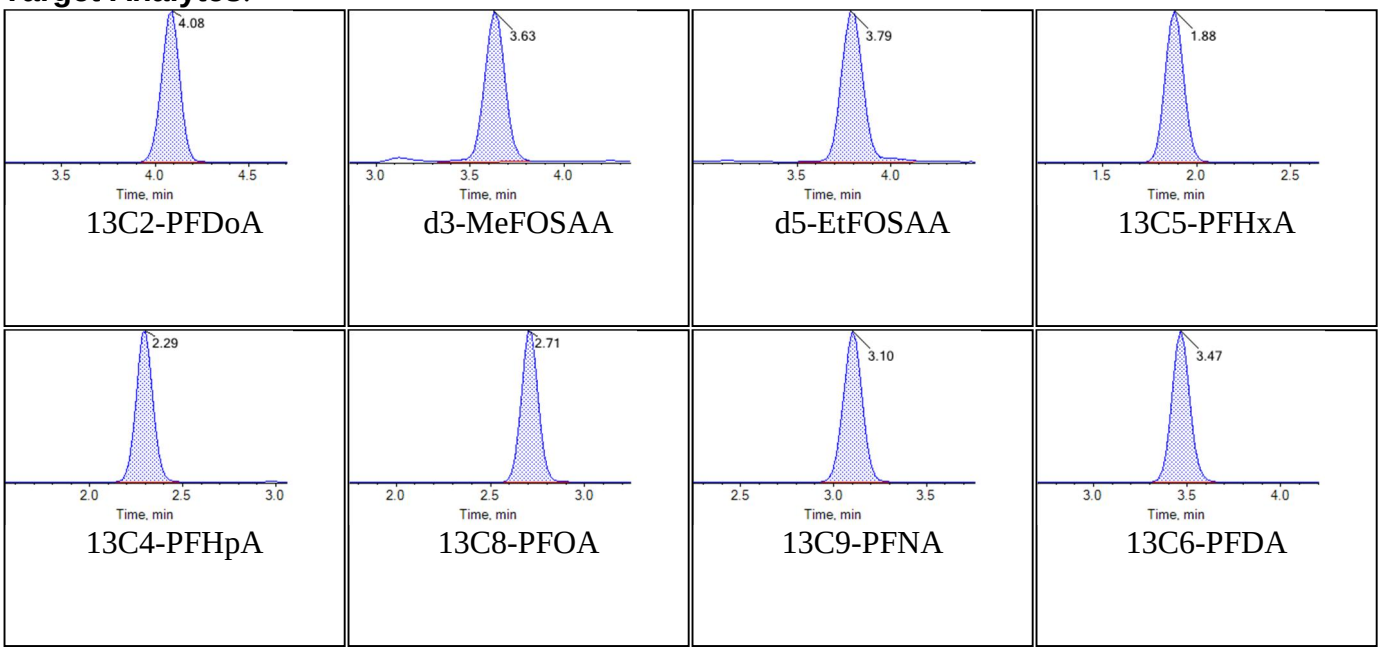
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:03:28 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

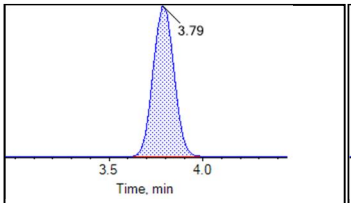
Target Analytes:



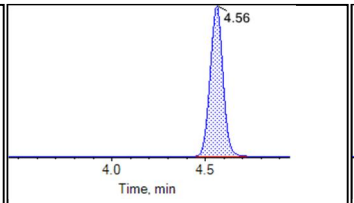
BATTELLE

Chromatogram Report

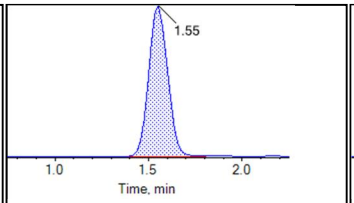
Created with Analyst Reporter
Printed: 23/10/2018 5:03:28 PM



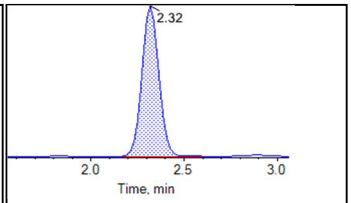
13C7-PFUnA



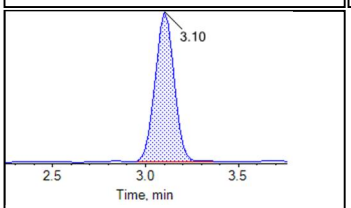
13C2-PFTeDA



13C3-PFBS

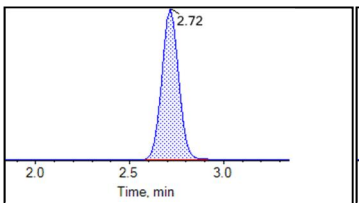


13C3-PFHxS

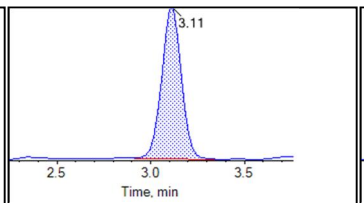


13C8-PFOS

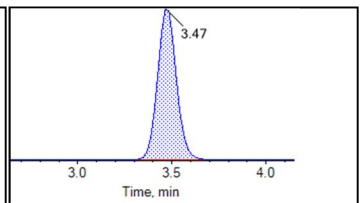
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

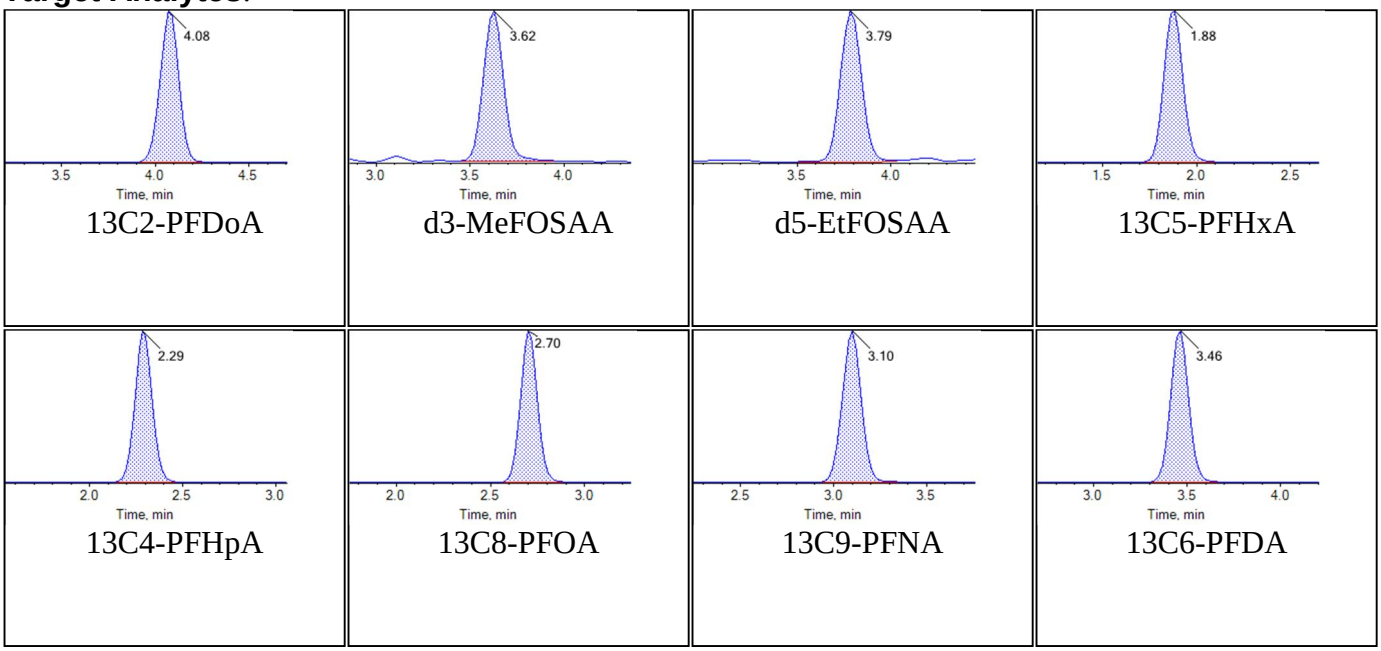
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:03:33 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

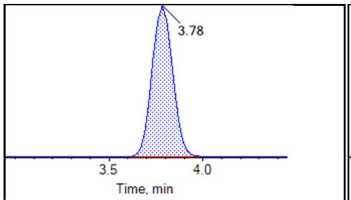
Target Analytes:



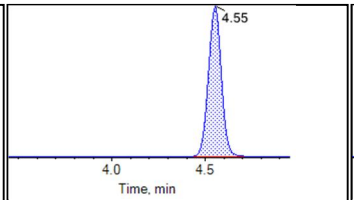
BATTELLE

Chromatogram Report

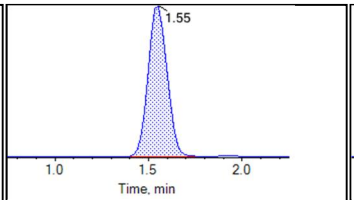
Created with Analyst Reporter
Printed: 23/10/2018 5:03:33 PM



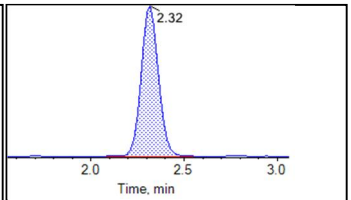
13C7-PFUnA



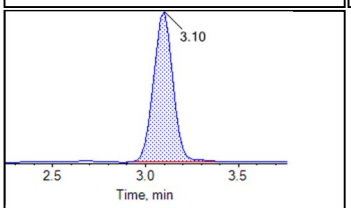
13C2-PFTeDA



13C3-PFBS

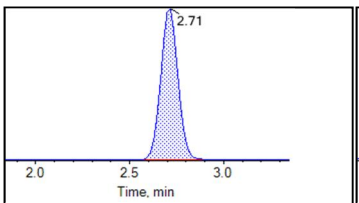


13C3-PFHxS

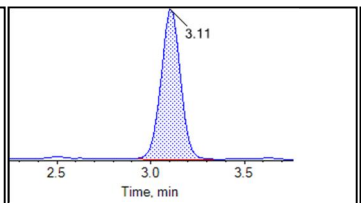


13C8-PFOS

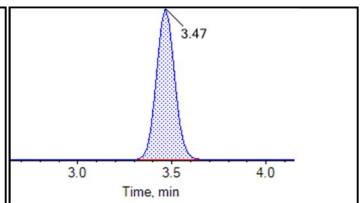
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

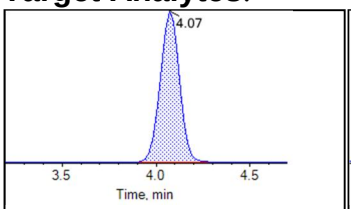
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:03:38 PM

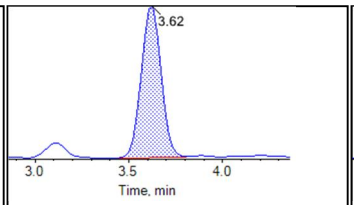
Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

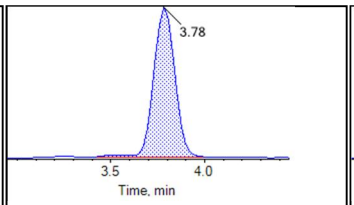
Target Analytes:



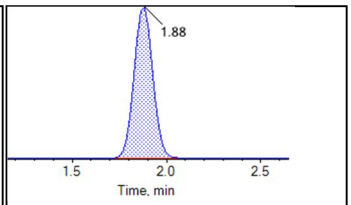
13C2-PFDoA



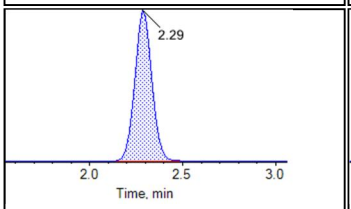
d3-MeFOSAA



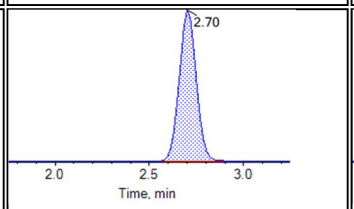
d5-EtFOSAA



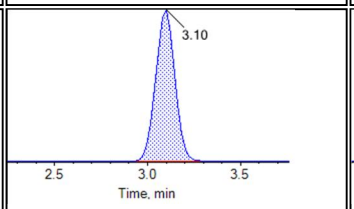
13C5-PFHxA



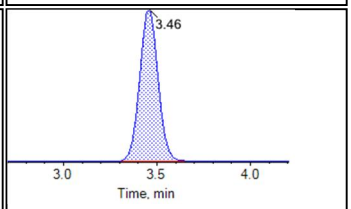
13C4-PFHpA



13C8-PFOA



13C9-PFNA

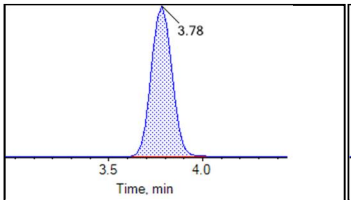


13C6-PFDA

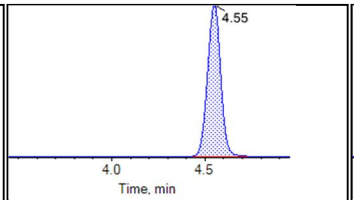
BATTELLE

Chromatogram Report

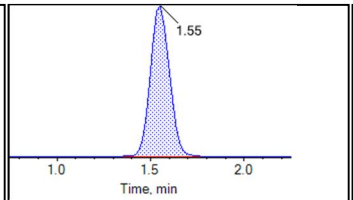
Created with Analyst Reporter
Printed: 23/10/2018 5:03:38 PM



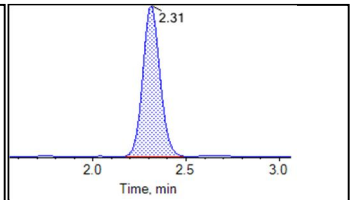
13C7-PFUnA



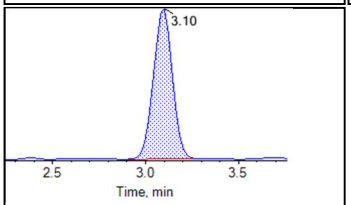
13C2-PFTeDA



13C3-PFBS

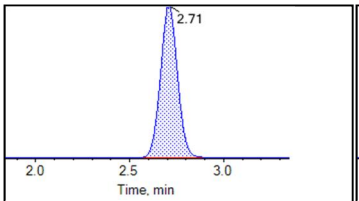


13C3-PFHxS

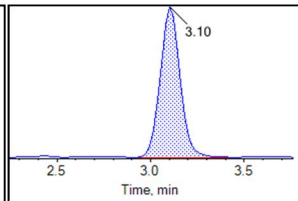


13C8-PFOS

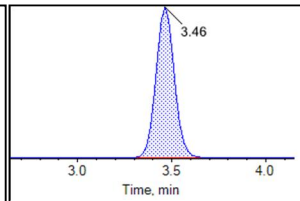
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

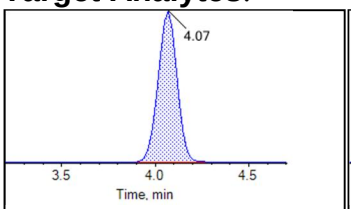
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:03:42 PM

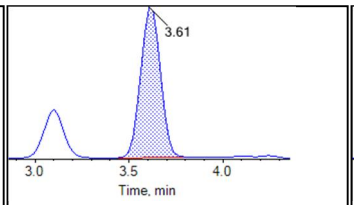
Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

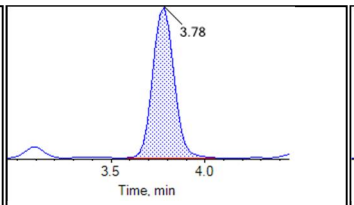
Target Analytes:



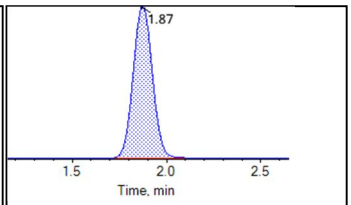
13C2-PFDoA



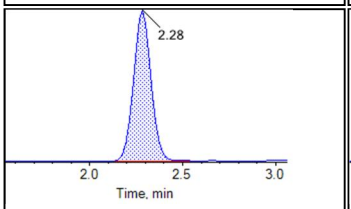
d3-MeFOSAA



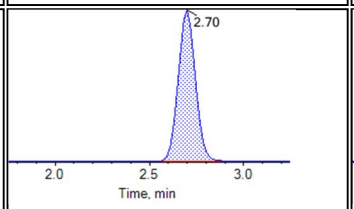
d5-EtFOSAA



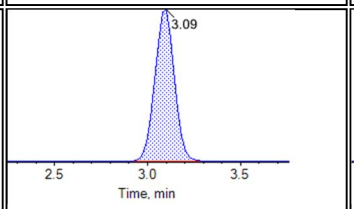
13C5-PFHxA



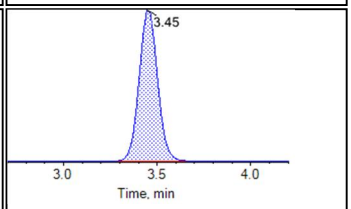
13C4-PFHpA



13C8-PFOA



13C9-PFNA

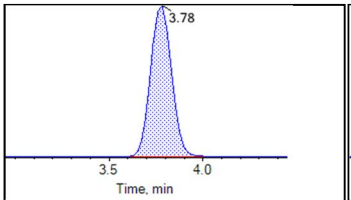


13C6-PFDA

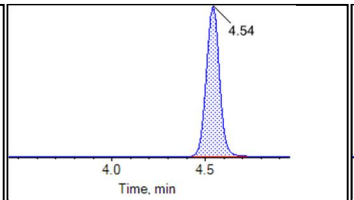
BATTELLE

Chromatogram Report

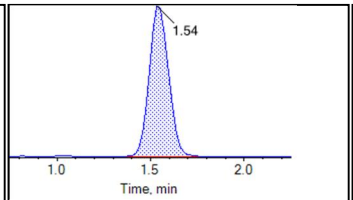
Created with Analyst Reporter
Printed: 23/10/2018 5:03:42 PM



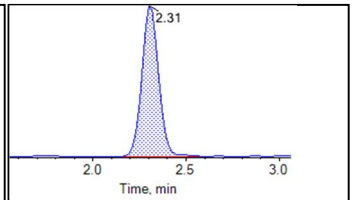
13C7-PFUnA



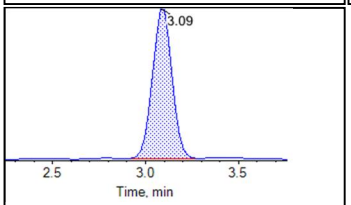
13C2-PFTeDA



13C3-PFBS

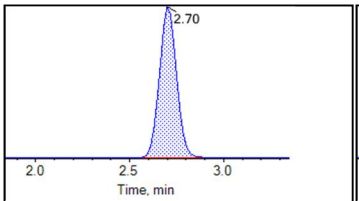


13C3-PFHxS

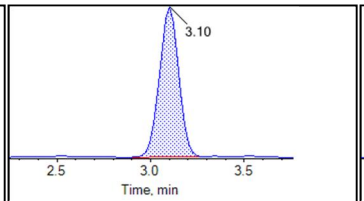


13C8-PFOS

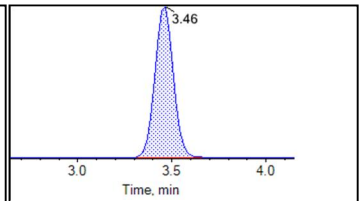
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

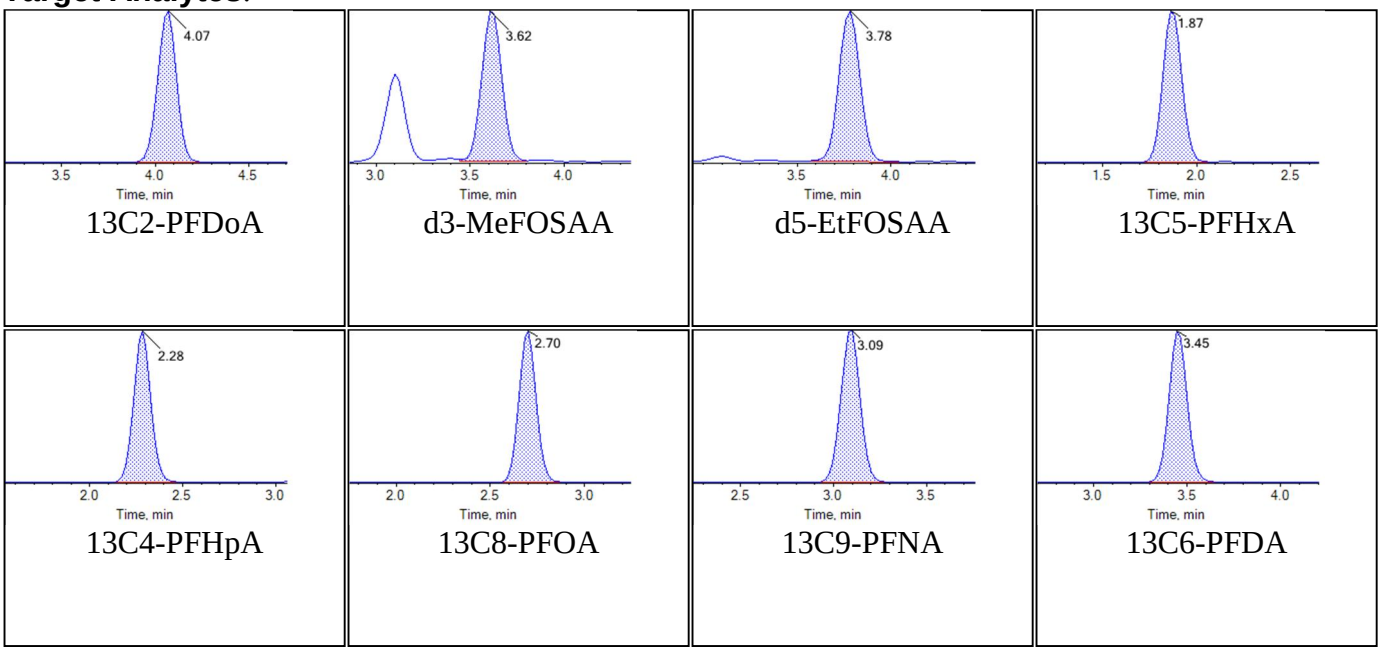
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:03:47 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

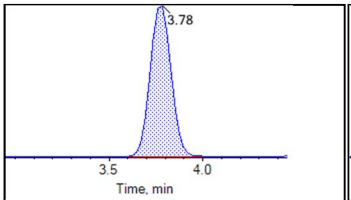
Target Analytes:



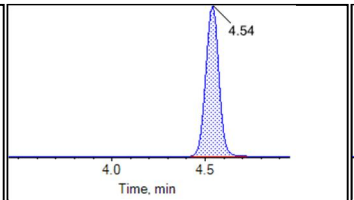
BATTELLE

Chromatogram Report

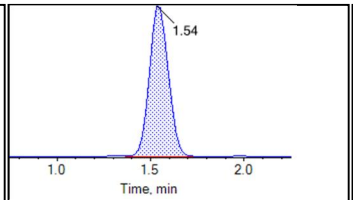
Created with Analyst Reporter
Printed: 23/10/2018 5:03:47 PM



