



**Groundwater Sample Results,
Combined Level 2 and Level 4 Laboratory Report,
Electronic Data Deliverable, and Data Validation Report,
SDG 18-0686**

*Marine Corps Base Camp Lejeune
North Carolina*

July 2019

**CTO-5655: Marine Corps Base Camp Lejeune
PFAS Analysis
Project No 100120725-CTO5655
PFAS by DoD QSM 5.1 Table B-15**

W

Batch 18-0686

Package DP-18-0378

Submitted to:

CH2M

2411 Dulles Corner Park, Suite 500

Herndon, VA 20171 USA

Submitted by:

Battelle Norwell Operations

141 Longwater Drive Suite 202

Norwell, MA 02061

BATTELLE

It can be done

CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No 100120725-CTO5655
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Submitted to:

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2411 Dulles Corner Park, Suite 500
Herndon, VA 20171 USA

NELAP Accreditation Number: E87856 (Florida Department of Health)

Submitted by:

Battelle Norwell Operations
141 Longwater Drive Suite 202
Norwell, MA 02061

Lauren Griffith

2018.11.28

14:32:15 -05'00'

Analyst Approval:

Lauren M. Griffith

QC Chemist Approval:

Elly M Fitch

fitche@battelle.org

2018.11.29 13:46:38 -05'00'

Project Manager Approval:

[Signature]

Digitally signed by Jonathan Thorn

Date: 2018.11.29 14:49:58 -05'00'

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CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No 100120725-CTO5655 PFAS by DoD QSM 5.1 Table B-15

W

Batch 18-0686


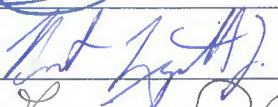
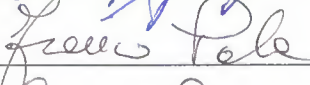





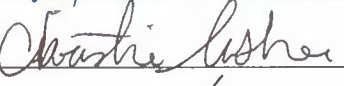

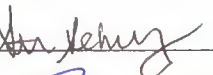

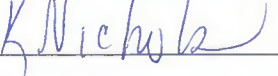



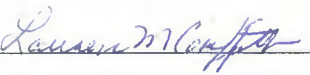
Package DP-18-0378

1	<i>Work Plan</i> Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports.	1
2	<i>Tables</i> Analytical Data Tables, Qualifier Definitions.	17
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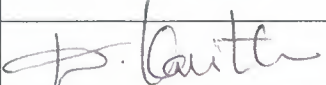

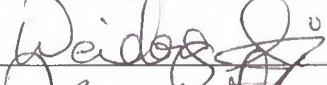


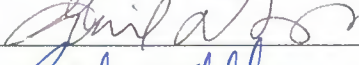




It can be done

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
FRANC PALA		FP	4-4-2018
Carla Devine		CRD	4/4/18
Denise Schumitz		DNS	4/4/18
Carolus Peummeay		CPM	4/4/2018
Rich Rostucci		RR	4/4/2018
Michael Mena		MM	4/4/2018
Christie Usher		CU	4/4/18
Kevin Matroney		KM	4/4/18
Stephanie Schmitz		SAS	4/4/18
Jordan Tower		JT	4/4/18
KRISTEN NICHOLS		KN	4/4/18
Quimiao H Brown		CB	4/4/18
Matt Schumitz		MS	4-4-18
Sam Guimaraes		SG	4-4-18
Lauren Griffith		LRMG	4.4.18

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		Tracy	04/04/18
Ellyn M Fitch		EF	12-April-2018
Gail DeRuzzo		GD	4/18/18
Zachary Willenberg		Z/W	4/20/18
Kevin Bailey		KB	10/25/18
Andrea Kulda		AK	10/25/18
William Mendelsohn		WM	10/25/18

Sample Summary

Client: CH2M

SDG: 18-0686

Project/Site: Marine Corps Base Camp Lejeune

CTO: 5655

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CS243PB-FS	Procedural Blank	WATER	11/20/2018	11/20/2018
CS244LCS-FS	Laboratory Control Sample	WATER	11/20/2018	11/20/2018
J9414-FS	AS4141-EFF1-18D	W	11/15/2018	11/17/2018
J9415MS-FS	AS4141-EFF1-18D-MS	W	11/15/2018	11/17/2018
J9416MSD-FS	AS4141-EFF1-18D-SD	W	11/15/2018	11/17/2018
J9417-FS	AS4141-EFF1D-18D	W	11/15/2018	11/17/2018
J9420-FS	AS4141-FB-111618	W	11/16/2018	11/17/2018

Work Plan



WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title: CTO-5655: PFAS Analysis
Project Number: 100120725-CTO5655
Client: CH2M
 2411 Dulles Corner Park
 Suite 500
 Herndon, VA 20171
 USA

Client Contact Information: Jaelyn D'Onofrio
 Project Chemist
 (703) 376-5132(V)
 NA
 Jackie.Donofrio@jacobs.com

Effective Date of QAPP: 11/14/2018
Version Number: 100120725-CTO5655(L)-01
Project Manager: Thorn, Jonathan
Laboratory Task Manager: Thorn, Jonathan
Deliverable Due Date: 11/26/2018

2.0 SCOPE OF WORK

Overview: Analysis of groundwater 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 samples refrigerated upon arrival. Keep samples separate from PFAS samples as these may be highly contaminated.
Sub_Sampling: None
Procedures: NA
Contact: NA
Comment: None.
Archiving: Archive unconsumed samples for 6 months after delivery of final results.
Disposal: Dispose of samples and extracts in the appropriate waste stream.



WORK/QUALITY ASSURANCE PROJECT PLAN

2.1.2 Sample Preparation

None.

Samples Expected:	Samples Per Batch:	Batches Expected:
16	20	1

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	MS/MSD will be indicated on the CoC forms.
MSD	Spiked field sample for determining method accuracy and precision in the presence of matrix.	1 per batch	--	NA	MS/MSD will be indicated on the CoC forms.

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

SOP No.-Rev: **5-370-07**

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: None.

Comments: Samples may be highly contaminated. Pre-screening results will be done at a higher dilution than normal to ensure that the laboratory equipment is not impacted. If PFAS is not detected in the highly diluted pre-screening samples, lower level dilutions will be performed.

Table 2: SIS and LCS/MS Spiking Level

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
PFAS - DoD Low	KB72 SIS	~ 0.250 ng	50 uL	NA



WORK/QUALITY ASSURANCE PROJECT PLAN

Standard Type	Standard Contents	Spike Amount (ng)	Volume (uL)	Comment
Level Labelled Extracted Internal Standard (SIS)				
PFAS - DoD Second Source LCS/MS Solution	KB82 LCS/MS	~ 15.0 ng	300 uL	LCS/MS/MSD (MS/MSD spike may vary based on pre- screening data)

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	KC52 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.

2.2. DELIVERABLES

Deliverables Due:	11/26/2018
LIMS Reports:	No
Histograms:	No
Excel Tables:	Yes



WORK/QUALITY ASSURANCE PROJECT PLAN

EICs: *No*

Chromatograms: *Yes*

EDDs: *Yes*

Comments:

- Full QSM 5.1 Table B-15 compliant data package.
- SNEDD EDD format (CH2M)

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
Ellyn M. Fitch	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	11/17/2018	11/19/2018	2	NA
Sample Preparation	11/19/2018	11/20/2018	1	NA



WORK/QUALITY ASSURANCE PROJECT PLAN

Activity:	Start Date:	End Date:	TAT (days):	Comment:
Instrument Analysis	11/20/2018	11/21/2018	1	NA
Quality Control Review	11/21/2018	11/26/2018	5	NA
Quality Assurance Review	11/26/2018	11/26/2018	0	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	1	2	NA
Sample Preparation	6	1	6	NA
Instrument Analysis	6	1	6	NA
Quality Control Review	3	1	3	NA
Quality Assurance Review	1	1	1	NA

7.0 STAFF DEVELOPMENT

None anticipated.



WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Shipment: SHP-181117-01
Status: Pending
Description: Air Station PFAS Sampling
Range: J9412-J9423
Comment: NA

No:	BDO Id:	Client Sample ID:	Collection Date:	Matrix:	Storage Facility:	Location:	No:	Comments:
1	J9412	RR-EFF1-18D	11/15/2018 8:55 am	W	R0119	(NA)		
2	J9413	RR-EFF1D-18D	11/15/2018 9:00 am	W	R0119	(NA)		
3	J9414	AS4141-EFF1-18D	11/15/2018 11:35 am	W	R0119	(NA)		
4	J9417	AS4141-EFF1D-18D	11/15/2018 11:40 am	W	R0119	(NA)		
5	J9418	RR-EFF2-18D	11/16/2018 8:30 am	W	R0119	(NA)		
6	J9419	RR-FB-111618	11/16/2018 3:30 pm	W	R0119	(NA)		
7	J9420	AS4141-FB-111618	11/16/2018 3:40 pm	W	R0119	(NA)		
8	J9421	RR-EFF3-18D	11/16/2018 3:50 pm	W	R0119	(NA)		



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 analyzed 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 Substitution:	U-Flag=MR	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	PFTTrDA	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-butanefulfonate	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



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



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

Degradation Check Criteria:

None



WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application	<i>Universal_LC</i>		
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. Organics Results in the Target is less than 5 times the Original	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
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. Organics Results in the Target is less than 5 times the Original	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
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). Organics Results in the Target is less than 5 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
Analytical Duplicate Precision	Organics results less than 30% Relative Percent Difference (RPD). Analyte concentration must be > 5x MDL. Organics Results in the Original is less than 5 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.



WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

MQO Application	<i>Universal_LC</i>		
MQO:	Acceptance Criteria	Qual:	Corrective Action:
Analytical Triplicate Precision	Organics results less than 30% Relative Standard Deviation (RSD). Analyte concentration must be > 5x MDL. Organics Results in the Original is less than 5 times the MDL	N n	Review with Project Manager; re-analyze or justify reporting results in the project records.
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.

ShpNo SHP-181117-01

It can be done

Battelle Project No: _____

Sample Receipt Form

Approved: Authorized:

Project Number: 705838.FL.FS Client: CH2M
 Received by: Schumitz, Matt Date/Time Received: Saturday, November 17, 2018 12:00 PM
 No. of Shipping Containers: 1

SHIPMENT

Method of Delivery: Commercial Carrier Tracking Number: 7838 2339 8175
 COC Forms: Shipped with samples No Forms

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smgs
1 of 1	Cooler	7838 2339 8175	Custody Seal	Intact	Intact	Therm_1	0.9	12

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: J9412 - J9423
 Samples logged in by: Schumitz, Matt Date/Time: 11/17/2018 12:00 PM
 Approved By: _____ Approved On: _____
 Authorized By: _____ Authorized On: _____



It can be done

ShpNo SHP-181117-01

Battelle Project No: _____

Sample Receipt Form Details

Approved: Authorized

Project Number: 705838.FL.FS Client: CH2M

Received by: Schumitz, Matt Date/Time Received: Saturday, November 17, 2018 12:00 PM

No. of Shipping Containers: 1

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J9412	RR-EFF1-18D	11/15/18 8:55	11/17/18 14:01	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9413	RR-EFF1D-18D	11/15/18 9:00	11/17/18 14:01	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9414	AS4141-EFF1-18D	11/15/18 11:35	11/17/18 14:02	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9415	AS4141-EFF1-18D-MS	11/15/18 11:35	11/17/18 14:02	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9416	AS4141-EFF1-18D-SD	11/15/18 11:35	11/17/18 14:02	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9417	AS4141-EFF1D-18D	11/15/18 11:40	11/17/18 14:03	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9418	RR-EFF2-18D	11/16/18 8:30	11/17/18 14:04	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9419	RR-FB-111618	11/16/18 15:30	11/17/18 14:04	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9420	AS4141-FB-111618	11/16/18 15:40	11/17/18 14:05	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9421	RR-EFF3-18D	11/16/18 15:50	11/17/18 14:05	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9422	RR-EFF3-18D-MS	11/16/18 15:50	11/17/18 14:05	1	W	0.9	NA	NA	NA	R0119 (NA)			
J9423	RR-EFF3-18D-SD	11/16/18 15:50	11/17/18 14:06	1	W	0.9	NA	NA	NA	R0119 (NA)			

Total Samples: 12



It can be done

Chain-of-Custody

Client Contact Information CH2M Hill 14120 Ballantyne Corporate Place, Suite 200 Charlotte, NC 28277 Jackie.D'Onofrio@jacobs.com		Project Manager: <u>Amber Baseman</u> Sampler Information (print name): <u>Paula Kramer</u> Phone: <u>630-637-2236</u> Email: <u>paula.kramer@jacobs.com</u>		Sampling Site: <u>Air Station</u>		Site Information: <u>MCA3 New River</u>	
Project Name: <u>Air Station PFAS Sampling</u> Project No.: <u>705838.FI.FS</u>		Turnaround Time (TAT) Requested: Normal <input type="checkbox"/> Priority <input type="checkbox"/> RUSH <input checked="" type="checkbox"/> <u>7-day</u>		Preservative: <u>1</u>		COC#	
Time Zone:		Analysis: <u>PFAS</u>		Page# <u>1 of 1</u>			
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	
BR-EFF1-18D		11/15/18	0855	Grab	W	1	J9412
RR-EFF1D-18D			0900			1	J9413
AS4141-EFF1-18D			1135			1	J9414
AS4141-EFF1-18D-MS			1135			1	Run QA/QC J9415
AS4141-EFF1-18D-SD			1135			1	Run QA/QC J9416
AS4141-EFF1D-18D			1140			1	J9417
RR-EFF2-18D		11/16/18	0830			1	J9418
RR-FB-111618			1530			1	J9419
AS4141-FB-111618			1540			1	J9420
RR-EFF3-18D			1550			1	J9421
RR-EFF3-18D-MS			1550			1	Run QA/QC J9422
RR-EFF3-18-SD			1550			1	Run QA/QC J9423
Receipt Temperature: (°C) <u>0.9°</u>		Samples Intact: <u>Yes</u> / No		Samples on Ice: <u>Yes</u> / No		Receipt Comments:	
Relinquished by (Print/Sign): <u>Paula Kramer</u>		Company: <u>Jacobs</u>		Date/Time: <u>11/16/18 @ 1730</u>		Received by (Print/Sign): <u>[Signature]</u>	
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):	
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):	
Comments: * PFAS Method LC-MS/MS compliant with QSM 5.1 Table B-15 Project Chemist: Jackie D'Onofrio 703-376-5132							

Thermal TB ✓

ORIGIN ID: RZLA (330) 887-2236
PAULA KRAMER
JACOBS
3120 HIGHWOODS BLVD
SUITE 214
RALEIGH, NC 27604
UNITED STATES US

SHIP DATE: 16NOV18
ACTWGT: 40.00 LB
CAD: 113487705/INET4042
BILL SENDER

TO **JONATHAN THORN
BATTELLE SAMPLE RECEIVING
141 LONGWATER DRIVE
SUITE 202
NORWELL MA 02061**

552J3/C3B2/DCA5

(781) 681-5565 REF:
INV: DEPT:
PO:



**SATURDAY 12:00P
PRIORITY OVERNIGHT**

TRK# 7838 2339 8175
0201

X0 XPUA

02061
MA-US BOS



0.9'

MDS

**12:00
11-17-18**

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Data Tables



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

Client ID	AS4141-EFF1-18D				
Battelle ID	J9414-FS				
Sample Type	SA				
Collection Date	11/15/2018				
Extraction Date	11/20/2018				
Analysis Date	11/21/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	NA				
Matrix	W				
Sample Size	0.270				
Size Unit-Basis	L				
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	380.50 D	4.40	11.57	115.74
PFHpA	375-85-9	108.28 D	0.74	2.31	23.15
PFOA	335-67-1	163.95 D	0.83	2.31	23.15
PFNA	375-95-1	5.45	0.24	0.93	4.63
PFDA	335-76-2	0.64 J	0.15	0.46	4.63
PFUnA	2058-94-8	0.93 U	0.27	0.93	4.63
PFDaA	307-55-1	0.46 U	0.17	0.46	4.63
PFTeDA	72629-94-8	0.46 U	0.14	0.46	4.63
PFTeDA	376-06-7	0.93 U	0.23	0.93	4.63
NMeFOSAA	2355-31-9	1.85 U	0.52	1.85	4.63
NEtFOSAA	2991-50-6	0.93 U	0.45	0.93	4.63
PFBS	375-73-5	219.28 D	3.01	11.57	115.74
PFHxS	355-46-4	1731.41 D	2.55	9.26	115.74
PFOS	1763-23-1	7178.57 D	21.99	57.87	578.70

Surrogate Recoveries (%)

13C5-PFHxA	80 D
13C4-PFHpA	96 D
13C8-PFOA	78 D
13C9-PFNA	79 D
13C6-PFDA	86
13C7-PFUnA	85
13C2-PFDaA	73
13C2-PFTeDA	75
d3-MeFOSAA	77 D
d5-EtFOSAA	96 D
13C3-PFBS	111 D
13C3-PFHxS	97 D
13C8-PFOS	81 D



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

Client ID	AS4141-EFF1D-18D				
Battelle ID	J9417-FS				
Sample Type	SA				
Collection Date	11/15/2018				
Extraction Date	11/20/2018				
Analysis Date	11/22/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	NA				
Matrix	W				
Sample Size	0.280				
Size Unit-Basis	L				
Units	ng/L MDL LOD LOQ				
PFHxA	307-24-4	342.54 D	4.24	11.16	111.61
PFHpA	375-85-9	107.87 D	0.71	2.23	22.32
PFOA	335-67-1	154.06 D	0.80	2.23	22.32
PFNA	375-95-1	6.02	0.23	0.89	4.46
PFDA	335-76-2	0.96 J	0.14	0.45	4.46
PFUnA	2058-94-8	0.89 U	0.26	0.89	4.46
PFDoA	307-55-1	0.45 U	0.16	0.45	4.46
PFTeDA	72629-94-8	0.45 U	0.13	0.45	4.46
PFTeDA	376-06-7	0.89 U	0.22	0.89	4.46
NMeFOSAA	2355-31-9	1.79 U	0.50	1.79	4.46
NEtFOSAA	2991-50-6	0.89 U	0.44	0.89	4.46
PFBS	375-73-5	216.49 D	0.58	2.23	22.32
PFHxS	355-46-4	1795.05 D	2.46	8.93	111.61
PFOS	1763-23-1	7318.07 D	21.21	55.80	558.04

Surrogate Recoveries (%)

13C5-PFHxA	90 D
13C4-PFHpA	100 D
13C8-PFOA	88 D
13C9-PFNA	87 D
13C6-PFDA	89
13C7-PFUnA	88
13C2-PFDoA	79
13C2-PFTeDA	77
d3-MeFOSAA	111 D
d5-EtFOSAA	117 D
13C3-PFBS	147 D
13C3-PFHxS	92 D
13C8-PFOS	102 D



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

Client ID	AS4141-FB-111618				
Battelle ID	J9420-FS				
Sample Type	SA				
Collection Date	11/16/2018				
Extraction Date	11/20/2018				
Analysis Date	11/21/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	NA				
Matrix	W				
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	1.21 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
PFDaA	307-55-1	0.45 U	0.16	0.45	4.55
PFTeDA	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	0.45 U	0.17	0.45	4.55

Surrogate Recoveries (%)

13C5-PFHxA	86
13C4-PFHpA	91
13C8-PFOA	97
13C9-PFNA	91
13C6-PFDA	90
13C7-PFUnA	98
13C2-PFDaA	82
13C2-PFTeDA	81
d3-MeFOSAA	82
d5-EtFOSAA	91
13C3-PFBS	81
13C3-PFHxS	83
13C8-PFOS	86



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

Client ID	KC73 IB				
Battelle ID	KC73 IB_11/21/2018				
Sample Type	IB				
Collection Date	NA				
Extraction Date	NA				
Analysis Date	11/21/2018				
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
PFDaA	307-55-1	0.50 U	0.18	0.50	5.00
PFTeDA	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	90
13C4-PFHpA	101
13C8-PFOA	97
13C9-PFNA	97
13C6-PFDA	96
13C7-PFUnA	94
13C2-PFDaA	91
13C2-PFTeDA	92
d3-MeFOSAA	88
d5-EtFOSAA	95
13C3-PFBS	90
13C3-PFHxS	90
13C8-PFOS	109



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

Client ID	KC73 IB				
Battelle ID	KC73 IB_11/27/2018				
Sample Type	IB				
Collection Date	NA				
Extraction Date	NA				
Analysis Date	11/27/2018				
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
PFDaA	307-55-1	0.50 U	0.18	0.50	5.00
PFTeDA	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	92
13C4-PFHpA	95
13C8-PFOA	102
13C9-PFNA	103
13C6-PFDA	97
13C7-PFUnA	100
13C2-PFDaA	94
13C2-PFTeDA	96
d3-MeFOSAA	120
d5-EtFOSAA	134
13C3-PFBS	79
13C3-PFHxS	86
13C8-PFOS	103



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

Client ID	KC73 IB				
Battelle ID	KC73 IB_11/28/2018				
Sample Type	IB				
Collection Date	NA				
Extraction Date	NA				
Analysis Date	11/28/2018				
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
PFDaA	307-55-1	0.50 U	0.18	0.50	5.00
PFTeDA	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	90
13C4-PFHpA	98
13C8-PFOA	98
13C9-PFNA	99
13C6-PFDA	97
13C7-PFUnA	99
13C2-PFDaA	93
13C2-PFTeDA	92
d3-MeFOSAA	123
d5-EtFOSAA	125
13C3-PFBS	80
13C3-PFHxS	79
13C8-PFOS	90



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

Client ID	Procedural Blank				
Battelle ID	CS243PB-FS				
Sample Type	PB				
Collection Date	11/20/2018				
Extraction Date	11/20/2018				
Analysis Date	11/21/2018				
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	1.31 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
PFTeDA	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	79
13C4-PFHpA	85
13C8-PFOA	93
13C9-PFNA	88
13C6-PFDA	87
13C7-PFUnA	90
13C2-PFDoA	77
13C2-PFTeDA	78
d3-MeFOSAA	79
d5-EtFOSAA	75
13C3-PFBS	78
13C3-PFHxS	71
13C8-PFOS	80



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

Client ID	Laboratory Control Sample					
Battelle ID	CS244LCS-FS					
Sample Type	LCS					
Collection Date	11/20/2018					
Extraction Date	11/20/2018					
Analysis Date	11/21/2018					
Analytical Instrument	Sciex 5500 LC/MS/MS					
% Moisture	NA					
Matrix	WATER					
Sample Size	0.250					
Size Unit-Basis	L					
Units	ng/L	Target	Recovery	Qual	Control Limits	
					Lower	Upper
PFHxA	307-24-4	68.80	60.60	114	51	137
PFHpA	375-85-9	65.67	60.00	109	48	136
PFOA	335-67-1	63.55	60.00	106	49	141
PFNA	375-95-1	68.01	60.00	113	58	122
PFDA	335-76-2	71.61	60.00	119	59	135
PFUnA	2058-94-8	70.89	60.00	118	64	134
PFDoA	307-55-1	66.71	60.00	111	75	131
PFTeDA	72629-94-8	64.45	60.00	107	42	148
PFTeDA	376-06-7	63.83	60.00	106	42	158
NMeFOSAA	2355-31-9	65.00	60.00	108	50	146
NEtFOSAA	2991-50-6	75.76	60.00	126	51	131
PFBS	375-73-5	67.40	60.60	111	56	134
PFHxS	355-46-4	70.05	60.60	116	52	128
PFOS	1763-23-1	70.69	60.00	118	40	144
Surrogate Recoveries (%)						
13C5-PFHxA		90				
13C4-PFHpA		89				
13C8-PFOA		88				
13C9-PFNA		90				
13C6-PFDA		79				
13C7-PFUnA		82				
13C2-PFDoA		85				
13C2-PFTeDA		88				
d3-MeFOSAA		102				
d5-EtFOSAA		78				
13C3-PFBS		100				
13C3-PFHxS		89				
13C8-PFOS		91				



Project Client: CH2M

Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No.: 100120725-CTO5655

Client ID		AS4141-EFF1-18D	AS4141-EFF1-18D-MS						
Battelle ID		J9414-FS	J9415MS-FS						
Sample Type		SA	MS						
Collection Date		11/15/2018	11/15/2018						
Extraction Date		11/20/2018	11/20/2018						
Analysis Date		11/21/2018	11/21/2018						
Analytical Instrument		Sciex 5500 LC/MS/MS	Sciex 5500 LC/MS/MS						
% Moisture		NA	NA						
Matrix		W	W						
Sample Size		0.270	0.280						
Size Unit-Basis		L	L						
Units		ng/L	ng/L	Target	Recovery	Qual	Control Limits		
							Lower	Upper	
PFHxA	307-24-4	380.50 D	341.39 D	54.11	0	N	51	137	
PFHpA	375-85-9	108.28 D	147.74 D	53.57	74		48	136	
PFOA	335-67-1	163.95 D	205.67 D	53.57	78		49	141	
PFNA	375-95-1	5.45	69.69	53.57	120		58	122	
PFDA	335-76-2	0.64 J	65.55	53.57	121		59	135	
PFUnA	2058-94-8	0.93 U	58.98	53.57	110		64	134	
PFDoA	307-55-1	0.46 U	64.08	53.57	120		75	131	
PFTTrDA	72629-94-8	0.46 U	74.08	53.57	138		42	148	
PFTeDA	376-06-7	0.93 U	62.15	53.57	116		42	158	
NMeFOSAA	2355-31-9	1.85 U	60.61	53.57	113		50	146	
NEtFOSAA	2991-50-6	0.93 U	50.62 D	53.57	94		51	131	
PFBS	375-73-5	219.28 D	223.90 D	54.11	9	N	56	134	
PFHxS	355-46-4	1731.41 D	1531.98 D	54.11	0	N	52	128	
PFOS	1763-23-1	7178.57 D	9566.64 D	53.57	4458	N	40	144	

Surrogate Recoveries (%)

13C5-PFHxA	80 D	89 D
13C4-PFHpA	96 D	101 D
13C8-PFOA	78 D	86 D
13C9-PFNA	79 D	75 D
13C6-PFDA	86	87
13C7-PFUnA	85	90
13C2-PFDoA	73	89
13C2-PFTeDA	75	82
d3-MeFOSAA	77 D	113 D
d5-EtFOSAA	96 D	142 D
13C3-PFBS	111 D	117 D
13C3-PFHxS	97 D	98 D
13C8-PFOS	81 D	89 D



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655
 Client ID AS4141-EFF1-18D-SD

Battelle ID J9416MSD-FS
 Sample Type MSD
 Collection Date 11/15/2018
 Extraction Date 11/20/2018
 Analysis Date 11/22/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture NA
 Matrix W
 Sample Size 0.285
 Size Unit-Basis L
 Units ng/L

			Target	Recovery	Qual	Control Limits		RPD	Qual	RPD
						Lower	Upper			Limit
PFHxA	307-24-4	395.01 D	53.16	27	N	51	137	200.0	N	≤ 30
PFHpA	375-85-9	161.74 D	52.63	102		48	136	31.8	N	≤ 30
PFOA	335-67-1	224.47 D	52.63	115		49	141	38.3	N	≤ 30
PFNA	375-95-1	66.26	52.63	116		58	122	3.4		≤ 30
PFDA	335-76-2	58.23	52.63	109		59	135	10.4		≤ 30
PFUnA	2058-94-8	57.85	52.63	110		64	134	0.0		≤ 30
PFDoA	307-55-1	58.41	52.63	111		75	131	7.8		≤ 30
PFTTrDA	72629-94-8	70.65	52.63	134		42	148	2.9		≤ 30
PFTeDA	376-06-7	59.89	52.63	114		42	158	1.7		≤ 30
NMeFOSAA	2355-31-9	51.93	52.63	99		50	146	13.2		≤ 30
NEtFOSAA	2991-50-6	61.99	52.63	118		51	131	22.6		≤ 30
PFBS	375-73-5	269.16 D	53.16	94		56	134	165.0	N	≤ 30
PFHxS	355-46-4	1532.09 D	53.16	0	N	52	128	0.0		≤ 30
PFOS	1763-23-1	7854.15 D	52.63	1284	N	40	144	110.6	N	≤ 30

Surrogate Recoveries (%)

13C5-PFHxA	88 D
13C4-PFHpA	101 D
13C8-PFOA	82 D
13C9-PFNA	82 D
13C6-PFDA	84
13C7-PFUnA	82
13C2-PFDoA	81
13C2-PFTeDA	78
d3-MeFOSAA	90 D
d5-EtFOSAA	100 D
13C3-PFBS	103 D
13C3-PFHxS	99 D
13C8-PFOS	79 D



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 highest 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

**QA/QC Summary
Batch 18-0686**

Project:	CTO-5655: Marine Corps Base Camp Lejeune
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	W
Data Set:	DP-18-0378
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
11/15 and 16/2018	11/17/2018	0.9
Corrective Actions	None	
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 and 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	Samples J9415MS-FS (AS4141-EFF1-18D-MS) floating particulate matter in the sample container from the field.
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	<p>Samples analyzed on Sciex 5500 LC-MS/MS.</p> <p>PFOS appears to exhibit a retention time shift because it is a branched analyte and the retention time is defined. In cases where the branched isomers for PFOS have a larger area, the analytical software labels the taller peak with the retention time, however, the entire group of peaks, branched and linear peaks, are quantified and reported. The RT does not actually shift.</p> <p>In cases where 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.</p> <p>PFHxS and PFOS, when detected, were found as a mixture of both linear and branched isomers. The value reported is a combined total of the isomers detected.</p>

QA/QC Summary
Batch 18-0686

	The dilutions J9417-FS-D(5) (DF=25) and J9417-FS-D(7) (DF=125) exhibited anomalous results when compared to the non-diluted sample and the dilution J9417-FS-D(3) (DF=5). These extracts were re-aliquoted and re-run to confirm the initial results. After re-analysis, it was determined that the dilutions would be re-made and analyzed. The new dilutions were reported.	
Holding Times	Extraction Date(s)	Analysis Date(s)
	11/20/2018	11/21, 22, 27, and 28/2018
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	No exceedances noted.	
Samples >10x PB	No comments.	
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	Seven (7) recovery and five (5) precision exceedances noted.	
	All exceedances are due to levels of native PFAS compounds in the background sample as compared to the fortification levels, samples were fortified toward the higher end of the calibration curve. All analytes pass criteria in the LCS sample.	
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.	
	There are instances of extracted internal standards (surrogates) that would fall outside of the 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.	

QA/QC Summary
Batch 18-0686

Internal Standard Analytes	Labelled analog compounds were added prior to analysis.
+/- 50% of the area of the L5 calibration point.	No exceedances noted.
	Sample extracts J9414-FS(0), J9415MS-FS(0), J9416MSD-FS(0), and J9417-FS(0) exhibited low areas for internal standard 13C4-PFOS. Affected surrogates for these samples were reported from dilutions with acceptable internal standard areas. 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.
Initial Calibration (ICAL)	The LC-MS/MS was calibrated with multi-level calibration curve for all compounds using linear or quadratic curve fitting.
+/- 30% of true value, R ² ≥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.
	The CCV KC69 injected on 11/27/2018 at 16:01:22 exhibited a high recovery for d5-EtFOSAA. This surrogate was not reported from the sample extract, J9415MS-FS-D(9) bracketed by this CCV. The CCV KC69 injected on 11/28/2018 at 10:15:42 exhibited high recoveries for d3-MeFOSAA and d5-EtFOSAA. The one sample impacted by this CCV was J9417-FS-D(17) which was re-analyzed after the next CCV and bracketed by a passing CCV – only these two surrogates are reported from the re-analysis, all other targets and surrogates are not impacted by the failure.
Instrument Blank (IB)	Immediately following the highest standard analyzed and daily prior to sample analysis.
≤ ½ the LOQ	No exceedances noted.
	No comments.



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project Number: 100120725-CTO5655
 Preparation Batch: 18-0686
 Data Set: DP-18-0378
 Test Code: Master_369

QC Parameter:	Exceed:	Justification:
Procedural Blank	0	None
PB Measurement Quality Objective	0	None
Laboratory Control Sample	0	None
Matrix Spike / Matrix Spike Duplicate Recovery	7	There were seven exceedences for matrix spike/ matrix spike duplicate recovery. In all cases the analytes which had unacceptable recoveries were present in the background sample in concentrations well above the amount of standard spiked into the matrix spike and matrix spike duplicate. LMG 11/28/18
Matrix Spike / Matrix Spike Duplicate Precision	5	There were five exceedences for matrix spike/ matrix spike duplicate precision. In all cases the analytes which had unacceptable precision were present in the background sample in concentrations well above the amount of standard spiked into the matrix spike and matrix spike duplicate. LMG 11/28/18
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



It can be done

BATTELLE - NORWELL OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-5655: Marine Corps Base Camp L	Data Set Number:	DP-18-0378
Project Number:	100120725-CTO5655	Prep Batch Number:	18-0686
Entered By:	Lauren Griffith	Entered On:	11/28/2018
Test Code (Matrix Type):	Master_369(L)		

Samples that were manually integrated are noted on the quant reports with the comment (TRUE).
LMG 11/28/18

KC66 and KC67 were not used for d5-EtFOSAA for the SIS method. There is no impact on the data once these points are removed.
LMG 11/28/18

PFOS appears to exhibit a retention time shift because it is a branched analyte and the retention time is defined. In cases where the branched isomers for PFOS have a larger area, the analytical software labels the taller peak with the retention time, however, the entire group of peaks, branched and linear peaks, are quantified and reported. The RT does not actually shift.
LMG 11/28/18

In cases where 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.
LMG 11/28/18

There are instances of extracted internal standards (surrogates) that would fall outside of the 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.
LMG 11/28/18

Samples J9414-FS(0), J9415MS-FS(0), J9416MSD-FS(0) and J9417-FS(0) exhibited low areas for internal standard 13C4-PFOS. Affected surrogates for these samples were reported from dilutions with acceptable internal standard areas. 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.
LMG 11/28/18

The original dilutions for sample J9417 exhibited anomalous results which were confirmed by re-quotting and reanalyzing the dilutions. All dilution for this sample were then reprepared and reanalyzed. All data reported from dilutions for this sample is reported from the reprepared dilutions.
LMG 11/28/18

CCV KC69, injected on 11/27/2018 at 4:01:22PM, exhibited a high recovery for d5-EtFOSAA. The one sample affected by this was J9415MS-FS-D(9). This surrogate was not reported from this dilution, so the exceedence does not apply.
LMG 11/28/18

CCV KC69, injected on 11/28/2018 at 10:15:42AM, exhibited a high recovery for d3-MeFOSAA and d5-EtFOSAA. The one sample affected by this was J9417-FS-D(17). This sample was reanalyzed with acceptable bracketing CCVs and only these surrogates were reported from that reanalysis, so the exceedence does not apply.
LMG 11/28/18

Task Leader Approval:

Supervisor Approval:

PM Approval:

Digitally signed by Jonathan Thorn
Date: 2018.11.28 16:04:38 -05'00'



Example Calculation for PFAS

Calculation of final concentration from area:

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

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: J9414-FS-D(7)
 Client Sample ID: AS4141-EFF1-18D
 Sample Size: 0.27
 Units: L
 Dilution Factor: 125.000
 PIV (L): 0.001
 Target Analyte: PFOS
 MRM Transition: 499.0 / 80.0
 Data file: AC_11212018_5-369.wiff
 Result table: 18-0686
 Area: 8,454,159.02
 IS Name: 13C8-PFOS
 IS Area: 30,131.05
 IS Amount (ng/L): 239.25
 y-intercept: 0.4172
 slope: 4.32285

$$\text{Concentration} = \frac{[(8454159.02/30131.05) - 0.4172]}{4.32285} * 239.25 * 0.001 * 125 / 0.27$$

$$\text{ng/L} = 7,178.57$$

*Final concentration may vary based on rounding.



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655
 Preparation Batch: 18-0686
 Data Set: DP-18-0378

		CS243PB-FS (Procedural Blank)	CS244LCS-FS (Laboratory Control Sample)	J9415MS-FS (AS4141-EFF1-18D-MS)	J9416MSD-FS (AS4141-EFF1-18D-SD)	J9414-FS (AS4141-EFF1-18D)	J9417-FS (AS4141-EFF1D-18D)	J9420-FS (AS4141-FB-111618)
PFHxA	307-24-4	-	L	L	L	L	L	-
PFHpA	375-85-9	-	L	L	L	L	L	-
PFOA	335-67-1	-	L	L	L	L	L	-
PFNA	375-95-1	-	L	L	L	L	L	-
PFDA	335-76-2	-	L	L	L	-	-	-
PFUnA	2058-94-8	-	L	L	L	-	-	-
PFDoA	307-55-1	-	L	L	L	-	-	-
PFTTrDA	72629-94-8	-	L	L	L	-	-	-
PFTeDA	376-06-7	-	L	L	L	-	-	-
NMeFOSAA	2355-31-9	-	L	L	L	-	-	-
NEtFOSAA	2991-50-6	-	L	L	L	-	-	-
PFBS	375-73-5	-	L	L	L	L	L	-
PFHxS	355-46-4	-	L/Br	L/Br	L/Br	L/Br	L/Br	-
PFOS	1763-23-1	-	L/Br	L/Br	L/Br	L/Br	L/Br	-

"L" :Linear

"Br": branched

"L/Br": Linear/Branched

"-": Not detected

Project Client: CH2M

Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No.: 100120725-CTO5655



Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KC70	L5	11/21/18 18:14	13C2-PFOA	91,047.48	45,523.74	136,571.22

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KC66	L1	11/21/18 17:30	13C2-PFOA	98,017.35	45,523.74	136,571.22	
KC67	L2	11/21/18 17:41	13C2-PFOA	97,445.83	45,523.74	136,571.22	
KC68	L3	11/21/18 17:52	13C2-PFOA	87,780.57	45,523.74	136,571.22	
KC69	L4	11/21/18 18:03	13C2-PFOA	88,909.88	45,523.74	136,571.22	
KC70	L5	11/21/18 18:14	13C2-PFOA	91,047.48	45,523.74	136,571.22	
KC71	L6	11/21/18 18:25	13C2-PFOA	79,565.82	45,523.74	136,571.22	
KC72	L7	11/21/18 18:35	13C2-PFOA	82,742.15	45,523.74	136,571.22	
KC73 IB	Instrument blank	11/21/18 18:46	13C2-PFOA	95,246.18	45,523.74	136,571.22	
KC74 ICC	ICC	11/21/18 18:57	13C2-PFOA	89,368.50	45,523.74	136,571.22	
KC69 CCV	CCV	11/21/18 21:51	13C2-PFOA	88,532.06	45,523.74	136,571.22	
CS243PB-FS(0)	Procedural Blank	11/21/18 22:13	13C2-PFOA	90,061.51	45,523.74	136,571.22	
CS244LCS-FS(0)	Laboratory Control Sample	11/21/18 22:24	13C2-PFOA	87,817.24	45,523.74	136,571.22	
J9420-FS(0)	AS4141-FB-111618	11/21/18 22:35	13C2-PFOA	88,319.92	45,523.74	136,571.22	
J9414-FS(0)	AS4141-EFF1-18D	11/21/18 22:45	13C2-PFOA	100,239.38	45,523.74	136,571.22	
J9414-FS-D(3)	AS4141-EFF1-18D	11/21/18 22:56	13C2-PFOA	106,489.58	45,523.74	136,571.22	
J9414-FS-D(5)	AS4141-EFF1-18D	11/21/18 23:07	13C2-PFOA	96,483.59	45,523.74	136,571.22	
J9414-FS-D(7)	AS4141-EFF1-18D	11/21/18 23:18	13C2-PFOA	101,509.80	45,523.74	136,571.22	
J9415MS-FS(0)	AS4141-EFF1-18D-MS	11/21/18 23:29	13C2-PFOA	103,660.42	45,523.74	136,571.22	2
J9415MS-FS-D(3)	AS4141-EFF1-18D-MS	11/21/18 23:40	13C2-PFOA	94,658.84	45,523.74	136,571.22	
J9415MS-FS-D(5)	AS4141-EFF1-18D-MS	11/21/18 23:51	13C2-PFOA	91,605.57	45,523.74	136,571.22	
KC70 CCV	CCV	11/22/18 0:01	13C2-PFOA	87,254.96	45,523.74	136,571.22	
J9415MS-FS-D(7)	AS4141-EFF1-18D-MS	11/22/18 0:23	13C2-PFOA	102,581.38	45,523.74	136,571.22	
J9416MSD-FS(0)	AS4141-EFF1-18D-SD	11/22/18 0:34	13C2-PFOA	102,568.38	45,523.74	136,571.22	
J9416MSD-FS-D(3)	AS4141-EFF1-18D-SD	11/22/18 0:45	13C2-PFOA	89,023.58	45,523.74	136,571.22	
J9416MSD-FS-D(5)	AS4141-EFF1-18D-SD	11/22/18 0:56	13C2-PFOA	87,003.67	45,523.74	136,571.22	
J9416MSD-FS-D(7)	AS4141-EFF1-18D-SD	11/22/18 1:07	13C2-PFOA	93,569.71	45,523.74	136,571.22	
J9417-FS(0)	AS4141-EFF1D-18D	11/22/18 1:17	13C2-PFOA	113,419.01	45,523.74	136,571.22	
J9417-FS-D(3)	AS4141-EFF1D-18D	11/22/18 1:28	13C2-PFOA	95,729.87	45,523.74	136,571.22	1
J9417-FS-D(5)	AS4141-EFF1D-18D	11/22/18 1:39	13C2-PFOA	96,319.75	45,523.74	136,571.22	1
J9417-FS-D(7)	AS4141-EFF1D-18D	11/22/18 1:50	13C2-PFOA	92,039.76	45,523.74	136,571.22	1
KC69 CCV	CCV	11/22/18 2:01	13C2-PFOA	91,386.65	45,523.74	136,571.22	
KC73 IB	Instrument blank	11/27/18 10:47	13C2-PFOA	111,442.35	45,523.74	136,571.22	
KC68 ISC	ISC	11/27/18 10:58	13C2-PFOA	92,200.34	45,523.74	136,571.22	
J9415MS-FS(0)	AS4141-EFF1-18D-MS	11/27/18 11:52	13C2-PFOA	96,208.88	45,523.74	136,571.22	
KC69 CCV	CCV	11/27/18 12:14	13C2-PFOA	70,363.14	45,523.74	136,571.22	
KC68 CCV	CCV	11/27/18 14:11	13C2-PFOA	101,634.40	45,523.74	136,571.22	
J9415MS-FS-D(9)	AS4141-EFF1-18D-MS	11/27/18 15:50	13C2-PFOA	94,558.66	45,523.74	136,571.22	
KC69 CCV	CCV	11/27/18 16:01	13C2-PFOA	89,567.16	45,523.74	136,571.22	
KC73 IB	Instrument blank	11/28/18 10:04	13C2-PFOA	100,917.90	45,523.74	136,571.22	
KC69 ISC	ISC	11/28/18 10:15	13C2-PFOA	94,211.21	45,523.74	136,571.22	
J9417-FS-D(13)	AS4141-EFF1D-18D	11/28/18 10:26	13C2-PFOA	98,841.42	45,523.74	136,571.22	
J9417-FS-D(15)	AS4141-EFF1D-18D	11/28/18 10:37	13C2-PFOA	96,033.55	45,523.74	136,571.22	
J9417-FS-D(17)	AS4141-EFF1D-18D	11/28/18 10:48	13C2-PFOA	102,386.82	45,523.74	136,571.22	
KC70 CCV	CCV	11/28/18 10:59	13C2-PFOA	85,730.03	45,523.74	136,571.22	
J9417-FS-D(17)	AS4141-EFF1D-18D	11/28/18 12:13	13C2-PFOA	106,985.76	45,523.74	136,571.22	
KC68 CCV	CCV	11/28/18 12:24	13C2-PFOA	98,791.66	45,523.74	136,571.22	

1 - see miscellaneous documentation form for details

2 - see sequence reports for details

Project Client: CH2M

Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No.: 100120725-CTO5655



Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KC70	L5	11/21/18 18:14	13C2-PFDA	102,200.38	51,100.19	153,300.57

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KC66	L1	11/21/18 17:30	13C2-PFDA	119,662.17	51,100.19	153,300.57	
KC67	L2	11/21/18 17:41	13C2-PFDA	110,902.44	51,100.19	153,300.57	
KC68	L3	11/21/18 17:52	13C2-PFDA	104,442.66	51,100.19	153,300.57	
KC69	L4	11/21/18 18:03	13C2-PFDA	99,143.75	51,100.19	153,300.57	
KC70	L5	11/21/18 18:14	13C2-PFDA	102,200.38	51,100.19	153,300.57	
KC71	L6	11/21/18 18:25	13C2-PFDA	94,912.50	51,100.19	153,300.57	
KC72	L7	11/21/18 18:35	13C2-PFDA	99,452.96	51,100.19	153,300.57	
KC73 IB	Instrument blank	11/21/18 18:46	13C2-PFDA	113,338.13	51,100.19	153,300.57	
KC74 ICC	ICC	11/21/18 18:57	13C2-PFDA	101,424.20	51,100.19	153,300.57	
KC69 CCV	CCV	11/21/18 21:51	13C2-PFDA	99,185.75	51,100.19	153,300.57	
CS243PB-FS(0)	Procedural Blank	11/21/18 22:13	13C2-PFDA	102,780.12	51,100.19	153,300.57	
CS244LCS-FS(0)	Laboratory Control Sample	11/21/18 22:24	13C2-PFDA	103,867.37	51,100.19	153,300.57	
J9420-FS(0)	AS4141-FB-111618	11/21/18 22:35	13C2-PFDA	108,126.62	51,100.19	153,300.57	
J9414-FS(0)	AS4141-EFF1-18D	11/21/18 22:45	13C2-PFDA	118,132.44	51,100.19	153,300.57	
J9414-FS-D(3)	AS4141-EFF1-18D	11/21/18 22:56	13C2-PFDA	126,357.49	51,100.19	153,300.57	
J9414-FS-D(5)	AS4141-EFF1-18D	11/21/18 23:07	13C2-PFDA	114,207.33	51,100.19	153,300.57	
J9414-FS-D(7)	AS4141-EFF1-18D	11/21/18 23:18	13C2-PFDA	119,066.86	51,100.19	153,300.57	
J9415MS-FS(0)	AS4141-EFF1-18D-MS	11/21/18 23:29	13C2-PFDA	129,983.94	51,100.19	153,300.57	2
J9415MS-FS-D(3)	AS4141-EFF1-18D-MS	11/21/18 23:40	13C2-PFDA	116,229.36	51,100.19	153,300.57	
J9415MS-FS-D(5)	AS4141-EFF1-18D-MS	11/21/18 23:51	13C2-PFDA	107,251.30	51,100.19	153,300.57	
KC70 CCV	CCV	11/22/18 0:01	13C2-PFDA	106,484.57	51,100.19	153,300.57	
J9415MS-FS-D(7)	AS4141-EFF1-18D-MS	11/22/18 0:23	13C2-PFDA	114,441.10	51,100.19	153,300.57	
J9416MSD-FS(0)	AS4141-EFF1-18D-SD	11/22/18 0:34	13C2-PFDA	110,913.91	51,100.19	153,300.57	
J9416MSD-FS-D(3)	AS4141-EFF1-18D-SD	11/22/18 0:45	13C2-PFDA	111,085.87	51,100.19	153,300.57	
J9416MSD-FS-D(5)	AS4141-EFF1-18D-SD	11/22/18 0:56	13C2-PFDA	119,156.92	51,100.19	153,300.57	
J9416MSD-FS-D(7)	AS4141-EFF1-18D-SD	11/22/18 1:07	13C2-PFDA	104,721.45	51,100.19	153,300.57	
J9417-FS(0)	AS4141-EFF1D-18D	11/22/18 1:17	13C2-PFDA	131,252.19	51,100.19	153,300.57	
J9417-FS-D(3)	AS4141-EFF1D-18D	11/22/18 1:28	13C2-PFDA	121,032.85	51,100.19	153,300.57	1
J9417-FS-D(5)	AS4141-EFF1D-18D	11/22/18 1:39	13C2-PFDA	113,695.23	51,100.19	153,300.57	1
J9417-FS-D(7)	AS4141-EFF1D-18D	11/22/18 1:50	13C2-PFDA	110,034.24	51,100.19	153,300.57	1
KC69 CCV	CCV	11/22/18 2:01	13C2-PFDA	109,787.79	51,100.19	153,300.57	
KC73 IB	Instrument blank	11/27/18 10:47	13C2-PFDA	136,187.76	51,100.19	153,300.57	
KC68 ISC	ISC	11/27/18 10:58	13C2-PFDA	112,144.81	51,100.19	153,300.57	
J9415MS-FS(0)	AS4141-EFF1-18D-MS	11/27/18 11:52	13C2-PFDA	105,991.51	51,100.19	153,300.57	
KC69 CCV	CCV	11/27/18 12:14	13C2-PFDA	80,711.82	51,100.19	153,300.57	
KC68 CCV	CCV	11/27/18 14:11	13C2-PFDA	123,415.99	51,100.19	153,300.57	
J9415MS-FS-D(9)	AS4141-EFF1-18D-MS	11/27/18 15:50	13C2-PFDA	111,250.50	51,100.19	153,300.57	
KC69 CCV	CCV	11/27/18 16:01	13C2-PFDA	108,240.20	51,100.19	153,300.57	
KC73 IB	Instrument blank	11/28/18 10:04	13C2-PFDA	125,290.60	51,100.19	153,300.57	
KC69 ISC	ISC	11/28/18 10:15	13C2-PFDA	105,823.45	51,100.19	153,300.57	
J9417-FS-D(13)	AS4141-EFF1D-18D	11/28/18 10:26	13C2-PFDA	131,712.76	51,100.19	153,300.57	
J9417-FS-D(15)	AS4141-EFF1D-18D	11/28/18 10:37	13C2-PFDA	122,376.37	51,100.19	153,300.57	
J9417-FS-D(17)	AS4141-EFF1D-18D	11/28/18 10:48	13C2-PFDA	123,708.83	51,100.19	153,300.57	
KC70 CCV	CCV	11/28/18 10:59	13C2-PFDA	107,415.41	51,100.19	153,300.57	
J9417-FS-D(17)	AS4141-EFF1D-18D	11/28/18 12:13	13C2-PFDA	121,530.74	51,100.19	153,300.57	
KC68 CCV	CCV	11/28/18 12:24	13C2-PFDA	113,514.72	51,100.19	153,300.57	

1 - see miscellaneous documentation form for details

2 - see sequence reports for details

Project Client: CH2M

Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No.: 100120725-CTO5655



Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KC70	L5	11/21/18 18:14	13C4-PFOS	31,303.11	15,651.56	46,954.67

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KC66	L1	11/21/18 17:30	13C4-PFOS	36,067.09	15,651.56	46,954.67	
KC67	L2	11/21/18 17:41	13C4-PFOS	39,042.23	15,651.56	46,954.67	
KC68	L3	11/21/18 17:52	13C4-PFOS	33,496.50	15,651.56	46,954.67	
KC69	L4	11/21/18 18:03	13C4-PFOS	28,877.93	15,651.56	46,954.67	
KC70	L5	11/21/18 18:14	13C4-PFOS	31,303.11	15,651.56	46,954.67	
KC71	L6	11/21/18 18:25	13C4-PFOS	28,836.46	15,651.56	46,954.67	
KC72	L7	11/21/18 18:35	13C4-PFOS	28,959.35	15,651.56	46,954.67	
KC73 IB	Instrument blank	11/21/18 18:46	13C4-PFOS	35,871.46	15,651.56	46,954.67	
KC74 ICC	ICC	11/21/18 18:57	13C4-PFOS	31,264.01	15,651.56	46,954.67	
KC69 CCV	CCV	11/21/18 21:51	13C4-PFOS	33,578.26	15,651.56	46,954.67	
CS243PB-FS(0)	Procedural Blank	11/21/18 22:13	13C4-PFOS	35,527.11	15,651.56	46,954.67	
CS244LCS-FS(0)	Laboratory Control Sample	11/21/18 22:24	13C4-PFOS	29,111.15	15,651.56	46,954.67	
J9420-FS(0)	AS4141-FB-111618	11/21/18 22:35	13C4-PFOS	34,731.15	15,651.56	46,954.67	
J9414-FS(0)	AS4141-EFF1-18D	11/21/18 22:45	13C4-PFOS	14,571.32	15,651.56	46,954.67	N 1
J9414-FS-D(3)	AS4141-EFF1-18D	11/21/18 22:56	13C4-PFOS	23,110.73	15,651.56	46,954.67	
J9414-FS-D(5)	AS4141-EFF1-18D	11/21/18 23:07	13C4-PFOS	27,931.80	15,651.56	46,954.67	
J9414-FS-D(7)	AS4141-EFF1-18D	11/21/18 23:18	13C4-PFOS	38,168.85	15,651.56	46,954.67	
J9415MS-FS(0)	AS4141-EFF1-18D-MS	11/21/18 23:29	13C4-PFOS	10,896.61	15,651.56	46,954.67	N 2
J9415MS-FS-D(3)	AS4141-EFF1-18D-MS	11/21/18 23:40	13C4-PFOS	22,160.02	15,651.56	46,954.67	
J9415MS-FS-D(5)	AS4141-EFF1-18D-MS	11/21/18 23:51	13C4-PFOS	28,336.17	15,651.56	46,954.67	
KC70 CCV	CCV	11/22/18 0:01	13C4-PFOS	36,049.13	15,651.56	46,954.67	
J9415MS-FS-D(7)	AS4141-EFF1-18D-MS	11/22/18 0:23	13C4-PFOS	32,405.67	15,651.56	46,954.67	
J9416MSD-FS(0)	AS4141-EFF1-18D-SD	11/22/18 0:34	13C4-PFOS	14,297.01	15,651.56	46,954.67	N 1
J9416MSD-FS-D(3)	AS4141-EFF1-18D-SD	11/22/18 0:45	13C4-PFOS	21,803.65	15,651.56	46,954.67	
J9416MSD-FS-D(5)	AS4141-EFF1-18D-SD	11/22/18 0:56	13C4-PFOS	29,271.57	15,651.56	46,954.67	
J9416MSD-FS-D(7)	AS4141-EFF1-18D-SD	11/22/18 1:07	13C4-PFOS	29,826.00	15,651.56	46,954.67	
J9417-FS(0)	AS4141-EFF1D-18D	11/22/18 1:17	13C4-PFOS	13,924.14	15,651.56	46,954.67	N 1
J9417-FS-D(3)	AS4141-EFF1D-18D	11/22/18 1:28	13C4-PFOS	24,430.47	15,651.56	46,954.67	1
J9417-FS-D(5)	AS4141-EFF1D-18D	11/22/18 1:39	13C4-PFOS	30,131.46	15,651.56	46,954.67	1
J9417-FS-D(7)	AS4141-EFF1D-18D	11/22/18 1:50	13C4-PFOS	28,506.73	15,651.56	46,954.67	1
KC69 CCV	CCV	11/22/18 2:01	13C4-PFOS	30,657.74	15,651.56	46,954.67	
KC73 IB	Instrument blank	11/27/18 10:47	13C4-PFOS	39,455.96	15,651.56	46,954.67	
KC68 ISC	ISC	11/27/18 10:58	13C4-PFOS	35,448.48	15,651.56	46,954.67	
J9415MS-FS(0)	AS4141-EFF1-18D-MS	11/27/18 11:52	13C4-PFOS	10,056.75	15,651.56	46,954.67	N 1
KC69 CCV	CCV	11/27/18 12:14	13C4-PFOS	26,360.84	15,651.56	46,954.67	
KC68 CCV	CCV	11/27/18 14:11	13C4-PFOS	36,543.21	15,651.56	46,954.67	
J9415MS-FS-D(9)	AS4141-EFF1-18D-MS	11/27/18 15:50	13C4-PFOS	32,648.10	15,651.56	46,954.67	
KC69 CCV	CCV	11/27/18 16:01	13C4-PFOS	31,050.51	15,651.56	46,954.67	
KC73 IB	Instrument blank	11/28/18 10:04	13C4-PFOS	39,068.54	15,651.56	46,954.67	
KC69 ISC	ISC	11/28/18 10:15	13C4-PFOS	28,617.08	15,651.56	46,954.67	
J9417-FS-D(13)	AS4141-EFF1D-18D	11/28/18 10:26	13C4-PFOS	22,907.30	15,651.56	46,954.67	
J9417-FS-D(15)	AS4141-EFF1D-18D	11/28/18 10:37	13C4-PFOS	27,754.17	15,651.56	46,954.67	
J9417-FS-D(17)	AS4141-EFF1D-18D	11/28/18 10:48	13C4-PFOS	33,813.18	15,651.56	46,954.67	
KC70 CCV	CCV	11/28/18 10:59	13C4-PFOS	34,056.43	15,651.56	46,954.67	
J9417-FS-D(17)	AS4141-EFF1D-18D	11/28/18 12:13	13C4-PFOS	37,404.03	15,651.56	46,954.67	
KC68 CCV	CCV	11/28/18 12:24	13C4-PFOS	35,348.35	15,651.56	46,954.67	