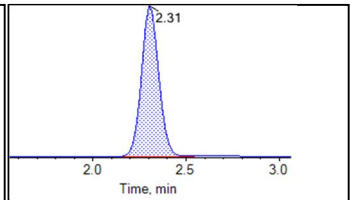
13C7-PFUnA



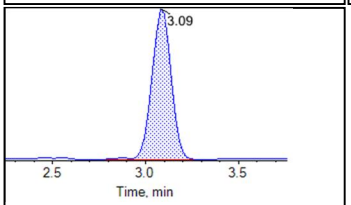
13C2-PFTeDA



13C3-PFBS

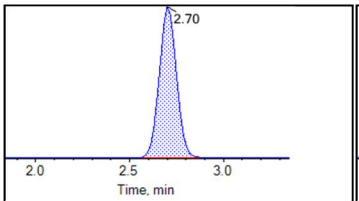


13C3-PFHxS

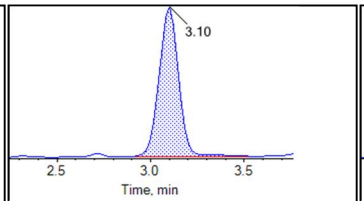


13C8-PFOS

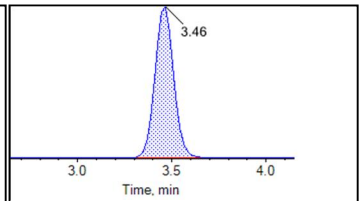
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

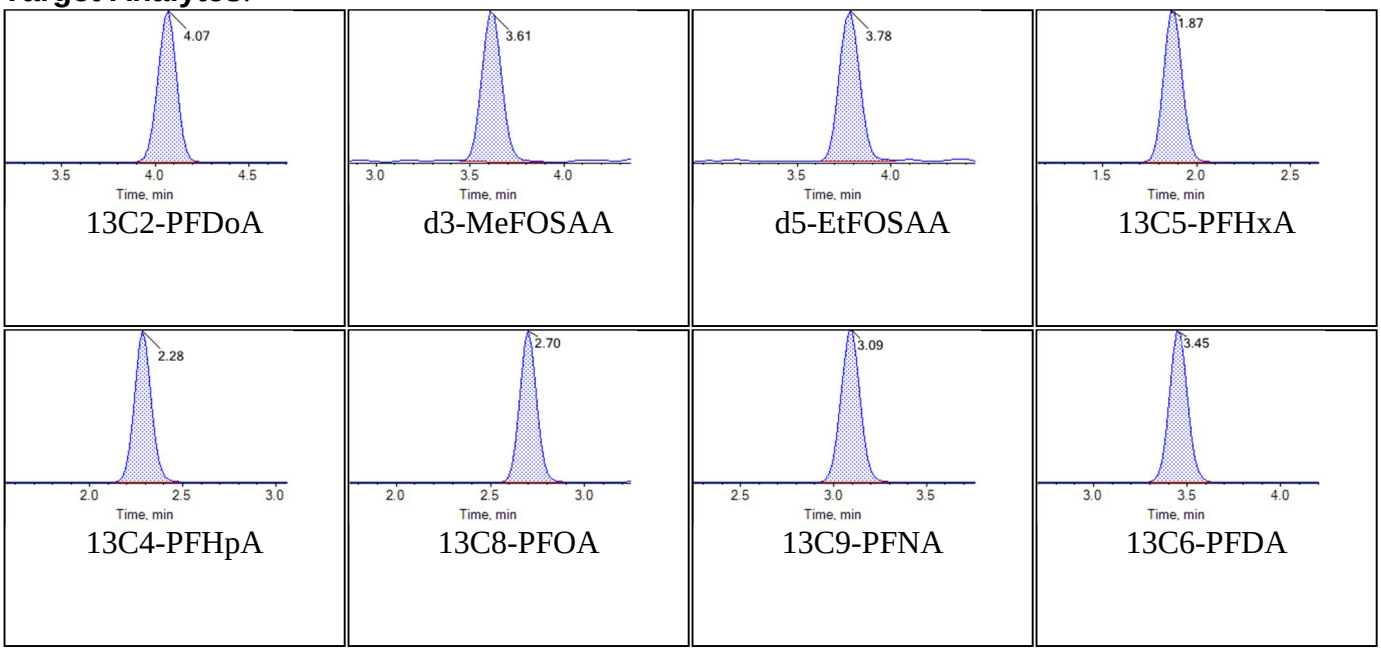
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:03:52 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

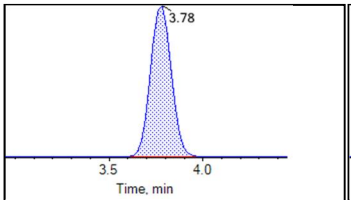
Target Analytes:



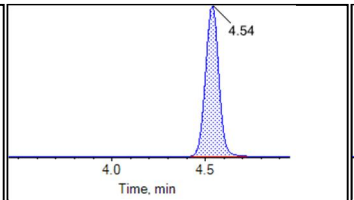
BATTELLE

Chromatogram Report

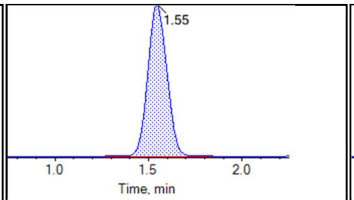
Created with Analyst Reporter
Printed: 23/10/2018 5:03:52 PM



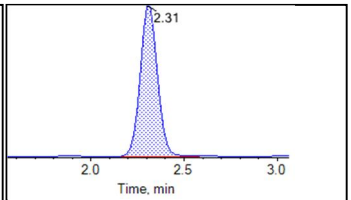
13C7-PFUnA



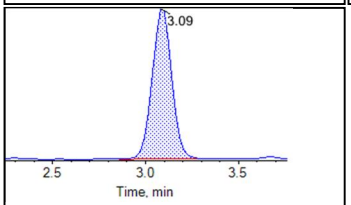
13C2-PFTeDA



13C3-PFBS

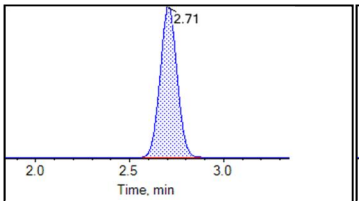


13C3-PFHxS

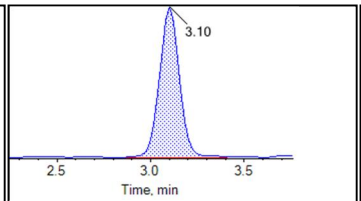


13C8-PFOS

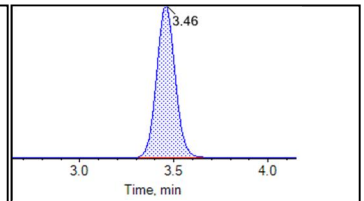
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

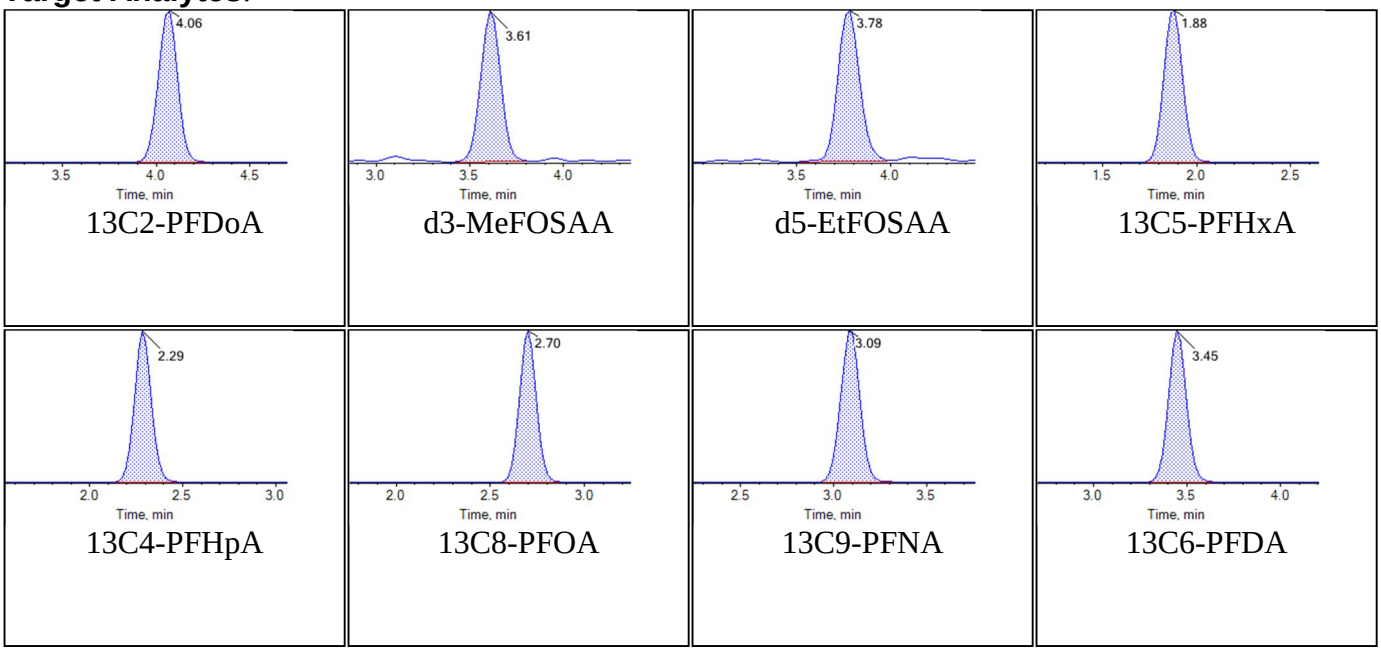
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:03:56 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	**Data File**	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

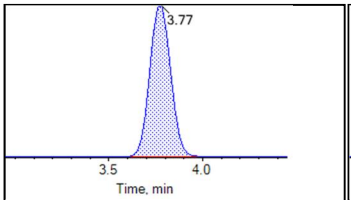
Target Analytes:



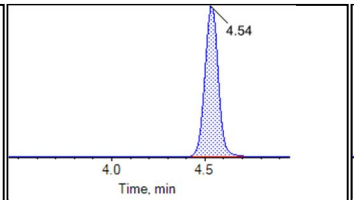
BATTELLE

Chromatogram Report

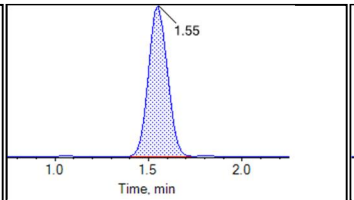
Created with Analyst Reporter
Printed: 23/10/2018 5:03:56 PM



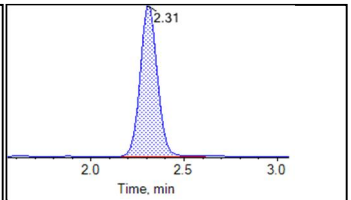
13C7-PFUnA



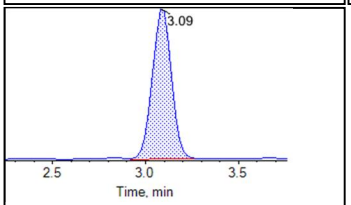
13C2-PFTeDA



13C3-PFBS

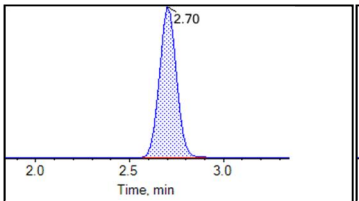


13C3-PFHxS

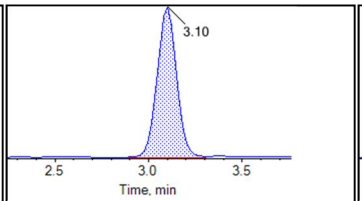


13C8-PFOS

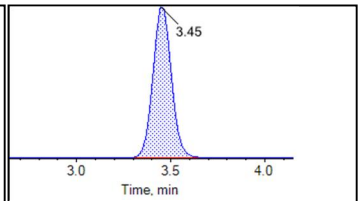
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

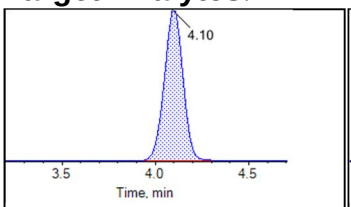
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:01 PM

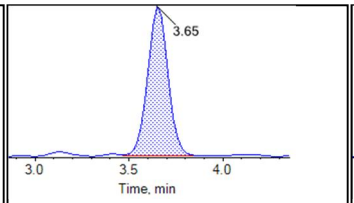
Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID	Instrument Sensitivity Check	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

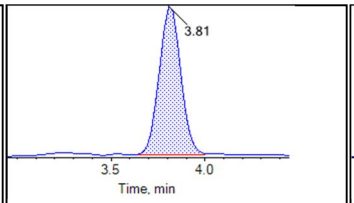
Target Analytes:



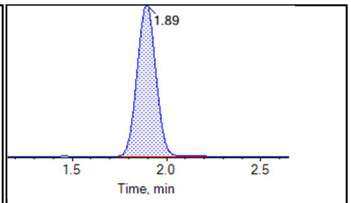
13C2-PFDoA



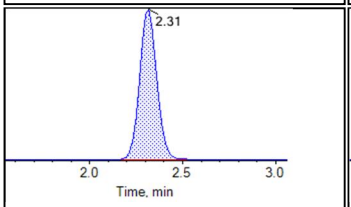
d3-MeFOSAA



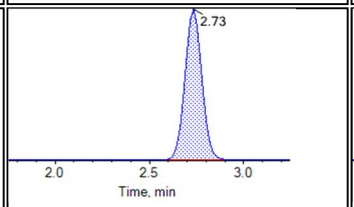
d5-EtFOSAA



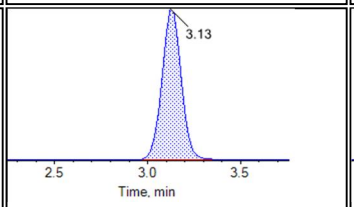
13C5-PFHxA



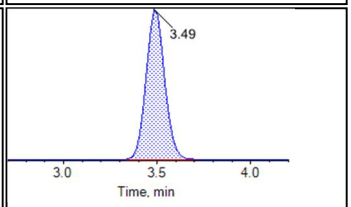
13C4-PFHpA



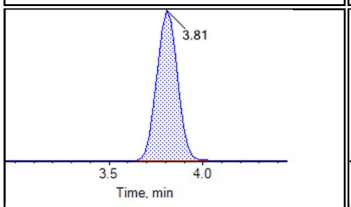
13C8-PFOA



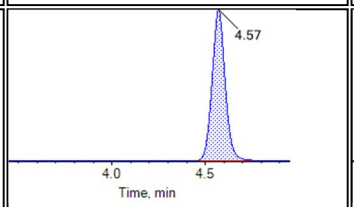
13C9-PFNA



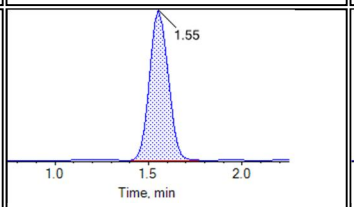
13C6-PFDA



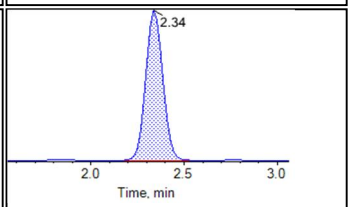
13C7-PFUnA



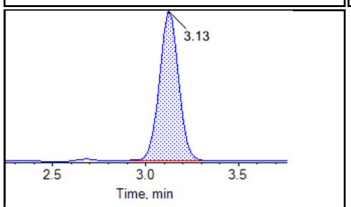
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



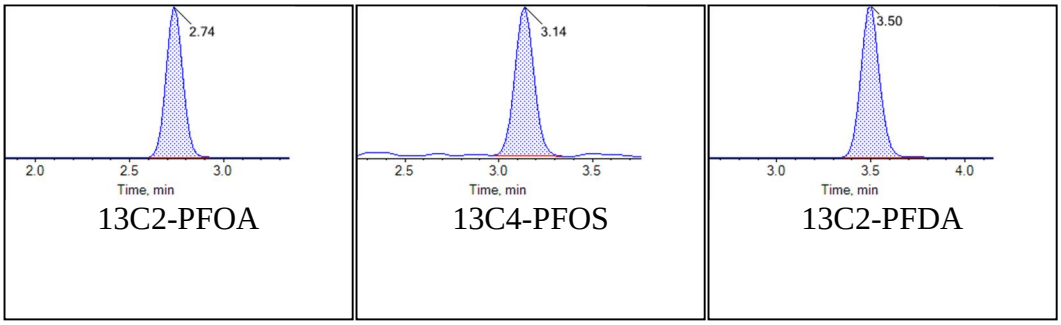
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:01 PM

Internal Standards:



BATTELLE

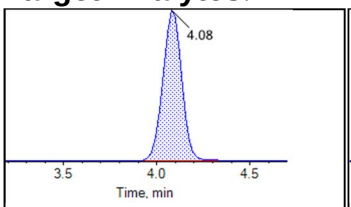
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:05 PM

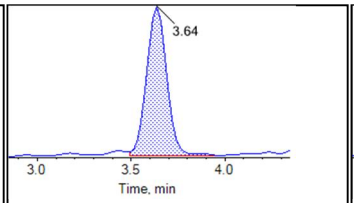
Sample Name	KB80 IB	**Injection Vial**	2
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

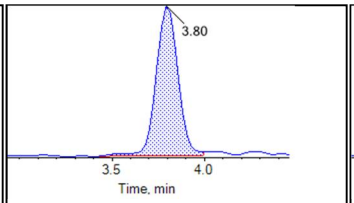
Target Analytes:



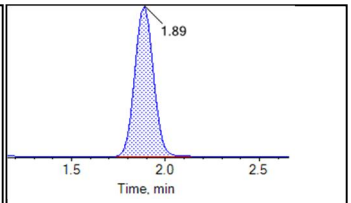
13C2-PFDoA



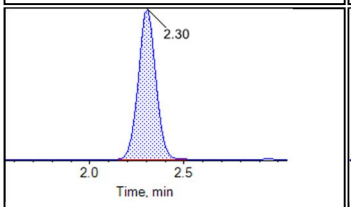
d3-MeFOSAA



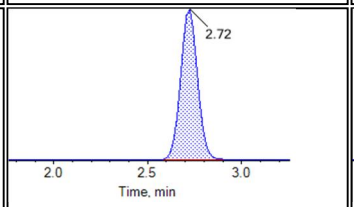
d5-EtFOSAA



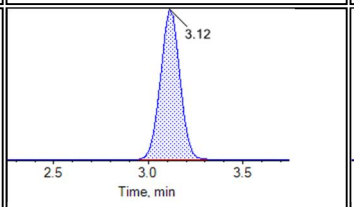
13C5-PFHxA



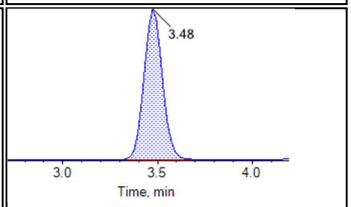
13C4-PFHpA



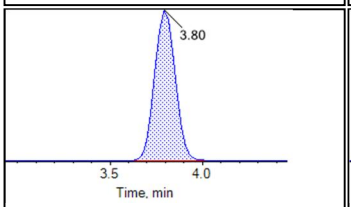
13C8-PFOA



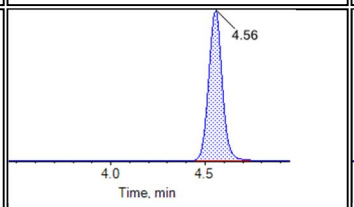
13C9-PFNA



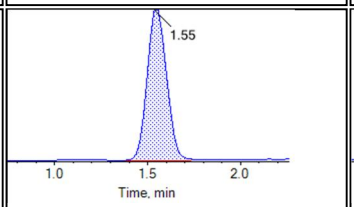
13C6-PFDA



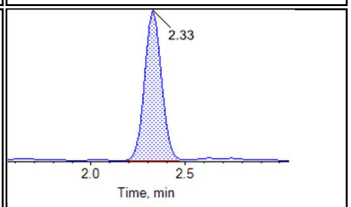
13C7-PFUnA



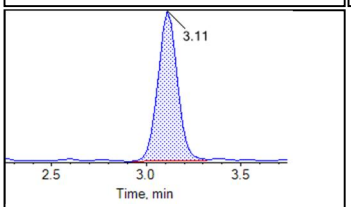
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



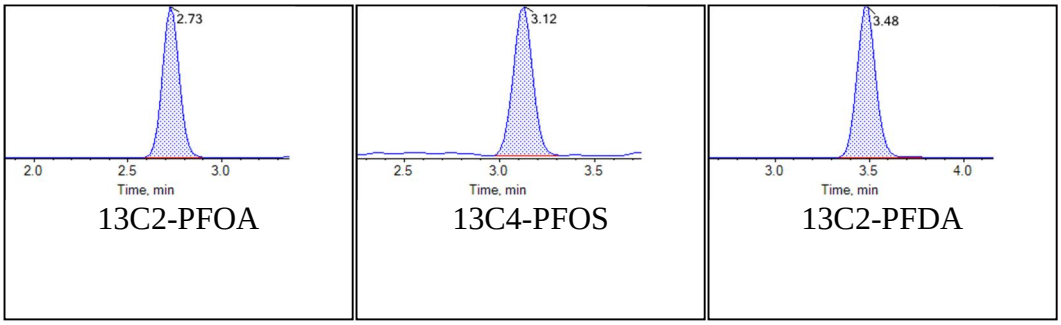
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:05 PM

Internal Standards:



BATTELLE

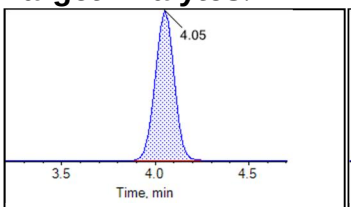
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:14 PM

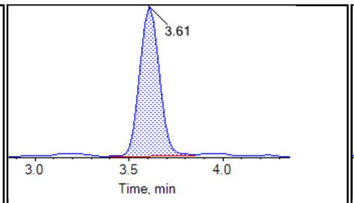
Sample Name	J8384-FS-D(5)	**Injection Vial**	8
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:32:58	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

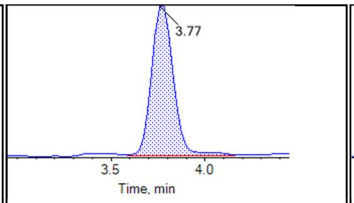
Target Analytes:



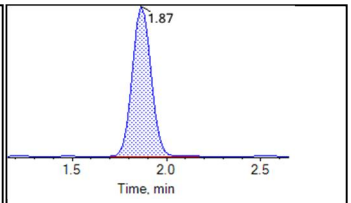
13C2-PFDoA



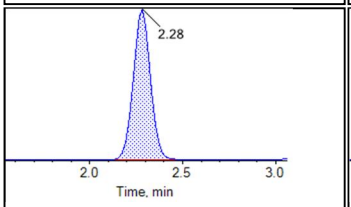
d3-MeFOSAA



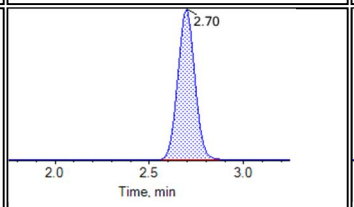
d5-EtFOSAA



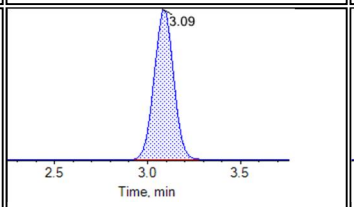
13C5-PFHxA



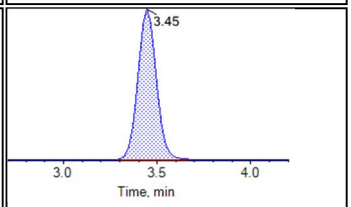
13C4-PFHpA



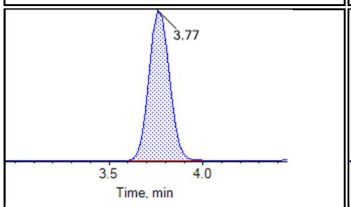
13C8-PFOA



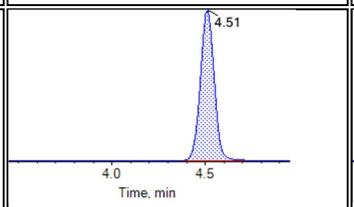
13C9-PFNA



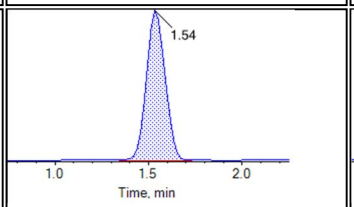
13C6-PFDA



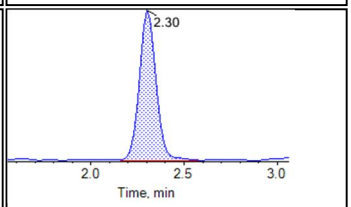
13C7-PFUnA



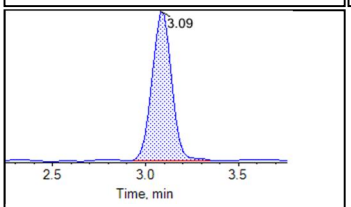
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



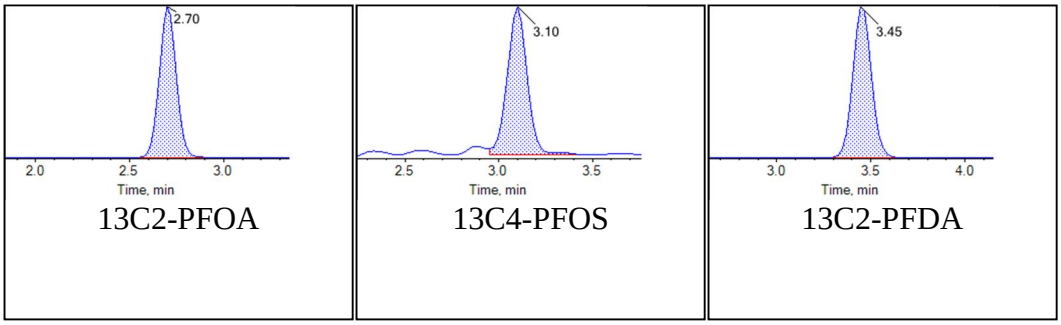
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:14 PM

Internal Standards:



BATTELLE

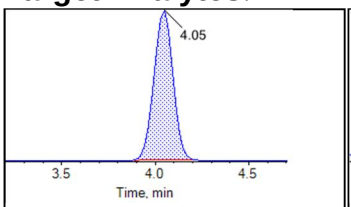
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:19 PM

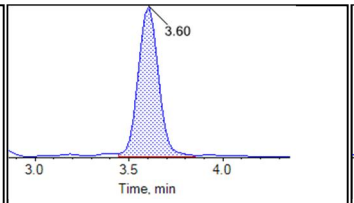
Sample Name	J8358-FS(0)	**Injection Vial**	9
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:43:49	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

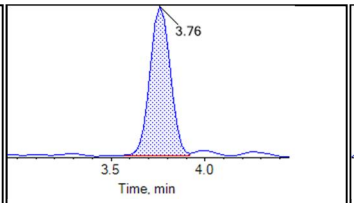
Target Analytes:



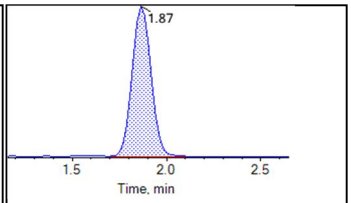
13C2-PFDoA



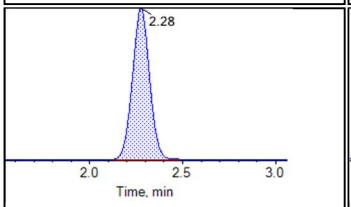
d3-MeFOSAA



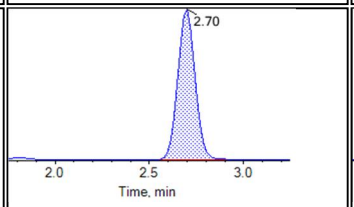
d5-EtFOSAA



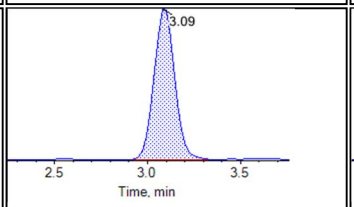
13C5-PFHxA



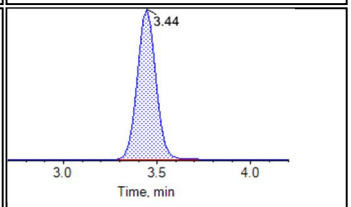
13C4-PFHpA



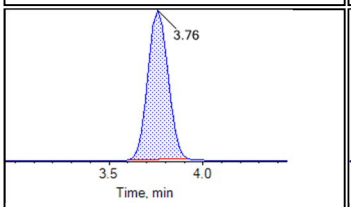
13C8-PFOA



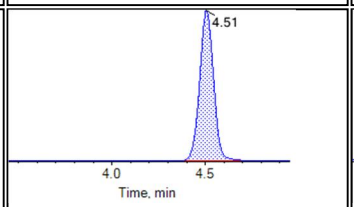
13C9-PFNA



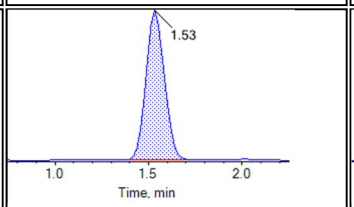
13C6-PFDA



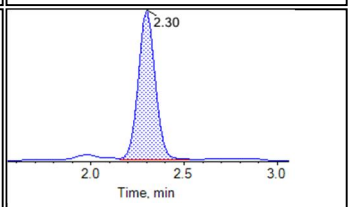
13C7-PFUnA



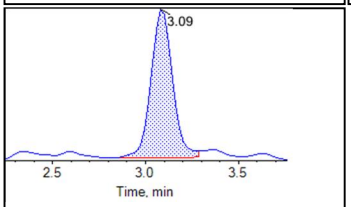
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



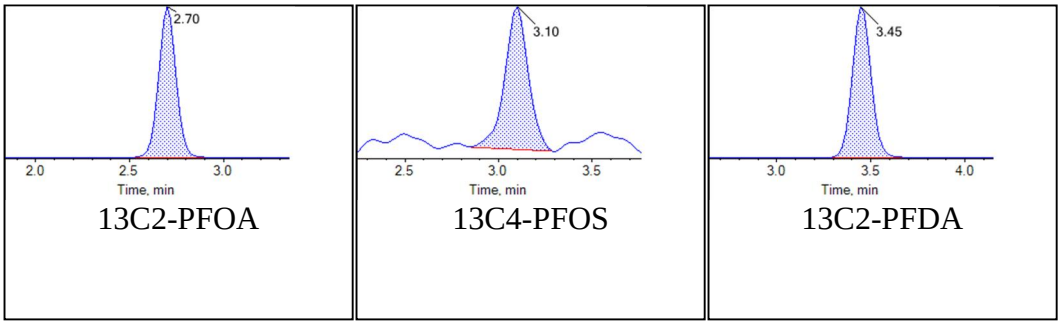
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:19 PM

Internal Standards:



BATTELLE

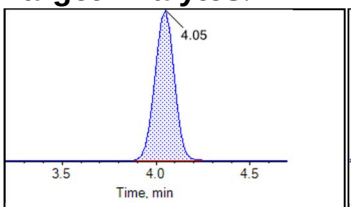
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:23 PM

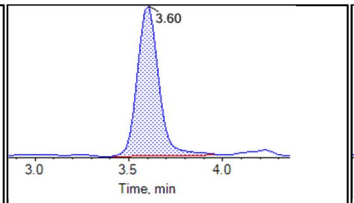
Sample Name	J8400-FS-D(9)	**Injection Vial**	10
Sample ID	VC-HS09-DW03P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:05:33	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

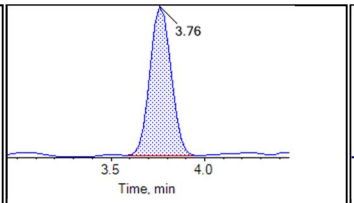
Target Analytes:



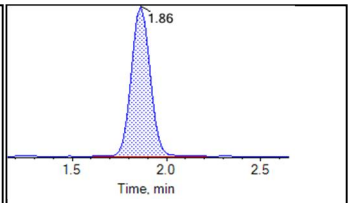
13C2-PFDoA



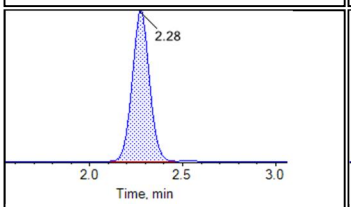
d3-MeFOSAA



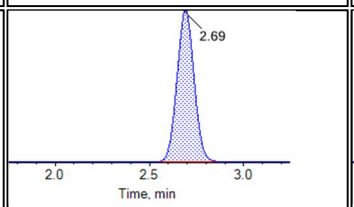
d5-EtFOSAA



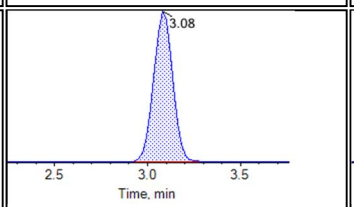
13C5-PFHxA



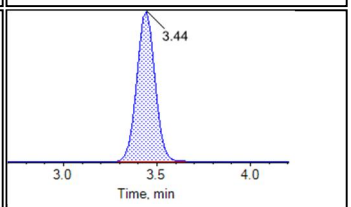
13C4-PFHpA



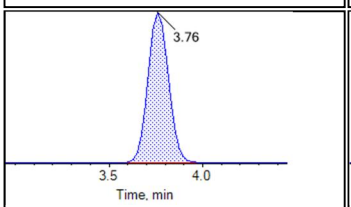
13C8-PFOA



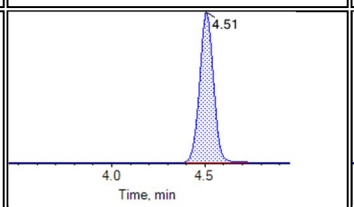
13C9-PFNA



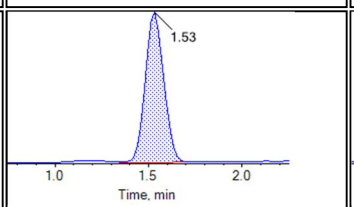
13C6-PFDA



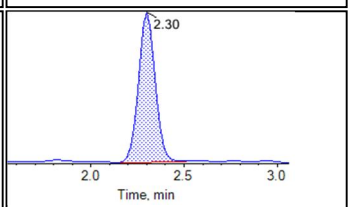
13C7-PFUnA



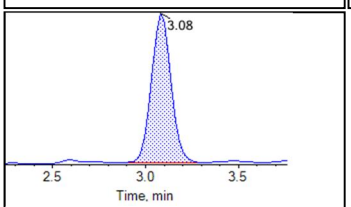
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



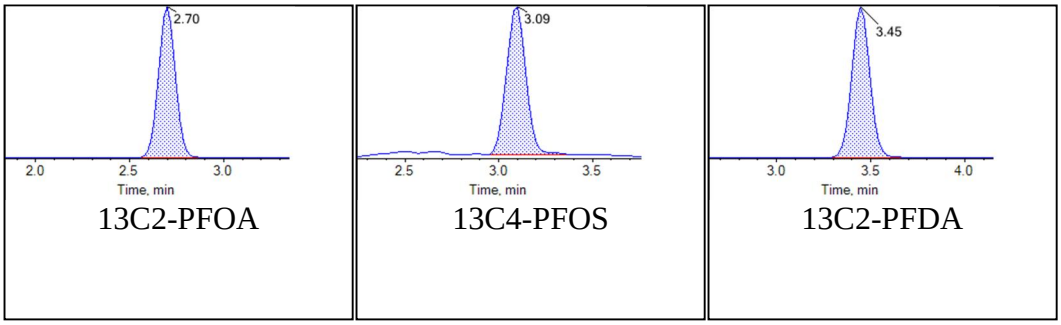
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:23 PM

Internal Standards:



BATTELLE

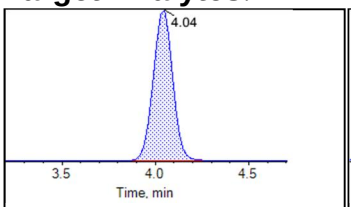
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:27 PM

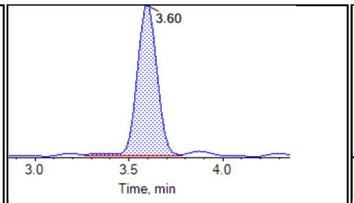
Sample Name	J8371-FS-D(9)	**Injection Vial**	11
Sample ID	VC-PM324-DW01P-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:16:26	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

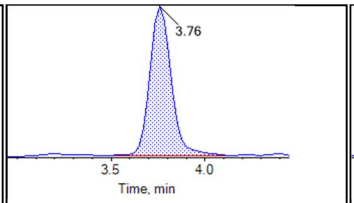
Target Analytes:



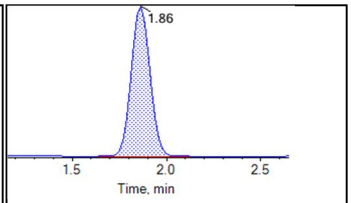
13C2-PFDoA



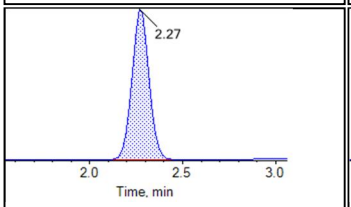
d3-MeFOSAA



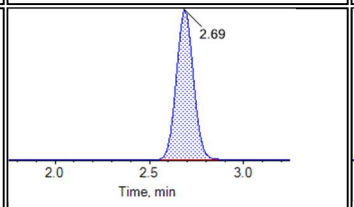
d5-EtFOSAA



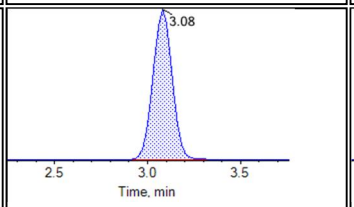
13C5-PFHxA



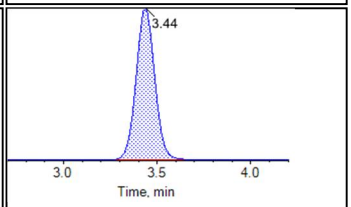
13C4-PFHpA



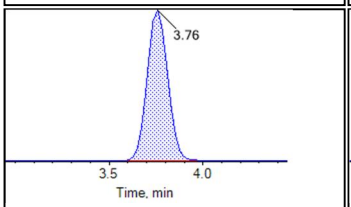
13C8-PFOA



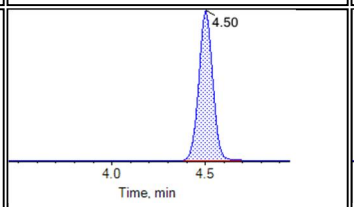
13C9-PFNA



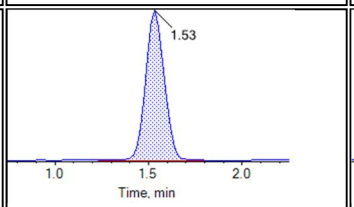
13C6-PFDA



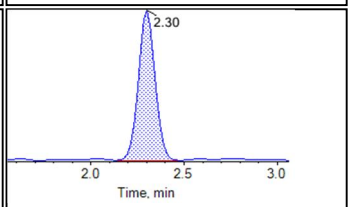
13C7-PFUnA



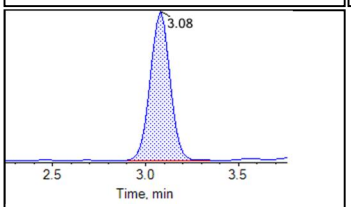
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



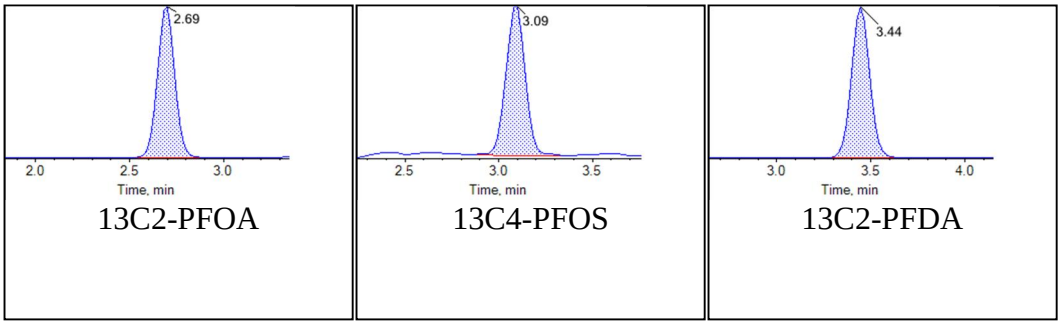
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:27 PM

Internal Standards:



BATTELLE

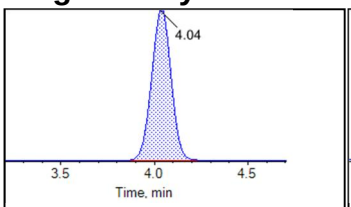
Chromatogram Report

Created with Analyst Reporter
Printed: 24/10/2018 8:34:33 PM

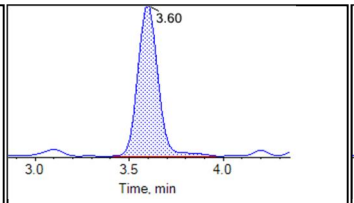
Sample Name	KB76 CCV	**Injection Vial**	13
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

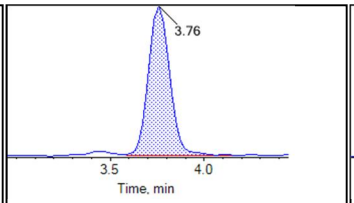
Target Analytes:



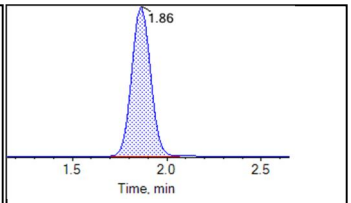
13C2-PFDoA



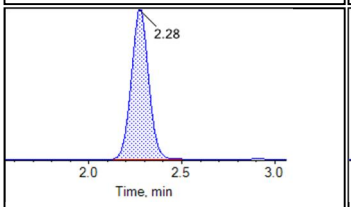
d3-MeFOSAA



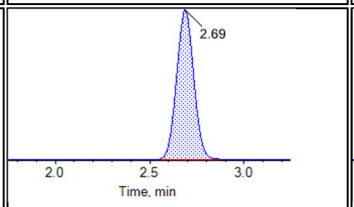
d5-EtFOSAA



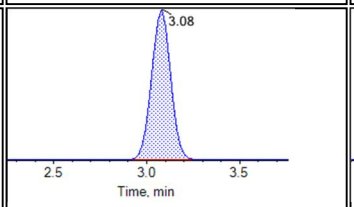
13C5-PFHxA



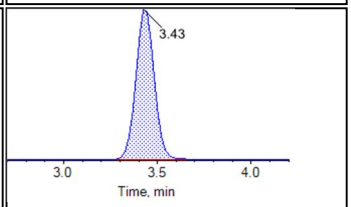
13C4-PFHpA



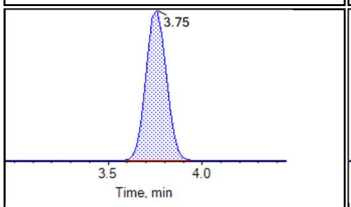
13C8-PFOA



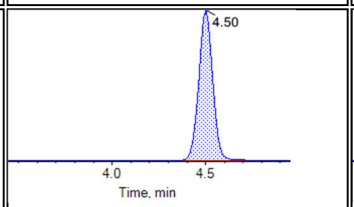
13C9-PFNA



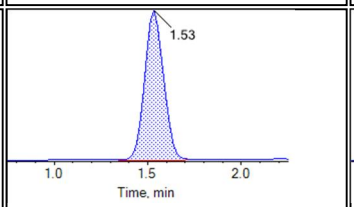
13C6-PFDA



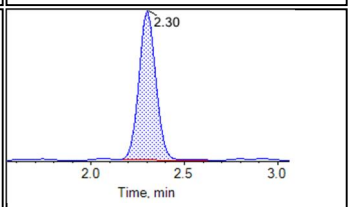
13C7-PFUnA



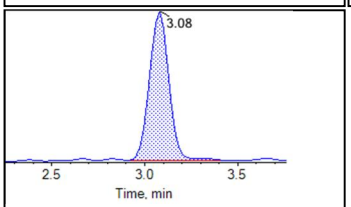
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



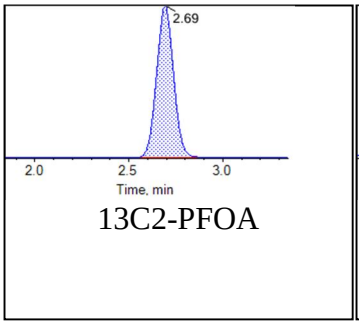
13C8-PFOS

BATTELLE

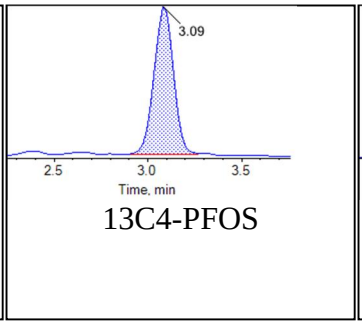
Chromatogram Report

Created with Analyst Reporter
Printed: 24/10/2018 8:34:33 PM

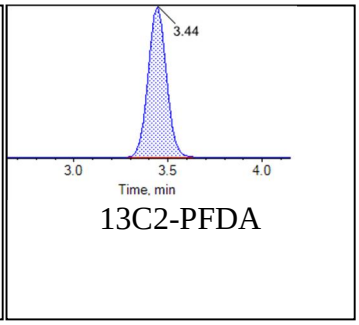
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

Unused Data

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:28:57 PM

Sample Name	J8358-FS(0)	**Injection Vial**	12
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:49:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.54	7995953.45	66515.258502	1484.1	false
PFBS_2	298.9 / 99.0	1.54	2406553.90	67805.572507	1297.8	false
PFHxA_1	313.0 / 269.0	1.85	20024629.60	225489.283363	430.1	false
PFHxA_2	313.0 / 119.0	1.85	1375468.01	211928.716142	276.3	false
PFHpA_1	363.0 / 319.0	2.26	3267091.13	39332.622362	304.1	false
PFHpA_2	363.0 / 169.0	2.25	66312.53	40507.416839	292.9	false
PFHxS_1	399.0 / 80.0	2.28	48043284.47	419013.187015	987.7	false
PFHxS_2	399.0 / 99.0	2.28	15956537.48	487445.879016	1127.3	false
PFOA_1	413.0 / 369.0	2.66	15020779.13	164486.215760	1000.1	false
PFOA_2	413.0 / 169.0	2.66	1008734.64	185234.059236	939.3	false
PFNA_1	463.0 / 419.0	3.06	307350.64	5495.991551	333.3	false
PFNA_2	463.0 / 219.0	3.06	97315.90	5686.618967	228.8	false
PFOS_1	499.0 / 80.0	2.97	203204986.14	1608141.564820	595.5	false
PFOS_2	499.0 / 99.0	3.06	72560352.05	3261214.317456	1323.1	false
PFDA_1	513.0 / 469.0	3.41	34974.93	362.093444	83.5	false
PFDA_2	513.0 / 219.0	3.41	1077.29	268.671520	32.7	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	4.48	2962.42	< 0	75.3	false
PFTeDA_2	713.0 / 169.0	4.48	156.17	< 0	21.6	false
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 4:31:07 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	46
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:21:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	1.85	592210.83	6700.954608	56.5	true
PFHxA_2	313.0 / 119.0	1.85	40257.64	6239.137258	34.8	false
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.28	3121620.50	27081.485066	875.7	false
PFHxS_2	399.0 / 99.0	2.28	859015.09	26102.059590	869.1	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	12259025.29	60600.302689	1069.8	false
PFOS_2	499.0 / 99.0	3.06	2281576.20	64033.370069	1718.4	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:56:45 PM

Sample Name	J8358-FS(0)	**Injection Vial**	12
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:49:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	29369.86	341.998570	591.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	3923.89	386.009282	90.0	true
d5-EtFOSAA	589.0 / 419.0	3.73	7104.89	682.324891	157.0	false
13C5-PFHxA	318.0 / 273.0	1.84	22430.42	248.547430	310.1	false
13C4-PFHpA	367.0 / 322.0	2.25	23914.95	235.751498	445.3	false
13C8-PFOA	421.0 / 376.0	2.65	21957.92	177.661534	631.2	false
13C9-PFNA	472.0 / 427.0	3.04	15941.25	128.734608	423.6	false
13C6-PFDA	519.0 / 474.0	3.40	22712.89	264.971528	412.5	false
13C7-PFUnA	570.0 / 525.0	3.72	32245.96	410.220790	574.5	true
13C2-PFTeDA	715.0 / 670.0	4.48	24263.72	353.464655	1017.4	false
13C3-PFBS	302.0 / 99.0	1.52	10193.15	462.114811	239.7	false
13C3-PFHxS	402.0 / 99.0	2.27	8014.45	401.021441	177.2	false
13C8-PFOS	507.0 / 99.0	3.05	6350.15	302.928987	87.3	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 3:58:43 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	46
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:21:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	29807.21	254.800757	841.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	4568.89	257.640977	102.7	false
d5-EtFOSAA	589.0 / 419.0	3.71	4529.61	249.354789	90.5	false
13C5-PFHxA	318.0 / 273.0	1.84	22265.02	257.714684	363.1	false
13C4-PFHpA	367.0 / 322.0	2.24	23865.96	245.758287	667.5	false
13C8-PFOA	421.0 / 376.0	2.65	29461.12	248.997927	900.9	false
13C9-PFNA	472.0 / 427.0	3.04	28458.96	240.069002	618.9	false
13C6-PFDA	519.0 / 474.0	3.40	32126.61	275.136806	669.4	false
13C7-PFUnA	570.0 / 525.0	3.71	32219.66	300.898686	541.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	23253.08	248.671492	1169.2	false
13C3-PFBS	302.0 / 99.0	1.52	11772.69	305.942517	387.1	false
13C3-PFHxS	402.0 / 99.0	2.27	8022.41	230.102415	226.7	false
13C8-PFOS	507.0 / 99.0	3.04	10046.68	274.727851	162.6	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 23/10/2018 5:01:28 PM

Sample Name	CR890PB-FS(0)	**Injection Vial**	7
Sample ID	Prodedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:22:06	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	89040.28	260.324188	893.9	false
d3-MeFOSAA	573.0 / 419.0	3.61	13087.15	202.972703	175.7	false
d5-EtFOSAA	589.0 / 419.0	3.77	13082.59	185.846099	229.3	false
13C5-PFHxA	318.0 / 273.0	1.87	61908.42	279.918176	510.3	false
13C4-PFHpA	367.0 / 322.0	2.28	69622.70	276.698711	813.4	false
13C8-PFOA	421.0 / 376.0	2.70	88559.03	289.327147	1192.9	false
13C9-PFNA	472.0 / 427.0	3.09	91950.53	263.090475	10550.8	false
13C6-PFDA	519.0 / 474.0	3.45	94746.17	274.948300	500.8	false
13C7-PFUnA	570.0 / 525.0	3.76	89006.59	279.617229	693.9	false
13C2-PFTeDA	715.0 / 670.0	4.51	77360.11	280.136405	1585.9	false
13C3-PFBS	302.0 / 99.0	1.53	25063.68	221.838976	290.1	false
13C3-PFHxS	402.0 / 99.0	2.30	24830.58	242.537139	274.3	false
13C8-PFOS	507.0 / 99.0	3.09	29705.57	256.847596	265.7	false

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:33:10 PM

Sample Name	J8358-FS(0)	**Injection Vial**	12
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:49:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.54	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.300	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.330	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.070	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	2.97	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.360	0.185	
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.030	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 23/10/2018 4:35:31 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	46
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:21:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:37:57 PM

Sample Name	J8358-FS(0)	**Injection Vial**	12
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:49:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.54	13C3-PFBS	302.0 / 99.0	10193.15	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	10193.15	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	22430.42	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	22430.42	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	23914.95	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	23914.95	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	7932.33	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	7932.33	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	21957.92	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	21957.92	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	15941.25	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	15941.25	250.00
PFOS_1	499.0 / 80.0	2.97	13C8-PFOS	507.0 / 99.0	6467.07	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	6467.07	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	22712.89	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	22712.89	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	32742.06	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	32742.06	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	29369.86	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	29369.86	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	24263.72	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	24263.72	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	24263.72	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	24263.72	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	4232.93	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	4232.93	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	6634.39	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	6634.39	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:40:12 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	46
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:21:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	N/A	13C3-PFBS	302.0 / 99.0	11772.69	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	11772.69	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	22265.02	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	22265.02	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	23865.96	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	23865.96	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	7970.16	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	7970.16	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	29461.12	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	29461.12	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	28458.96	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	28458.96	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	10351.46	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	10351.46	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	32126.61	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	32126.61	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	32219.66	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	32219.66	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	29807.21	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	29807.21	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	23253.08	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	23253.08	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	23253.08	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	23253.08	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	4840.54	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	4840.54	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	4608.19	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	4608.19	250.00

BATTELLE

Summary Internal Standard Report

Created with Analyst Reporter
Printed: 23/10/2018 4:00:48 PM

Sample Name	J8358-FS(0)	**Injection Vial**	12
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:49:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	22234.70	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	5242.45	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	5242.45	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	28914.57	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	28914.57	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	28914.57	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	28914.57	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	22234.70	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	22234.70	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	22234.70	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	5242.45	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	5242.45	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	5242.45	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	J8384-FS-D(5)	**Injection Vial**	46
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:21:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	30288.26	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	9145.58	239.25
d5-EtFOSAA	589.0 / 419.0	3.71	13C4-PFOS	503.0 / 99.0	9145.58	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	27680.41	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	27680.41	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	27680.41	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	27680.41	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	30288.26	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	30288.26	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	30288.26	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	9145.58	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	9145.58	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	9145.58	239.25

BATTELLE

Summary Internal Standard Report

Sample Name	CR890PB-FS(0)	**Injection Vial**	7
Sample ID	Prodedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:22:06	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	87697.01	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	29050.36	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	29050.36	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	74724.44	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	74724.44	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	74724.44	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	74724.44	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	87697.01	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	87697.01	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	87697.01	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	29050.36	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	29050.36	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	29050.36	239.25

BATTELLE

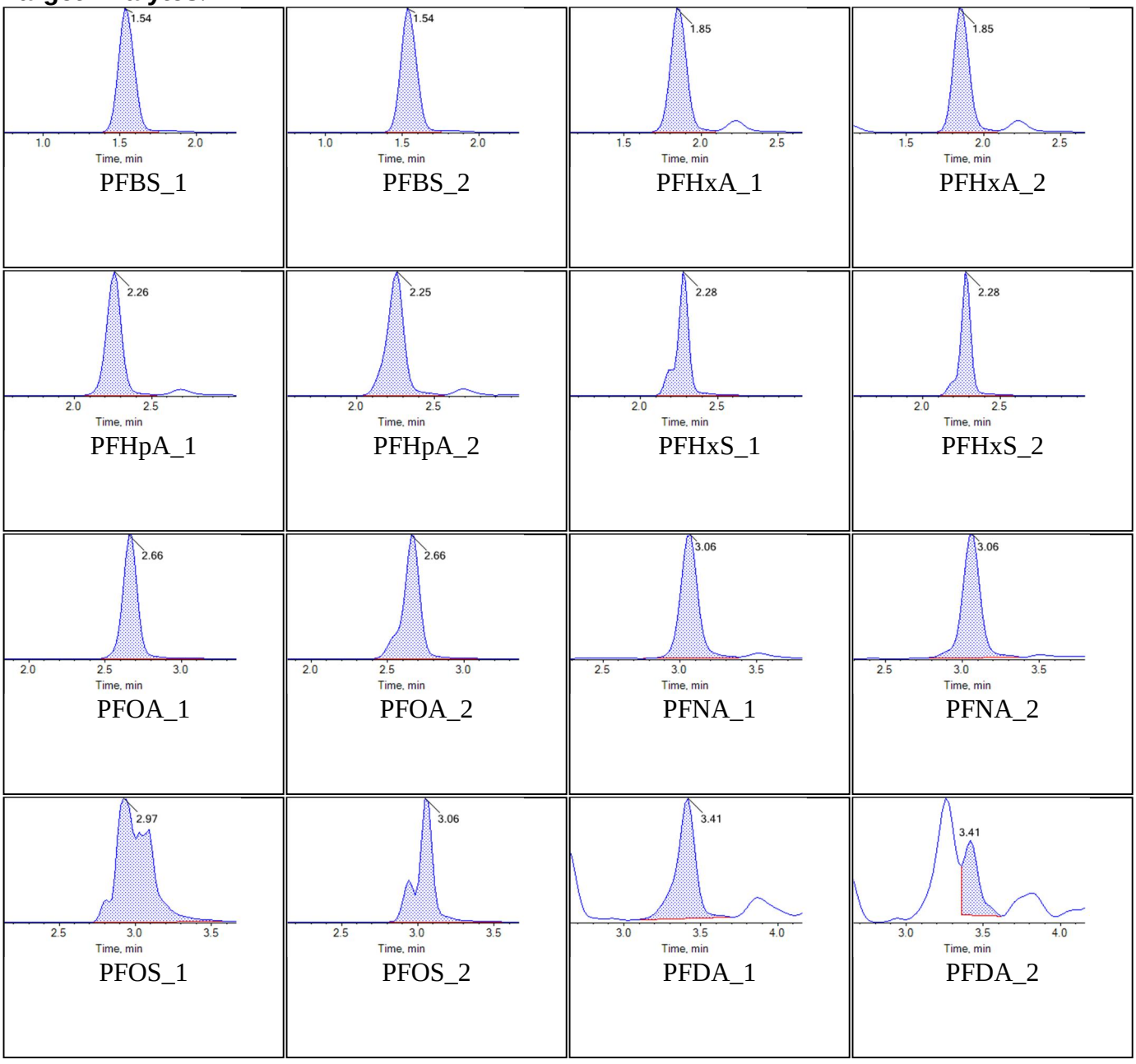
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:12:59 PM

Sample Name	J8358-FS(0)	**Injection Vial**	12
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:49:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

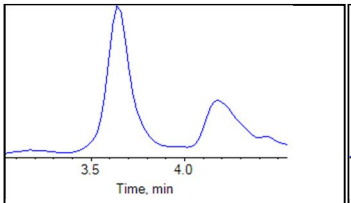
Target Analytes:



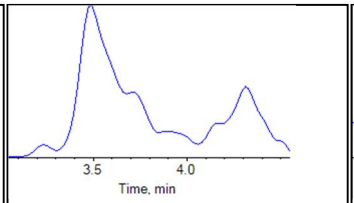
BATTELLE

Chromatogram Report

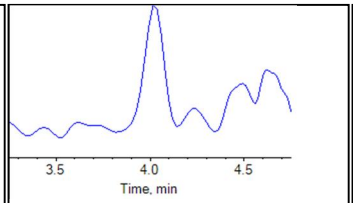
Created with Analyst Reporter
Printed: 23/10/2018 4:12:59 PM



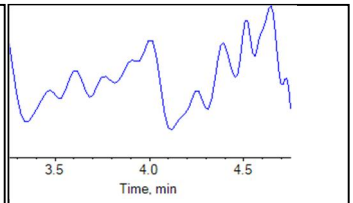
PFUnA_1



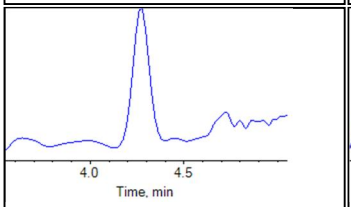
PFUnA_2



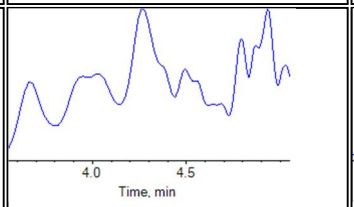
PFDoA_1



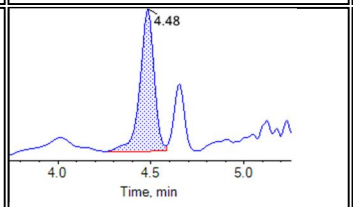
PFDoA_2



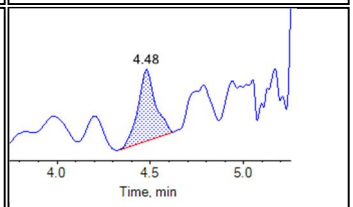
PFTrDA_1



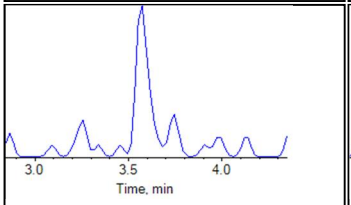
PFTrDA_2



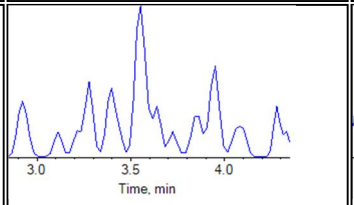
PFTeDA_1



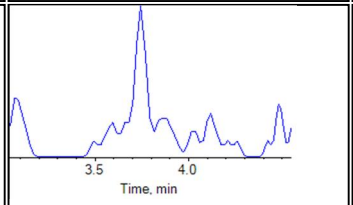
PFTeDA_2



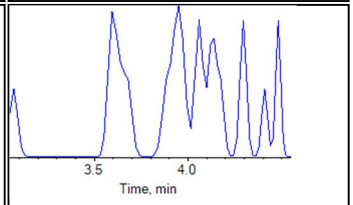
NMeFOSAA_1



NMeFOSAA_2

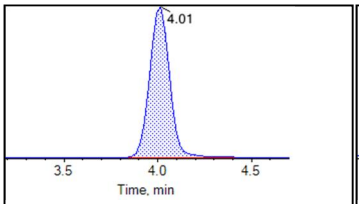


NEtFOSAA_1

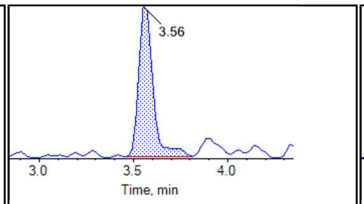


NEtFOSAA_2

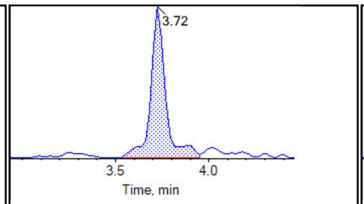
Internal Standards:



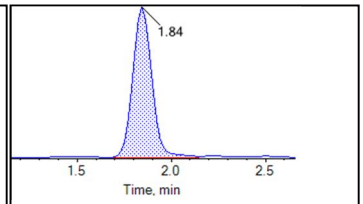
13C2-PFDoA



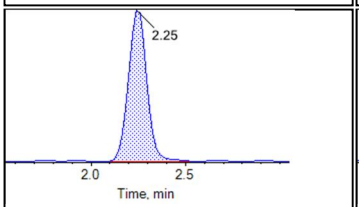
d3-MeFOSAA



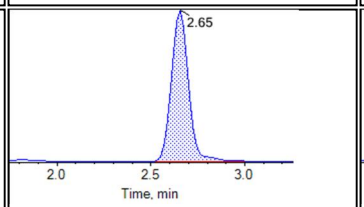
d5-EtFOSAA



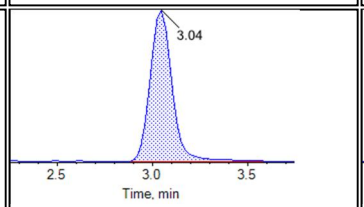
13C5-PFHxA



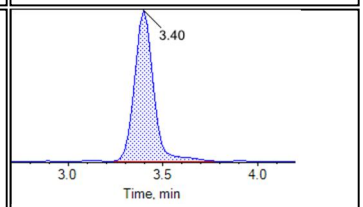
13C4-PFHpA



13C8-PFOA



13C9-PFNA

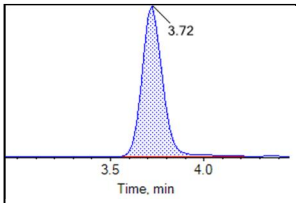


13C6-PFDA

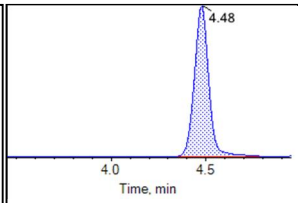
BATTELLE

Chromatogram Report

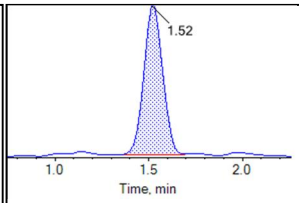
Created with Analyst Reporter
Printed: 23/10/2018 4:12:59 PM



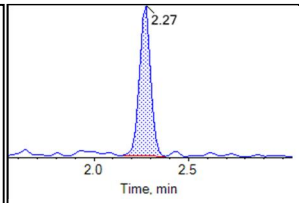
13C7-PFUnA



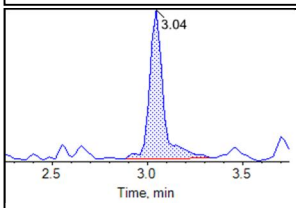
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

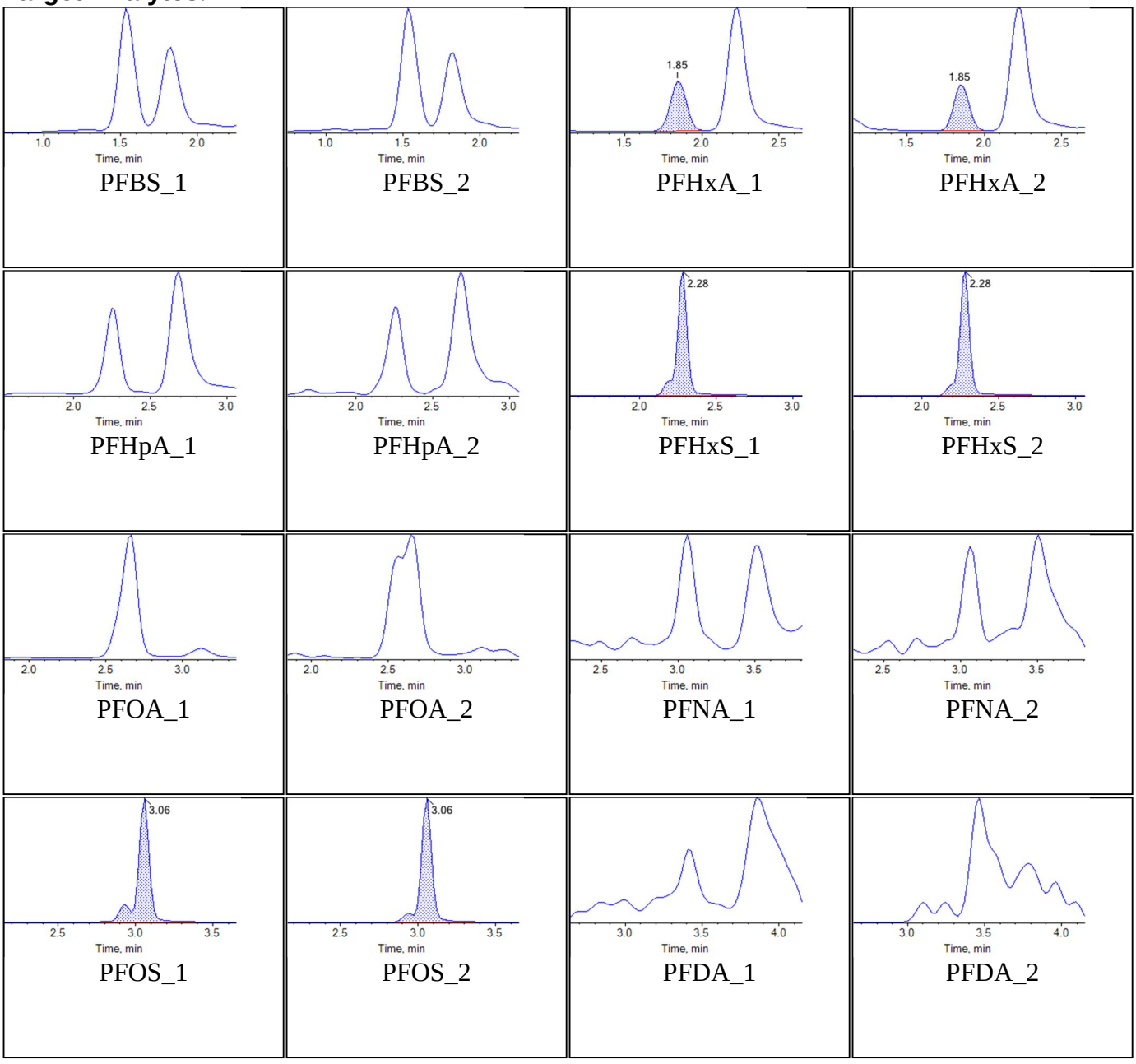
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:15:58 PM

Sample Name	J8384-FS-D(5)	**Injection Vial**	46
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:21:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_BASE
Sample Comment			