1 - see miscellaneous documentation form for details

2 - see sequence reports for details

Sample Name	KC72	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 6:35:58 PM	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFBS 1	298.9 / 80.0	1.56	42	>10
PFBS 2	298.9 / 99.0	1.56	35	>10
PFHxA 1	313.0 / 269.0	1.88	23	>10
PFHxA 2	313.0 / 119.0	1.88	23	>10
PFHpA 1	363.0 / 319.0	2.29	28	>10
PFHpA 2	363.0 / 169.0	2.29	25	>10
PFHxS 1	399.0 / 80.0	2.32	37	>10
PFHxS 2	399.0 / 99.0	2.32	39	>10
PFOA 1	413.0 / 369.0	2.71	32	>10
PFOA 2	413.0 / 169.0	2.71	31	>10
PFNA 1	463.0 / 419.0	3.10	28	>10
PFNA 2	463.0 / 219.0	3.10	36	>10
PFOS 1	499.0 / 80.0	3.10	40	>10
PFOS 2	499.0 / 99.0	3.10	35	>10
PFDA 1	513.0 / 469.0	3.46	29	>10
PFDA 2	513.0 / 219.0	3.46	33	>10
PFUnA 1	563.0 / 519.0	3.79	29	>10
PFUnA 2	563.0 / 269.0	3.78	38	>10
PFDoA 1	613.0 / 569.0	4.07	34	>10
PFDoA 2	613.0 / 319.0	4.07	35	>10
PFTTrDA 1	663.0 / 619.0	4.31	41	>10
PFTTrDA 2	663.0 / 169.0	4.31	48	>10
PFTeDA 1	713.0 / 669.0	4.53	77	>10
PFTeDA 2	713.0 / 169.0	4.53	70	>10
NMeFOSAA 1	570.0 / 419.0	3.61	24	>10
NMeFOSAA 2	570.0 / 512.0	3.61	27	>10
NEtFOSAA 1	584.0 / 419.0	3.78	36	>10
NEtFOSAA 2	584.0 / 483.0	3.78	19	>10

Sample Name	KC72	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 6:35:58 PM	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
13C2-PFDoA	615.0 / 570.0	4.06	25	>10
d3-MeFOSAA	573.0 / 419.0	3.61	27	>10
d5-EtFOSAA	589.0 / 419.0	3.77	18	>10
13C5-PFHxA	318.0 / 273.0	1.87	35	>10
13C4-PFHpA	367.0 / 322.0	2.28	32	>10
13C8-PFOA	421.0 / 376.0	2.69	31	>10
13C9-PFNA	472.0 / 427.0	3.09	36	>10
13C6-PFDA	519.0 / 474.0	3.45	35	>10
13C7-PFUnA	570.0 / 525.0	3.77	25	>10
13C2-PFTeDA	715.0 / 670.0	4.52	43	>10
13C3-PFBS	302.0 / 99.0	1.54	29	>10
13C3-PFHxS	402.0 / 99.0	2.30	25	>10
13C8-PFOS	507.0 / 99.0	3.09	22	>10



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	12.25	1.95	3.90	14
PFPeA	2706-90-3	10.58	1.50	3.00	10
PFHxA	307-24-4	9.93	1.26	2.52	42
PFHpA	375-85-9	9.45	1.52	3.04	42
PFOA	335-67-1	10.21	1.45	2.90	44
PFNA	375-95-1	9.74	1.18	2.36	42
PFDA	335-76-2	9.91	1.28	2.56	42
PFUnA	2058-94-8	9.87	1.26	2.52	42
PFDoA	307-55-1	10.75	1.25	2.50	42
PFTTrDA	72629-94-8	11.18	1.48	2.96	42
PFTeDA	376-06-7	10.71	1.84	3.68	42
NMeFOSAA	2355-31-9	10.37	1.87	3.74	42
NEtFOSAA	2991-50-6	9.66	1.50	3.00	42
PFOSA	754-91-6	9.72	0.93	1.86	5
PFBS	375-73-5	10.07	1.41	2.82	43
PFPeS	2706-91-4	9.59	0.96	1.92	6
PFHxS	355-46-4	9.81	1.45	2.90	42
PFHpS	375-92-8	10.79	1.05	2.10	11
PFOS	1763-23-1	10.04	1.32	2.64	42
PFNS	68259-12-1	9.50	1.02	2.04	5
PFDS	335-77-3	10.11	1.77	3.54	10
4:2FTS	414911-30-1	10.81	1.37	2.74	10
6:2FTS	27619-97-2	12.34	2.80	5.60	10
8:2FTS	39108-34-4	11.96	2.44	4.88	10

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
PFTTrDA	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

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
PFDaA	307-55-1	Target	613.0 / 569.0	613.0 / 319.0
PFTTrDA	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



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



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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:** _____

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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
<input checked="" type="checkbox"/> CAD 0	0.6	0.4 to 1.1 x10 ⁻⁵ Torr
<input checked="" type="checkbox"/> CAD Low	1.3	Read Only
<input checked="" type="checkbox"/> CAD Medium	2.7	Read Only
<input checked="" type="checkbox"/> CAD High	3.7	Read Only
<input checked="" type="checkbox"/> 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

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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. Record 10 mca.

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

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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

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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
<input checked="" type="checkbox"/> CAD 0	0.7	0.4 to 1.1 x10 ⁻⁵ Torr
<input checked="" type="checkbox"/> CAD Low	1.3	Read Only
<input checked="" type="checkbox"/> CAD Medium	2.7	Read Only
<input checked="" type="checkbox"/> CAD High	3.7	Read Only
<input checked="" type="checkbox"/> 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 Value	Width Specs
	Value	Spec		
Scan Rate 10 Da/s Record 10 mca				
Q1 175.133	5.04 e6	≥1.2 ^{e6}	0.6737	0.6 to 0.8
Q1 500.380	1.60 e7	≥9.0 ^{e6}	0.6961	0.6 to 0.8
Q1 906.673	2.84 e7	≥1.4 ^{e7}	0.7179	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q1 906.673	1.33 e8	≥6.8 ^{e7}	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 Value	Width Specs
	Value	Spec		
Scan Rate 10 Da/s Record 10 mca				
Q3 175.133	5.02 e6	≥1.2 ^{e6}	0.6719	0.6 to 0.8
Q3 500.380	1.72 e7	≥9.0 ^{e6}	0.7443	0.6 to 0.8
Q3 906.673	3.00 e7	≥1.4 ^{e7}	0.7504	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q3 906.673	1.46 e8	≥6.8 ^{e7}	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 Value	Width Specs
	Value	Spec		
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

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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	$\geq 1.0^{e7}$	0.7486	0.6 to 0.8
Q1 933.636	1000	50	7.52 e7	$\geq 4.0^{e7}$	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	$\geq 8.0^{e6}$	0.7492	0.6 to 0.8
Q3 933.636	1000	50	8.33 e7	$\geq 4.0^{e7}$	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	$\geq 7.2^{e6}$	0.1473	<0.35
ER 922.010	0.05	4.96 e7	$\geq 2.8^{e6}$	0.2434	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 118.087	0.05		$\geq 2.4^{e7}$		<0.65
ER 922.010	0.05		$\geq 6.8^{e7}$		<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	$\geq 4.4^{e7}$	0.1862	<0.35
ER 601.978	0.05	1.70 e8	$\geq 5.6^{e7}$	0.1809	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 431.982	0.05	5.72 e8	$\geq 1.2^{e8}$	0.5102	<0.65
ER 601.978	0.05	4.52 e8	$\geq 1.6^{e8}$	0.6187	<0.65

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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.

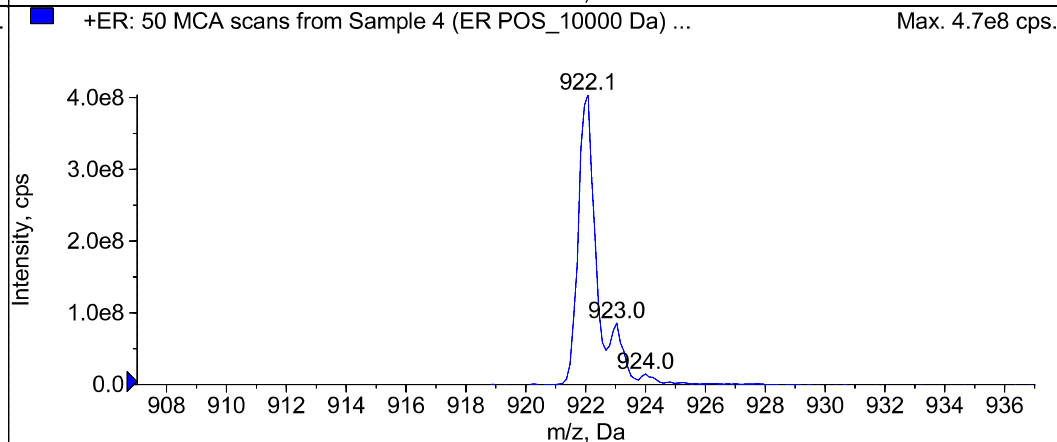
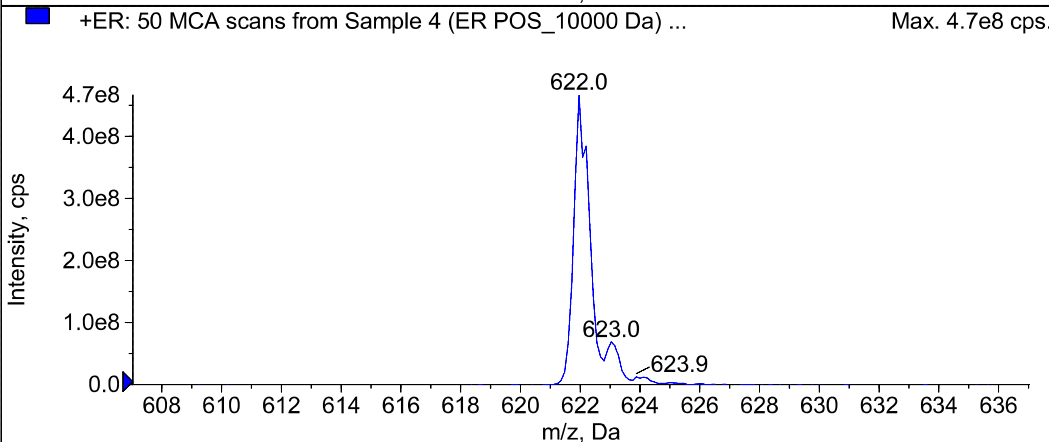
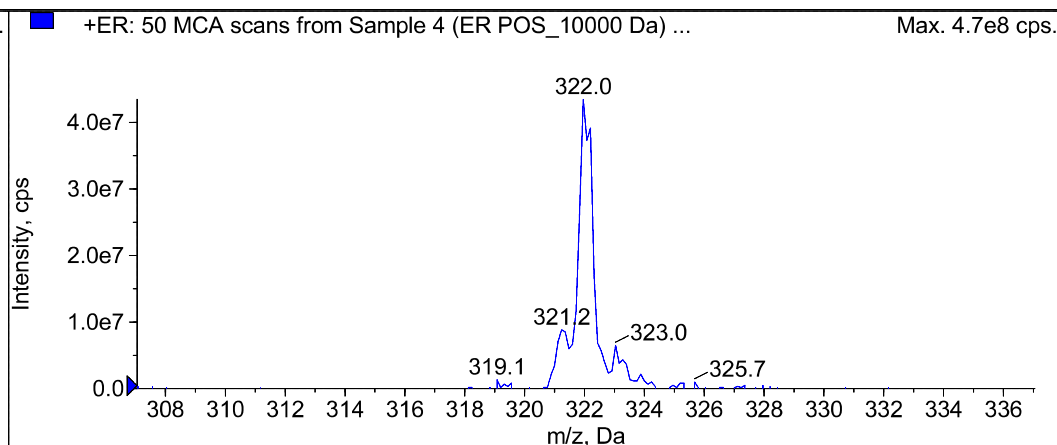
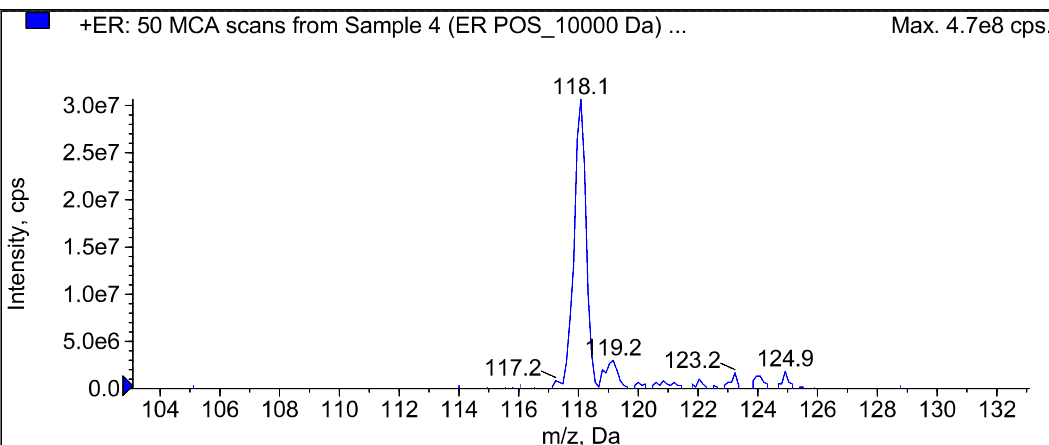
Mass	Scan Rate (Da/s)	Fragamentation OFF		Fragmentation ON	
		Intensity	Spec	Intensity	Spec
MS3 397.2	1000	Yes	Contains only 397.2	N/A	N/A
<input type="checkbox"/> 236 OR <input checked="" type="checkbox"/> 365	1000	Yes	Fragment Intensity	> 2.0 e6	≥1.6x 10 ^{e6}

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.



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)
KC98	PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)	KC97	180726-05
KB82	PFAS - DoD Second Source LCS/MS Solution	-	170724-01
KD57	PFAS - DoD Internal Standard Spiking Solution	JY25	180726-04
KC66	PFAS - DoD Calibration L1	KB71	180726-05
KC66	PFAS - DoD Calibration L1	JY23	180705-02
KC66	PFAS - DoD Calibration L1	JY25	180726-04
KC67	PFAS - DoD Calibration L2	JY25	180726-04
KC67	PFAS - DoD Calibration L2	JY23	180705-02
KC67	PFAS - DoD Calibration L2	KB71	180726-05
KC68	PFAS - DoD Calibration L3	KB71	180726-05
KC68	PFAS - DoD Calibration L3	KB70	180705-02
KC68	PFAS - DoD Calibration L3	JY25	180726-04
KC69	PFAS - DoD Calibration L4	JY25	180726-04
KC69	PFAS - DoD Calibration L4	KB70	180705-02
KC69	PFAS - DoD Calibration L4	KB71	180726-05
KC70	PFAS - DoD Calibration L5	KB70	180705-02
KC70	PFAS - DoD Calibration L5	KB71	180726-05
KC70	PFAS - DoD Calibration L5	JY25	180726-04
KC71	PFAS - DoD Calibration L6	JY25	180726-04
KC71	PFAS - DoD Calibration L6	KB71	180726-05
KC71	PFAS - DoD Calibration L6	KB70	180705-02
KC72	PFAS - DoD Calibration L7	KB71	180726-05
KC72	PFAS - DoD Calibration L7	JY25	180726-04
KC72	PFAS - DoD Calibration L7	KB70	180705-02
KC73	PFAS - DoD Instrument Blank	JY25	180726-04
KC73	PFAS - DoD Instrument Blank	KB71	180726-05
KC74	PFAS - DoD ICC	KB71	180726-05
KC74	PFAS - DoD ICC	KB82	170724-01
KC74	PFAS - DoD ICC	JY25	180726-04
KC75	PFAS Branched Solution (~5,000ng/L)	JX28	180618-02
KC75	PFAS Branched Solution (~5,000ng/L)	JX28	180618-03
KC75	PFAS Branched Solution (~5,000ng/L)	JX28	180618-04
KC75	PFAS Branched Solution (~5,000ng/L)	JX28	180618-06
KC75	PFAS Branched Solution (~5,000ng/L)	JX28	180618-07

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	~50.0000 00	01/17/23	---	---	100 uL	1	10	~0.5000
180618-03	Branched NMeFOSAA Standard (50 µg/mL)	Neat	~50.0000 00	01/17/23	---	---	100 uL	1	10	~0.5000
180618-04	PFOA - Technical Mix	Neat	~50.0000 00	02/16/22	---	---	100 uL	1	10	~0.5000
180618-06	Branched PFHxS Standard (50 µg/mL)	Neat	~50.0000 00	01/04/22	---	---	100 uL	1	10	~0.5000
180618-07	Branched PFOS Standard (50 µg/mL)	Neat	~50.0000 00	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:	Solvent:	Lot:
Comment:	Methanol (HPLC)	179315

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

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



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	~1.00000 0	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



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-butanedisulfonate	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-butanedisulfonate	.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



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

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	~2.00000 0	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



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



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	~1.00000 0	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



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-butanefulfonate	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-butanefulfonate	.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



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



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	~1.00000 0	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



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



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



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	~1.00000 0	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



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-butanefulfonate	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-butanefulfonate	.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



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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC66**

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: 10/31/2018	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: Lizotte Jr, Robert Date: 11/15/2018 5:11:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC66**

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-butanedisulfonate	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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:11:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: **KC66**

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: 10/31/2018	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: Lizotte Jr, Robert **Date:** 11/15/2018 5:11:00 PM



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: KC66

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-butanefulfonate	.00010
Perfluoro-1-hexanesulfonate	.00010
Perfluoro-1-octanesulfonamide	.00010
Perfluoro-1-octanesulfonate	.00010
Perfluoro-n-butyric 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: 10/31/2018	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: Lizotte Jr, Robert **Date:** 11/15/2018 5:11:00 PM



It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: **KC67**

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: 10/31/2018	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: Lizotte Jr, Robert Date: 11/15/2018 5:14:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC67**

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-butanefluoride	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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:14:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: **KC67**

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: 10/31/2018	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: Lizotte Jr, Robert **Date:** 11/15/2018 5:14:00 PM



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: KC67

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-butanefulfonate	.00025
Perfluoro-1-hexanesulfonate	.00025
Perfluoro-1-octanesulfonamide	.00025
Perfluoro-1-octanesulfonate	.00025
Perfluoro-n-butyric 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: 10/31/2018	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: Lizotte Jr, Robert **Date:** 11/15/2018 5:14:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC68**

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: 10/31/2018	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: Lizotte Jr, Robert Date: 11/15/2018 5:15:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC68**

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-butanedisulfonate	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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:15:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC68**

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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:15:00 PM



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: KC68

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-butanefulfonate	.00051
Perfluoro-1-hexanesulfonate	.00051
Perfluoro-1-octanesulfonamide	.00050
Perfluoro-1-octanesulfonate	.00050
Perfluoro-n-butyric 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: 10/31/2018	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: Lizotte Jr, Robert **Date:** 11/15/2018 5:15:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC69**

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: 10/31/2018	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: Lizotte Jr, Robert Date: 11/15/2018 5:16:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC69**

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-butanedisulfonate	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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:16:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: **KC69**

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: 10/31/2018	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: Lizotte Jr, Robert **Date:** 11/15/2018 5:16:00 PM



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: KC69

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-butanefulfonate	.00101
Perfluoro-1-hexanesulfonate	.00101
Perfluoro-1-octanesulfonamide	.00100
Perfluoro-1-octanesulfonate	.00100
Perfluoro-n-butyric 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: 10/31/2018	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: Lizotte Jr, Robert **Date:** 11/15/2018 5:16:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC70**

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: 10/31/2018	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: Lizotte Jr, Robert Date: 11/15/2018 5:17:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC70**

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-butanedisulfonate	2500	0.05	---	---	1	50	0.00253
Perfluoro-1-hexanedisulfonate	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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:17:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: **KC70**

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: 10/31/2018	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: Lizotte Jr, Robert **Date:** 11/15/2018 5:17:00 PM



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: KC70

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-butanefulfonate	.00253
Perfluoro-1-hexanesulfonate	.00253
Perfluoro-1-octanesulfonamide	.00250
Perfluoro-1-octanesulfonate	.00250
Perfluoro-n-butyric 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: 10/31/2018	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: Lizotte Jr, Robert **Date:** 11/15/2018 5:17:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC71**

Description: PFAS - DoD Calibration 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: 10/31/2018	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: Lizotte Jr, Robert Date: 11/15/2018 5:18:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC71**

Description: PFAS - DoD Calibration 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-butanedisulfonate	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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:18:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: **KC71**

Description: PFAS - DoD Calibration 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: 10/31/2018	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: Lizotte Jr, Robert **Date:** 11/15/2018 5:18:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: **KC71**

Description: PFAS - DoD Calibration 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-butanefulfonate	.01010
Perfluoro-1-hexanesulfonate	.01010
Perfluoro-1-octanesulfonamide	.01000
Perfluoro-1-octanesulfonate	.01000
Perfluoro-n-butyric 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: 10/31/2018	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: Lizotte Jr, Robert Date: 11/15/2018 5:18:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC72**

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: 10/31/2018	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: Lizotte Jr, Robert Date: 11/15/2018 5:21:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC72**

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-butanedisulfonate	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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:21:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC72**

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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:21:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC72**

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-butanefulfonate	.02020
Perfluoro-1-hexanesulfonate	.02020
Perfluoro-1-octanesulfonamide	.02000
Perfluoro-1-octanesulfonate	.02000
Perfluoro-n-butyric 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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:21:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC73**

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: 10/31/2018	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: Thorn, Jonathan Date: 11/2/2018 2:47:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC73**

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: 10/31/2018 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: Thorn, Jonathan Date: 11/2/2018 2:47:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC73**

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: 10/31/2018 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: Thorn, Jonathan Date: 11/2/2018 2:47:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC74**

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
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: 10/31/2018	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: Lizotte Jr, Robert Date: 11/15/2018 5:22:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC74**

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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:22:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC74**

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-butanedisulfonate	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-decanedisulfonate	.00101
(NA) Perfluoro-1-heptanedisulfonate	.00100
(Na) Perfluoro-1-nonanedisulfonate	.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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:22:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KC74

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-butanefluoride	.00101
Perfluoro-1-hexanesulfonate	.00101
Perfluoro-1-octanesulfonamide	.00100
Perfluoro-1-octanesulfonate	.00100
Perfluoro-n-butyric 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:** 10/31/2018 **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: Lizotte Jr, Robert **Date:** 11/15/2018 5:22:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC75**

Description: PFAS Branched Solution (~5,000ng/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: 10/31/2018	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: Lizotte Jr, Robert Date: 11/15/2018 5:23:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC75**

Description: PFAS Branched Solution (~5,000ng/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: 10/31/2018 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: Lizotte Jr, Robert Date: 11/15/2018 5:23:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC97**

Description: PFAS - DoD High 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)
180726-05	Mass-labelled PFAS Extraction Standard Solution	Neat	~1.00000 0	02/07/23	---	---	1000 uL	1	20	~0.0500

Solution Prepared By: Schultz, Stephanie	Date Prepared: 11/6/2018	Expiration Date: 11/6/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Balance ID: _____

Comment: 96/4 Methanol/milli-q water (RP-181106-1)

Approved By: Schumitz, Denise Date: 11/9/2018 2:32:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC97**

Description: PFAS - DoD High Level Labelled Extracted Internal Standard (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: 11/6/2018 Expiration Date: 11/6/2019

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

Comment: 96/4 Methanol/milli-q water (RP-181106-1)

Approved By: Schumitz, Denise Date: 11/9/2018 2:32:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KC97

Description: PFAS - DoD High Level Labelled Extracted Internal Standard (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:** 11/6/2018 **Expiration Date:** 11/6/2019

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

Comment: 96/4 Methanol/milli-q water (RP-181106-1)

Approved By: Schumitz, Denise **Date:** 11/9/2018 2:32:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC98**

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)
KC97	PFAS - DoD High Level Labelled Extracted Internal Standard (SIS)	Solution	~0	11/06/19	---	---	2500 uL	1	25	~0.0000

Solution Prepared By: Schultz, Stephanie	Date Prepared: 11/6/2018	Expiration Date: 11/6/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Balance ID: _____

Comment: 96/4 Methanol/milli-q water (RP-181106-1)

Approved By: Schumitz, Denise Date: 11/9/2018 2:34:00 PM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC98**

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

Stock Id: **KC97**

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: 11/6/2018 Expiration Date: 11/6/2019

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

Comment: 96/4 Methanol/milli-q water (RP-181106-1)

Approved By: Schumitz, Denise Date: 11/9/2018 2:34:00 PM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KC98

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:
KC97	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 11/6/2018 **Expiration Date:** 11/6/2019

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

Comment: 96/4 Methanol/milli-q water (RP-181106-1)

Approved By: Schumitz, Denise **Date:** 11/9/2018 2:34:00 PM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KD57**

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: Griffith, Lauren	Date Prepared: 11/16/2018	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

Approved By: Schumitz, Denise Date: 11/21/2018 9:43:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KD57**

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	B814658143

Solution Prepared By: Griffith, Lauren Date Prepared: 11/16/2018 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

Approved By: Schumitz, Denise Date: 11/21/2018 9:43:00 AM

It can be done

BDO Id: 170724-01

Reagent Receipt Report

Approved: Authorized

Name: PFOA- 2nd Source Received: 7/24/2017
Vendor: ABSOLUTE STANDARDS Custodian: Schumitz, Matt
Catalogue No: 99207 Expires: 3/22/2022
Type: Solution Consumed: _____
Lot No: 032217 Stored In: LC Laboratory - F0111
Quantity: 5 ea mL % Moisture: _____
Description: PFOA - 2nd Source

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	--	--	<input type="checkbox"/>			
(Na) 1H,1H,2H,2H-Perfluorohexane s	414911-30-1	1.0000	100.00	--	--	<input type="checkbox"/>			
(Na) 1H,1H,2H,2H-Perfluorooctane s	27619-97-2	1.0000	100.00	--	--	<input type="checkbox"/>			
(Na) Perfluoro-1-decanesulfonate	2806-15-7	1.0100	100.00	--	--	<input type="checkbox"/>			
(NA) Perfluoro-1-heptanesulfonate	375-92-8	1.0000	100.00	--	--	<input type="checkbox"/>			
(Na) Perfluoro-1-nonanesulfonate	98789-57-2	1.0100	100.00	--	--	<input type="checkbox"/>			
N-ethylperfluoro-octanesulfonamidoa	2991-50-6	1.0000	100.00	--	--	<input type="checkbox"/>			
N-methylperfluoro-1-octanesulfonami	2355-31-9	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-1-butanedisulfonate	375-73-5	1.0100	100.00	--	--	<input type="checkbox"/>			
Perfluoro-1-hexanesulfonate	355-46-4	1.0100	100.00	--	--	<input type="checkbox"/>			
Perfluoro-1-octanesulfonamide	754-91-6	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-1-octanesulfonate	1763-23-1	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-n-butanoic Acid	375-22-4	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-n-decanoic Acid	335-76-2	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-n-dodecanoic acid	307-55-1	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-n-heptanoic Acid	375-85-9	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-n-hexanoic acid	307-24-4	1.0100	100.00	--	--	<input type="checkbox"/>			
Perfluoro-n-octanoic Acid	335-67-1	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluorononanoic Acid	375-95-1	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-n-pentanoic acid	2706-90-3	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-n-tetradecanoic acid	376-06-7	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-n-tridecanoic acid	72629-94-8	1.0000	100.00	--	--	<input type="checkbox"/>			
Perfluoro-n-undecanoic acid	2058-94-8	1.0000	100.00	--	--	<input type="checkbox"/>			
Sodium perfluoro-1-pentanesulfonate	2706-91-4	1.0000	100.00	--	--	<input type="checkbox"/>			