Chromatograms

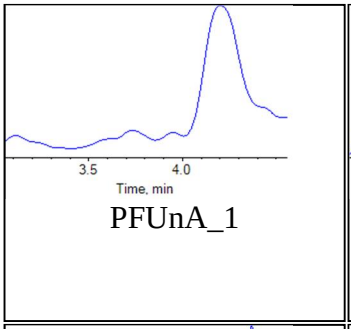
Target Analytes:



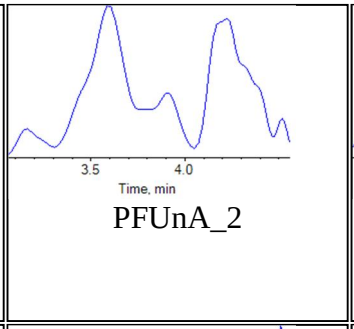
BATTELLE

Chromatogram Report

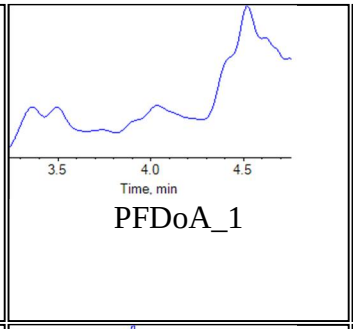
Created with Analyst Reporter
Printed: 23/10/2018 4:15:58 PM



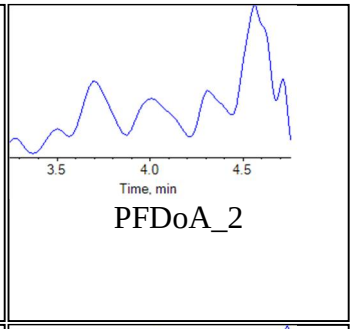
PFUnA_1



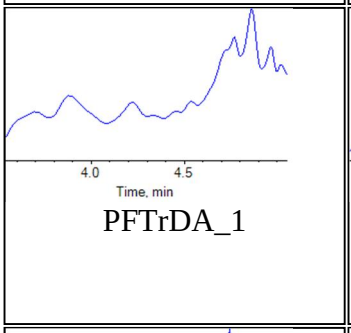
PFUnA_2



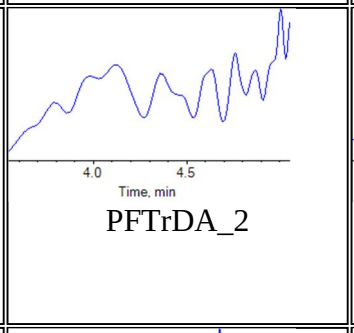
PFDoA_1



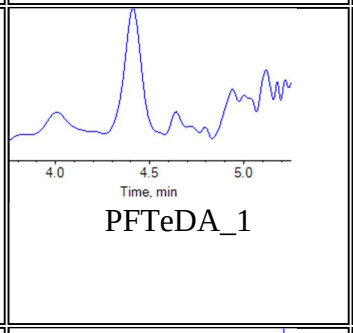
PFDoA_2



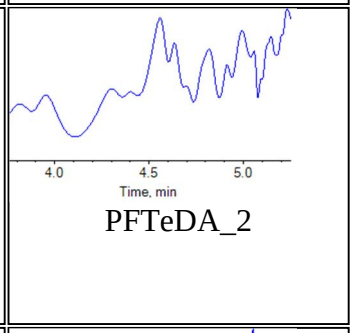
PFTrDA_1



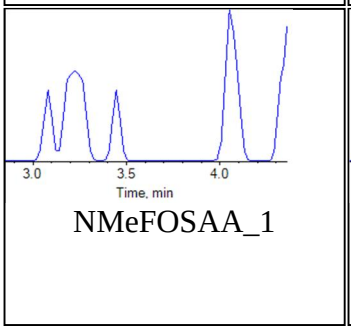
PFTrDA_2



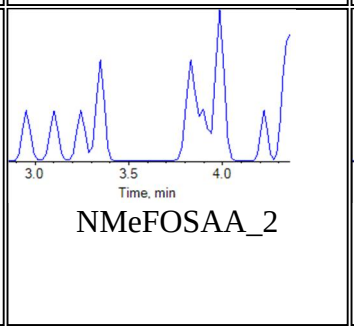
PFTeDA_1



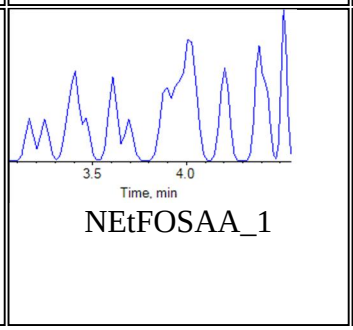
PFTeDA_2



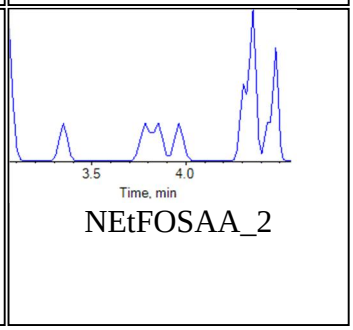
NMeFOSAA_1



NMeFOSAA_2

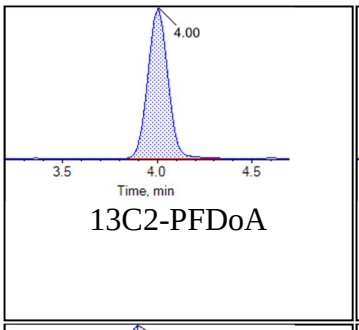


NEtFOSAA_1

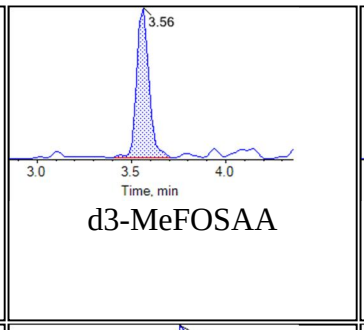


NEtFOSAA_2

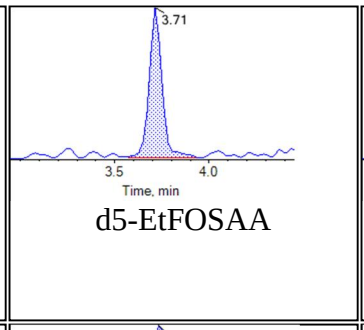
Internal Standards:



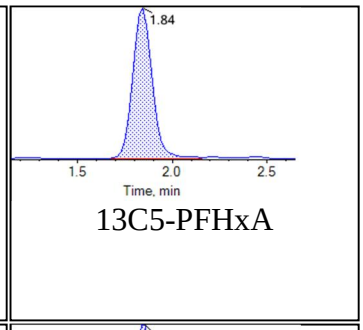
13C2-PFDoA



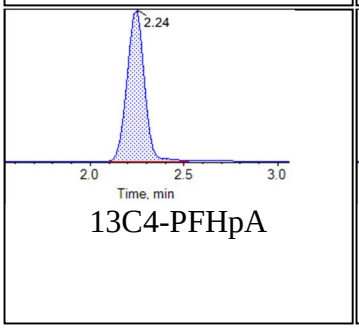
d3-MeFOSAA



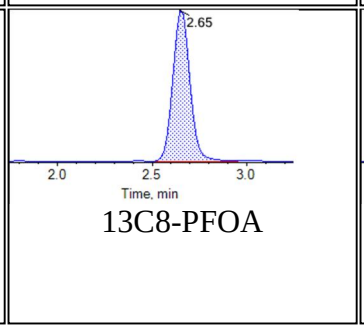
d5-EtFOSAA



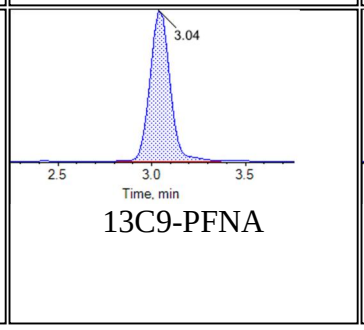
13C5-PFHxA



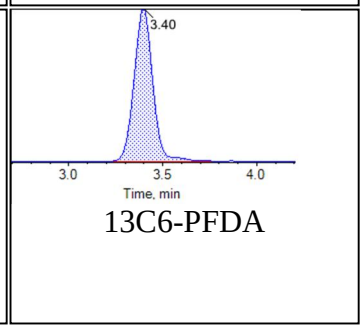
13C4-PFHpA



13C8-PFOA



13C9-PFNA

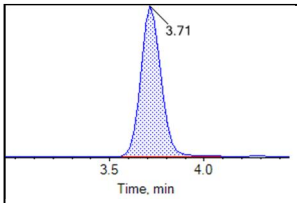


13C6-PFDA

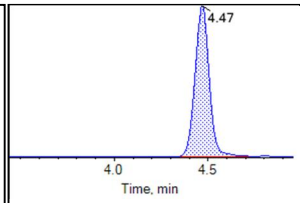
BATTELLE

Chromatogram Report

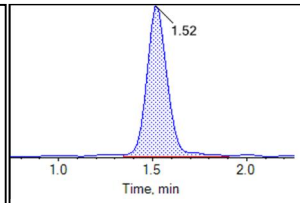
Created with Analyst Reporter
Printed: 23/10/2018 4:15:58 PM



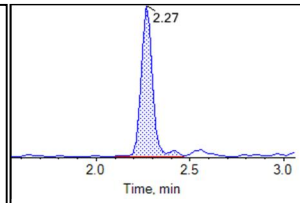
13C7-PFUnA



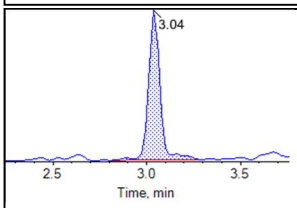
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

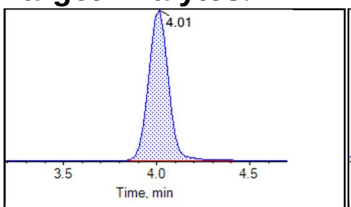
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:33 PM

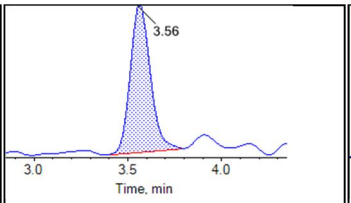
Sample Name	J8358-FS(0)	**Injection Vial**	12
Sample ID	VC-PM323-DW01-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T21:49:55	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

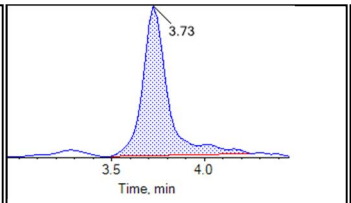
Target Analytes:



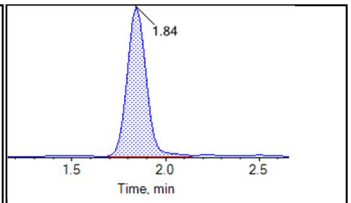
13C2-PFDoA



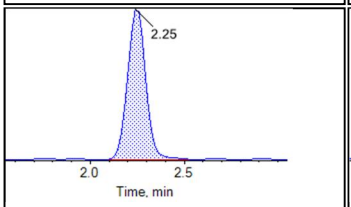
d3-MeFOSAA



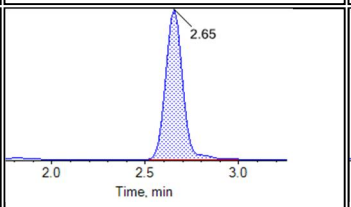
d5-EtFOSAA



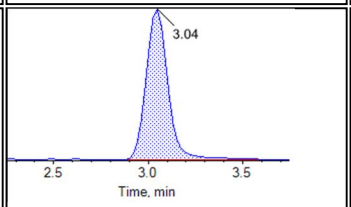
13C5-PFHxA



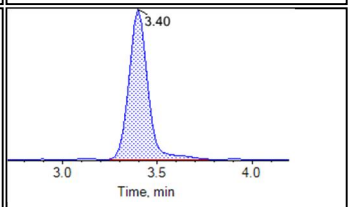
13C4-PFHpA



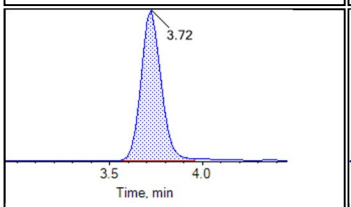
13C8-PFOA



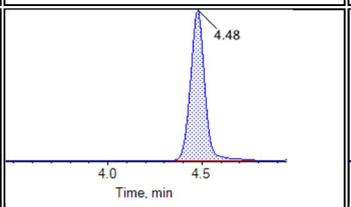
13C9-PFNA



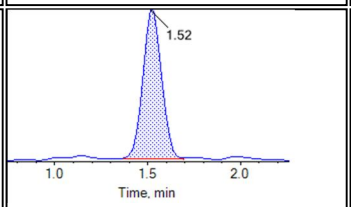
13C6-PFDA



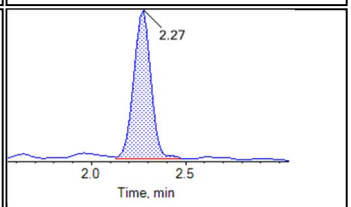
13C7-PFUnA



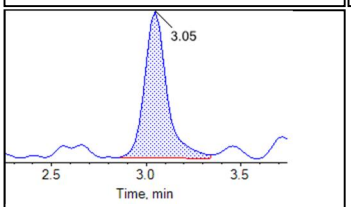
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



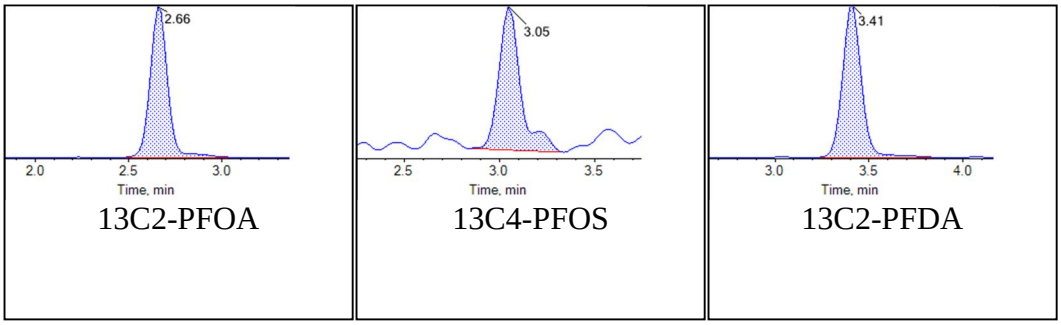
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:05:33 PM

Internal Standards:



BATTELLE

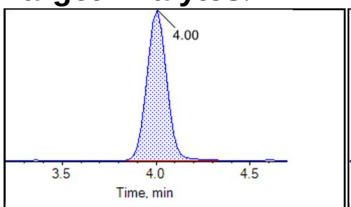
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:13 PM

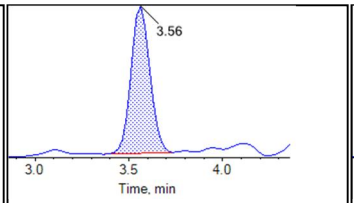
Sample Name	J8384-FS-D(5)	**Injection Vial**	46
Sample ID	VC-PM64B-DW03-0918	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T04:21:41	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0585_18-0583_SIS
Sample Comment			

Chromatograms

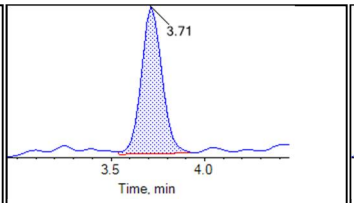
Target Analytes:



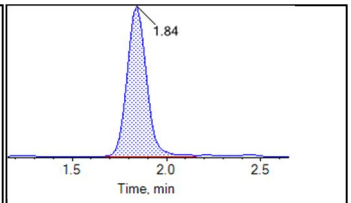
13C2-PFDoA



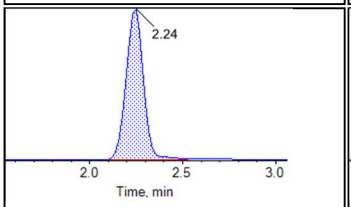
d3-MeFOSAA



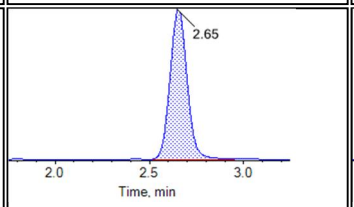
d5-EtFOSAA



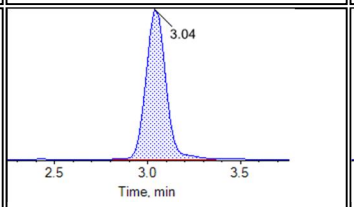
13C5-PFHxA



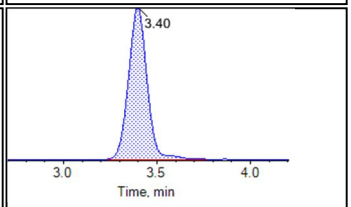
13C4-PFHpA



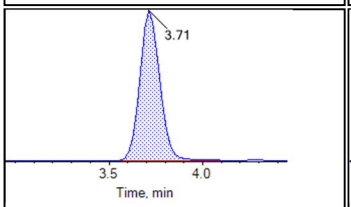
13C8-PFOA



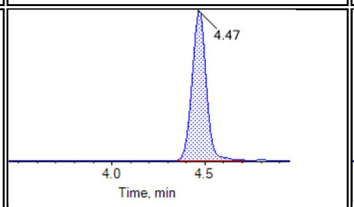
13C9-PFNA



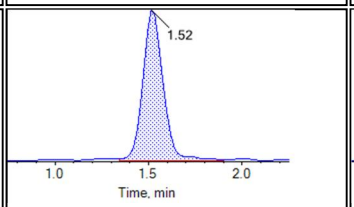
13C6-PFDA



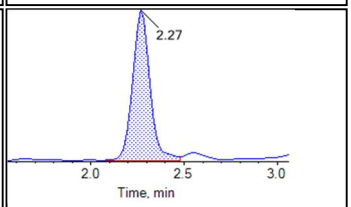
13C7-PFUnA



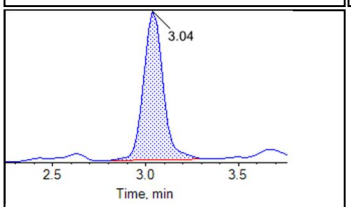
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



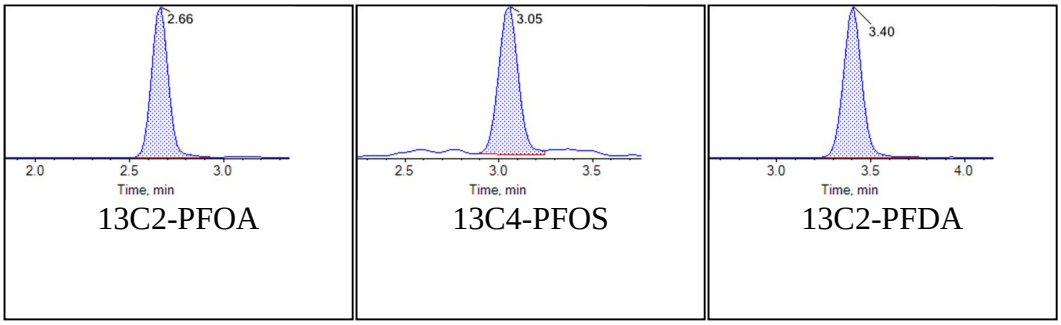
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 4:08:13 PM

Internal Standards:



BATTELLE

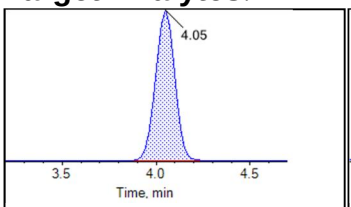
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:10 PM

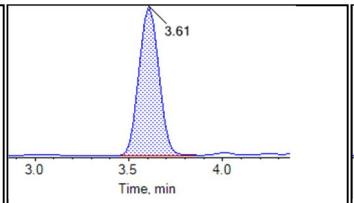
Sample Name	CR890PB-FS(0)	**Injection Vial**	7
Sample ID	Prodedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-19T19:22:06	**Data File**	10192018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18222018_SIS_D
Sample Comment			

Chromatograms

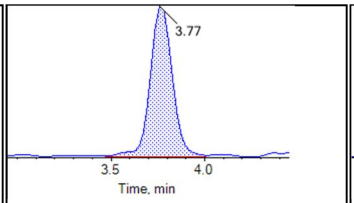
Target Analytes:



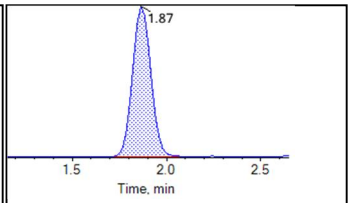
13C2-PFDoA



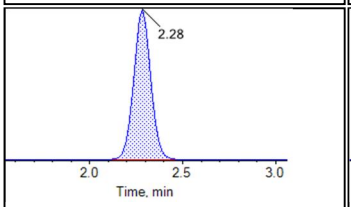
d3-MeFOSAA



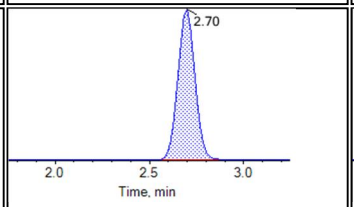
d5-EtFOSAA



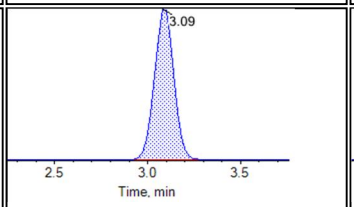
13C5-PFHxA



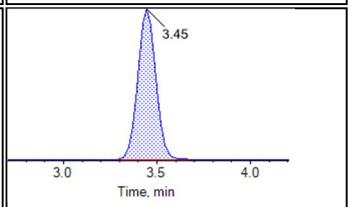
13C4-PFHpA



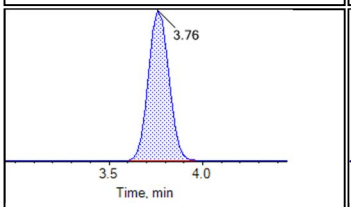
13C8-PFOA



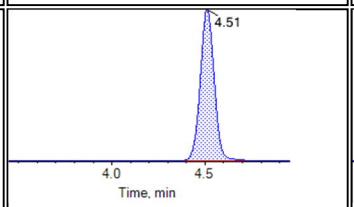
13C9-PFNA



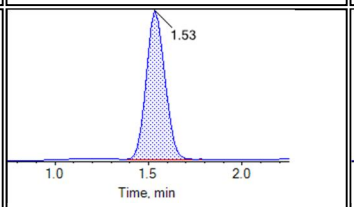
13C6-PFDA



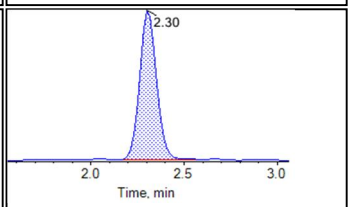
13C7-PFUnA



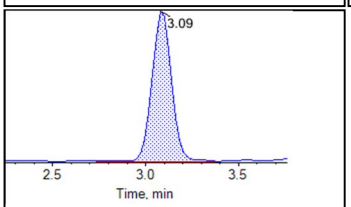
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