Total Analytes: 24

Notes:

Approved by: _____ Approved on: _____
Authorized by: _____ Authorized on: _____



CERTIFIED WEIGHT REPORT

170784-01

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): Methanol (1 mM KOH)
2-Propanol
Lot# 031317 (98%)
23214 (2%)

<i>Paul Barron</i>		032217
Formulated By:	Paul Barron	DATE
<i>Pedro L. Rentas</i>		032217
Reviewed By:	Pedro L. Rentas	DATE

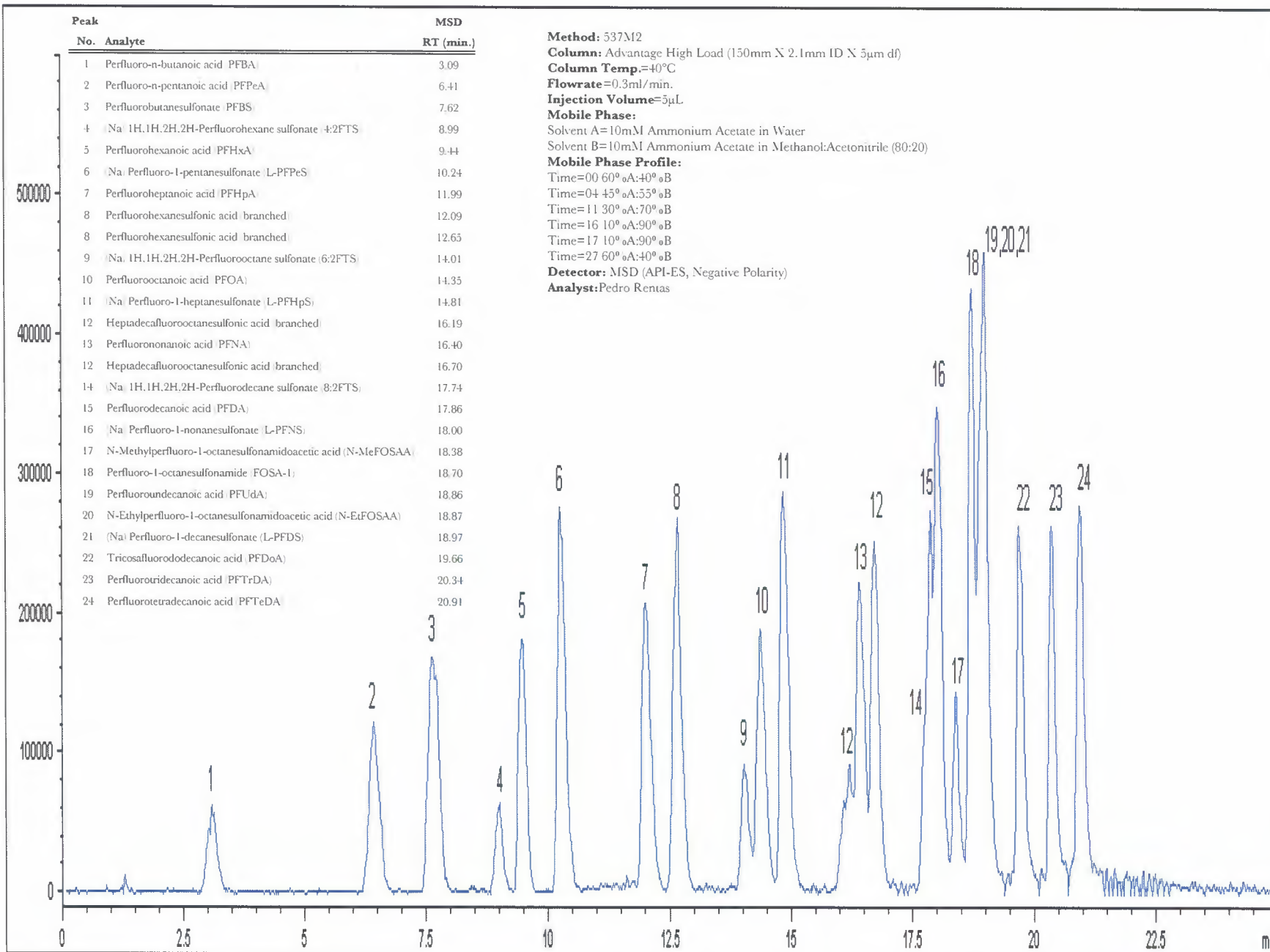
Volume(s) shown below were combined and diluted to (mL):

50.0 5E-05 Balance Uncertainty
0.007 Flask Uncertainty

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	ori-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	NEFOSAA0117	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	LFPFeS0117	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. Heptafluorooctanesulfonic 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 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).



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 Val:	Cert Val:	Lower Limit:	Upper Limit:
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Notes:

Approved by: _____ Approved on: _____
 Authorized by: _____ Authorized on: _____

18 0618-02



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 ¹⁹F-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, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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:

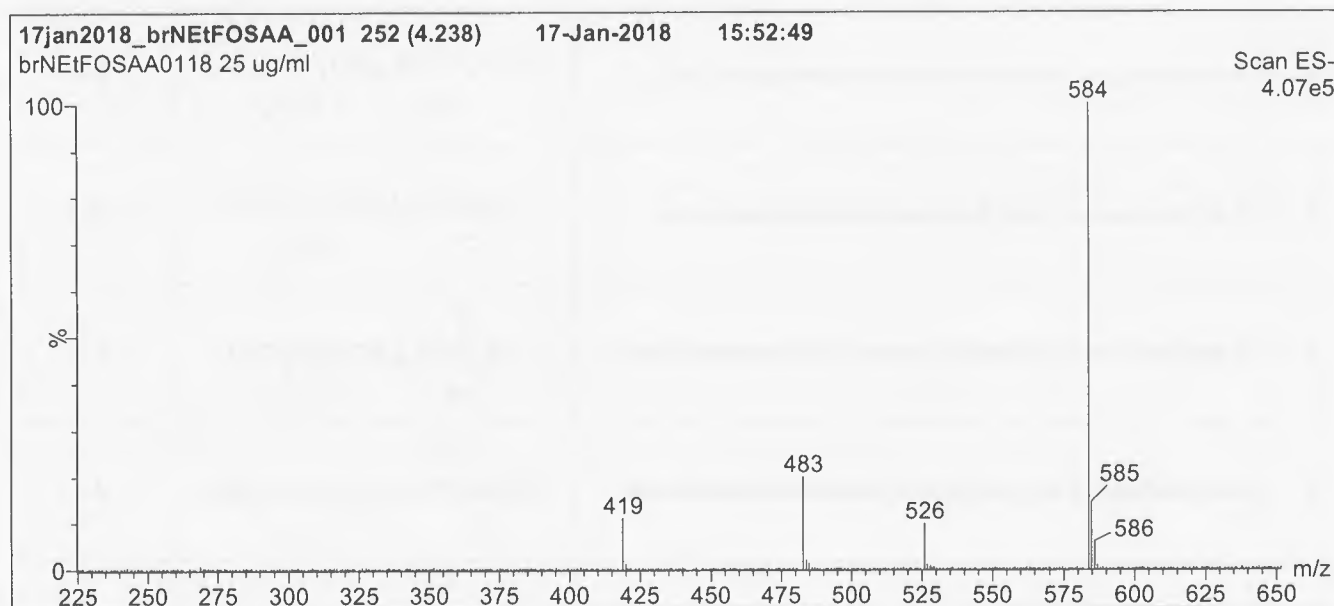
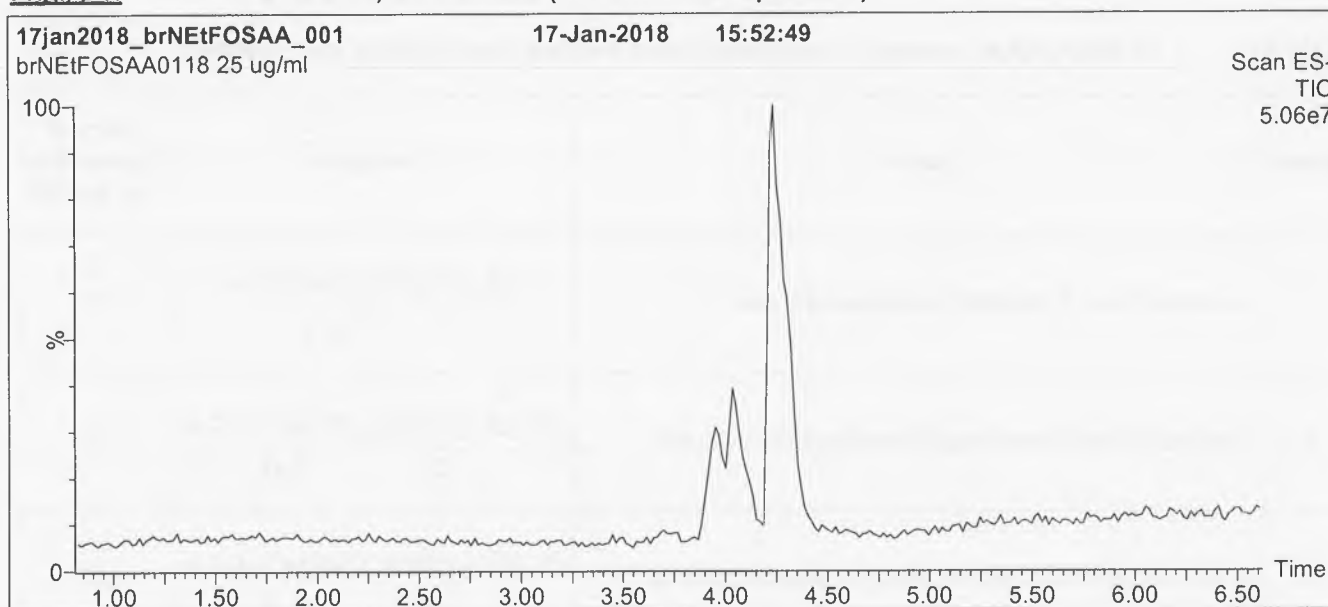
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

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).



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

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 RP₁₈,
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

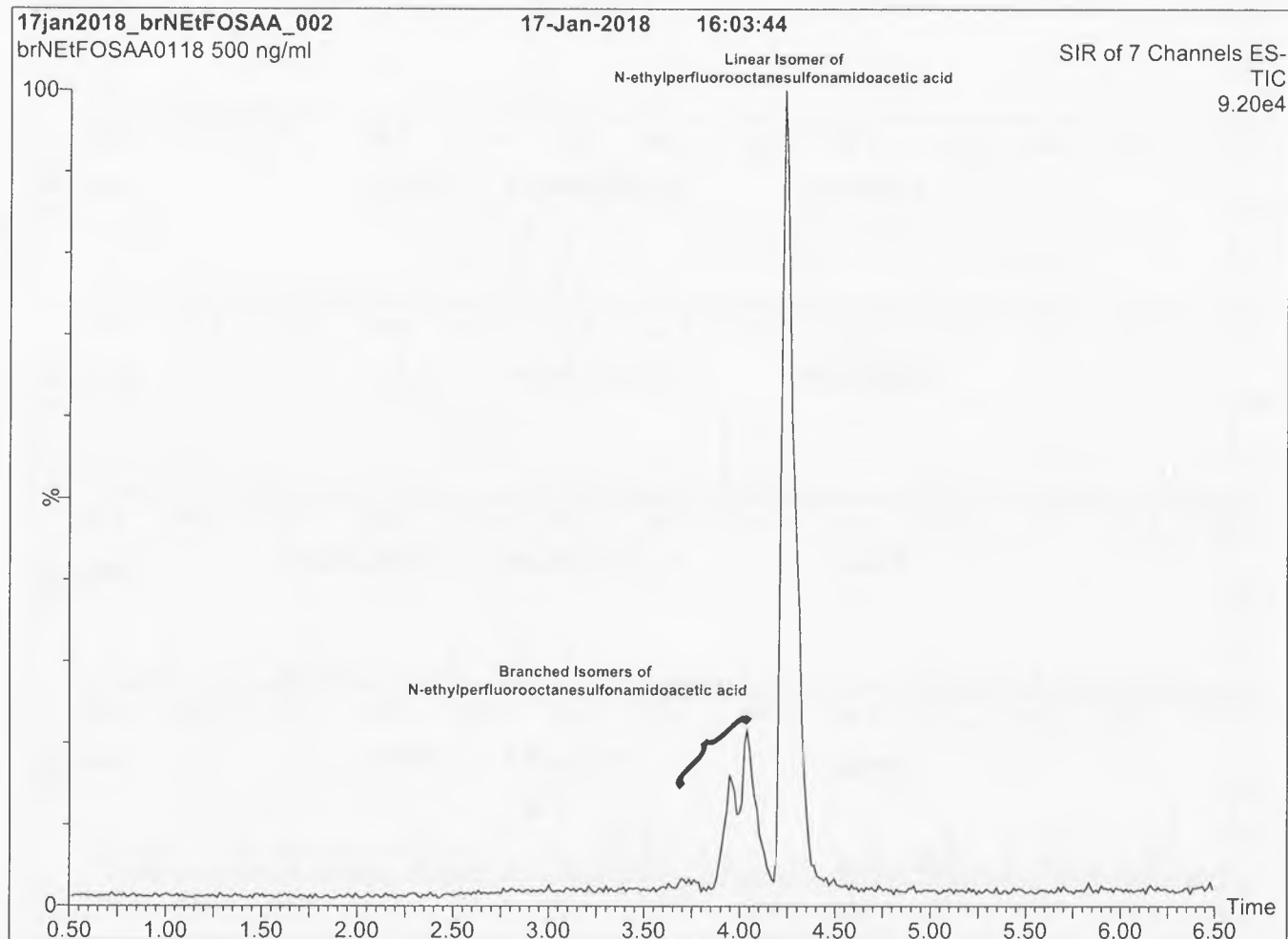
Time: 10 min

Flow: 300 μ l/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

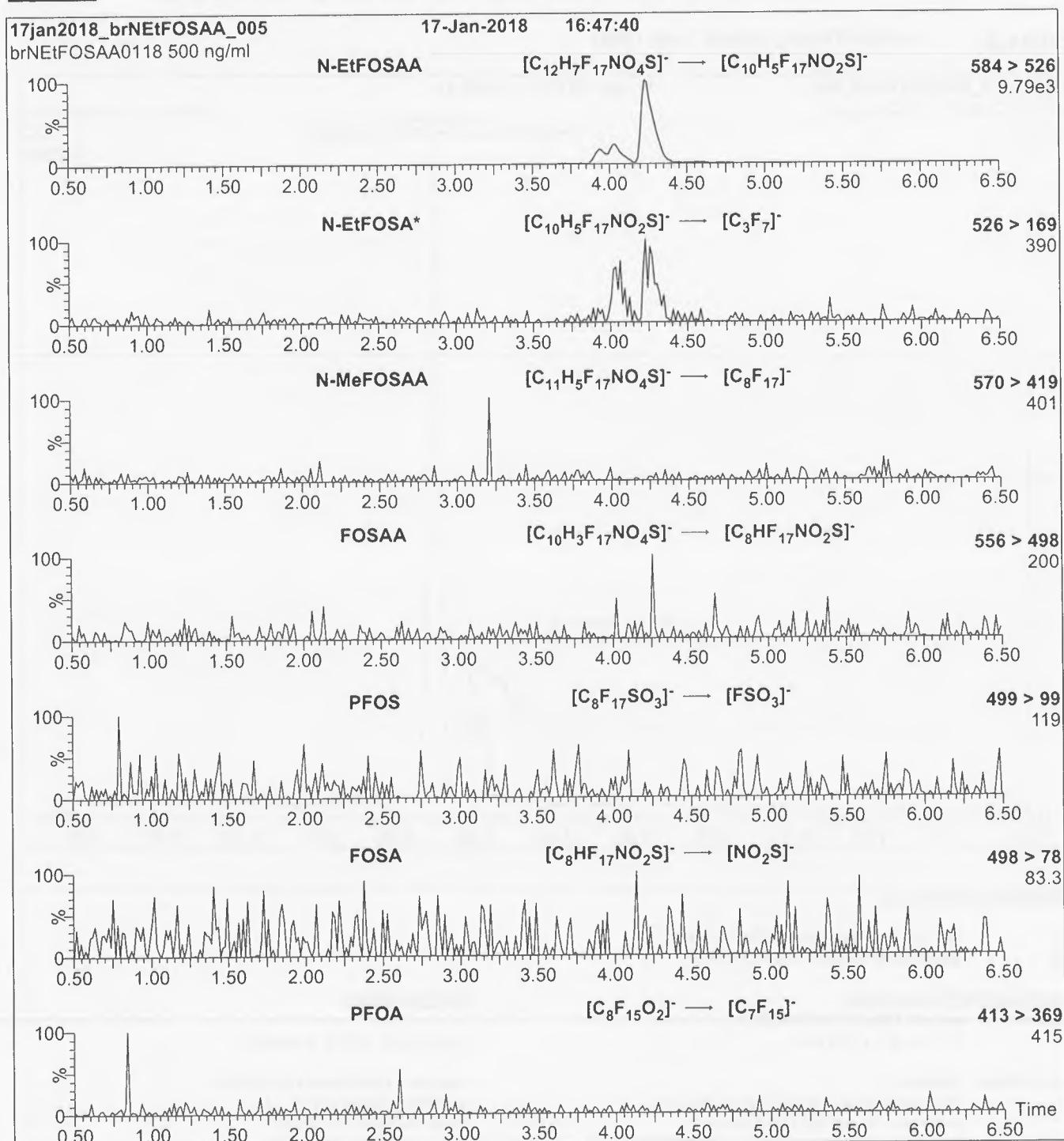
Figure 2: br-NEtFOSAA; LC/MS Data (SIR)**Conditions for Figure 2:****LC:** Waters Acquity Ultra Performance LC**MS:** Micromass Quattro *micro* API MS**Chromatographic Conditions**Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mmMobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc 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 μ l/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

MS Parameters

Mobile phase: Same as Figure 2

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11-40 (variable)

Flow: 300 μ l/min



It can be done

BDO Id: 180618-03

Reagent Receipt Report

Approved: Authorized

Name: Branched NMeFOSAA Standard (50
 Vendor: Wellington Laboratories
 Catalogue No: brNMeFOSAA
 Type: Solution
 Lot No: brNMeFOSAA0118
 Quantity: 1 ea mL % Moisture: 0
 Description: Branched NMeFOSAA Standard (50 µg/mL)

Received: 6/18/2018
 Custodian: Thorn, Jonathan
 Expires: 1/17/2023
 Consumed: _____
 Stored In: Sample Preparation - C0103

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert Val:	Cert Val:	Lower Limit:	Upper Limit:
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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 ¹⁹F-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

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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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.

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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, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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:

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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.

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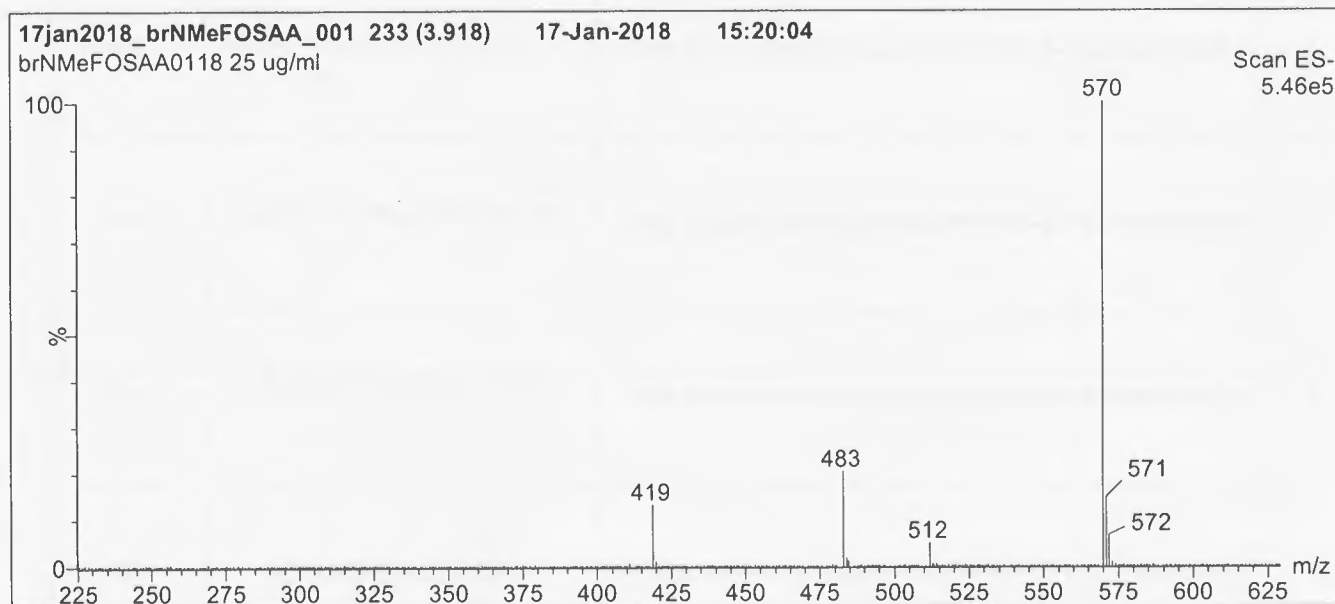
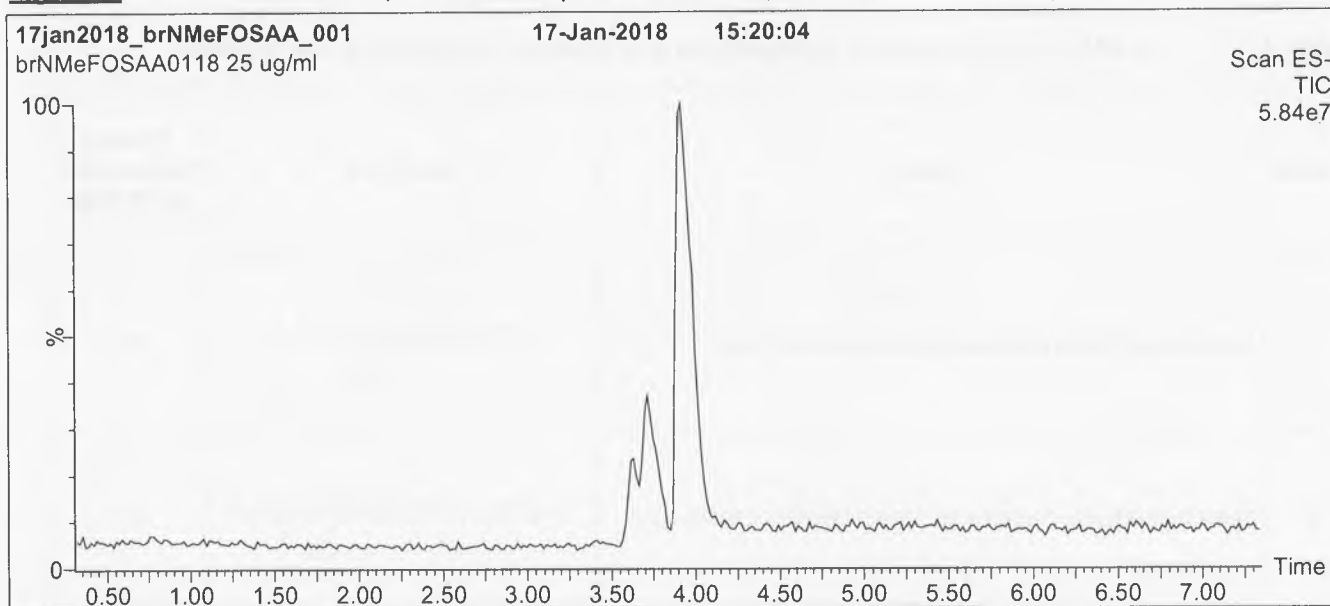
Table A: br-NMeFOSAA; Isomeric Components and Percent Composition (by ¹⁹F-NMR)*

Isomer	Name	Structure	Percent Composition by ¹⁹ F-NMR
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_3\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_2\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	0.7
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_3\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	2.0
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	6.0
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$\text{CF}_3\underset{\text{CF}_3}{\text{CF}}(\text{CF}_2)_5\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$	14.0
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{C}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\ \\ \text{CF}_3 \end{array}$	0.2
7	Other Unidentified Isomers		1.1

* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By: 
B.G. Chittim, General Manager

Date: 03/22/2018
(mm/dd/yyyy)

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 RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

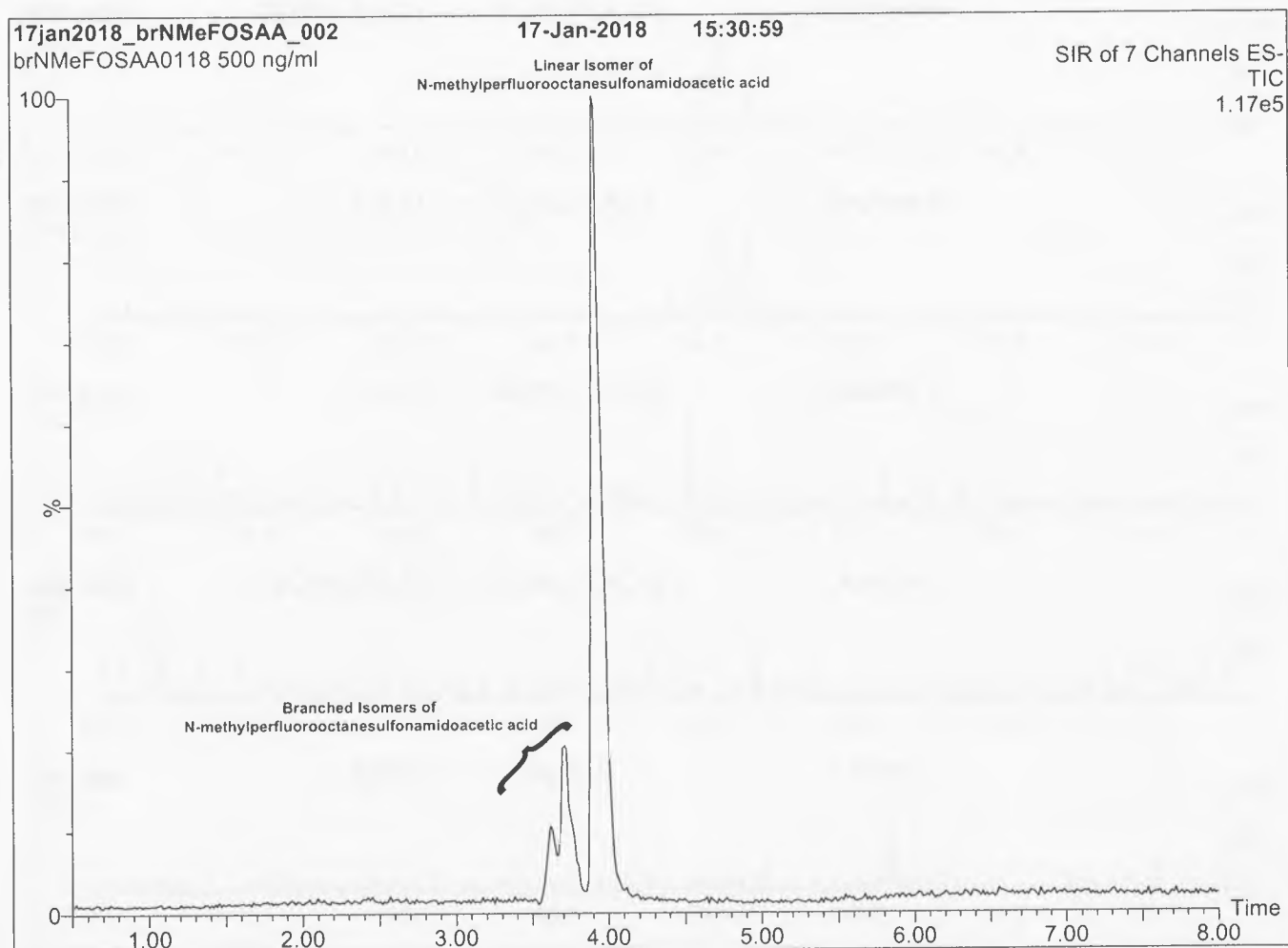
Time: 10 min

Flow: 300 μ l/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 RP₁₈
1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