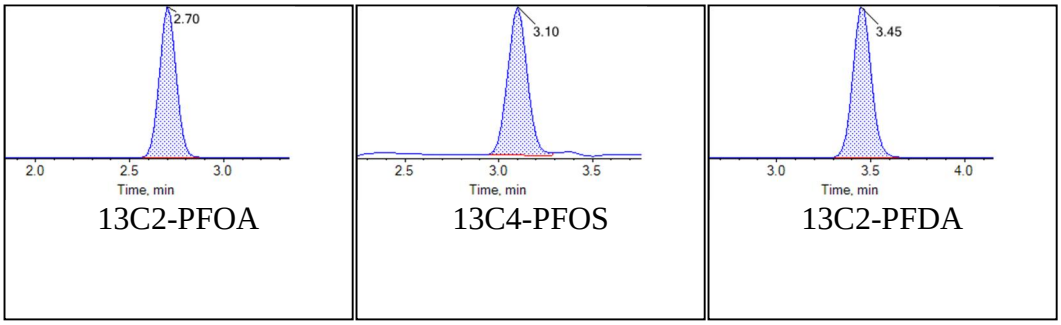


13C8-PFOS

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 5:04:10 PM

Internal Standards:



EDD

Contract_I	DO_CTO_N	Phase	Installatior	Sample_Ni	CH2M_Cor	Analysis_G	Analytical_	PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B	Extraction_	Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	DateTime_	Date_Rece	Leachate_I	Leachate_	Extraction_	Extraction_	Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Numt	PERCENT_I	PERCENT_I	Chem_Nan	Analyte_ID	Analyte_Vi	Original_A	Result_Uni	Lab_Qualif	Validator_	GC_Colum	Analysis_R	Result_Nar	QC_Contrc	QC_Accura	QC_Accura	Control_Lir	QC_Narrat	MDL		Detection_Q	SM_Vers	DL		LOD		LOQ		SDG	Analysis_B	Validator_	Val_Date
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluoroh	307-24-4	0.5	NG_L	U		TRG				20171116		0.19	0.19	5.1		70	0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluoro	375-85-9	0.5	NG_L	U		TRG				20171116		0.16	0.16	5.1		70	0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluoroo	335-67-1	0.97	NG_L	J		TRG				20171116		0.18	0.18	5.1		70	0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluoro	375-95-1	1	NG_L	U		TRG				20171116		0.26	0.26	5.1		70	1		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluorod	335-76-2	0.5	NG_L	U		TRG				20171116		0.16	0.16	5.1		70	0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluorou	2058-94-8	1	NG_L	U		TRG				20171116		0.29	0.29	5.1		70	1		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluorod	307-55-1	0.5	NG_L	U		TRG				20171116		0.18	0.18	5.1		70	0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluorot	r72629-94-8	0.5	NG_L	U		TRG				20171116		0.15	0.15	5.1		70	0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluorot	376-06-7	1	NG_L	U		TRG				20171116		0.25	0.25	5.1		70	1		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			N-Methyl	F2355-31-9	2	NG_L	U		TRG				20171116		0.56	0.56	5.1		70	2		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			N-Ethyl P	er2991-50-6	1	NG_L	U		TRG				20171116		0.49	0.49	5.1		70	1		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluorob	375-73-5	0.5	NG_L	U		TRG				20171116		0.13	0.13	5.1		70	0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluoro	355-46-4	0.4	NG_L	U		TRG				20171116		0.11	0.11	5.1		70	0.4		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			Perfluoroo	1763-23-1	0.5	NG_L	U		TRG				20171116		0.19	0.19	5.1		70	0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C5-PFH	x BDO-2217	101	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C4-PFH	p BDO-2218	104	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C8-PFO	A BDO-2219	109	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C9-PFN	A BDO-2221	111	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C6-PFD	A BDO-2222	111	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C7-PFU	n BDO-2223	125	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C2-PFD	o BDO-2112	110	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C2-PFT	e BDO-2224	107	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			d3-MeFOS	BDO-1838	94	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			d5-EtFOS	A BDO-1839	99	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C3-PFB	S BDO-2226	88	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C3-PFH	x BDO-2227	92	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR890PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BLK	W	4	20181001	20181001			20181001	14:17:00	20181014	21:28:09	CR890PB-F	1	1			13C8-PFO	S BDO-2228	101	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluoroh	307-24-4	96	PCT_REC			TRG	LSA	137		51 20171116		0.19	0.19	5.1			0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluoro	375-85-9	94	PCT_REC			TRG	LSA	136		48 20171116		0.16	0.16	5.1			0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluoroo	335-67-1	108	PCT_REC			TRG	LSA	141		49 20171116		0.18	0.18	5.1			0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluoro	375-95-1	105	PCT_REC			TRG	LSA	122		58 20171116		0.26	0.26	5.1			1		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluorod	335-76-2	95	PCT_REC			TRG	LSA	135		59 20171116		0.16	0.16	5.1			0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluorou	2058-94-8	99	PCT_REC			TRG	LSA	134		64 20171116		0.29	0.29	5.1			1		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluorod	307-55-1	100	PCT_REC			TRG	LSA	131		75 20171116		0.18	0.18	5.1			0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluorot	r72629-94-8	100	PCT_REC			TRG	LSA	148		42 20171116		0.15	0.15	5.1			0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluorot	376-06-7	96	PCT_REC			TRG	LSA	158		42 20171116		0.25	0.25	5.1			1		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			N-Methyl	F2355-31-9	113	PCT_REC			TRG	LSA	146		50 20171116		0.56	0.56	5.1			2		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			N-Ethyl P	er2991-50-6	90	PCT_REC			TRG	LSA	131		51 20171116		0.49	0.49	5.1			1		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluorob	375-73-5	101	PCT_REC			TRG	LSA	134		56 20171116		0.13	0.13	5.1			0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluoro	355-46-4	95	PCT_REC			TRG	LSA	128		52 20171116		0.11	0.11	5.1			0.4		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			Perfluoroo	1763-23-1	94	PCT_REC			TRG	LSA	144		40 20171116		0.19	0.19	5.1			0.5		5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C5-PFH	x BDO-2217	111	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C4-PFH	p BDO-2218	108	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C8-PFO	A BDO-2219	87	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C9-PFN	A BDO-2221	97	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C6-PFD	A BDO-2222	112	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C7-PFU	n BDO-2223	119	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C2-PFD	o BDO-2112	116	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C2-PFT	e BDO-2224	114	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			d3-MeFOS	BDO-1838	99	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			d5-EtFOS	A BDO-1839	111	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C3-PFB	S BDO-2226	114	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C3-PFH	x BDO-2227	106	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	CR891LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	BS	W	4	20181001	20181001			20181001	14:17:00	20181014	21:39:03	CR891LCS-	1	1			13C8-PFO	S BDO-2228	115	PCT_REC			SURR	SLSP	150		50 20171116				5.1						18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	16:20:00	20181014	22:11:41	J8358-FS	25	1			Perfluoroh	307-24-4	9869	1.97	NG_L	D		TRG				20171116		593.75	593.75	5.1		70	1562.5	15625	5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	16:20:00	20181014	22:00:49	J8358-FS	10	1			Perfluoro	375-85-9	19268.22	NG_L	D			TRG				20171116		200	200	5.1		70	625	6250	5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	16:20:00	20181014	22:11:41	J8358-FS	25	1			Perfluoroo	335-67-1	78844.62	NG_L	D			TRG				20171116		562.5	562.5	5.1		70	1562.5	15625	5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	16:20:00	20181019	19:43:49	J8358-FS	1	1			Perfluoro	375-95-1	3302.84	NG_L				TRG				20171116		32.5	32.5	5.1		70	125	625	5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	16:20:00	20181019	19:43:49	J8358-FS	1	1			Perfluorod	335-76-2	142.55	NG_L	J			TRG				20171116		20	20	5.1		70	62.5	625	5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	16:20:00	20181019	19:43:49	J8358-FS	1	1			Perfluorou	2058-94-8	83	NG_L	J			TRG				20171116		36.25	36.25	5.1		70	125	625	5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	16:20:00	20181019	19:43:49	J8358-FS	1	1			Perfluorod	307-55-1	62.5	NG_L	U			TRG				20171116		22.5	22.5	5.1		70	62.5	625	5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	16:20:00	20181019	19:43:49	J8358-FS	1	1			Perfluorot	r72629-94-8	62.5	NG_L	U			TRG				20171116		18.75	18.75	5.1		70	62.5	625	5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	16:20:00	20181019	19:43:49	J8358-FS	1	1			Perfluorot	376-06-7	125	NG_L	U			TRG				20171116		31.25	31.25	5.1		70	125	625	5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	BATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	16:20:00	20181019	19:43:49	J8358-FS	1	1			N-Methyl	F2355-31-9	250	NG_L	U			TRG				20171116		70	70	5.1		70	250	625	5	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM323	NONS	SVO

Contract_I	DO_CTO_N	Phase	Installatior	Sample_Ni	CH2M_Coc	Analysis_G	Analytical_PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B	Extraction_	Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	DateTime_	Date_Rece	Leachate_I	Leachate_	Extraction_	Extraction_	Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Numt	PERCENT_I	PERCENT_I	Chem_Nan	Analyte_ID	Analyte_Vi	Original_A	Result_Uni	Lab_Qualif	Validator_	GC_Colum	Analysis_R	Result_Nar	QC_Contrc	QC_Accura	QC_Accura	Control_Lir	QC_Narrat	MDL		Detection_Q	SM_Vers	DL		LOD		LOQ		SDG	Analysis_B	Validator_	Val_Date
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			Perfluorot	376-06-7		0.91	NG_L	U		TRG					20171116		0.23	0.23	5.1	70	0.91	4.55	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			N-Methyl F	2355-31-9		1.82	NG_L	U		TRG					20171116		0.51	0.51	5.1	70	1.82	4.55	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			N-Ethyl Pe	r2991-50-6		0.91	NG_L	U		TRG					20171116		0.45	0.45	5.1	70	0.91	4.55	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			Perfluorob	375-73-5		0.45	NG_L	U		TRG					20171116		0.12	0.12	5.1	70	0.45	4.55	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			Perfluoroh	355-46-4		0.36	NG_L	U		TRG					20171116		0.1	0.1	5.1	70	0.36	4.55	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			Perfluoroo	1763-23-1		0.26	NG_L	J		TRG					20171116		0.17	0.17	5.1	70	0.45	4.55	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C5-PFH	x BDO-2217		91	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C4-PFH	pBDO-2218		92	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C8-PFO	ABDO-2219		104	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C9-PFN	ABDO-2221		98	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C6-PFD	ABDO-2222		113	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C7-PFU	nBDO-2223		110	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C2-PFD	oBDO-2112		99	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C2-PFTe	BDO-2224		99	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			d3-MeFOS	BDO-1838		89	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			d5-EtFOSA	BDO-1839		106	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C3-PFB	S BDO-2226		97	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C3-PFH	x BDO-2227		91	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-FB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:38:44	J8368-FS	1	1			13C8-PFO	SBDO-2228		98	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			Perfluoroh	307-24-4		44.45	NG_L			TRG					20171116		0.16	0.16	5.1	70	0.42	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			Perfluoroh	375-85-9		4.71	NG_L			TRG					20171116		0.14	0.14	5.1	70	0.42	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			Perfluoroo	335-67-1		8.19	NG_L	B		TRG					20171116		0.15	0.15	5.1	70	0.42	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			Perfluoron	375-95-1		0.85	NG_L	U		TRG					20171116		0.22	0.22	5.1	70	0.85	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			Perfluorod	335-76-2		0.42	NG_L	U		TRG					20171116		0.14	0.14	5.1	70	0.42	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			Perfluorou	2058-94-8		0.85	NG_L	U		TRG					20171116		0.25	0.25	5.1	70	0.85	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			Perfluorod	307-55-1		0.42	NG_L	U		TRG					20171116		0.15	0.15	5.1	70	0.42	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			Perfluorot	72629-94-8		0.42	NG_L	U		TRG					20171116		0.13	0.13	5.1	70	0.42	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			Perfluorot	376-06-7		0.85	NG_L	U		TRG					20171116		0.21	0.21	5.1	70	0.85	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			N-Methyl F	2355-31-9		1.69	NG_L	U		TRG					20171116		0.47	0.47	5.1	70	1.69	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			N-Ethyl Pe	r2991-50-6		0.85	NG_L	U		TRG					20171116		0.42	0.42	5.1	70	0.85	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			Perfluorob	375-73-5		16.43	NG_L			TRG					20171116		0.11	0.11	5.1	70	0.42	4.24	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:17:00	20181015	18:37:10	J8369-FS	25	1			Perfluoroh	355-46-4		133.3	NG_L	D		TRG					20171116		2.33	2.33	5.1	70	8.47	105.93	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:17:00	20181015	18:37:10	J8369-FS	25	1			Perfluoroo	1763-23-1		213.24	NG_L	D		TRG					20171116		4.03	4.03	5.1	70	10.59	105.93	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C5-PFH	x BDO-2217		98	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C4-PFH	pBDO-2218		101	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C8-PFO	ABDO-2219		103	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C9-PFN	ABDO-2221		94	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C6-PFD	ABDO-2222		102	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C7-PFU	nBDO-2223		95	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C2-PFD	oBDO-2112		94	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C2-PFTe	BDO-2224		93	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			d3-MeFOS	BDO-1838		119	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			d5-EtFOSA	BDO-1839		127	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C3-PFB	S BDO-2226		138	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C3-PFH	x BDO-2227		113	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-SO-EB	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:17:00	20181014	23:49:37	J8369-FS	1	1			13C8-PFO	SBDO-2228		129	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:11:23	J8370-FS	25	1			Perfluoroh	307-24-4		5674.5	NG_L	D		TRG					20171116		45.67	45.67	5.1	70	120.19	1201.92	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:11:23	J8370-FS	25	1			Perfluoroh	375-85-9		1939.55	NG_L	D		TRG					20171116		38.46	38.46	5.1	70	120.19	1201.92	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:11:23	J8370-FS	25	1			Perfluoroo	335-67-1		3234.14	NG_L	D		TRG					20171116		43.27	43.27	5.1	70	120.19	1201.92	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:00:30	J8370-FS	1	1			Perfluoron	375-95-1		25.08	NG_L	J		TRG					20171116		2.5	2.5	5.1	70	9.62	48.08	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:00:30	J8370-FS	1	1			Perfluorod	335-76-2		4.81	NG_L	U		TRG					20171116		1.54	1.54	5.1	70	4.81	48.08	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:00:30	J8370-FS	1	1			Perfluorou	2058-94-8		9.62	NG_L	U		TRG					20171116		2.79	2.79	5.1	70	9.62	48.08	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:00:30	J8370-FS	1	1			Perfluorod	307-55-1		4.81	NG_L	U		TRG					20171116		1.73	1.73	5.1	70	4.81	48.08	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:00:30	J8370-FS	1	1			Perfluorot	72629-94-8		4.81	NG_L	U		TRG					20171116		1.44	1.44	5.1	70	4.81	48.08	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:00:30	J8370-FS	1	1			Perfluorot	376-06-7		9.62	NG_L	U		TRG					20171116		2.4	2.4	5.1	70	9.62	48.08	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:00:30	J8370-FS	1	1			N-Methyl F	2355-31-9		19.23	NG_L	U		TRG					20171116		5.38	5.38	5.1	70	19.23	48.08	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:00:30	J8370-FS	1	1			N-Ethyl Pe	r2991-50-6		9.62	NG_L	U		TRG					20171116		4.71	4.71	5.1	70	9.62	48.08	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:02:09	J8372-FS	10	1			Perfluorob	375-73-5		3962.93	NG_L	D		TRG					20171116		31.25	31.25	5.1	70	120.19	1201.92	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:02:09	J8372-FS	10	1			Perfluoroh	355-46-4		1626.41	NG_L	D		TRG					20171116		2.62	2.62	5.1	70	9.52	119.05	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:21:55	J8372-FS	62.5	1			Perfluoroo	1763-23-1		9041.91	NG_L	D		TRG					20171116		28.27	28.27	5.1	70	74.4	744.05	18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:49:16	J8372-FS	1	1			13C5-PFH	x BDO-2217		133	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016I	4164		POINT_MU	VC-PM-324	0	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	00:49:16	J8372-FS	1	1			13C4-PFH	pBDO-2218		123	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		

Contract_I	DO_CTO_N	Phase	Installatior	Sample_Ni	CH2M_Coc	Analysis_G	Analytical_	PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B	Extraction_	Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	DateTime_	Date_Rece	Leachate_I	Leachate_	Extraction_	Extraction_	Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Numt	PERCENT_I	PERCENT_I	Chem_Nan	Analyte_ID	Analyte_Vi	Original_A	Result_Uni	Lab_Qualif	Validator_	QC_Colum	Analysis_R	Result_Nat	QC_Contrc	QC_Accura	QC_Accura	Control_Lir	QC_Narrat	MDL	Detection_	QSM_Vers	DL	LOD	LOQ	SDG	Analysis_B	Validator_	Val_Date
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	01:49:16	J8372-FS	1	1			13C8-PFO	A BDO-2219		87	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	01:49:16	J8372-FS	1	1			13C9-PFN	A BDO-2221		58	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	01:49:16	J8372-FS	1	1			13C6-PFD	A BDO-2222		103	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	01:49:16	J8372-FS	1	1			13C7-PFU	nDO-2223		135	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	01:49:16	J8372-FS	1	1			13C2-PFD	oDO-2112		135	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	01:49:16	J8372-FS	1	1			13C2-PFT	e BDO-2224		126	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:21:55	J8372-FS	62.5	1			d3-MeFOS	BDO-1838		102	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:21:55	J8372-FS	62.5	1			d5-EtFOS	A BDO-1839		121	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:21:55	J8372-FS	62.5	1			13C3-PFB	S BDO-2226		113	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:21:55	J8372-FS	62.5	1			13C3-PFH	x BDO-2227		101	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:21:55	J8372-FS	62.5	1			13C8-PFO	S BDO-2228		109	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:43:42	J8382-FS	16.67	1			Perfluoroh	307-24-4		99.23	NG_L	D		TRG				20171116	2.99	2.99	5.1	70	7.86	78.62	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			Perfluoroh	375-85-9		27.3	NG_L			TRG				20171116	0.15	0.15	5.1	70	0.47	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			Perfluoroo	335-67-1		58.43	NG_L			TRG				20171116	0.17	0.17	5.1	70	0.47	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			Perfluoro	n 375-95-1		2.94	NG_L	J		TRG				20171116	0.25	0.25	5.1	70	0.94	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			Perfluorod	335-76-2		0.4	NG_L	J		TRG				20171116	0.15	0.15	5.1	70	0.47	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			Perfluorou	2058-94-8		0.94	NG_L	U		TRG				20171116	0.27	0.27	5.1	70	0.94	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			Perfluorod	307-55-1		0.47	NG_L	U		TRG				20171116	0.17	0.17	5.1	70	0.47	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			Perfluorot	72629-94-8		0.47	NG_L	U		TRG				20171116	0.14	0.14	5.1	70	0.47	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			Perfluoro	n 376-06-7		0.94	NG_L	U		TRG				20171116	0.24	0.24	5.1	70	0.94	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			N-Methyl	F2355-31-9		1.89	NG_L	U		TRG				20171116	0.53	0.53	5.1	70	1.89	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			N-Ethyl P	er2991-50-6		0.94	NG_L	U		TRG				20171116	0.46	0.46	5.1	70	0.94	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			Perfluorob	375-73-5		32.3	NG_L			TRG				20171116	0.12	0.12	5.1	70	0.47	4.72	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:43:42	J8382-FS	16.67	1			Perfluoro	h 355-46-4		720.19	NG_L	D		TRG				20171116	1.73	1.73	5.1	70	6.29	78.62	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:43:42	J8382-FS	16.67	1			Perfluoroo	1763-23-1		715.75	NG_L	D		TRG				20171116	2.99	2.99	5.1	70	7.86	78.62	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			13C5-PFH	x BDO-2217		113	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			13C4-PFH	pBDO-2218		117	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			13C8-PFO	A BDO-2219		97	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			13C9-PFN	A BDO-2221		93	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			13C6-PFD	A BDO-2222		106	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			13C7-PFU	nDO-2223		130	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			13C2-PFD	oDO-2112		121	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			13C2-PFT	e BDO-2224		114	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:43:42	J8382-FS	16.67	1			d3-MeFOS	BDO-1838		94	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:43:42	J8382-FS	16.67	1			d5-EtFOS	A BDO-1839		108	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			13C3-PFB	S BDO-2226		94	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:43:42	J8382-FS	16.67	1			13C3-PFH	x BDO-2227		93	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:18:00	20181015	02:32:48	J8382-FS	1	1			13C8-PFO	S BDO-2228		104	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:05:29	J8383-FS	10	1			Perfluoroh	307-24-4		812.74	NG_L	D		TRG				20171116	4.52	4.52	5.1	70	11.9	119.05	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:05:29	J8383-FS	10	1			Perfluoroh	375-85-9		199.04	NG_L	D		TRG				20171116	3.81	3.81	5.1	70	11.9	119.05	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:05:29	J8383-FS	10	1			Perfluoroo	335-67-1		252.73	NG_L	D		TRG				20171116	4.29	4.29	5.1	70	11.9	119.05	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			Perfluoro	n 375-95-1		150.59	NG_L			TRG				20171116	0.62	0.62	5.1	70	2.38	11.9	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			Perfluorod	335-76-2		16.06	NG_L			TRG				20171116	0.38	0.38	5.1	70	1.19	11.9	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			Perfluorou	2058-94-8		2.38	NG_L	U		TRG				20171116	0.69	0.69	5.1	70	2.38	11.9	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			Perfluorod	307-55-1		1.19	NG_L	U		TRG				20171116	0.43	0.43	5.1	70	1.19	11.9	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			Perfluorot	72629-94-8		1.19	NG_L	U		TRG				20171116	0.36	0.36	5.1	70	1.19	11.9	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			Perfluoro	n 376-06-7		2.38	NG_L	U		TRG				20171116	0.6	0.6	5.1	70	2.38	11.9	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			N-Methyl	F2355-31-9		4.76	NG_L	U		TRG				20171116	1.33	1.33	5.1	70	4.76	11.9	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			N-Ethyl P	er2991-50-6		2.38	NG_L	U		TRG				20171116	1.17	1.17	5.1	70	2.38	11.9	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:05:29	J8383-FS	10	1			Perfluorob	375-73-5		284.18	NG_L	D		TRG				20171116	3.1	3.1	5.1	70	11.9	119.05	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:16:22	J8383-FS	50	1			Perfluoro	h 355-46-4		2491.69	NG_L	D		TRG				20171116	13.1	13.1	5.1	70	47.62	595.24	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:16:22	J8383-FS	50	1			Perfluoroo	1763-23-1		7307.48	NG_L	D		TRG				20171116	22.62	22.62	5.1	70	59.52	595.24	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			13C5-PFH	x BDO-2217		141	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			13C4-PFH	pBDO-2218		137	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			13C8-PFO	A BDO-2219		94	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			13C9-PFN	A BDO-2221		60	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			13C6-PFD	A BDO-2222		101	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			13C7-PFU	nDO-2223		117	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			13C2-PFD	oDO-2112		112	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	02:54:36	J8383-FS	1	1			13C2-PFT	e BDO-2224		106	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:27:15	J8383-FS	125	1			d3-MeFOS	BDO-1838		99	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:27:15	J8383-FS	125	1			d5-EtFOS	A BDO-1839		108	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:27:15	J8383-FS	125	1			13C3-PFB	S BDO-2226		108	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:27:15	J8383-FS	125	1			13C3-PFH	x BDO-2227		97	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	03:27:15	J8383-FS	125	1			13C8-