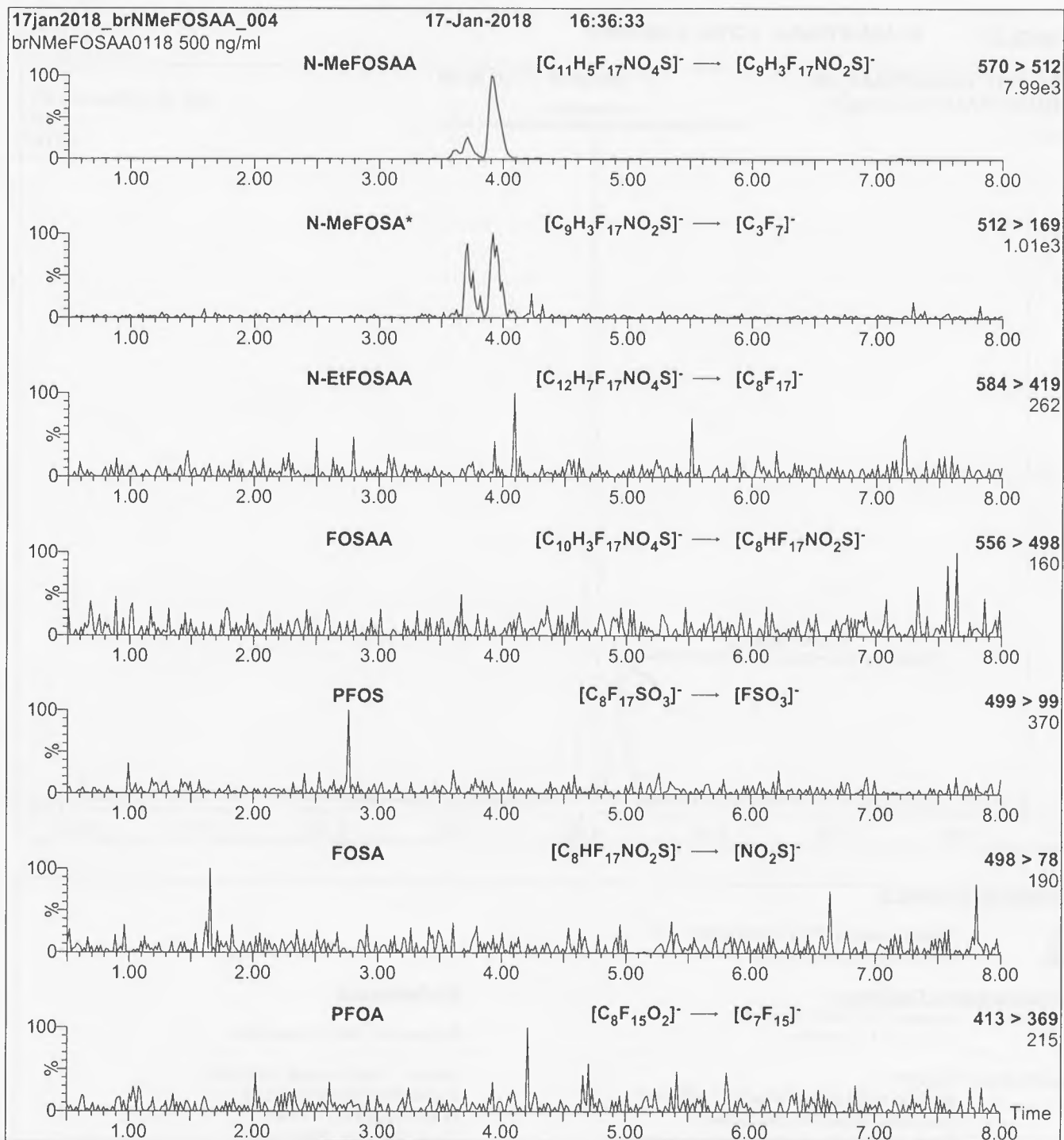
MS Parameters

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

Time: 10 min

Flow: 300 μ l/min

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

MS Parameters

Mobile phase: Same as Figure 2

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11-40 (variable)

Flow: 300 μ l/min



It can be done

BDO Id: 180618-04

Reagent Receipt Report

 Approved: Authorized:

Name:	<u>PFOA - Technical Mix</u>	Received:	<u>6/18/2018</u>
Vendor:	<u>Wellington Laboratories</u>	Custodian:	<u>Thorn, Jonathan</u>
Catalogue No:	<u>T-PFOA</u>	Expires:	<u>2/16/2022</u>
Type:	<u>Solution</u>	Consumed:	<u></u>
Lot No:	<u>TPFOA0217</u>	Stored In:	<u>Sample Preparation - C0103</u>
Quantity:	<u>1 ea mL</u> % Moisture: <u>0</u>		
Description:	<u>PFOA - Technical Mix</u>		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert Val:	Cert Val:	Lower Limit:	Upper Limit:
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Notes:

Approved by:	<u></u>	Approved on:	<u></u>
Authorized by:	<u></u>	Authorized on:	<u></u>

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: $50 \pm 2.5 \mu\text{g/ml}$ (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, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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.



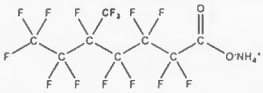
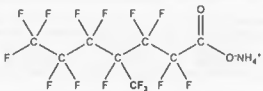
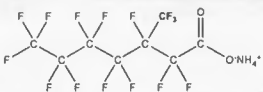
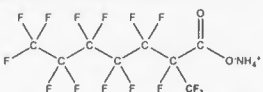
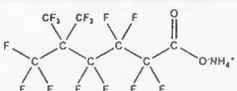
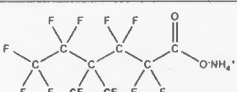
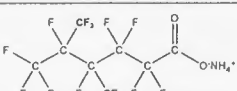
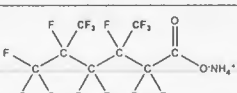
QUALITY MANAGEMENT:

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).



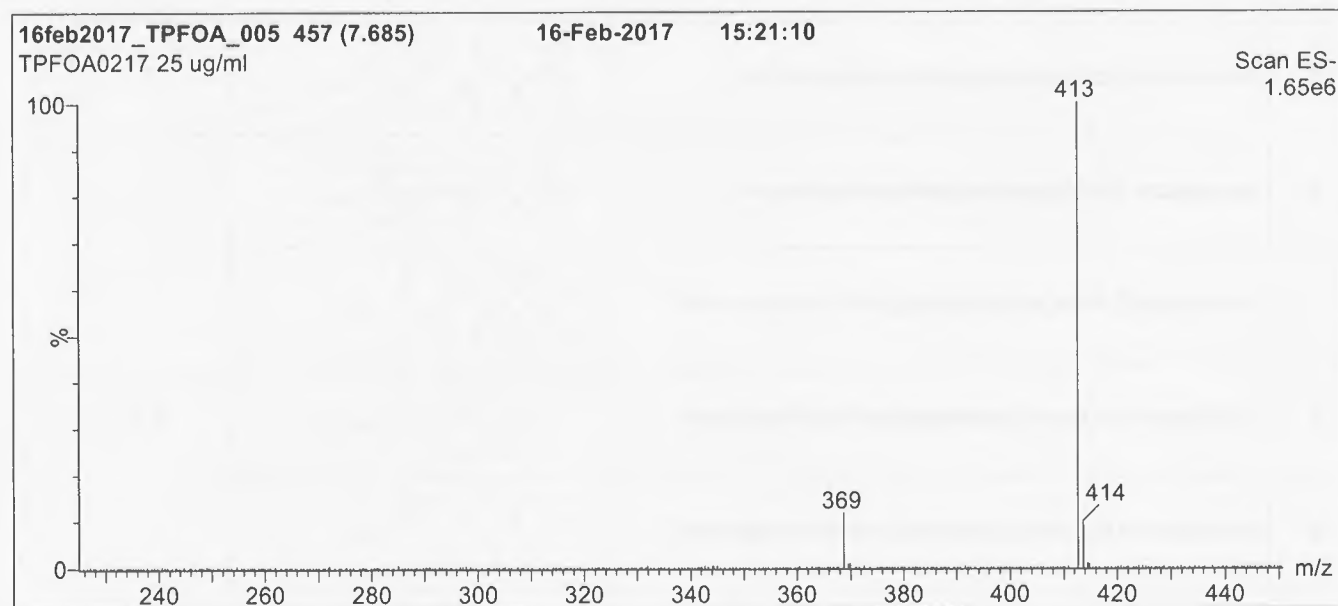
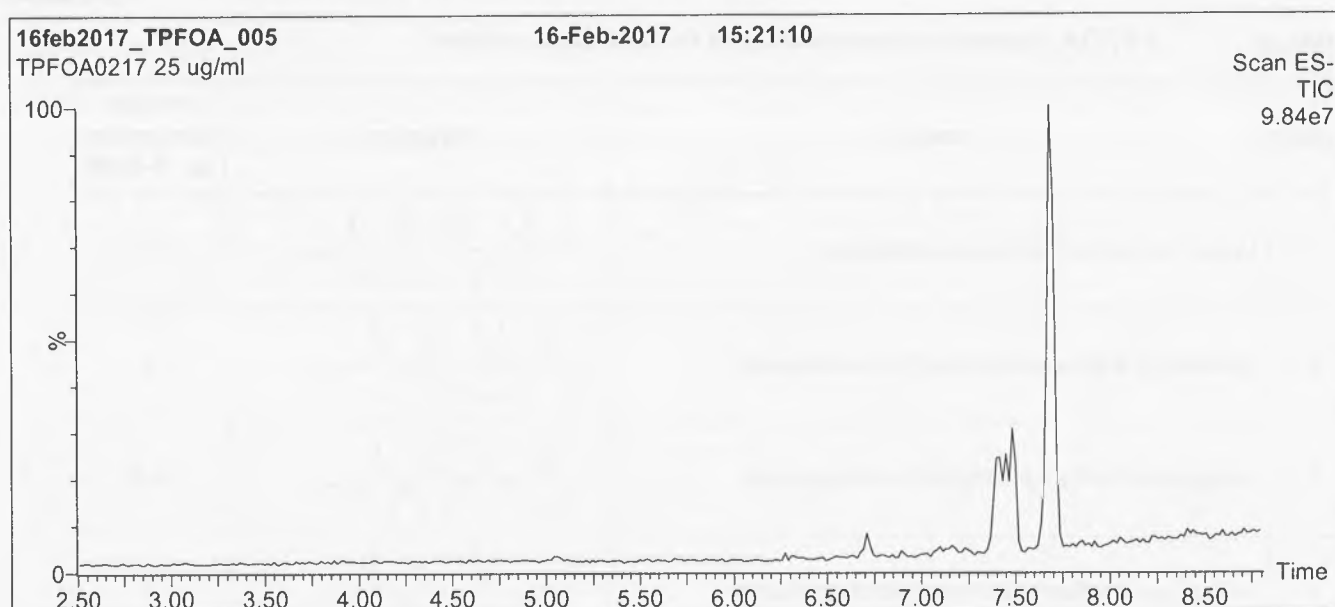
****For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com****

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 ¹⁹F-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 μ m, 4.6 x 100 mm

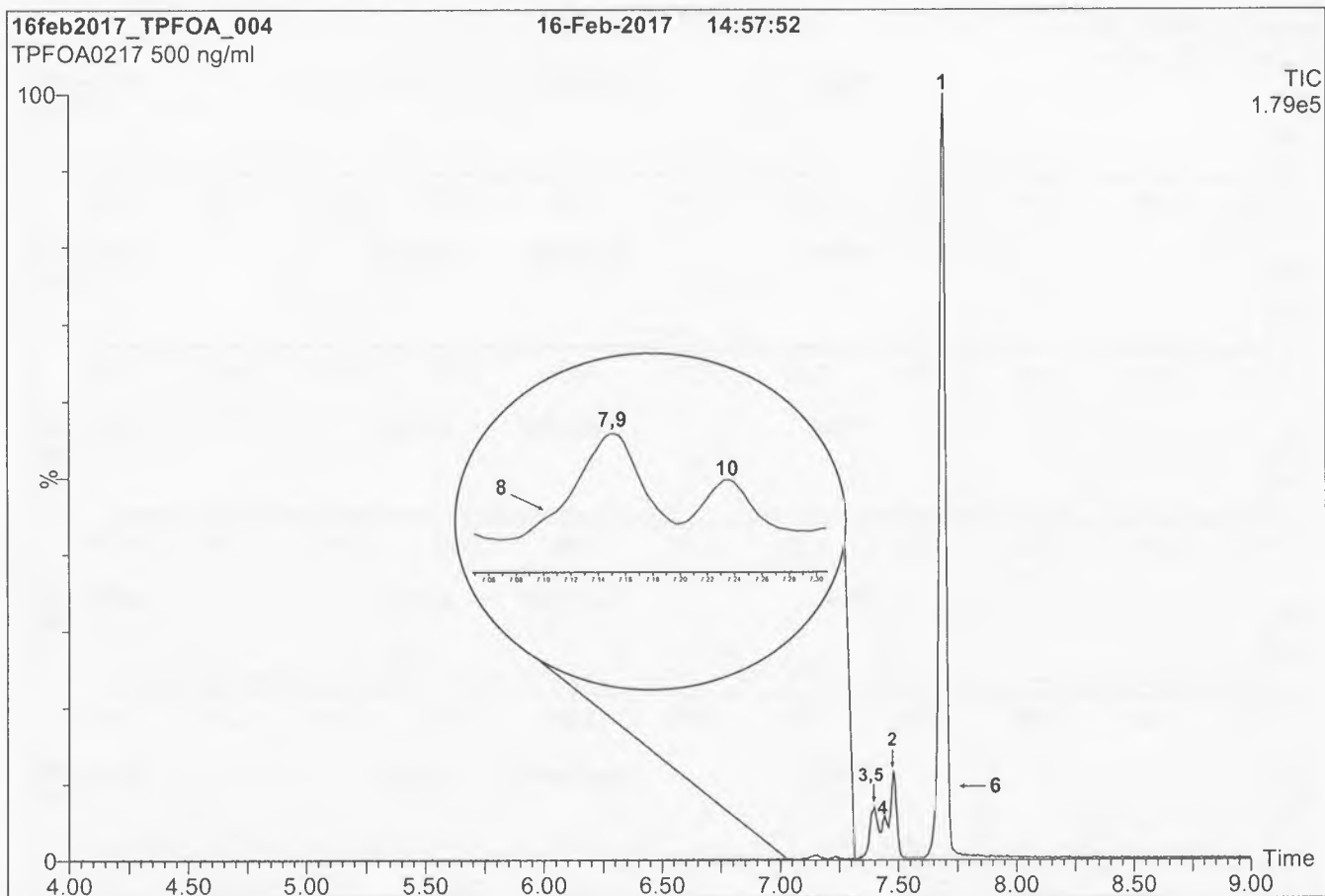
Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 50% organic over 5 min. Ramp to
90% organic over 5 min and hold for 1.5 min.
Return to initial conditions over 0.5 min.
Time: 13 min

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 μ m, 4.6 x 100 mm

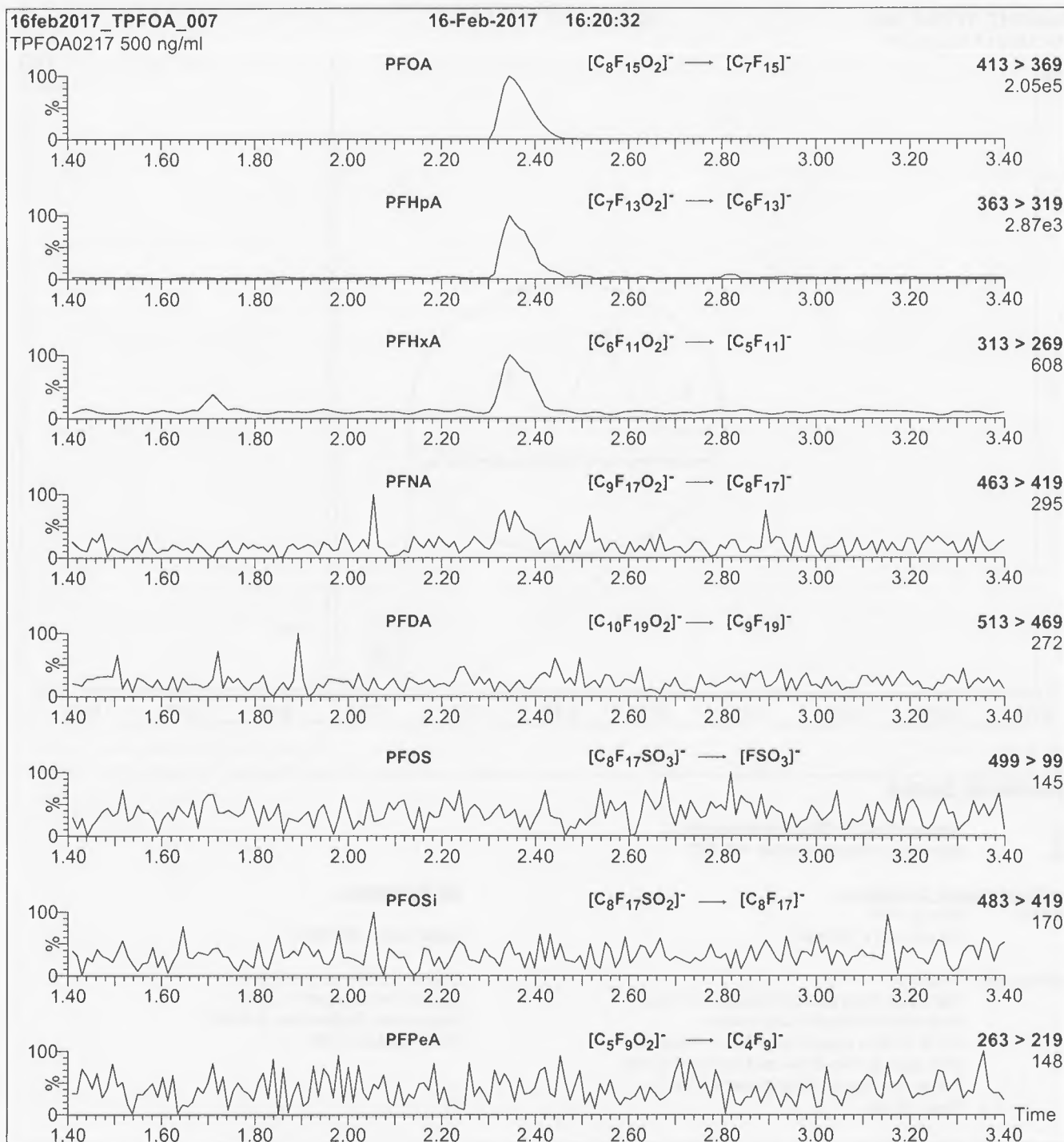
Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 50% organic over 5 min. Ramp to
90% organic over 5 min and hold for 1.5 min.
Return to initial conditions over 0.5 min.
Time: 13 min

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:**

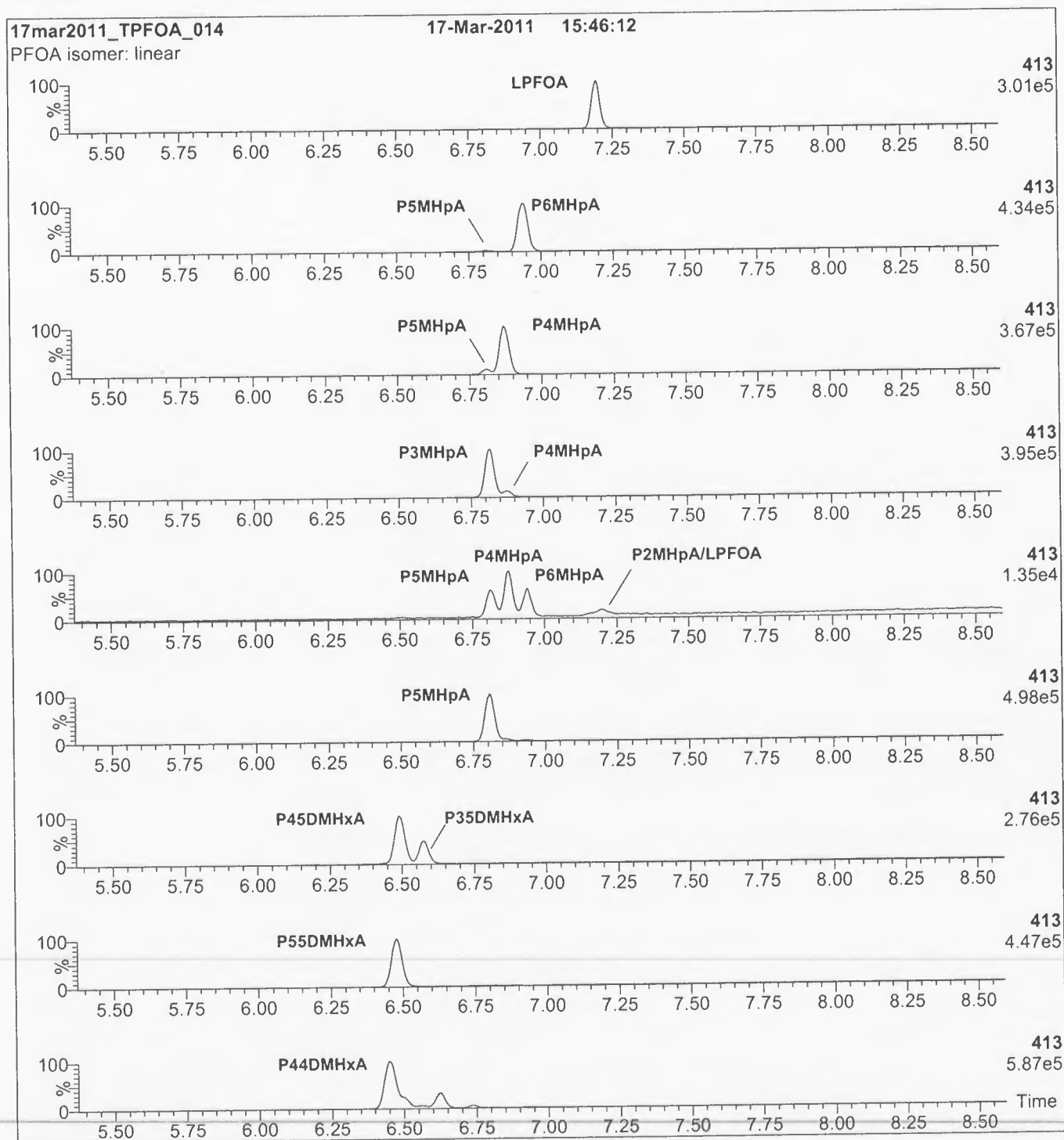
Injection: Direct loop injection
10 μ l (500 ng/ml T-PFOA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H₂O
(both with 10 mM NH₄OAc buffer)

Flow: 300 μ l/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.



It can be done

BDO Id: 180618-06

Reagent Receipt Report

Approved: Authorized:

Name: Branched PFHxS Standard (50 µg/m
 Vendor: Wellington Laboratories
 Catalogue No: br-PFHxSK
 Type: Solution
 Lot No: brPFHxSK0117
 Quantity: 1 ea mL % Moisture: 0
 Description: Branched PFHxS Standard (50 µg/mL)
 Received: 6/18/2018
 Custodian: Thorn, Jonathan
 Expires: 1/4/2022
 Consumed: _____
 Stored In: Sample Preparation - C0103

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert Val:	Cert Val:	Lower Limit:	Upper Limit:
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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 ¹⁹F-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, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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).



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	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3\text{K}^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}(\text{SO}_3\text{K}^+)\text{CF}_3$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{SO}_3\text{K}^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{SO}_3\text{K}^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$\text{CF}_3\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3\text{K}^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$\text{CF}_3\text{C}(\text{CF}_3)_2\text{CF}_2\text{CF}_2\text{SO}_3\text{K}^+$	0.2
7	Other Unidentified Isomers		0.5

* Percent of total perfluorohexanesulfonate isomers only.

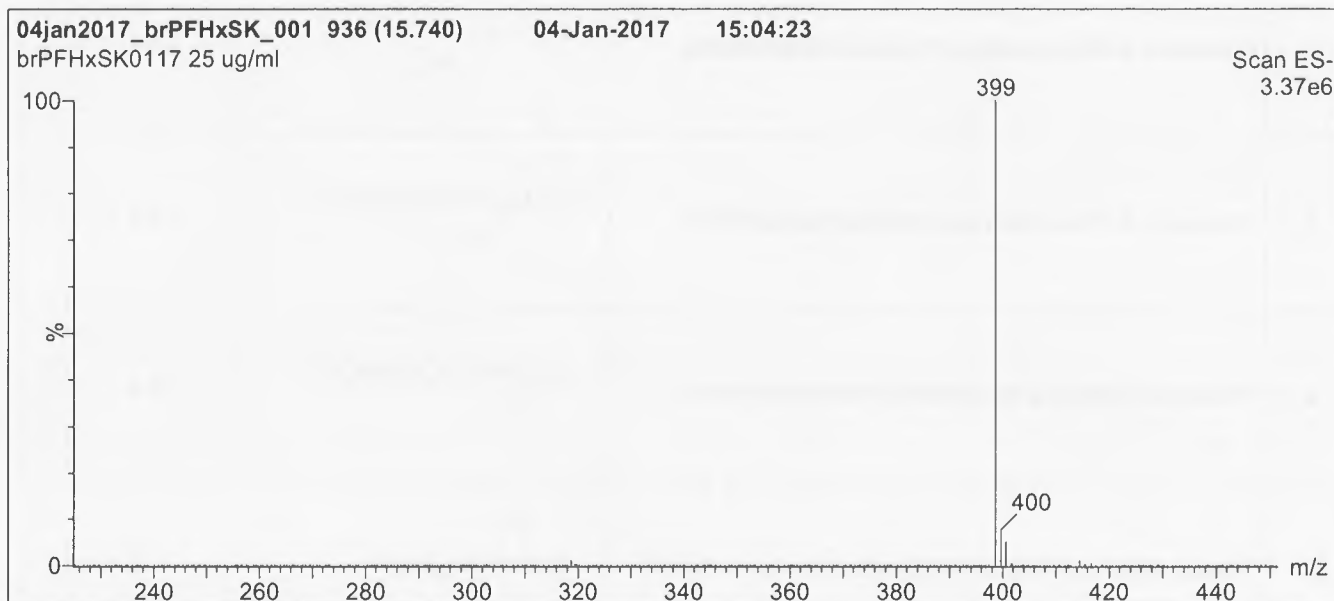
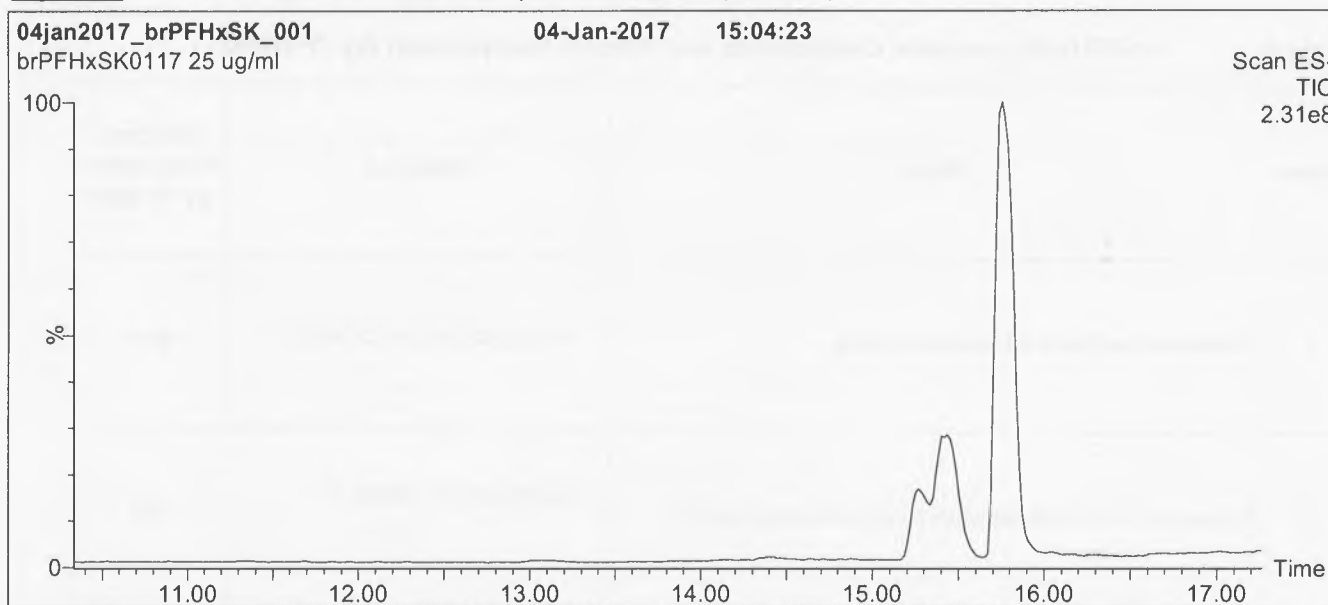
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

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 RP₁₈
1.7 μ m, 2.1 x 100 mm

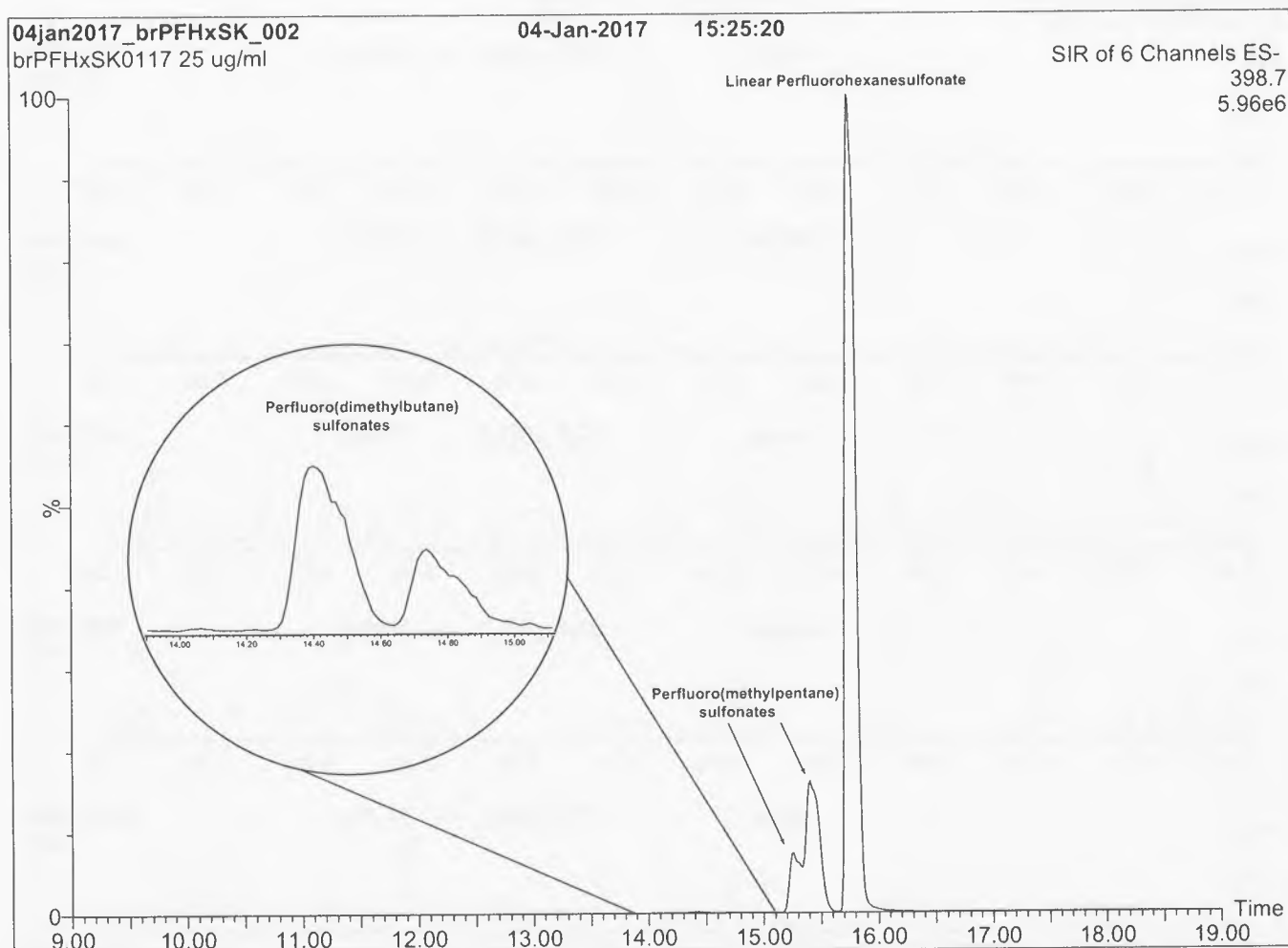
Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 50% organic over 14 min. Ramp to
90% organic over 3 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 μ l/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 RP₁₈
1.7 μ m, 2.1 x 100 mm

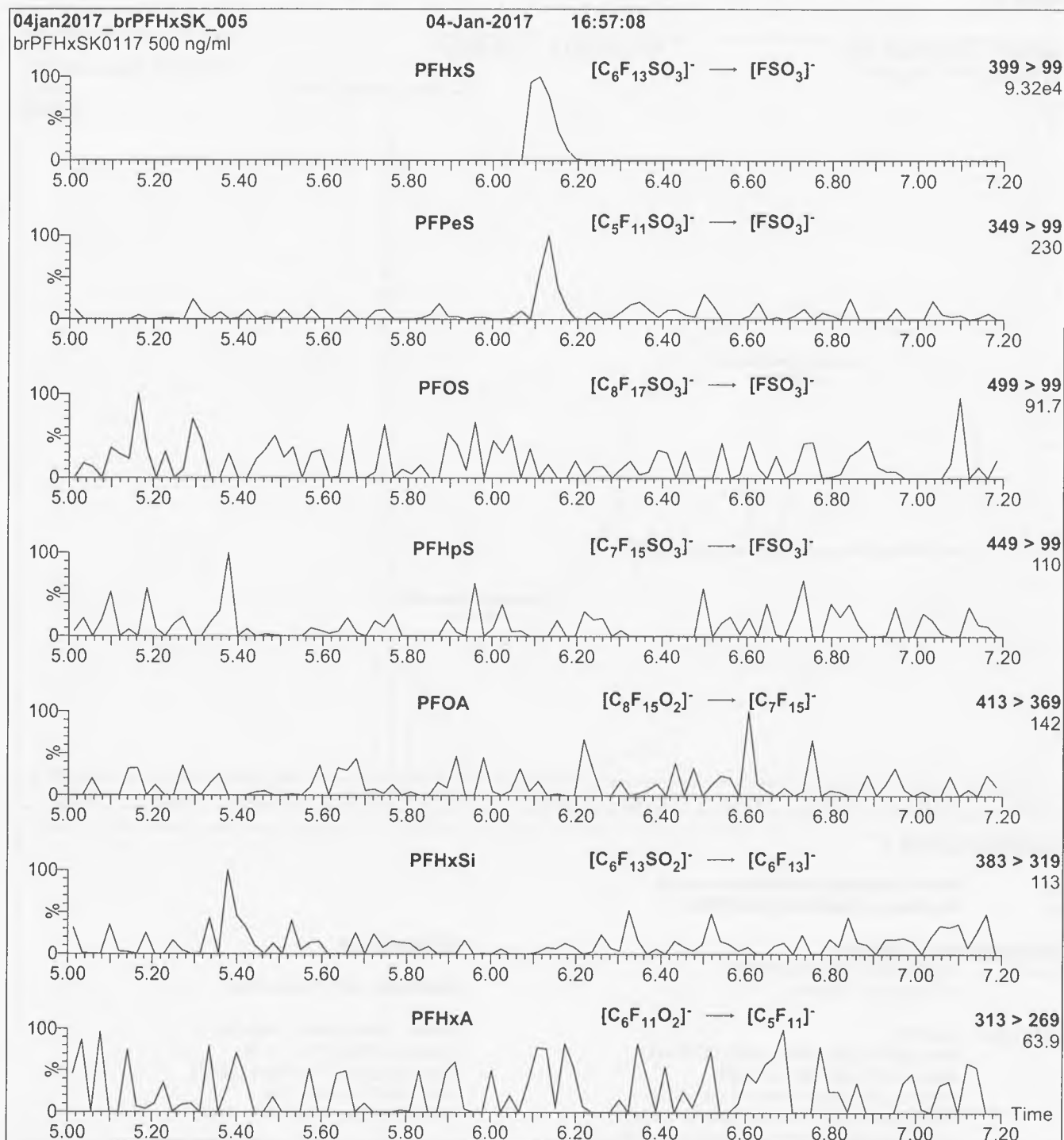
Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 50% organic over 14 min. Ramp to
90% organic over 3 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 20 min

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

Flow: 300 μ l/min

Figure 3: br-PFHxSK; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 3:**

Injection: Direct loop injection
10 μ l (500 ng/ml br-PFHxSK)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H₂O
(both with 10 mM NH₄OAc buffer)

Flow: 300 μ l/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 30



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 Val:	Cert Val:	Lower Limit:	Upper Limit:
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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**

<u>PRODUCT CODE:</u>	br-PFOSK
<u>LOT NUMBER:</u>	brPFOSK0117
<u>CONCENTRATION:</u>	50 ± 2.5 µg/ml (total potassium salt) 46.4 ± 2.3 µg/ml (total PFOS anion)
<u>SOLVENT(S):</u>	Methanol
<u>DATE PREPARED:</u> (mm/dd/yyyy)	01/09/2017
<u>LAST TESTED:</u> (mm/dd/yyyy)	01/12/2017
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	01/12/2022
<u>RECOMMENDED STORAGE:</u>	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 ¹⁹F-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, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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).



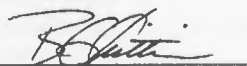
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: br-PFOSK; Isomeric Components and Percent Composition (by ¹⁹F-NMR)*

Isomer	Name	Structure	Percent Composition by ¹⁹ F-NMR
1	Potassium perfluoro-1-octanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃ CF ₃	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃ CF ₃	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃ CF ₃	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃ CF ₃	0.07

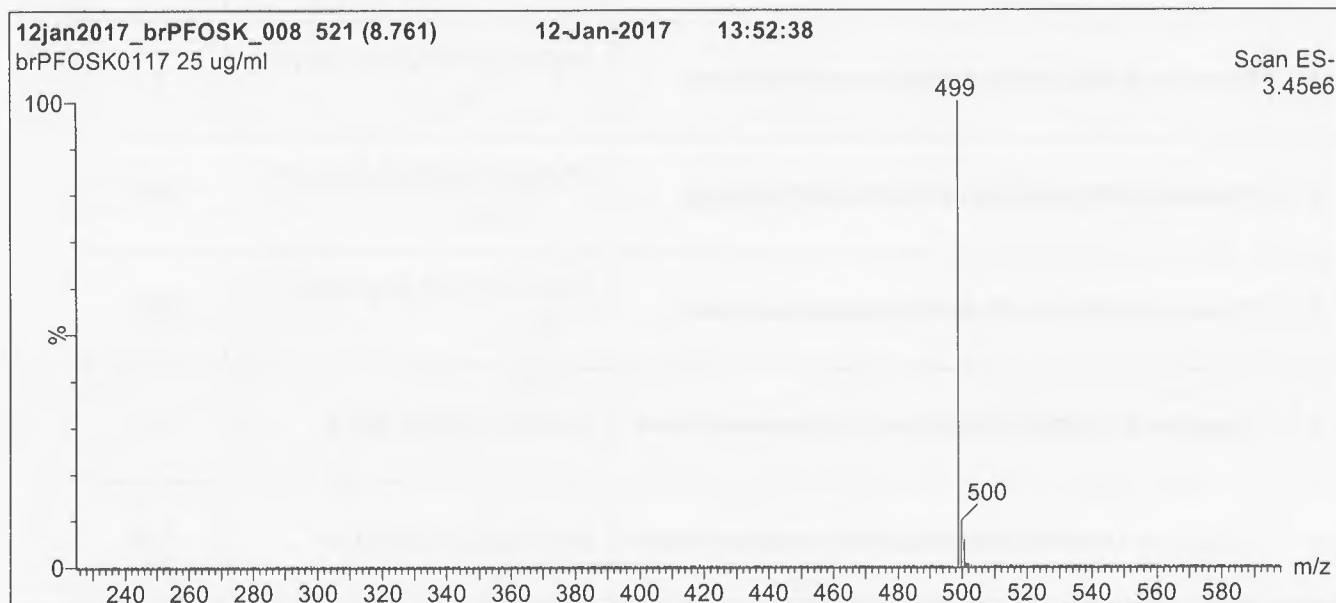
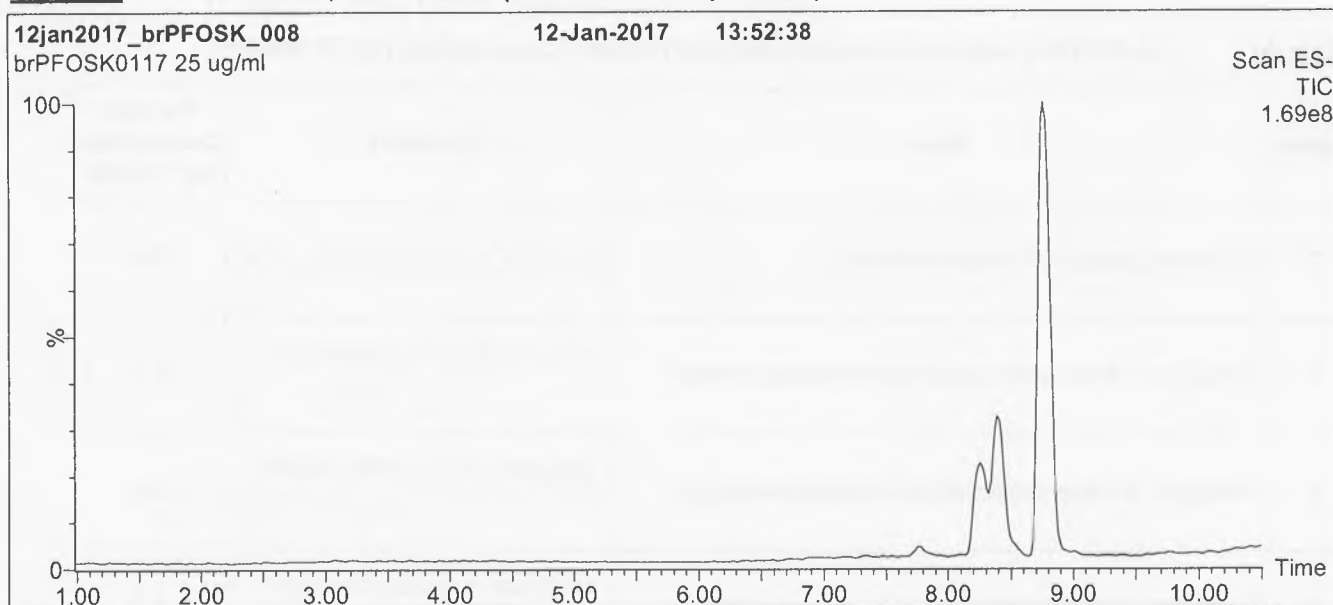
* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
 ** Systematic Name: Potassium perfluorooctane-2-sulfonate.

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 RP₁₈
1.7 μ m, 2.1 x 100 mm

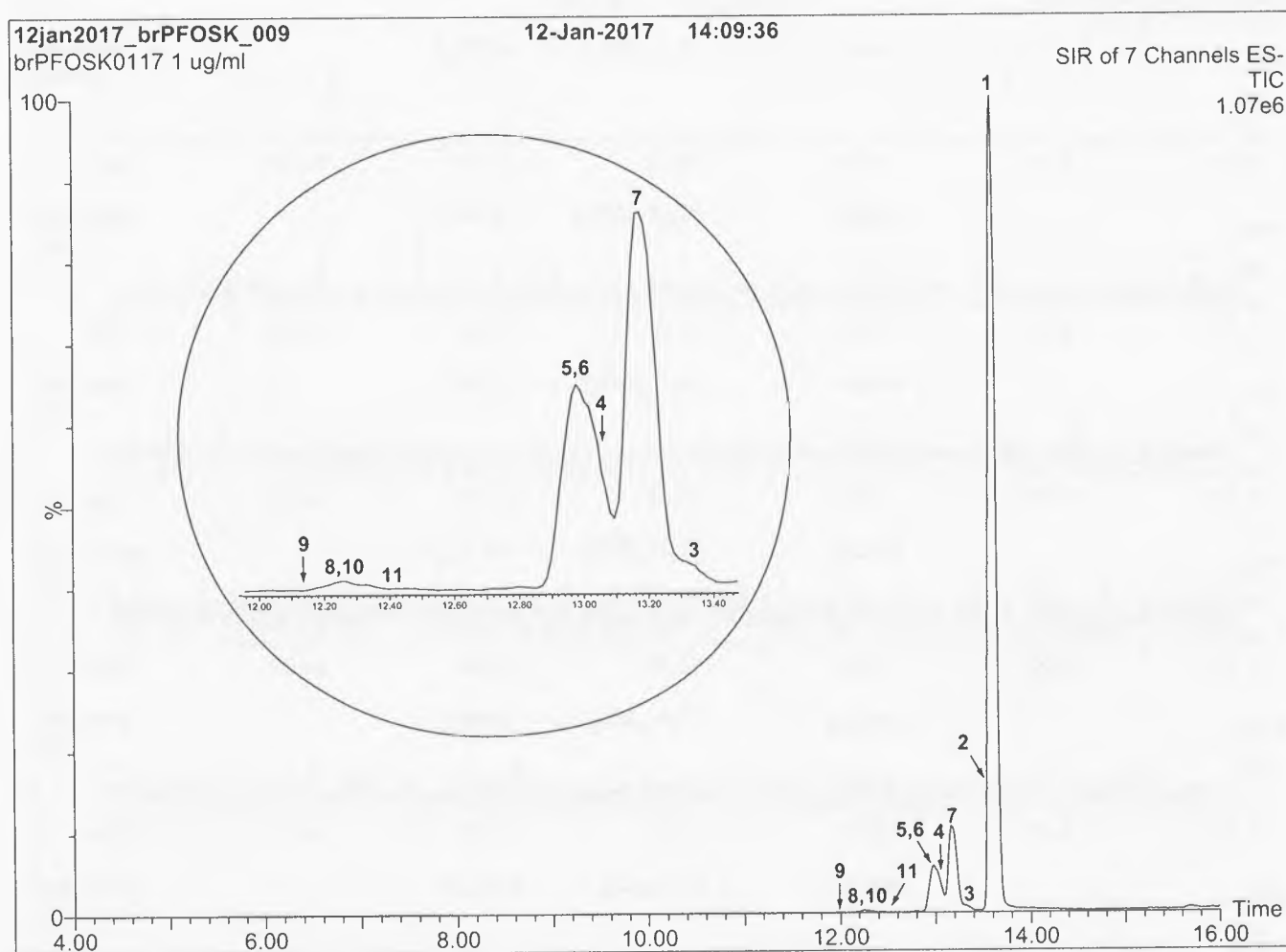
Mobile phase: Gradient
Start: 45% (80:20 MeOH:ACN) / 55% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 12 min and hold for 2 min.
Return to initial conditions over 0.5 min.
Time: 16 min

Flow: 300 μ l/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 RP₁₈ (1.7 μ m, 2.1 x 100 mm)

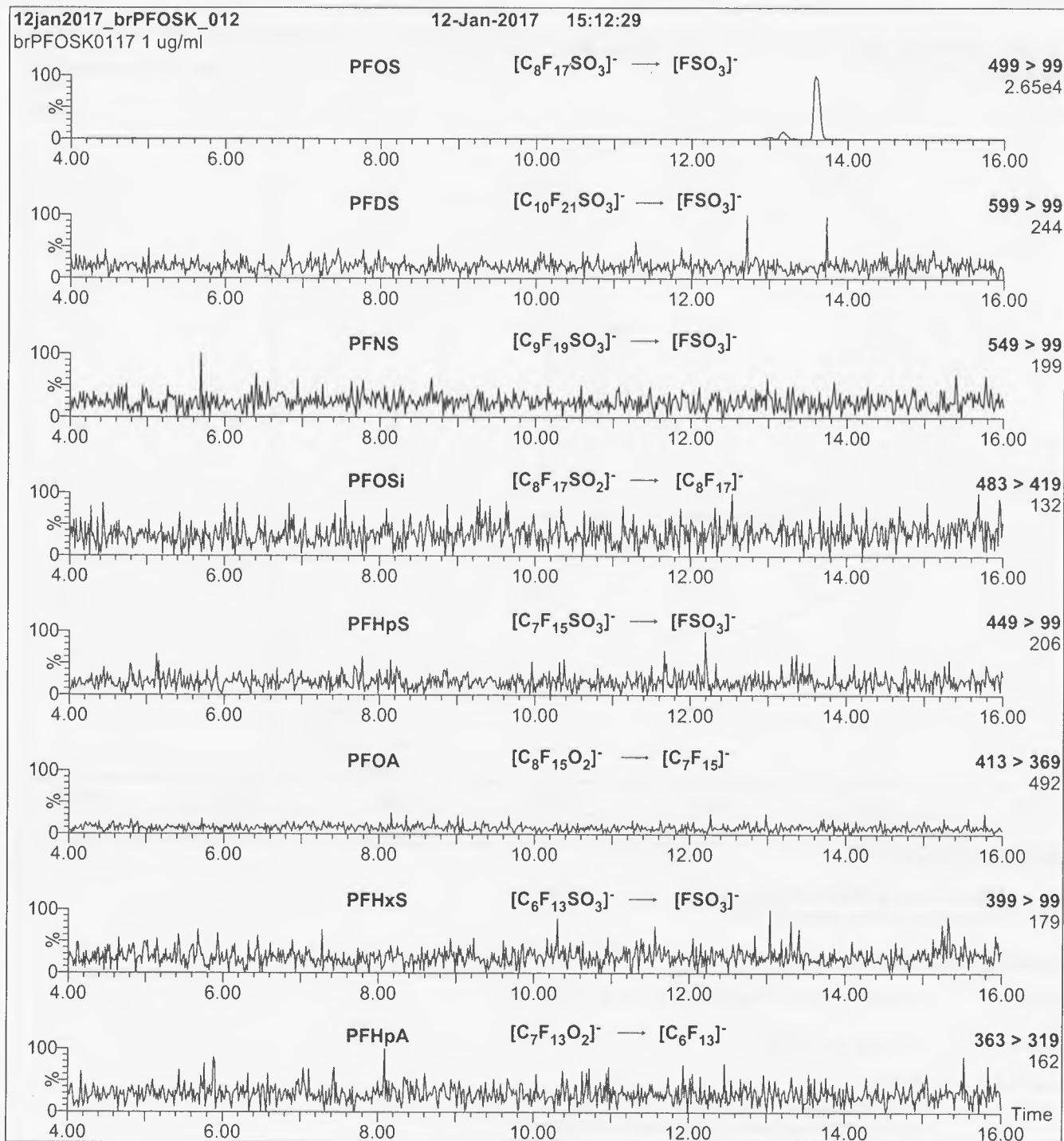
Injection: 1.0 μ g/ml of br-PFOSK

Mobile Phase: Gradient
45% (80:20 MeOH:ACN) / 55% H₂O (both with 10 mM NH₄OAc 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 μ l/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 μ l/min**MS Parameters**

Collision Gas (mbar) = 3.31e-3

Collision Energy (eV) = 11-50 (variable)



CERTIFIED WEIGHT REPORT

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): Methanol (1 mM KOH)
2-Propanol
Lot# 061918 (98%)
23214 (2%)

		061918
Formulated By:	Mario Luis	DATE
		061918
Reviewed By:	Pedro L. Rentas	DATE

Volume(s) shown below were combined and diluted to (mL):

Note: All assigned values are anion concentrations.

50.0 5E-05 Balance Uncertainty
0.007 Flask Uncertainty

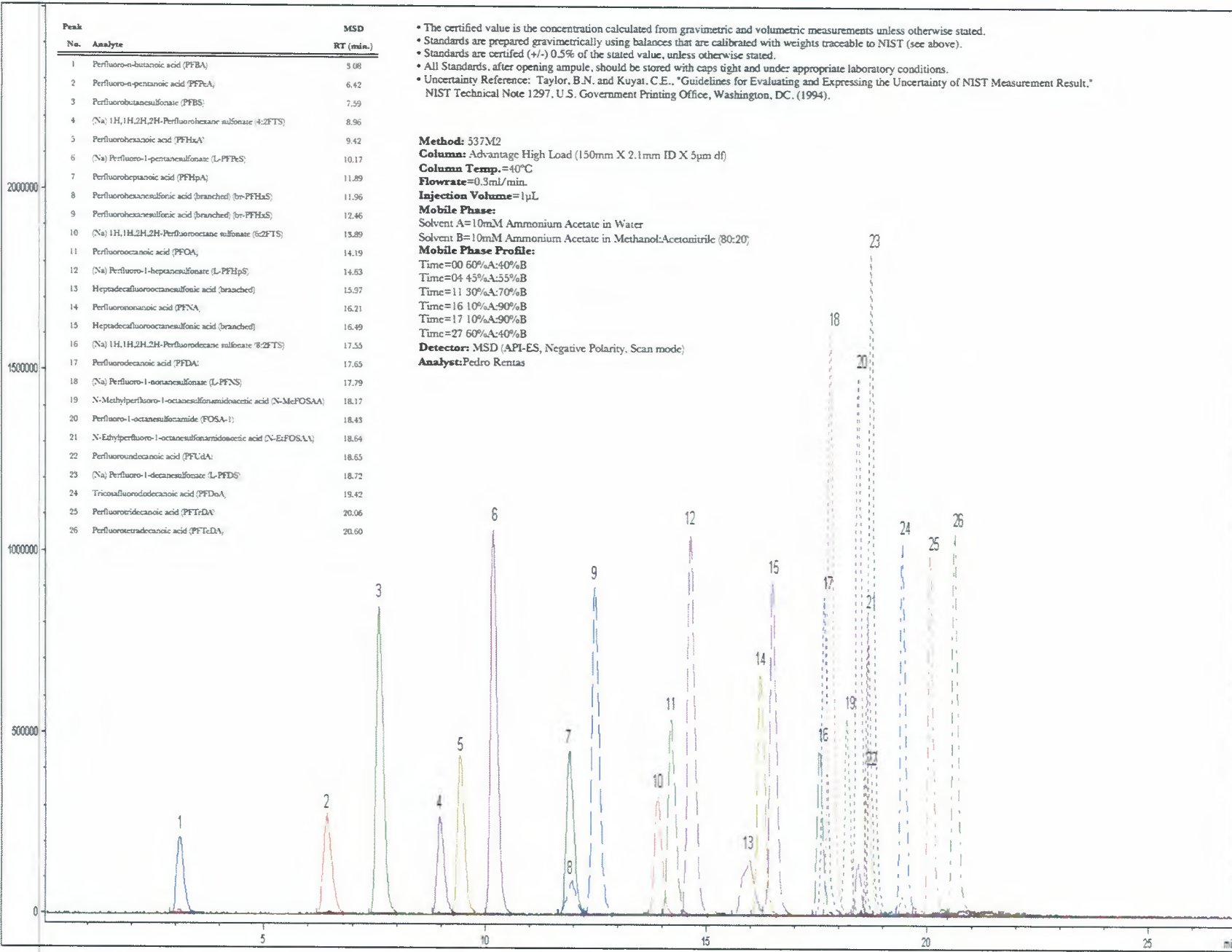
Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)		
									CAS#	OSHA PEL (TWA)	LD50
1. Perfluoro-n-butanoic acid (linear) -	99542	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	ort-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. Tricosafuorododecanoic 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



- 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

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	Perfluorooheptanoic 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	Heptafluorooctanesulfonic acid (branched)	15.97
14	Perfluorononanoic acid (PFNA)	16.21
15	Heptafluorooctanesulfonic 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-decenesulfonate (L-PFDS)	18.72
24	Tricosafluorododecanoic acid (PFDoA)	19.42
25	Perfluorotridecanoic acid (PFTrDA)	20.06
26	Perfluorotetradecanoic acid (PFTeDA)	20.60



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 Val:	Lower Limit:	Upper Limit:
13C2-PFDA	BDO-2110	2.0000	100.00	--	--	<input type="checkbox"/>		
13C2-PFOA	BDO-2107	2.0000	100.00	--	--	<input type="checkbox"/>		
13C3-PFBA	BDO-2231	2.0000	100.00	--	--	<input type="checkbox"/>		
13C4-PFOS	BDO-2121	1.9140	100.00	--	--	<input type="checkbox"/>		

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 (¹³C) perfluoroalkylcarboxylic acids and a mass-labelled (¹³C) 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, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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.