Contract_I	DO_CTO_N	Phase	Installatior	Sample_Nu	CH2M_Cor	Analysis_G	Analytical_	PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B	Extraction_	Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	DateTime_	Date_Rece	Leachate_I	Leachate_	Extraction_	Extraction_	Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Numb	PERCENT_I	PERCENT_I	Chem_Nan	Analyte_ID	Analyte_Vi	Original_A	Result_Uni	Lab_Qualif	Validator_	QC_Colum	Analysis_R	Result_Nar	QC_Contrc	QC_Accura	QC_Accura	Control_Lir	QC_Narrat	MDL	Detection_Q	SM_Vers	DL	LOD	LOQ	SDG	Analysis_B	Validator_	Val_Date
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	05:37:52	J8385-FS	208.33	1			13C3-PFBS	BDO-2226		95	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	05:37:52	J8385-FS	208.33	1			13C3-PFHx	BDO-2227		93	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-PM64B	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180924	20180927			20181001	14:20:00	20181015	05:37:52	J8385-FS	208.33	1			13C8-PFOS	BDO-2228		107	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:55:00	J8395-FS	10	1			Perfluoroh	307-24-4		262.03	NG_L	D			TRG				20171116		1.73	1.73	5.1	70	4.55	45.45	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			Perfluoroh	375-85-9		136.76	NG_L				TRG				20171116		0.15	0.15	5.1	70	0.45	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	18:48:02	J8395-FS	50	1			Perfluoroo	335-67-1		685.22	NG_L	D			TRG				20171116		8.18	8.18	5.1	70	22.73	227.27	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			Perfluoro	375-95-1		10.47	NG_L				TRG				20171116		0.24	0.24	5.1	70	0.91	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			Perfluorod	335-76-2		0.45	NG_L	U			TRG				20171116		0.15	0.15	5.1	70	0.45	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			Perfluorou	2058-94-8		0.91	NG_L	U			TRG				20171116		0.26	0.26	5.1	70	0.91	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			Perfluorod	307-55-1		0.45	NG_L	U			TRG				20171116		0.16	0.16	5.1	70	0.45	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			Perfluorot	72629-94-8		0.45	NG_L	U			TRG				20171116		0.14	0.14	5.1	70	0.45	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			Perfluorot	376-06-7		0.91	NG_L	U			TRG				20171116		0.23	0.23	5.1	70	0.91	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			N-Methyl	FOSA-M		1.82	NG_L	U			TRG				20171116		0.51	0.51	5.1	70	1.82	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			N-Ethyl	Per2991-50-6		2.42	NG_L	J			TRG				20171116		0.45	0.45	5.1	70	0.91	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			Perfluorob	375-73-5		90.23	NG_L				TRG				20171116		0.12	0.12	5.1	70	0.45	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:55:00	J8395-FS	10	1			Perfluoroh	355-46-4		415.01	NG_L	D			TRG				20171116		1	1	5.1	70	3.64	45.45	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:55:00	J8395-FS	10	1			Perfluoroo	1763-23-1		104.13	NG_L	D			TRG				20171116		1.73	1.73	5.1	70	4.55	45.45	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C5-PFHx	BDO-2217		53	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C4-PFHp	BDO-2218		59	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C8-PFOA	BDO-2219		62	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C9-PFNA	BDO-2221		85	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C6-PFDA	BDO-2222		123	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C7-PFUn	BDO-2223		139	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C2-PFDo	BDO-2112		148	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C2-PFTe	BDO-2224		144	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			d3-MeFOS	BDO-1838		129	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:55:00	J8395-FS	10	1			d5-EtFOSA	BDO-1839		109	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C3-PFBS	BDO-2226		66	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C3-PFHx	BDO-2227		102	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	08:44:08	J8395-FS	1	1			13C8-PFOS	BDO-2228		103	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			Perfluoroh	307-24-4		53.9	NG_L				TRG				20171116		0.19	0.19	5.1	70	0.51	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			Perfluoroh	375-85-9		55.85	NG_L				TRG				20171116		0.16	0.16	5.1	70	0.51	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:16:45	J8396-FS	10	1			Perfluoroo	335-67-1		257.28	NG_L	D			TRG				20171116		1.84	1.84	5.1	70	5.1	51.02	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			Perfluoro	375-95-1		72.18	NG_L				TRG				20171116		0.27	0.27	5.1	70	1.02	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			Perfluorod	335-76-2		5.95	NG_L				TRG				20171116		0.16	0.16	5.1	70	0.51	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			Perfluorou	2058-94-8		1.96	NG_L	J			TRG				20171116		0.3	0.3	5.1	70	1.02	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			Perfluorod	307-55-1		0.51	NG_L	U			TRG				20171116		0.18	0.18	5.1	70	0.51	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			Perfluorot	72629-94-8		0.51	NG_L	U			TRG				20171116		0.15	0.15	5.1	70	0.51	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			Perfluorot	376-06-7		1.02	NG_L	U			TRG				20171116		0.26	0.26	5.1	70	1.02	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			N-Methyl	FOSA-M		2.04	NG_L	U			TRG				20171116		0.57	0.57	5.1	70	2.04	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			N-Ethyl	Per2991-50-6		1.02	NG_L	U			TRG				20171116		0.5	0.5	5.1	70	1.02	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			Perfluorob	375-73-5		28.95	NG_L				TRG				20171116		0.13	0.13	5.1	70	0.51	5.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:16:45	J8396-FS	10	1			Perfluoroh	355-46-4		137.87	NG_L	D			TRG				20171116		1.12	1.12	5.1	70	4.08	51.02	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:16:45	J8396-FS	10	1			Perfluoroo	1763-23-1		75.23	NG_L	D			TRG				20171116		1.94	1.94	5.1	70	5.1	51.02	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C5-PFHx	BDO-2217		112	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C4-PFHp	BDO-2218		106	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C8-PFOA	BDO-2219		84	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C9-PFNA	BDO-2221		86	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C6-PFDA	BDO-2222		107	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C7-PFUn	BDO-2223		106	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C2-PFDo	BDO-2112		102	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C2-PFTe	BDO-2224		89	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			d3-MeFOS	BDO-1838		109	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			d5-EtFOSA	BDO-1839		134	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C3-PFBS	BDO-2226		126	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C3-PFHx	BDO-2227		120	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:05:53	J8396-FS	1	1			13C8-PFOS	BDO-2228		130	PCT_REC				SURR	SLSP	150	50	20171116				5.1					18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:38:29	J8397-FS	10	1			Perfluoroh	307-24-4		75.12	NG_L	D			TRG				20171116		1.64	1.64	5.1	70	4.31	43.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:38:29	J8397-FS	10	1			Perfluoroo	335-67-1		425.54	NG_L	D			TRG				20171116		1.55	1.55	5.1	70	4.31	43.1	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:27:37	J8397-FS	1	1			Perfluoro	375-95-1		25.33	NG_L				TRG				20171116		0.22	0.22	5.1	70	0.86	4.31	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:27:37	J8397-FS	1	1			Perfluorod	335-76-2		1.07	NG_L	J			TRG				20171116		0.14	0.14	5.1	70	0.43	4.31	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:27:37	J8397-FS	1	1			Perfluorou	2058-94-8		0.86	NG_L	U			TRG				20171116		0.25	0.25	5.1	70	0.86	4.31	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:27:37	J8397-FS	1	1			Perfluorod	307-55-1		0.43	NG_L	U			TRG				20171116		0.16	0.16	5.1	70	0.43	4.31	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	09:27:37	J8397-FS	1	1			Perfluorot	72629-94-8		0.43	N

Contract_I	DO_CTO_h	Phase	Installatior	Sample_Ni	CH2M_Cor	Analysis_G	Analytical_PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B	Extraction_	Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	DateTime_	Date_Rece	Leachate_I	Leachate_	Extraction_	Extraction_	Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Numt	PERCENT_I	PERCENT_I	Chem_Nan	Analyte_ID	Analyte_Vi	Original_A	Result_Uni	Lab_Qualif	Validator_	GC_Colum	Analysis_R	Result_Nar	QC_Contrc	QC_Accura	QC_Accura	Control_Lir	QC_Narrat	MDL	Detection_Q	SM_Vers	DL	LOD	LOQ	SDG	Analysis_B	Validator_	Val_Date
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			Perfluorou	2058-94-8	0.88	NG	L	U		TRG				20171116		0.25	0.25	5.1	70	0.88	4.39	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			Perfluorod	307-55-1	0.44	NG	L	U		TRG				20171116		0.16	0.16	5.1	70	0.44	4.39	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			Perfluorot	72629-94-8	0.44	NG	L	U		TRG				20171116		0.13	0.13	5.1	70	0.44	4.39	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			Perfluorot	376-06-7	0.88	NG	L	U		TRG				20171116		0.22	0.22	5.1	70	0.88	4.39	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			N-Methyl F	2355-31-9	1.75	NG	L	U		TRG				20171116		0.49	0.49	5.1	70	1.75	4.39	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			N-Ethyl Pe	r2991-50-6	0.88	NG	L	U		TRG				20171116		0.43	0.43	5.1	70	0.88	4.39	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			Perfluorob	375-73-5	0.69	NG	L	J		TRG				20171116		0.11	0.11	5.1	70	0.44	4.39	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			Perfluoroh	355-46-4	0.35	NG	L	U		TRG				20171116		0.1	0.1	5.1	70	0.35	4.39	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			Perfluorou	1763-23-1	0.17	NG	L	J		TRG				20171116		0.17	0.17	5.1	70	0.44	4.39	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C5-PFHx	BDO-2217	104	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C4-PFHp	BDO-2218	98	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C8-PFOA	BDO-2219	110	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C9-PFNA	BDO-2221	99	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C6-PFDA	BDO-2222	112	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C7-PFUn	BDO-2223	115	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C2-PFDo	BDO-2112	111	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C2-PFTe	BDO-2224	122	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			d3-MeFOS	BDO-1838	102	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			d5-EtFOSA	BDO-1839	114	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C3-PFBS	BDO-2226	101	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C3-PFHx	BDO-2227	99	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-AQ-EB-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:17:00	20181015	10:21:57	J8399-FS	1	1			13C8-PFOS	BDO-2228	93	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:43:40	J8400-FS	10	1			Perfluoroh	307-24-4	487.07	NG	L	D		TRG				20171116		1.73	1.73	5.1	70	4.55	45.45	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:43:40	J8400-FS	10	1			Perfluoroh	375-85-9	76.66	NG	L	D		TRG				20171116		1.45	1.45	5.1	70	4.55	45.45	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:43:40	J8400-FS	10	1			Perfluoro	335-67-1	508.22	NG	L	D		TRG				20171116		1.64	1.64	5.1	70	4.55	45.45	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			Perfluoro	375-95-1	37.79	NG	L			TRG				20171116		0.24	0.24	5.1	70	0.91	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			Perfluorod	335-76-2	2.5	NG	L	J		TRG				20171116		0.15	0.15	5.1	70	0.45	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			Perfluorou	2058-94-8	0.91	NG	L	U		TRG				20171116		0.26	0.26	5.1	70	0.91	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			Perfluorod	307-55-1	0.45	NG	L	U		TRG				20171116		0.16	0.16	5.1	70	0.45	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			Perfluorot	72629-94-8	0.45	NG	L	U		TRG				20171116		0.14	0.14	5.1	70	0.45	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			Perfluorot	376-06-7	0.91	NG	L	U		TRG				20171116		0.23	0.23	5.1	70	0.91	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			N-Methyl F	2355-31-9	1.82	NG	L	U		TRG				20171116		0.51	0.51	5.1	70	1.82	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			N-Ethyl Pe	r2991-50-6	0.91	NG	L	U		TRG				20171116		0.45	0.45	5.1	70	0.91	4.55	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:43:40	J8400-FS	10	1			Perfluorob	375-73-5	186.15	NG	L	D		TRG				20171116		1.18	1.18	5.1	70	4.55	45.45	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181019	20:05:33	J8400-FS	166.67	1			Perfluoroh	355-46-4	1776.55	NG	L	D		TRG				20171116		16.67	16.67	5.1	70	60.61	757.58	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:58:54	J8400-FS	625	1			Perfluorou	1763-23-1	5397.89	NG	L	D		TRG				20171116		107.95	107.95	5.1	70	284.09	2840.91	18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			13C5-PFHx	BDO-2217	75	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			13C4-PFHp	BDO-2218	76	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			13C8-PFOA	BDO-2219	60	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			13C9-PFNA	BDO-2221	55	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			13C6-PFDA	BDO-2222	106	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			13C7-PFUn	BDO-2223	138	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			13C2-PFDo	BDO-2112	128	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	000	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:32:49	J8400-FS	1	1			13C2-PFTe	BDO-2224	125	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:54:32	J8400-FS	25	1			d3-MeFOS	BDO-1838	120	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:54:32	J8400-FS	25	1			d5-EtFOSA	BDO-1839	113	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:54:32	J8400-FS	25	1			13C3-PFBS	BDO-2226	132	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:54:32	J8400-FS	25	1			13C3-PFHx	BDO-2227	109	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		
N6247016	4164		POINT_MU	VC-HS09-D	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	N	METHOD	DL1	REG	W	4	20180925	20180927			20181001	14:18:00	20181015	10:54:32	J8400-FS	25	1			13C8-PFOS	BDO-2228	99	PCT	REC			SURR	SLSP	150	50	20171116				5.1				18-0583	DP-18-0288		

ENVIRONMENTAL
Data Services, Inc.

DATA VALIDATION SUMMARY REPORT
NAVAL BASE VENTURA COUNTY, CALIFORNIA

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 18-0583
Laboratory: Battelle Norwell Operations, Norwell, Massachusetts
Site: Naval Base Ventura County, CTO-4164, California
Date: December 28, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VC-PM323-DW01-0918	J8358-FS	Water
2	VC-PM323-DW03-0918	J8359-FS	Water
3	VC-SO-FB05-092418	J8368-FS	Water
4	VC-SO-EB05-092418	J8369-FS	Water
5	VC-PM324-DW01-0918	J8370-FS	Water
6	VC-PM324-DW01P-0918	J8371-FS	Water
7	VC-PM324-DW03-0918	J8372-FS	Water
8	VC-PM64B-DW01-0918	J8382-FS	Water
9	VC-PM64B-DW02-0918	J8383-FS	Water
10	VC-PM64B-DW03-0918	J8384-FS	Water
11	VC-PM64B-DW03P-0918	J8385-FS	Water
12	VC-HS09-DW01-0918	J8395-FS	Water
13	VC-HS09-DW02-0918	J8396-FS	Water
14	VC-HS09-DW03-0918	J8397-FS	Water
15	VC-AQ-FB-092518	J8398-FS	Water
16	VC-AQ-EB-092518	J8399-FS	Water
17	VC-HS09-DW03P-0918	J8400-FS	Water

A full data validation was performed on the analytical data for thirteen water samples, two aqueous field blank samples, and two aqueous equipment blank samples collected on September 24-25, 2018 by CH2M HILL at the Naval Base Ventura County site in California. The samples were analyzed under the Battelle SOP Method for "Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS)".

Specific method references are as follows:

Analysis	*Method References*
PFCs	SOP 5-369

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method, the DoD Quality Systems Manual for Environmental Laboratories, Version 5.1, February 2018, the Final Sampling and Analysis Plan Basewide Preliminary Assessments/Site Inspections of Per- and Polyfluoroalkyl Substances, August 2018, and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA "Contract Laboratories Program National Functional Guidelines for Organic Superfund Methods Data Review," January 2017;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent recovery (%R) criteria were met.

Method Blank

- The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
CR890PB-FS	PFOA	0.97	U	3-4, 15-16

Field QC Blank

- Field QC samples are summarized below.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
VC-SO-EB05-092418	PFHxA	44.45	U	8
	PFHpA	4.71	U	8
	PFBS	16.43	U	8, 10-11
	PFHxS	133.30	U	8
	PFOS	213.24	U	2, 8
VC-SO-FB05-092418	PFOS	0.26	None	See EB05
VC-AQ-FB-092518	None - ND	-	-	-
VC-AQ-EB-092518	PFBS	0.69	None	All associated >10X
	PFOS	0.17	None	All associated >10X

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- MS/MSD samples were not analyzed.

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was unacceptable for several compounds in one field duplicate pair. These results were qualified as estimated (J).

Compound	VC-PM324-DW01-0918 ng/L	VC-PM324-DW01P-0918 ng/L	RPD	Qualifier
PFHxA	5674.50	5198.88	9%	None
PFHpA	1939.55	2501.85	25%	
PFOA	3234.14	2752.83	16%	
PFNA	25.08	26.17	4%	
PFBS	3962.93	3728.11	6%	
PFHxS	31307.48	29104.43	7%	
PFOS	8879.00	11017.63	21%	

Compound	VC-PM64B-DW03-0918 ng/L	VC-PM64B-DW03P-0918 ng/L	RPD	Qualifier
PFHxA	1636.80	1674.97	2%	None
PFHpA	331.94	306.25	8%	
PFOA	580.04	517.48	11%	
PFNA	21.12	22.45	6%	
PFDA	0.55	0.42	27%	
PFHxS	5979.52	6212.24	4%	
PFOS	16829.57	14140.01	17%	

Compound	VC-HS09-DW03-0918 ng/L	VC-HS09-DW03P-0918 ng/L	RPD	Qualifier
PFHxA	75.12	487.07	147%	J
PFHpA	33.17	76.66	79%	
PFOA	425.54	508.22	18%	None
PFNA	25.33	37.79	39%	J
PFDA	1.07	2.50	80%	None - <5X LOQ
PFBS	38.45	186.15	132%	J
PFHxS	161.02	1776.55	167%	
PFOS	259.97	5397.89	182%	

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 12/31/18

Nancy Weaver
Senior Chemist

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limits is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

BATTELLE
It can be done

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM323-DW01-0918			
Battelle ID		J8358-FS			
Sample Type		SA			
Collection Date		09/24/2018			
Extraction Date		10/01/2018			
Analysis Date		10/14/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.002			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	98691.97 D	593.75	1562.50	15625.00
PFHpA	375-85-9	19268.22 D	200.00	625.00	6250.00
PFOA	335-67-1	78844.62 D	562.50	1562.50	15625.00
PFNA	375-95-1	3302.84	32.50	125.00	625.00
PFDA	335-76-2	142.55 J	20.00	62.50	625.00
PFUnA	2058-94-8	83.00 J	36.25	125.00	625.00
PFDoA	307-55-1	62.50 U	22.50	62.50	625.00
PFTrDA	72629-94-8	62.50 U	18.75	62.50	625.00
PFTeDA	376-06-7	125.00 U	31.25	125.00	625.00
NMeFOSAA	2355-31-9	250.00 U	70.00	250.00	625.00
NEtFOSAA	2991-50-6	125.00 U	61.25	125.00	625.00
PFBS	375-73-5	28789.50 D	162.50	625.00	6250.00
PFHxS	355-46-4	223525.26 D	343.75	1250.00	15625.00
PFOS	1763-23-1	2146745.62 D	5937.50	15625.00	156250.00

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	94
13C8-PFOA	71
13C9-PFNA	99 D
13C6-PFDA	106
13C7-PFUnA	112 D
13C2-PFDoA	96 D
13C2-PFTeDA	97 D
d3-MeFOSAA	108 D
d5-EtFOSAA	113 D
13C3-PFBS	101 D
13C3-PFHxS	101 D
13C8-PFOS	101 D

BATTELLE
It can be done

2

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM323-DW03-0918			
Battelle ID		J8359-FS			
Sample Type		SA			
Collection Date		09/24/2018			
Extraction Date		10/01/2018			
Analysis Date		10/14/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.105			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	2066.04 D	22.62	59.52	595.24
PFHpA	375-85-9	715.02 D	3.81	11.90	119.05
PFOA	335-67-1	606.57 D	4.29	11.90	119.05
PFNA	375-95-1	2.38 U	0.62	2.38	11.90
PFDA	335-76-2	1.19 U	0.38	1.19	11.90
PFUnA	2058-94-8	2.38 U	0.69	2.38	11.90
PFDoA	307-55-1	1.19 U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19 U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38 U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76 U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38 U	1.17	2.38	11.90
PFBS	375-73-5	1643.89 D	15.48	59.52	595.24
PFHxS	355-46-4	11395.49 D	65.48	238.10	2976.19
PFOS	1763-23-1	23.19 U	0.45	1.19	11.90

EBL

Surrogate Recoveries (%)

13C5-PFHxA	116
13C4-PFHpA	83
13C8-PFOA	87
13C9-PFNA	96
13C6-PFDA	112
13C7-PFUnA	116
13C2-PFDoA	106
13C2-PFTeDA	104
d3-MeFOSAA	91
d5-EtFOSAA	115
13C3-PFBS	127
13C3-PFHxS	87
13C8-PFOS	109

MW 12/28/18

BATTELLE
It can be done

3

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-SO-FB05-092418				
Battelle ID		J8368-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/14/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		AQ				
Sample Size		0.275				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	0.45	U	0.17	0.45	4.55
PFHpA	375-85-9	0.45	U	0.15	0.45	4.55
PFOA	335-67-1	0.74	J	0.16	0.45	4.55
PFNA	375-95-1	0.91	U	0.24	0.91	4.55
PFDA	335-76-2	0.45	U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91	U	0.26	0.91	4.55
PFDoA	307-55-1	0.45	U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45	U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91	U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82	U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	0.91	U	0.45	0.91	4.55
PFBS	375-73-5	0.45	U	0.12	0.45	4.55
PFHxS	355-46-4	0.36	U	0.10	0.36	4.55
PFOS	1763-23-1	0.26	J	0.17	0.45	4.55

MBL

Surrogate Recoveries (%)	
13C5-PFHxA	95
13C4-PFHpA	95
13C8-PFOA	104
13C9-PFNA	97
13C6-PFDA	115
13C7-PFUnA	111
13C2-PFDoA	100
13C2-PFTeDA	100
d3-MeFOSAA	91
d5-EtFOSAA	111
13C3-PFBS	103
13C3-PFHxS	93
13C8-PFOS	98

BATTELLE
it can be done

4

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-SO-EB05-092418				
Battelle ID		J8369-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/14/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		AQ				
Sample Size		0.295				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	44.45		0.16	0.42	4.24
PFHpA	375-85-9	4.71		0.14	0.42	4.24
PFOA	335-67-1	8.19	J4	0.15	0.42	4.24
PFNA	375-95-1	0.85	U	0.22	0.85	4.24
PFDA	335-76-2	0.42	U	0.14	0.42	4.24
PFUnA	2058-94-8	0.85	U	0.25	0.85	4.24
PFDoA	307-55-1	0.42	U	0.15	0.42	4.24
PFTrDA	72629-94-8	0.42	U	0.13	0.42	4.24
PFTeDA	376-06-7	0.85	U	0.21	0.85	4.24
NMeFOSAA	2355-31-9	1.69	U	0.47	1.69	4.24
NEtFOSAA	2991-50-6	0.85	U	0.42	0.85	4.24
PFBS	375-73-5	16.43		0.11	0.42	4.24
PFHxS	355-46-4	133.30		2.33	8.47	105.93
PFOS	1763-23-1	213.24		4.03	10.59	105.93

MBL

Surrogate Recoveries (%)

13C5-PFHxA	103
13C4-PFHpA	104
13C8-PFOA	102
13C9-PFNA	93
13C6-PFDA	103
13C7-PFUnA	96
13C2-PFDoA	95
13C2-PFTeDA	94
d3-MeFOSAA	121
d5-EtFOSAA	133
13C3-PFBS	146
13C3-PFHxS	116
13C8-PFOS	129