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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:

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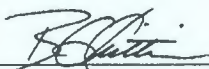


For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

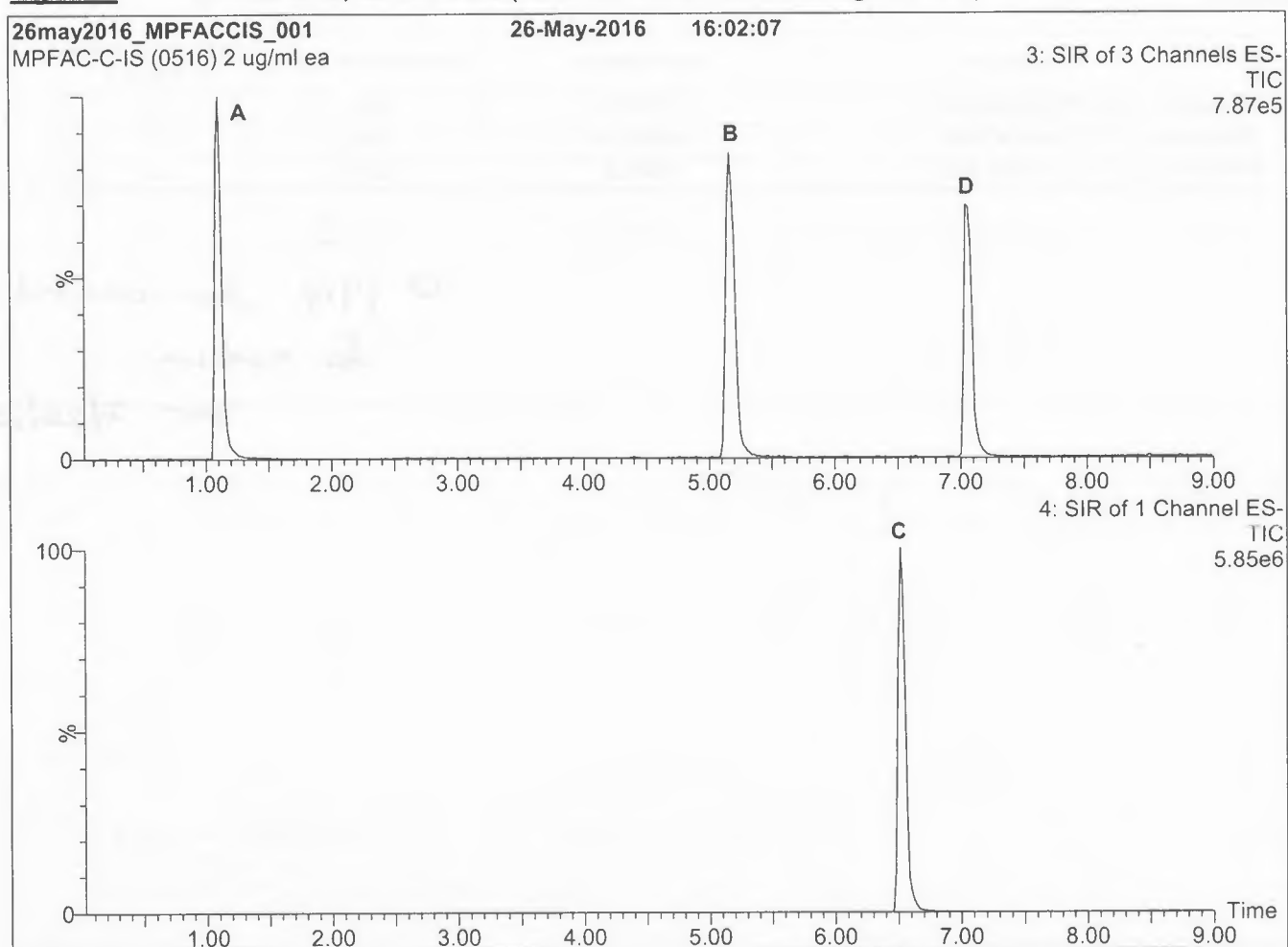
Table A: MPFAC-C-IS; Components and Concentrations (ng/ml; ± 5% in Methanol / Water (<1%))

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 [Ⓢ]	C

Ⓢ 1914 when corrected
for sodium
JMS 7/26/2017

Certified By: 
B.G. Chittim, General Manager

Date: 05/04/2017
(mm/dd/yyyy)

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 RP₁₈
1.7 μ m, 2.1 x 100 mm

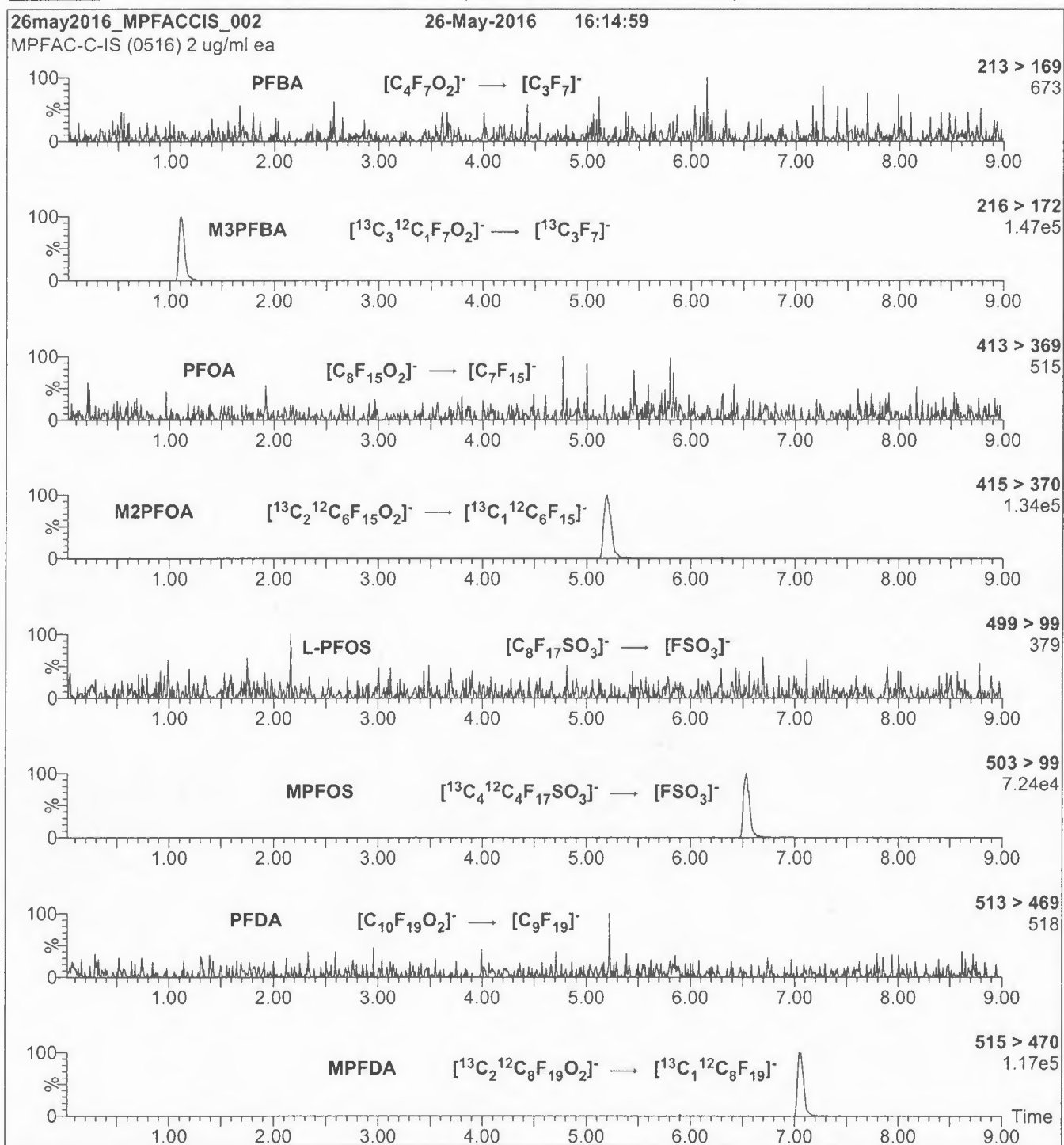
Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min
and hold for 2 min before returning
to initial conditions in 1 min.
Time: 12 min

Flow: 300 μ l/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 μ l/min**MS Parameters**

Collision Gas (mbar) = 3.50e-3

Collision Energy (eV) = 8-50 (variable)

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	--	--	<input type="checkbox"/>			
13C2-6:2FTS	BDO-2230	0.9490	100.00	--	--	<input type="checkbox"/>			
13C2-8:2FTS	BDO-2220	0.9580	100.00	--	--	<input type="checkbox"/>			
13C2-PFDoA	BDO-2112	1.0000	100.00	--	--	<input type="checkbox"/>			
13C2-PFTeDA	BDO-2224	1.0000	100.00	--	--	<input type="checkbox"/>			
13C3-PFBS	BDO-2226	0.9290	100.00	--	--	<input type="checkbox"/>			
13C3-PFHxS	BDO-2227	0.9460	100.00	--	--	<input type="checkbox"/>			
13C4-PFBA	BDO-2105	1.0000	100.00	--	--	<input type="checkbox"/>			
13C4-PFHpA	BDO-2218	1.0000	100.00	--	--	<input type="checkbox"/>			
13C5-PFHxA	BDO-2217	1.0000	100.00	--	--	<input type="checkbox"/>			
13C5-PFPeA	BDO-2216	1.0000	100.00	--	--	<input type="checkbox"/>			
13C6-PFDA	BDO-2222	1.0000	100.00	--	--	<input type="checkbox"/>			
13C7-PFUnA	BDO-2223	1.0000	100.00	--	--	<input type="checkbox"/>			
13C8-FOSA	BDO-2225	1.0000	100.00	--	--	<input type="checkbox"/>			
13C8-PFOA	BDO-2219	1.0000	100.00	--	--	<input type="checkbox"/>			
13C8-PFOS	BDO-2228	0.9570	100.00	--	--	<input type="checkbox"/>			
13C9-PFNA	BDO-2221	1.0000	100.00	--	--	<input type="checkbox"/>			
d3-MeFOSAA	BDO-1838	1.0000	100.00	--	--	<input type="checkbox"/>			
d5-EtFOSAA	BDO-1839	1.0000	100.00	--	--	<input type="checkbox"/>			

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 (¹³C) perfluoroalkylcarboxylic acids (C₄-C₁₂ and C₁₄), three mass-labelled (¹³C) perfluoroalkylsulfonates (C₄, C₆, and C₈), three mass-labelled (¹³C) telomer sulfonates (4:2, 6:2, and 8:2), two mass-labelled (²H) perfluorooctanesulfonamidoacetic acids, and perfluoro-1-[¹³C₈]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-[¹³C₈]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, \dots, x_n on which it depends is:

$$u_c(y(x_1, x_2, \dots, x_n)) = \sqrt{\sum_{i=1}^n u(y, x_i)^2}$$

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 $\pm 5\%$ (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).



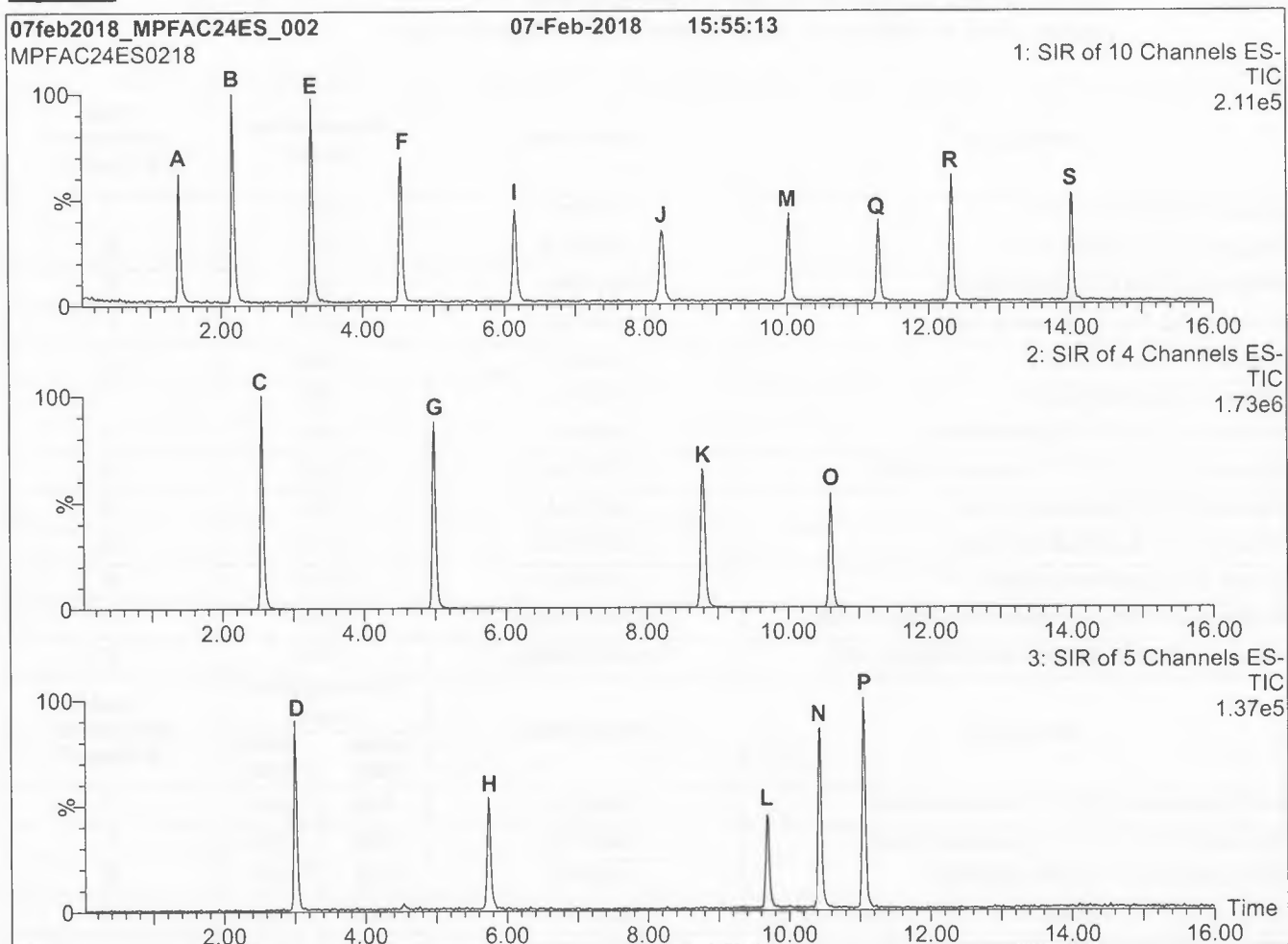
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: MPFAC-24ES; Components and Concentrations
(ng/ml, \pm 5% in Methanol / Isopropanol (2%) / Water (<1%))

Compound	Abbreviation	Concentration (ng/ml)		Peak Assignment in Figure 1
		as the salt	as the anion	
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 ₆]octanoic acid	M8PFOA	1000		I
Perfluoro-n-[¹³ C ₇]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: 
B.G. Chittim, General Manager

Date: 02/09/2018
(mm/dd/yyyy)

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 RP₁₈
 1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
 Start: 40% (80:20 MeOH:ACN) / 60% H₂O
 (both with 10 mM NH₄OAc 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 μ l/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

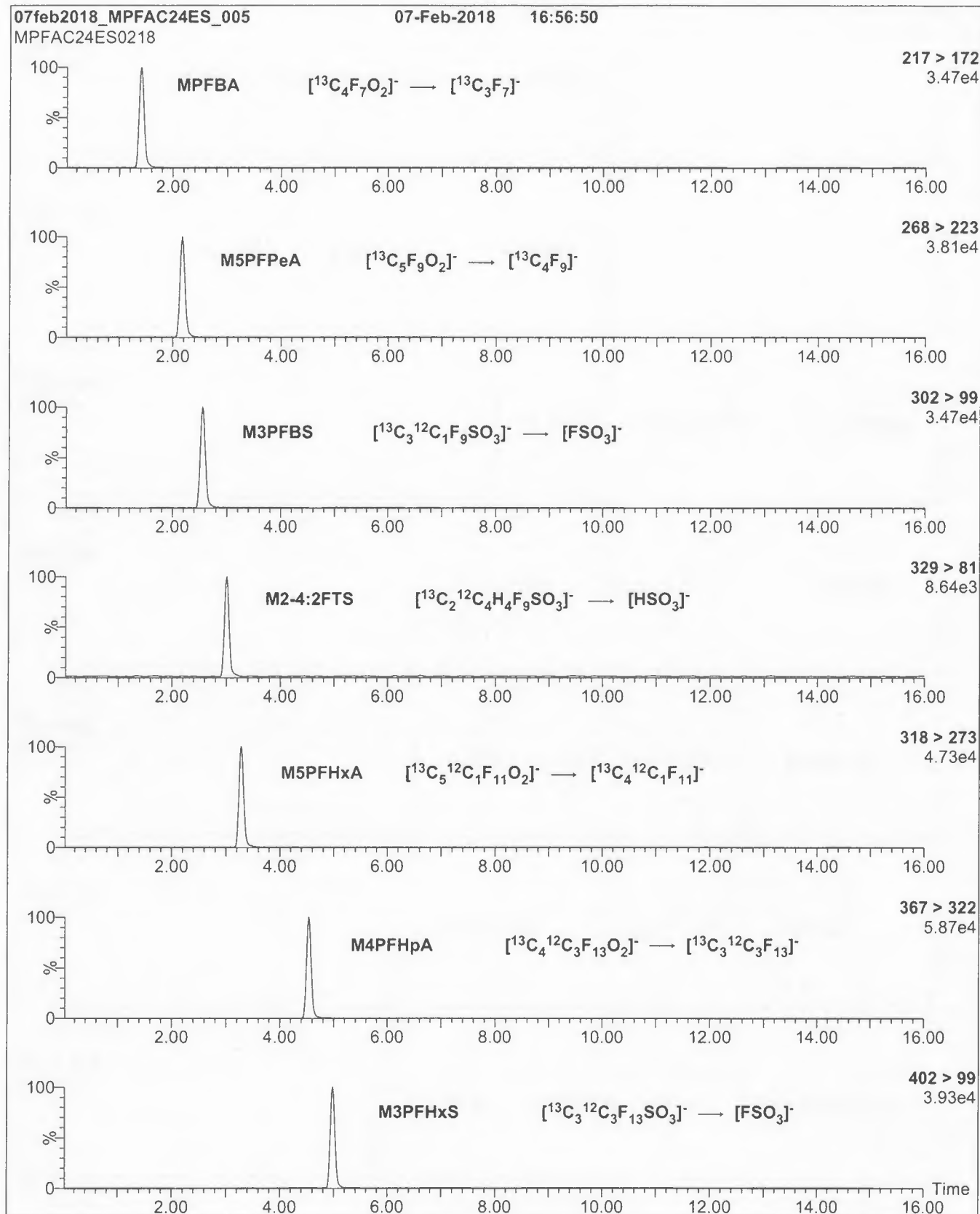
Figure 2: MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)

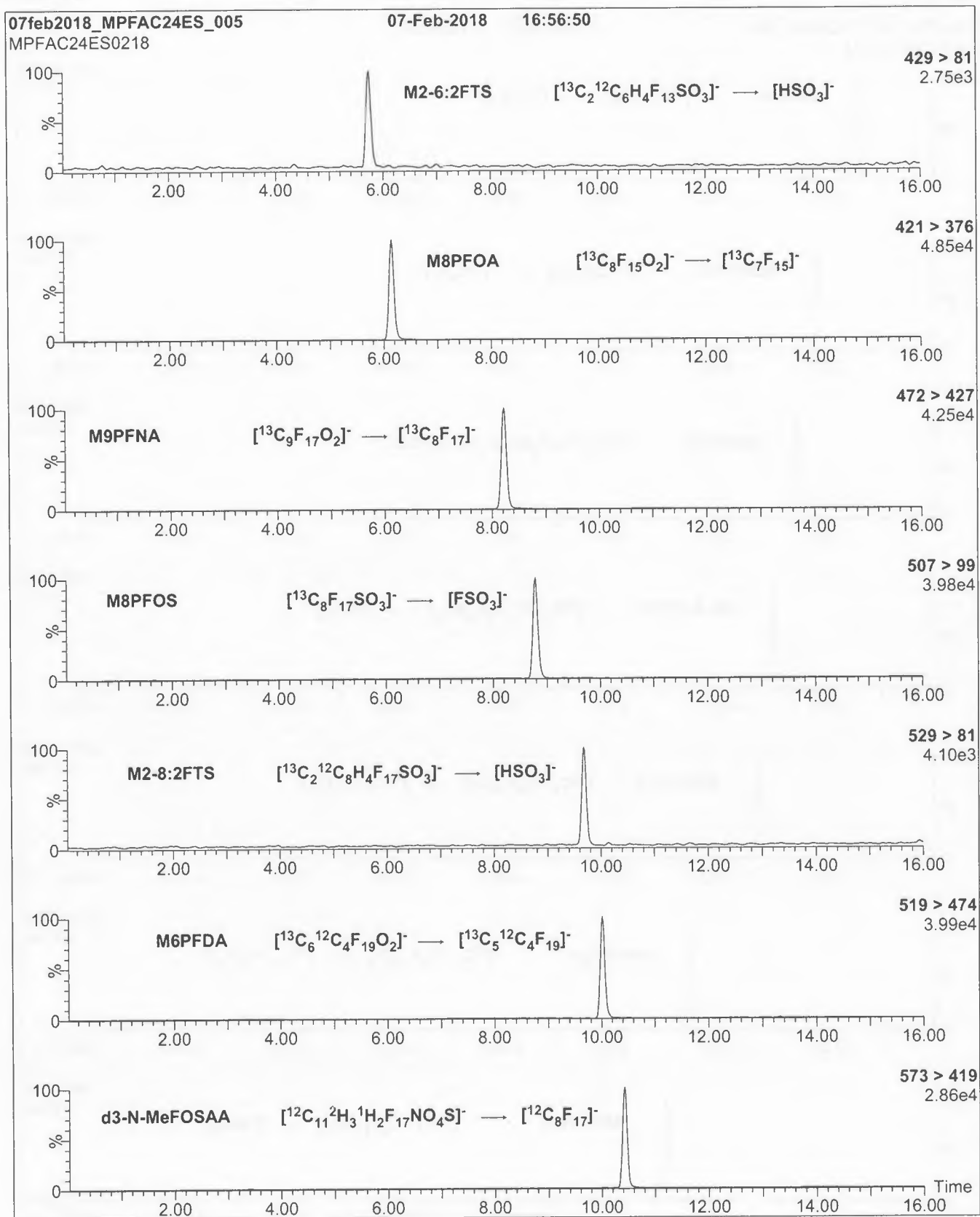
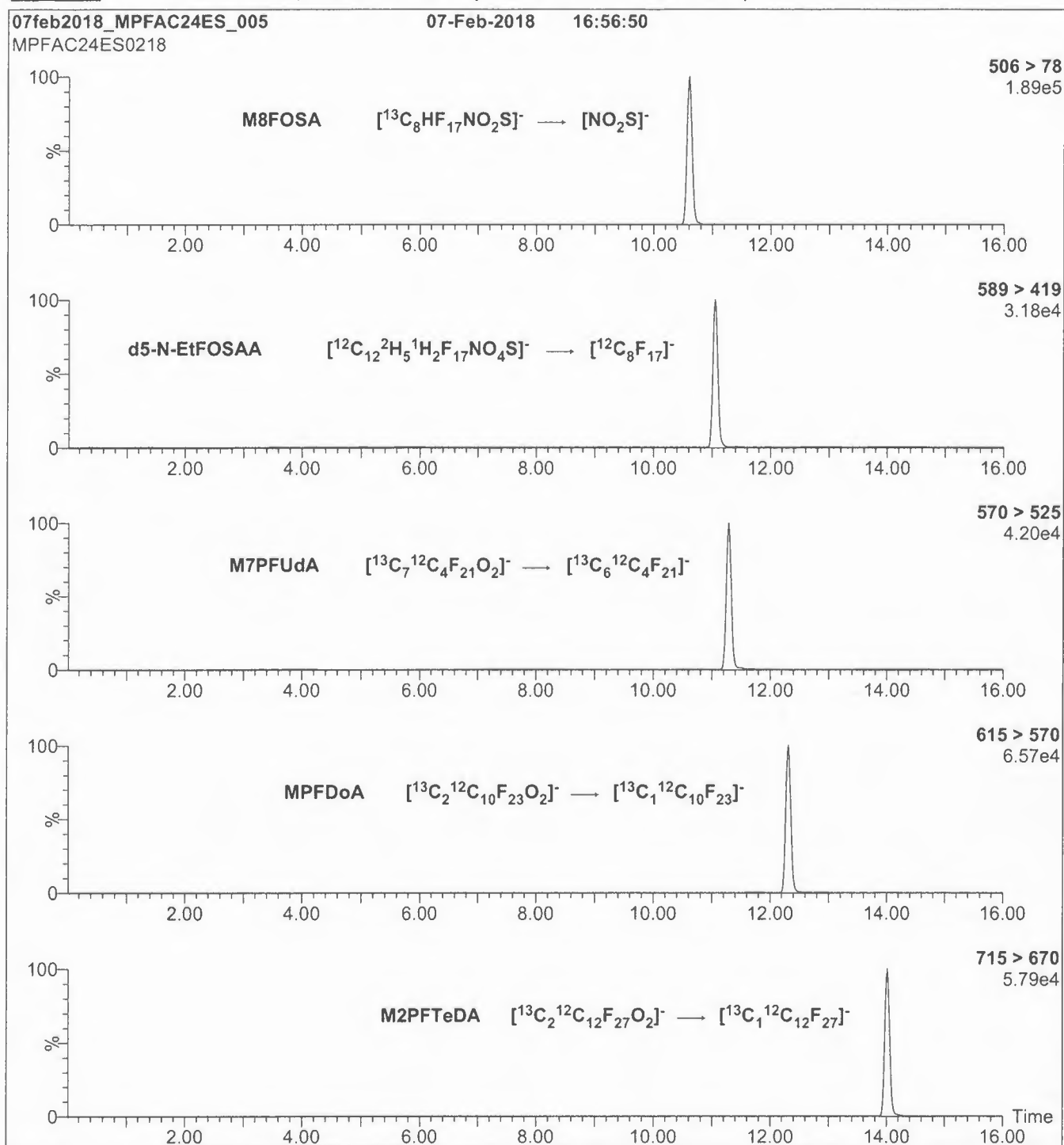
Figure 2: MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)

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 $\mu\text{l}/\text{min}$ **MS Parameters**

Collision Gas (mbar) = 3.28e-3

Collision Energy (eV) = 8-40 (variable)

Sample Preparation



It can be done

**BATTELLE - NORWELL OPERATIONS
SAMPLE PREPARATION RECORDS**

<u>Project Title(s)</u>	<u>Project No.(s)</u>
CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis	100120725-CTO5655
18-0686	
CTO-5655: PFAS Analysis	
W	
SOP Numbers (see workplan for modifications)	
ExtractionSOP No.	5-370