BATTELLE
It can be done

5

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM324-DW01-0918				
Battelle ID		J8370-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.026				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	5674.50	D	45.67	120.19	1201.92
PFHpA	375-85-9	1939.55	D	38.46	120.19	1201.92
PFOA	335-67-1	3234.14	D	43.27	120.19	1201.92
PFNA	375-95-1	25.08	J	2.50	9.62	48.08
PFDA	335-76-2	4.81	U	1.54	4.81	48.08
PFUnA	2058-94-8	9.62	U	2.79	9.62	48.08
PFDoA	307-55-1	4.81	U	1.73	4.81	48.08
PFTrDA	72629-94-8	4.81	U	1.44	4.81	48.08
PFTeDA	376-06-7	9.62	U	2.40	9.62	48.08
NMeFOSAA	2355-31-9	19.23	U	5.38	19.23	48.08
NEtFOSAA	2991-50-6	9.62	U	4.71	9.62	48.08
PFBS	375-73-5	3962.93	D	31.25	120.19	1201.92
PFHxS	355-46-4	31307.48	D	52.88	192.31	2403.85
PFOS	1763-23-1	8879.00	D	45.67	120.19	1201.92

Surrogate Recoveries (%)

13C5-PFHxA	130
13C4-PFHpA	99
13C8-PFOA	82
13C9-PFNA	84
13C6-PFDA	116
13C7-PFUnA	121
13C2-PFDoA	105
13C2-PFTeDA	105
d3-MeFOSAA	118
d5-EtFOSAA	120
13C3-PFBS	118
13C3-PFHxS	105
13C8-PFOS	88

NW 12/28/18

BATTELLE
it can be done

6

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM324-DW01P-0918			
Battelle ID		J8371-FS			
Sample Type		SA			
Collection Date		09/24/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.026			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	5198.88 D	91.35	240.38	2403.85
PFHpA	375-85-9	2501.85 D	15.38	48.08	480.77
PFOA	335-67-1	2752.83 D	86.54	240.38	2403.85
PFNA	375-95-1	26.17 J	2.50	9.62	48.08
PFDA	335-76-2	4.81 U	1.54	4.81	48.08
PFUnA	2058-94-8	9.62 U	2.79	9.62	48.08
PFDoA	307-55-1	4.81 U	1.73	4.81	48.08
PFTrDA	72629-94-8	4.81 U	1.44	4.81	48.08
PFTeDA	376-06-7	9.62 U	2.40	9.62	48.08
NMeFOSAA	2355-31-9	19.23 U	5.38	19.23	48.08
NEtFOSAA	2991-50-6	9.62 U	4.71	9.62	48.08
PFBS	375-73-5	3728.11 D	62.50	240.38	2403.85
PFHxS	355-46-4	29104.43 D	105.77	384.62	4807.69
PFOS	1763-23-1	11017.63 D	91.35	240.38	2403.85
Surrogate Recoveries (%)					
13C5-PFHxA		122			
13C4-PFHpA		95			
13C8-PFOA		85			
13C9-PFNA		75			
13C6-PFDA		113			
13C7-PFUnA		124			
13C2-PFDoA		104			
13C2-PFTeDA		108			
d3-MeFOSAA		133			
d5-EtFOSAA		101 D			
13C3-PFBS		106 D			
13C3-PFHxS		109 D			
13C8-PFOS		109 D			

NW 11/28/18

BATTELLE
it can be done

7

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM324-DW03-0918			
Battelle ID		J8372-FS			
Sample Type		SA			
Collection Date		09/24/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.105			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	502.27 D	4.52	11.90	119.05
PFHpA	375-85-9	126.19	0.38	1.19	11.90
PFOA	335-67-1	229.72 D	4.29	11.90	119.05
PFNA	375-95-1	8.17 J	0.62	2.38	11.90
PFDA	335-76-2	1.17 J	0.38	1.19	11.90
PFUnA	2058-94-8	2.38 U	0.69	2.38	11.90
PFDoA	307-55-1	1.19 U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19 U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38 U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76 U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38 U	1.17	2.38	11.90
PFBS	375-73-5	168.44 D	3.10	11.90	119.05
PFHxS	355-46-4	1626.41 D	2.62	9.52	119.05
PFOS	1763-23-1	9041.91 D	28.27	74.40	744.05
Surrogate Recoveries (%)					
13C5-PFHxA		140			
13C4-PFHpA		126			
13C8-PFOA		87			
13C9-PFNA		58			
13C6-PFDA		104			
13C7-PFUnA		137			
13C2-PFDoA		136			
13C2-PFTeDA		127			
d3-MeFOSAA		105 D			
d5-EtFOSAA		126 D			
13C3-PFBS		120 D			
13C3-PFHxS		104 D			
13C8-PFOS		110 D			

MW.12818

8

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW01-0918				
Battelle ID		J8382-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.265				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ	
PFHxA	307-24-4	99.23	D U	2.99	7.86	78.62	EBL
PFHpA	375-85-9	27.30	U	0.15	0.47	4.72	EBL
PFOA	335-67-1	58.43		0.17	0.47	4.72	
PFNA	375-95-1	2.94	J	0.25	0.94	4.72	
PFDA	335-76-2	0.40	J	0.15	0.47	4.72	
PFUnA	2058-94-8	0.94	U	0.27	0.94	4.72	
PFDoA	307-55-1	0.47	U	0.17	0.47	4.72	
PFTrDA	72629-94-8	0.47	U	0.14	0.47	4.72	
PFTeDA	376-06-7	0.94	U	0.24	0.94	4.72	
NMeFOSAA	2355-31-9	1.89	U	0.53	1.89	4.72	
NEtFOSAA	2991-50-6	0.94	U	0.46	0.94	4.72	
PFBS	375-73-5	32.30	U	0.12	0.47	4.72	EBL
PFHxS	355-46-4	720.19	D U	1.73	6.29	78.62	EBL
PFOS	1763-23-1	715.75	D U	2.99	7.86	78.62	EBL

Surrogate Recoveries (%)

13C5-PFHxA	118
13C4-PFHpA	121
13C8-PFOA	97
13C9-PFNA	92
13C6-PFDA	107
13C7-PFUnA	132
13C2-PFDoA	122
13C2-PFTeDA	115
d3-MeFOSAA	96 D
d5-EtFOSAA	112 D
13C3-PFBS	100
13C3-PFHxS	96 D
13C8-PFOS	104

MW 12/28/18

BATTELLE
It can be done

9

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW02-0918			
Battelle ID		J8383-FS			
Sample Type		SA			
Collection Date		09/24/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.105			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	812.74 D	4.52	11.90	119.05
PFHpA	375-85-9	199.04 D	3.81	11.90	119.05
PFOA	335-67-1	252.73 D	4.29	11.90	119.05
PFNA	375-95-1	150.59	0.62	2.38	11.90
PFDA	335-76-2	16.06	0.38	1.19	11.90
PFUnA	2058-94-8	2.38 U	0.69	2.38	11.90
PFDoA	307-55-1	1.19 U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19 U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38 U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76 U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38 U	1.17	2.38	11.90
PFBS	375-73-5	284.18 D	3.10	11.90	119.05
PFHxS	355-46-4	2491.69 D	13.10	47.62	595.24
PFOS	1763-23-1	7307.48 D	22.62	59.52	595.24
Surrogate Recoveries (%)					
13C5-PFHxA		148			
13C4-PFHpA		140			
13C8-PFOA		94			
13C9-PFNA		59			
13C6-PFDA		102			
13C7-PFUnA		119			
13C2-PFDoA		112			
13C2-PFTeDA		106			
d3-MeFOSAA		102 D			
d5-EtFOSAA		113 D			
13C3-PFBS		115 D			
13C3-PFHxS		99 D			
13C8-PFOS		94 D			

BATTELLE
It can be done

10

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW03-0918				
Battelle ID		J8384-FS				
Sample Type		SA				
Collection Date		09/24/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.105				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ
PFHxA	307-24-4	1636.80	D	11.31	29.76	297.62
PFHpA	375-85-9	331.94	D	3.81	11.90	119.05
PFOA	335-67-1	580.04	D	4.29	11.90	119.05
PFNA	375-95-1	21.12		0.62	2.38	11.90
PFDA	335-76-2	0.55	J	0.38	1.19	11.90
PFUnA	2058-94-8	2.38	U	0.69	2.38	11.90
PFDoA	307-55-1	1.19	U	0.43	1.19	11.90
PFTrDA	72629-94-8	1.19	U	0.36	1.19	11.90
PFTeDA	376-06-7	2.38	U	0.60	2.38	11.90
NMeFOSAA	2355-31-9	4.76	U	1.33	4.76	11.90
NEtFOSAA	2991-50-6	2.38	U	1.17	2.38	11.90
PFBS	375-73-5	159.09	D	3.10	11.90	119.05
PFHxS	355-46-4	5979.52	D	21.83	79.36	992.06
PFOS	1763-23-1	16829.57	D	125.66	330.69	3306.88

EBL

Surrogate Recoveries (%)

13C5-PFHxA	138	
13C4-PFHpA	107	
13C8-PFOA	84	
13C9-PFNA	51	
13C6-PFDA	110	
13C7-PFUnA	133	
13C2-PFDoA	122	
13C2-PFTeDA	112	
d3-MeFOSAA	98	D
d5-EtFOSAA	89	D
13C3-PFBS	93	D
13C3-PFHxS	96	D
13C8-PFOS	90	D

BATTELLE
It can be done

11

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-PM64B-DW03P-0918			
Battelle ID		J8385-FS			
Sample Type		SA			
Collection Date		09/24/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.100			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	1674.97 D	4.75	12.50	125.00
PFHpA	375-85-9	306.25 D	4.00	12.50	125.00
PFOA	335-67-1	517.48 D	4.50	12.50	125.00
PFNA	375-95-1	22.45	0.65	2.50	12.50
PFDA	335-76-2	0.42 J	0.40	1.25	12.50
PFUnA	2058-94-8	2.50 U	0.73	2.50	12.50
PFDoA	307-55-1	1.25 U	0.45	1.25	12.50
PFTrDA	72629-94-8	1.25 U	0.38	1.25	12.50
PFTeDA	376-06-7	2.50 U	0.63	2.50	12.50
NMeFOSAA	2355-31-9	5.00 U	1.40	5.00	12.50
NEtFOSAA	2991-50-6	2.50 U	1.23	2.50	12.50
PFBS	375-73-5	163.78 D,U	3.25	12.50	125.00
PFHxS	355-46-4	6212.24 D	22.92	83.33	1041.66
PFOS	1763-23-1	14140.01 D	39.58	104.17	1041.66
Surrogate Recoveries (%)					
13C5-PFHxA		145			
13C4-PFHpA		123			
13C8-PFOA		87			
13C9-PFNA		55			
13C6-PFDA		110			
13C7-PFUnA		123			
13C2-PFDoA		103			
13C2-PFTeDA		100			
d3-MeFOSAA		89 D			
d5-EtFOSAA		109 D			
13C3-PFBS		100 D			
13C3-PFHxS		96 D			
13C8-PFOS		107 D			

EBL

MW 12/28/18

BATTELLE
It can be done

12

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW01-0918			
Battelle ID		J8395-FS			
Sample Type		SA			
Collection Date		09/25/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.275			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	262.03 D	1.73	4.55	45.45
PFHpA	375-85-9	136.76	0.15	0.45	4.55
PFOA	335-67-1	685.22 D	8.18	22.73	227.27
PFNA	375-95-1	10.47	0.24	0.91	4.55
PFDA	335-76-2	0.45 U	0.15	0.45	4.55
PFUnA	2058-94-8	0.91 U	0.26	0.91	4.55
PFDoA	307-55-1	0.45 U	0.16	0.45	4.55
PFTrDA	72629-94-8	0.45 U	0.14	0.45	4.55
PFTeDA	376-06-7	0.91 U	0.23	0.91	4.55
NMeFOSAA	2355-31-9	1.82 U	0.51	1.82	4.55
NEtFOSAA	2991-50-6	2.42 J	0.45	0.91	4.55
PFBS	375-73-5	90.23	0.12	0.45	4.55
PFHxS	355-46-4	415.01 D	1.00	3.64	45.45
PFOS	1763-23-1	104.13 D	1.73	4.55	45.45
Surrogate Recoveries (%)					
13C5-PFHxA		56			
13C4-PFHpA		60			
13C8-PFOA		62			
13C9-PFNA		85			
13C6-PFDA		125			
13C7-PFUnA		141			
13C2-PFDoA		149			
13C2-PFTeDA		145			
d3-MeFOSAA		132			
d5-EtFOSAA		114 D			
13C3-PFBS		70			
13C3-PFHxS		105			
13C8-PFOS		103			

BATTELLE
It can be done

13

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW02-0918			
Battelle ID		J8396-FS			
Sample Type		SA			
Collection Date		09/25/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		GW			
Sample Size		0.245			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	53.90	0.19	0.51	5.10
PFHpA	375-85-9	55.85	0.16	0.51	5.10
PFOA	335-67-1	257.28	1.84	5.10	51.02
PFNA	375-95-1	72.18	0.27	1.02	5.10
PFDA	335-76-2	5.95	0.16	0.51	5.10
PFUnA	2058-94-8	1.96 J	0.30	1.02	5.10
PFDoA	307-55-1	0.51 U	0.18	0.51	5.10
PFTrDA	72629-94-8	0.51 U	0.15	0.51	5.10
PFTeDA	376-06-7	1.02 U	0.26	1.02	5.10
NMeFOSAA	2355-31-9	2.04 U	0.57	2.04	5.10
NEtFOSAA	2991-50-6	1.02 U	0.50	1.02	5.10
PFBS	375-73-5	28.95	0.13	0.51	5.10
PFHxS	355-46-4	137.87	1.12	4.08	51.02
PFOS	1763-23-1	75.23	1.94	5.10	51.02
Surrogate Recoveries (%)					
13C5-PFHxA		118			
13C4-PFHpA		109			
13C8-PFOA		84			
13C9-PFNA		85			
13C6-PFDA		109			
13C7-PFUnA		108			
13C2-PFDoA		103			
13C2-PFTeDA		90			
d3-MeFOSAA		112			
d5-EtFOSAA		140			
13C3-PFBS		134			
13C3-PFHxS		124			
13C8-PFOS		131			

BATTELLE
It can be done

14

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW03-0918				
Battelle ID		J8397-FS				
Sample Type		SA				
Collection Date		09/25/2018				
Extraction Date		10/01/2018				
Analysis Date		10/15/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		GW				
Sample Size		0.290				
Size Unit-Basis		L				
Units		ng/L		MDL	LOD	LOQ	
PFHxA	307-24-4	75.12 D	J	1.64	4.31	43.10	FD
PFHpA	375-85-9	33.17	J	0.14	0.43	4.31	FD
PFOA	335-67-1	425.54 D		1.55	4.31	43.10	
PFNA	375-95-1	25.33	J	0.22	0.86	4.31	FD
PFDA	335-76-2	1.07 J		0.14	0.43	4.31	
PFUnA	2058-94-8	0.86 U		0.25	0.86	4.31	
PFDoA	307-55-1	0.43 U		0.16	0.43	4.31	
PFTrDA	72629-94-8	0.43 U		0.13	0.43	4.31	
PFTeDA	376-06-7	0.86 U		0.22	0.86	4.31	
NMeFOSAA	2355-31-9	1.72 U		0.48	1.72	4.31	
NEtFOSAA	2991-50-6	0.86 U		0.42	0.86	4.31	
PFBS	375-73-5	38.45	J	0.11	0.43	4.31	FD
PFHxS	355-46-4	161.02 D		0.95	3.45	43.10	↓
PFOS	1763-23-1	259.97 D	↓	1.64	4.31	43.10	↓

Surrogate Recoveries (%)

13C5-PFHxA	94
13C4-PFHpA	103
13C8-PFOA	79
13C9-PFNA	80
13C6-PFDA	118
13C7-PFUnA	127
13C2-PFDoA	126
13C2-PFTeDA	122
d3-MeFOSAA	111
d5-EtFOSAA	143
13C3-PFBS	110
13C3-PFHxS	129
13C8-PFOS	108

BATTELLE
It can be done

15

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-AQ-FB-092518			
Battelle ID		J8398-FS			
Sample Type		SA			
Collection Date		09/25/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		AQ			
Sample Size		0.285			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.44 U	0.17	0.44	4.39
PFHpA	375-85-9	0.44 U	0.14	0.44	4.39
PFOA	335-67-1	0.80 J U	0.16	0.44	4.39
PFNA	375-95-1	0.88 U	0.23	0.88	4.39
PFDA	335-76-2	0.44 U	0.14	0.44	4.39
PFUnA	2058-94-8	0.88 U	0.25	0.88	4.39
PFDoA	307-55-1	0.44 U	0.16	0.44	4.39
PFTrDA	72629-94-8	0.44 U	0.13	0.44	4.39
PFTeDA	376-06-7	0.88 U	0.22	0.88	4.39
NMeFOSAA	2355-31-9	1.75 U	0.49	1.75	4.39
NEtFOSAA	2991-50-6	0.88 U	0.43	0.88	4.39
PFBS	375-73-5	0.44 U	0.11	0.44	4.39
PFHxS	355-46-4	0.35 U	0.10	0.35	4.39
PFOS	1763-23-1	0.44 U	0.17	0.44	4.39

MBL

Surrogate Recoveries (%)

13C5-PFHxA	101
13C4-PFHpA	98
13C8-PFOA	100
13C9-PFNA	94
13C6-PFDA	110
13C7-PFUnA	120
13C2-PFDoA	106
13C2-PFTeDA	104
d3-MeFOSAA	105
d5-EtFOSAA	111
13C3-PFBS	105
13C3-PFHxS	97
13C8-PFOS	99

BATTELLE
It can be done

16

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-AQ-EB-092518			
Battelle ID		J8399-FS			
Sample Type		SA			
Collection Date		09/25/2018			
Extraction Date		10/01/2018			
Analysis Date		10/15/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		AQ			
Sample Size		0.285			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	0.44 U	0.17	0.44	4.39
PFHpA	375-85-9	0.44 U	0.14	0.44	4.39
PFOA	335-67-1	0.74 J U	0.16	0.44	4.39
PFNA	375-95-1	0.88 U	0.23	0.88	4.39
PFDA	335-76-2	0.44 U	0.14	0.44	4.39
PFUnA	2058-94-8	0.88 U	0.25	0.88	4.39
PFDoA	307-55-1	0.44 U	0.16	0.44	4.39
PFTrDA	72629-94-8	0.44 U	0.13	0.44	4.39
PFTeDA	376-06-7	0.88 U	0.22	0.88	4.39
NMeFOSAA	2355-31-9	1.75 U	0.49	1.75	4.39
NEtFOSAA	2991-50-6	0.88 U	0.43	0.88	4.39
PFBS	375-73-5	0.69 J	0.11	0.44	4.39
PFHxS	355-46-4	0.35 U	0.10	0.35	4.39
PFOS	1763-23-1	0.17 J	0.17	0.44	4.39

MBL

Surrogate Recoveries (%)

13C5-PFHxA	109
13C4-PFHpA	100
13C8-PFOA	110
13C9-PFNA	98
13C6-PFDA	113
13C7-PFUnA	117
13C2-PFDoA	112
13C2-PFTeDA	122
d3-MeFOSAA	104
d5-EtFOSAA	119
13C3-PFBS	107
13C3-PFHxS	102
13C8-PFOS	94

BATTELLE
It can be done

17

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01

Client ID		VC-HS09-DW03P-0918					
Battelle ID		J8400-FS					
Sample Type		SA					
Collection Date		09/25/2018					
Extraction Date		10/01/2018					
Analysis Date		10/15/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS					
% Moisture		NA					
Matrix		GW					
Sample Size		0.275					
Size Unit-Basis		L					
Units		ng/L		MDL	LOD	LOQ	
PFHxA	307-24-4	487.07 D	J	1.73	4.55	45.45	FD
PFHpA	375-85-9	76.66 D	J	1.45	4.55	45.45	FD
PFOA	335-67-1	508.22 D		1.64	4.55	45.45	
PFNA	375-95-1	37.79	J	0.24	0.91	4.55	FD
PFDA	335-76-2	2.50 J		0.15	0.45	4.55	
PFUnA	2058-94-8	0.91 U		0.26	0.91	4.55	
PFDoA	307-55-1	0.45 U		0.16	0.45	4.55	
PFTrDA	72629-94-8	0.45 U		0.14	0.45	4.55	
PFTeDA	376-06-7	0.91 U		0.23	0.91	4.55	
NMeFOSAA	2355-31-9	1.82 U		0.51	1.82	4.55	
NEtFOSAA	2991-50-6	0.91 U		0.45	0.91	4.55	
PFBS	375-73-5	186.15 D	J	1.18	4.55	45.45	FD
PFHxS	355-46-4	1776.55 D	J	16.67	60.61	757.58	
PFOS	1763-23-1	5397.89 D	J	107.95	284.09	2840.91	
Surrogate Recoveries (%)							
13C5-PFHxA		79					
13C4-PFHpA		78					
13C8-PFOA		60					
13C9-PFNA		54					
13C6-PFDA		108					
13C7-PFUnA		140					
13C2-PFDoA		128					
13C2-PFTeDA		126					
d3-MeFOSAA		123 D					
d5-EtFOSAA		118 D					
13C3-PFBS		140 D					
13C3-PFHxS		112 D					
13C8-PFOS		99 D					

LOCATION_NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	ANALYTICAL_METHOD_GRP_DESC	SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_MATRIX_DESC	COLLECT_DATE
VC-PM323-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0583	6225366.8	1868767.2	Perfluoroalkyl Compounds	VC-PM323-DW01-0918	WG	Ground water	24-Sep-18
VC-PM323-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0583	6225338.2	1868433	Perfluoroalkyl Compounds	VC-PM323-DW03-0918	WG	Ground water	24-Sep-18
VC-PM324-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0583	6225160.8	1869121.6	Perfluoroalkyl Compounds	VC-PM324-DW01-0918	WG	Ground water	24-Sep-18
VC-PM324-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0583	6225160.8	1869121.6	Perfluoroalkyl Compounds	VC-PM324-DW01P-0918	WG	Ground water	24-Sep-18
VC-PM324-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0583	6225618.8	1868978.2	Perfluoroalkyl Compounds	VC-PM324-DW03-0918	WG	Ground water	24-Sep-18
		POINT_MUGU_NAS			18-0583			Perfluoroalkyl Compounds	VC-SO-EB05-092418	WQ	Water for QC samples	24-Sep-18
		POINT_MUGU_NAS			18-0583			Perfluoroalkyl Compounds	VC-SO-FB05-092418	WQ	Water for QC samples	24-Sep-18
VC-PM64B-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0583	6228770.4	1864154.2	Perfluoroalkyl Compounds	VC-PM64B-DW01-0918	WG	Ground water	24-Sep-18
VC-PM64B-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0583	6228883.9	1864101.9	Perfluoroalkyl Compounds	VC-PM64B-DW02-0918	WG	Ground water	24-Sep-18
VC-PM64B-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0583	6228824.4	1864050.3	Perfluoroalkyl Compounds	VC-PM64B-DW03-0918	WG	Ground water	24-Sep-18
VC-PM64B-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0583	6228824.4	1864050.3	Perfluoroalkyl Compounds	VC-PM64B-DW03P-0918	WG	Ground water	24-Sep-18