This Batch Contains The Following Samples:	
CS243PB-FS	J9420-FS
CS244LCS-FS	
J9414-FS	
J9415MS-FS	
J9416MSD-FS	
J9417-FS	

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Stephanie Schultz

Approved By:	Date	Initials
Denise Schumitz	11/27/2018	DMS



It can be done

BATTELLE - NORWELL OPERATIONS SAMPLE IDENTIFICATION PAGE

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686

CTO-5655: PFAS Analysis

W

Sample ID	Description
CS243PB-FS	Procedural Blank
CS244LCS-FS	Laboratory Control Sample
J9414-FS	AS4141-EFF1-18D
J9415MS-FS	Matrix Spike of AS4141-EFF1-18D-MS
J9416MSD-FS	Matrix Spike Duplicate of AS4141-EFF1-18D-SD
J9417-FS	AS4141-EFF1D-18D
J9420-FS	AS4141-FB-111618

Samples Assigned By:

Jonathan Thorn

Date : November 18, 2018

Comments:



It can be done

**BATTELLE - NORWELL OPERATIONS
SAMPLE CUSTODY LOG**

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No.(s)

100120725-CTO5655

18-0686

CTO-5655: PFAS Analysis

W

Requested On/By: 11/20/2018 SAS	Purpose: Sample Preparation
Relinquished On/By: 11/20/2018 MDS	Last Activity: Transfer

Accepted On/By: 11/20/2018 SAS Stored In Facility: Sample Preparation Stored Until: 11/20/2018 Stored Comment: NA	Returned On/To: Returned To Facility: Returned Comment: NA
--	---

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	J9414	1	C	Consumed	NA
2	J9417	1	C	Consumed	NA
3	J9420	1	C	Consumed	NA
Total Samples		3	* "C" = Consumed Container		



It can be done

BATTELLE - NORWELL OPERATIONS LIQUID SAMPLE ID FORM

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686**CTO-5655: PFAS Analysis****W**

Sample ID	Description	Volume (mL)	Bottles	*	Date Initials
CS243PB-FS	Procedural Blank	250.0	NA	--	11/20/18 KB
CS244LCS-FS	Laboratory Control Sample	250.0	NA	--	11/20/18 KB
J9414-FS	AS4141-EFF1-18D	270.0	1	C	11/20/18 SAS
J9415MS-FS	Matrix Spike	280.0	1	C	11/20/18 SAS
J9416MSD-FS	Matrix Spike Duplicate	285.0	1	C	11/20/18 SAS
J9417-FS	AS4141-EFF1D-18D	280.0	1	C	11/20/18 SAS
J9420-FS	AS4141-FB-111618	275.0	1	C	11/20/18 SAS

Comments:

Samples Assigned By

Jonathan Thorn

Date : November 18, 2018

* - "C" = Sample is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS SURROGATE SPIKE FORM

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686**CTO-5655: PFAS Analysis****W**

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
CS243PB-FS	KC98	SIS	1	50	11/20/18 SAS	KB	NA
CS244LCS-FS	KB82	LCS/MS	1	300	11/20/18 SAS	KB	NA
CS244LCS-FS	KC98	SIS	1	50	11/20/18 SAS	KB	NA
J9414-FS	KC98	SIS	1	50	11/20/18 SAS	KB	NA
J9415MS-FS	KB82	LCS/MS	1	300	11/20/18 SAS	KB	NA
J9415MS-FS	KC98	SIS	1	50	11/20/18 SAS	KB	NA
J9416MSD-FS	KB82	LCS/MS	1	300	11/20/18 SAS	KB	NA
J9416MSD-FS	KC98	SIS	1	50	11/20/18 SAS	KB	NA
J9417-FS	KC98	SIS	1	50	11/20/18 SAS	KB	NA
J9420-FS	KC98	SIS	1	50	11/20/18 SAS	KB	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KB82	Pipette	B814657482
KC98	Pipette	B1100460B



It can be done

BATTELLE - NORWELL OPERATIONS SAMPLE EXTRACTION FORM

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686**CTO-5655: PFAS Analysis****W**

Sample ID	1st Extraction	2nd Extraction	3rd Extraction	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comment
CS243PB-FS	11/20/18 SAS	NA	NA	NA	NA	NA	NA	NA
CS244LCS-FS	11/20/18 SAS	NA	NA	NA	NA	NA	NA	NA
J9414-FS	11/20/18 KB	NA	NA	NA	NA	NA	NA	NA
J9415MS-FS	11/20/18 SAS	NA	NA	NA	NA	NA	NA	NA
J9416MSD-FS	11/20/18 SAS	NA	NA	NA	NA	NA	NA	NA
J9417-FS	11/20/18 KB	NA	NA	NA	NA	NA	NA	NA
J9420-FS	11/20/18 SAS	NA	NA	NA	NA	NA	NA	NA

Solvents/Reagent Preparations:

Name	ID	Expires	Lot No	Procedure	Comments
0.4% NH3 in Methanol	RP-181120-1	11/20/18	182000	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	
0.4% NH3 in Methanol	RP-181120-1	11/20/18	SHBJ0412	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	
Pre-packed SPE Column	RP-181120-3	11/20/18	003537220A/ 0035	Pre-packed SPE Column	

Solvents/Reagents:



It can be done

BATTELLE - NORWELL OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686**CTO-5655: PFAS Analysis****W****(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
CS243PB-FS(0)	950	50	KD57	50	1	1000	1.000	11/21/18 KB	SAS
CS244LCS-FS(0)	950	50	KD57	50	1	1000	1.000	11/21/18 KB	SAS
J9414-FS(0)	950	50	KD57	50	1	1000	1.000	11/21/18 KB	SAS
J9414-FS-D(3)	960	40	KD57	50	1	1000	5.000	11/21/18 KB	SAS
J9414-FS-D(5)	960	40	KD57	50	1	1000	25.000	11/21/18 KB	SAS
J9414-FS-D(7)	960	40	KD57	50	1	1000	125.000	11/21/18 KB	SAS
J9414-FS-D(9)	960	40	KD57	50	1	1000	25.000	11/27/18 SAS	LMG
J9414-FS-D(11)	960	40	KD57	50	1	1000	125.000	11/27/18 SAS	LMG
J9415MS-FS(0)	950	50	KD57	50	1	1000	1.000	11/21/18 KB	SAS
J9415MS-FS-D(3)	960	40	KD57	50	1	1000	5.000	11/21/18 KB	SAS
J9415MS-FS-D(5)	960	40	KD57	50	1	1000	25.000	11/21/18 KB	SAS
J9415MS-FS-D(7)	960	40	KD57	50	1	1000	125.000	11/21/18 KB	SAS
J9415MS-FS-D(9)	975	25	KD57	50	1	1000	250.000	11/27/18 SAS	LMG
J9416MSD-FS(0)	950	50	KD57	50	1	1000	1.000	11/21/18 KB	SAS
J9416MSD-FS-D(3)	960	40	KD57	50	1	1000	5.000	11/21/18 KB	SAS
J9416MSD-FS-D(5)	960	40	KD57	50	1	1000	25.000	11/21/18 KB	SAS
J9416MSD-FS-D(7)	960	40	KD57	50	1	1000	125.000	11/21/18 KB	SAS
J9417-FS(0)	950	50	KD57	50	1	1000	1.000	11/21/18 KB	SAS
J9417-FS-D(3)	960	40	KD57	50	1	1000	5.000	11/21/18 KB	SAS

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.



It can be done

BATTELLE - NORWELL OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686**CTO-5655: PFAS Analysis****W****(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
J9417-FS-D(5)	960	40	KD57	50	1	1000	25.000	11/21/18 KB	SAS
J9417-FS-D(7)	960	40	KD57	50	1	1000	125.000	11/21/18 KB	SAS
J9417-FS-D(9)	960	40	KD57	50	1	1000	25.000	11/27/18 SAS	LMG
J9417-FS-D(11)	960	40	KD57	50	1	1000	125.000	11/27/18 SAS	LMG
J9417-FS-D(13)	960	40	KD57	50	1	1000	5.000	11/28/18 SAS	KB
J9417-FS-D(15)	960	40	KD57	50	1	1000	25.000	11/28/18 SAS	KB
J9417-FS-D(17)	960	40	KD57	50	1	1000	125.000	11/28/18 SAS	KB
J9420-FS(0)	950	50	KD57	50	1	1000	1.000	11/21/18 KB	SAS

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KC98	Pipette	B814659662
KD57	Pipette	B814659662

* - Final Dilution is any HPLC, dilutions, or other manipulation

^ - Pre Injection Volume (PIV) includes any RIS spikes.



It can be done

BATTELLE - NORWELL OPERATIONS EXTRACT SPIKE FORM

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686**CTO-5655: PFAS Analysis****W**

Extract Id	DF	Std. ID	Type	Vial No.	Vol. Added (uL)	Conc (ug/mL)	Added (ng)	Date Spiked/ Spiked By	Witn'd By
J9414-FS-D(3)	5	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9414-FS-D(5)	25	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9414-FS-D(7)	125	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9414-FS-D(9)	25	KC98	SIS	1	40	0	0	11/27/18 SAS	LMG
J9414-FS-D(11)	125	KC98	SIS	1	40	0	0	11/27/18 SAS	LMG
J9415MS-FS-D(3)	5	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9415MS-FS-D(5)	25	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9415MS-FS-D(7)	125	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9415MS-FS-D(9)	250	KC98	SIS	1	25	0	0	11/27/18 SAS	LMG
J9416MSD-FS-D(3)	5	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9416MSD-FS-D(5)	25	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9416MSD-FS-D(7)	125	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9417-FS-D(3)	5	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9417-FS-D(5)	25	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9417-FS-D(7)	125	KC98	SIS	1	40	0	0	11/21/18 KB	SAS
J9417-FS-D(9)	25	KC98	SIS	1	40	0	0	11/27/18 SAS	LMG
J9417-FS-D(11)	125	KC98	SIS	1	40	0	0	11/27/18 SAS	LMG
J9417-FS-D(13)	5	KC98	SIS	1	40	0	0	11/28/18 SAS	KB
J9417-FS-D(15)	25	KC98	SIS	1	40	0	0	11/28/18 SAS	KB
J9417-FS-D(17)	125	KC98	SIS	1	40	0	0	11/28/18 SAS	KB

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KC98	Pipette	B814659662
KD57	Pipette	B814659662



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No.(s)100120725-
CTO5655**18-0686****CTO-5655: PFAS Analysis****W**

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CS243PB-FS	0	--	11/20/2018 10:55:00 AM	NA		NA	NA	1.000	1.000	11/20/18 SAS
CS244LCS-FS	0	--	11/20/2018 10:55:00 AM	NA		NA	NA	1.000	1.000	11/20/18 SAS
J9414-FS	0	C	11/20/2018 10:55:00 AM	NA		NA	NA	1.000	1.000	11/20/18 KB
J9414-FS	2	--	11/21/2018 12:32:00 PM	J9414-FS	0	1000	800	1.250	1.250	11/21/18 KB
J9414-FS-D	3	C	11/21/2018 12:32:00 PM	J9414-FS	0	1000	200	5.000	5.000	11/21/18 KB
J9414-FS-D	4	C	11/21/2018 12:35:00 PM	J9414-FS-D	3	1000	800	1.250	6.250	11/21/18 KB
J9414-FS-D	5	C	11/21/2018 12:35:00 PM	J9414-FS-D	3	1000	200	5.000	25.000	11/21/18 KB
J9414-FS-D	6	--	11/21/2018 12:38:00 PM	J9414-FS-D	5	1000	800	1.250	31.250	11/21/18 KB
J9414-FS-D	7	--	11/21/2018 12:38:00 PM	J9414-FS-D	5	1000	200	5.000	125.000	11/21/18 KB
J9414-FS-D	8	--	11/27/2018 2:35:00 PM	J9414-FS-D	4	800	600	1.333	8.333	11/27/18 SAS
J9414-FS-D	9	C	11/27/2018 2:35:00 PM	J9414-FS-D	4	800	200	4.000	25.000	11/27/18 SAS
J9414-FS-D	10	--	11/27/2018 2:37:00 PM	J9414-FS-D	9	1000	800	1.250	31.250	11/27/18 SAS
J9414-FS-D	11	--	11/27/2018 2:37:00 PM	J9414-FS-D	9	1000	200	5.000	125.000	11/27/18 SAS
J9415MS-FS	0	C	11/20/2018 10:55:00 AM	NA		NA	NA	1.000	1.000	11/20/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No.(s)100120725-
CTO5655**18-0686****CTO-5655: PFAS Analysis****W**

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J9415MS-FS	2	--	11/21/2018 12:32:00 PM	J9415MS-FS	0	1000	800	1.250	1.250	11/21/18 KB
J9415MS-FS-D	3	C	11/21/2018 12:32:00 PM	J9415MS-FS	0	1000	200	5.000	5.000	11/21/18 KB
J9415MS-FS-D	4	--	11/21/2018 12:35:00 PM	J9415MS-FS-D	3	1000	800	1.250	6.250	11/21/18 KB
J9415MS-FS-D	5	C	11/21/2018 12:35:00 PM	J9415MS-FS-D	3	1000	200	5.000	25.000	11/21/18 KB
J9415MS-FS-D	6	--	11/21/2018 12:38:00 PM	J9415MS-FS-D	5	1000	800	1.250	31.250	11/21/18 KB
J9415MS-FS-D	7	C	11/21/2018 12:38:00 PM	J9415MS-FS-D	5	1000	200	5.000	125.000	11/21/18 KB
J9415MS-FS-D	8	--	11/27/2018 2:38:00 PM	J9415MS-FS-D	7	1000	500	2.000	250.000	11/27/18 SAS
J9415MS-FS-D	9	--	11/27/2018 2:38:00 PM	J9415MS-FS-D	7	1000	500	2.000	250.000	11/27/18 SAS
J9416MSD-FS	0	C	11/20/2018 10:55:00 AM	NA		NA	NA	1.000	1.000	11/20/18 SAS
J9416MSD-FS	2	--	11/21/2018 12:32:00 PM	J9416MSD-FS	0	1000	800	1.250	1.250	11/21/18 KB
J9416MSD-FS-D	3	C	11/21/2018 12:32:00 PM	J9416MSD-FS	0	1000	200	5.000	5.000	11/21/18 KB
J9416MSD-FS-D	4	--	11/21/2018 12:35:00 PM	J9416MSD-FS-D	3	1000	800	1.250	6.250	11/21/18 KB
J9416MSD-FS-D	5	C	11/21/2018 12:35:00 PM	J9416MSD-FS-D	3	1000	200	5.000	25.000	11/21/18 KB
J9416MSD-FS-D	6	--	11/21/2018 12:38:00 PM	J9416MSD-FS-D	5	1000	800	1.250	31.250	11/21/18 KB

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No.(s)100120725-
CTO5655**18-0686****CTO-5655: PFAS Analysis****W**

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J9416MSD-FS-D	7	--	11/21/2018 12:38:00 PM	J9416MSD-FS-D	5	1000	200	5.000	125.000	11/21/18 KB
J9417-FS	0	C	11/20/2018 10:55:00 AM	NA		NA	NA	1.000	1.000	11/20/18 KB
J9417-FS	2	C	11/21/2018 12:32:00 PM	J9417-FS	0	1000	800	1.250	1.250	11/21/18 KB
J9417-FS-D	3	C	11/21/2018 12:32:00 PM	J9417-FS	0	1000	200	5.000	5.000	11/21/18 KB
J9417-FS-D	4	C	11/21/2018 12:35:00 PM	J9417-FS-D	3	1000	800	1.250	6.250	11/21/18 KB
J9417-FS-D	5	C	11/21/2018 12:35:00 PM	J9417-FS-D	3	1000	200	5.000	25.000	11/21/18 KB
J9417-FS-D	6	--	11/21/2018 12:38:00 PM	J9417-FS-D	5	1000	800	1.250	31.250	11/21/18 KB
J9417-FS-D	7	--	11/21/2018 12:38:00 PM	J9417-FS-D	5	1000	200	5.000	125.000	11/21/18 KB
J9417-FS-D	8	--	11/27/2018 2:35:00 PM	J9417-FS-D	4	800	600	1.333	8.333	11/27/18 SAS
J9417-FS-D	9	C	11/27/2018 2:35:00 PM	J9417-FS-D	4	800	200	4.000	25.000	11/27/18 SAS
J9417-FS-D	10	--	11/27/2018 2:37:00 PM	J9417-FS-D	9	1000	800	1.250	31.250	11/27/18 SAS
J9417-FS-D	11	--	11/27/2018 2:37:00 PM	J9417-FS-D	9	1000	200	5.000	125.000	11/27/18 SAS
J9417-FS	12	--	11/28/2018 8:32:00 AM	J9417-FS	2	800	600	1.333	1.667	11/28/18 SAS
J9417-FS-D	13	C	11/28/2018 8:32:00 AM	J9417-FS	2	800	200	4.000	5.000	11/28/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis

Project No.(s)100120725-
CTO5655**18-0686****CTO-5655: PFAS Analysis****W**

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J9417-FS-D	14	--	11/28/2018 9:09:00 AM	J9417-FS-D	13	1000	800	1.250	6.250	11/28/18 SAS
J9417-FS-D	15	C	11/28/2018 9:09:00 AM	J9417-FS-D	13	1000	200	5.000	25.000	11/28/18 SAS
J9417-FS-D	16	--	11/28/2018 9:10:00 AM	J9417-FS-D	15	1000	800	1.250	31.250	11/28/18 SAS
J9417-FS-D	17	--	11/28/2018 9:10:00 AM	J9417-FS-D	15	1000	200	5.000	125.000	11/28/18 SAS
J9420-FS	0	--	11/20/2018 10:55:00 AM	NA		NA	NA	1.000	1.000	11/20/18 SAS

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686

CTO-5655: PFAS Analysis

W

Purpose: LC-MS/MS TRANSFER		Last Activity: Prep->Inst			
Relinquished On/By: Nov 21 2018 4:53PM KB		Received On/By: Nov 21 2018 5:11PM DMS			
Relinquished From: Sample Preparation: NA		Received Location: LC Laboratory: NA			
Relinquish Comment: NA		Received Comment: Samples reconstituted in 80/20 methanol/milli-q water RP-181121-1			
No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	CS243PB-FS(0)	1000	1	Intact	NA
2	CS244LCS-FS(0)	1000	1	Intact	NA
3	J9414-FS(0)	1000	1	Intact	NA
4	J9414-FS-D(3)	1000	5	Intact	NA
5	J9414-FS-D(5)	1000	25	Intact	NA
6	J9414-FS-D(7)	1000	125	Intact	NA
7	J9415MS-FS(0)	1000	1	Intact	NA
8	J9415MS-FS-D(3)	1000	5	Intact	NA
9	J9415MS-FS-D(5)	1000	25	Intact	NA
10	J9415MS-FS-D(7)	1000	125	Intact	NA
11	J9416MSD-FS(0)	1000	1	Intact	NA
12	J9416MSD-FS-D(3)	1000	5	Intact	NA
13	J9416MSD-FS-D(5)	1000	25	Intact	NA
14	J9416MSD-FS-D(7)	1000	125	Intact	NA
15	J9417-FS(0)	1000	1	Intact	NA
16	J9417-FS-D(3)	1000	5	Intact	NA
17	J9417-FS-D(5)	1000	25	Intact	NA
18	J9417-FS-D(7)	1000	125	Intact	NA
19	J9420-FS(0)	1000	1	Intact	NA
Total Extracts:		19			



It can be done

BATTELLE - NORWELL OPERATIONS EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686

CTO-5655: PFAS Analysis

W

Purpose: LC-MS/MS TRANSFER		Last Activity: Prep->Inst			
Relinquished On/By: Nov 27 2018 2:54PM SAS		Received On/By: Nov 27 2018 2:55PM LMG			
Relinquished From: Sample Preparation: NA		Received Location: LC Laboratory: NA			
Relinquish Comment: NA		Received Comment: Samples diluted in 80/20 methanol/milli-q water (RP-181127-4)			
No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	J9414-FS-D(9)	1000	25	Intact	NA
2	J9414-FS-D(11)	1000	125	Intact	NA
3	J9415MS-FS-D(9)	1000	250	Intact	NA
4	J9417-FS-D(9)	1000	25	Intact	NA
5	J9417-FS-D(11)	1000	125	Intact	NA
Total Extracts: 5					

Purpose: LC-MS/MS TRANSFER		Last Activity: Prep->Inst			
Relinquished On/By: Nov 28 2018 9:18AM SAS		Received On/By: Nov 28 2018 9:18AM LMG			
Relinquished From: Sample Preparation: NA		Received Location: LC Laboratory: NA			
Relinquish Comment: NA		Received Comment: Samples diluted in 80/20 methanol/milli-q water (RP-181128-1)			
No.	BDO-ID:	PIV:	DF:	Condition:	Custody Comment:
1	J9417-FS-D(13)	1000	5	Intact	NA
2	J9417-FS-D(15)	1000	25	Intact	NA
3	J9417-FS-D(17)	1000	125	Intact	NA
Total Extracts: 3					



It can be done

BATTELLE - NORWELL OPERATIONS SAMPLE SPECIFIC COMMENTS

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686

CTO-5655: PFAS Analysis

W

Sample ID:	Comment:	Date/Initials:
CS243PB-FS	Extraction started 10:55am, extraction block 1, ended at 11:49am	11/20/18 SAS
CS244LCS-FS	Extraction started 10:55am, extraction block 1, ended at 11:50am	11/20/18 SAS
J9414-FS	Extraction started 10:55am, extraction block 2, ended at 12:02pm	11/20/18 KB
J9415MS-FS	Extraction started 10:55am, extraction block 1, ended at 12:19pm	11/20/18 SAS
J9415MS-FS	Sample had floating particulates.	11/20/18 SAS
J9416MSD-FS	Extraction started 10:55am, extraction block 1, ended at 12:15pm	11/20/18 SAS
J9417-FS	Extraction started 10:55am, extraction block 2, ended at 12:06pm	11/20/18 KB
J9420-FS	Extraction started 10:55am, extraction block 1, ended at 11:50am	11/20/18 SAS



It can be done

**BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686

CTO-5655: PFAS Analysis

W

Entered By:

On:

Task Leader Approval:

On:

SupervisorApproval:

On:

PM Approval:

On:



It can be done

**BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

CTO-5655: Marine Corps Base Camp Lejeune PFAS
Analysis

Project No.(s)

100120725-
CTO5655

18-0686

CTO-5655: PFAS Analysis

W

Task Leader Approval:

On:

SupervisorApproval:

On:

PM Approval:

On:

Analytical Calibrations

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
8	CONDITIONER	Column Conditioner	11/21/2018 4:58:08 PM	5-0369.dam	AC_11212018_5-369.wiff
1	MeOH	Methanol	11/21/2018 5:09:00 PM	5-0369.dam	AC_11212018_5-369.wiff
1	MeOH	Methanol	11/21/2018 5:19:52 PM	5-0369.dam	AC_11212018_5-369.wiff
2	KC66	ICAL - L1	11/21/2018 5:30:46 PM	5-0369.dam	AC_11212018_5-369.wiff
3	KC67	ICAL - L2	11/21/2018 5:41:38 PM	5-0369.dam	AC_11212018_5-369.wiff
4	KC68	ICAL - L3	11/21/2018 5:52:32 PM	5-0369.dam	AC_11212018_5-369.wiff
5	KC69	ICAL - L4	11/21/2018 6:03:23 PM	5-0369.dam	AC_11212018_5-369.wiff
6	KC70	ICAL - L5	11/21/2018 6:14:15 PM	5-0369.dam	AC_11212018_5-369.wiff
7	KC71	ICAL - L6	11/21/2018 6:25:07 PM	5-0369.dam	AC_11212018_5-369.wiff
8	KC72	ICAL - L7	11/21/2018 6:35:58 PM	5-0369.dam	AC_11212018_5-369.wiff
9	KC73 IB	Instrument blank	11/21/2018 6:46:49 PM	5-0369.dam	AC_11212018_5-369.wiff
10	KC74 ICC	ICC	11/21/2018 6:57:42 PM	5-0369.dam	AC_11212018_5-369.wiff
11	KC75 Branch	Branched standard	11/21/2018 7:08:34 PM	5-0369.dam	AC_11212018_5-369.wiff
12	MeOH	Methanol	11/21/2018 7:19:26 PM	5-0369.dam	AC_11212018_5-369.wiff
13	CS196PB-FS(0)		11/21/2018 7:30:17 PM	5-0369.dam	AC_11212018_5-369.wiff
14	CS197LCS-FS(0)		11/21/2018 7:41:10 PM	5-0369.dam	AC_11212018_5-369.wiff
15	J9159-FS(0)		11/21/2018 7:52:01 PM	5-0369.dam	AC_11212018_5-369.wiff
16	KD94 CHK 1		11/21/2018 8:02:52 PM	5-0369.dam	AC_11212018_5-369.wiff
17	KD94 CHK 2		11/21/2018 8:13:44 PM	5-0369.dam	AC_11212018_5-369.wiff
18	KC70 CCV	KC70 CCV	11/21/2018 8:24:37 PM	5-0369.dam	AC_11212018_5-369.wiff
19	MeOH	Methanol	11/21/2018 8:35:28 PM	5-0369.dam	AC_11212018_5-369.wiff
20	CS235PB-FS(0)		11/21/2018 8:46:21 PM	5-0369.dam	AC_11212018_5-369.wiff
21	CS236LCS-FS(0)		11/21/2018 8:57:13 PM	5-0369.dam	AC_11212018_5-369.wiff
22	J9409-FS(0)		11/21/2018 9:08:05 PM	5-0369.dam	AC_11212018_5-369.wiff
23	J9410-FS(0)		11/21/2018 9:18:57 PM	5-0369.dam	AC_11212018_5-369.wiff
24	J9411-FS(0)		11/21/2018 9:29:49 PM	5-0369.dam	AC_11212018_5-369.wiff
25	J9411-FS-D(3)		11/21/2018 9:40:40	5-0369.dam	AC_11212018_5-

(1)

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
			PM		369.wiff
26	KC69 CCV	KC69 CCV	11/21/2018 9:51:32 PM	5-0369.dam	AC_11212018_5-369.wiff
27	MeOH	Methanol	11/21/2018 10:02:23 PM	5-0369.dam	AC_11212018_5-369.wiff
28	CS243PB-FS(0)	Procedural Blank	11/21/2018 10:13:14 PM	5-0369.dam	AC_11212018_5-369.wiff
29	CS244LCS-FS(0)	Laboratory Control Sample	11/21/2018 10:24:08 PM	5-0369.dam	AC_11212018_5-369.wiff
30	J9420-FS(0)	AS4141-FB-111618	11/21/2018 10:35:01 PM	5-0369.dam	AC_11212018_5-369.wiff
31	J9414-FS(0)	AS4141-EFF1-18D	11/21/2018 10:45:53 PM	5-0369.dam	AC_11212018_5-369.wiff
32	J9414-FS-D(3)	AS4141-EFF1-18D	11/21/2018 10:56:43 PM	5-0369.dam	AC_11212018_5-369.wiff
33	J9414-FS-D(5)	AS4141-EFF1-18D	11/21/2018 11:07:35 PM	5-0369.dam	AC_11212018_5-369.wiff
34	J9414-FS-D(7)	AS4141-EFF1-18D	11/21/2018 11:18:26 PM	5-0369.dam	AC_11212018_5-369.wiff
35	J9415MS-FS(0)	AS4141-EFF1-18D-MS	11/21/2018 11:29:18 PM	5-0369.dam	AC_11212018_5-369.wiff
36	J9415MS-FS-D(3)	AS4141-EFF1-18D-MS	11/21/2018 11:40:09 PM	5-0369.dam	AC_11212018_5-369.wiff
37	J9415MS-FS-D(5)	AS4141-EFF1-18D-MS	11/21/2018 11:51:01 PM	5-0369.dam	AC_11212018_5-369.wiff
38	KC70 CCV	KC70 CCV	11/22/2018 12:01:53 AM	5-0369.dam	AC_11212018_5-369.wiff
39	MeOH	Methanol	11/22/2018 12:12:46 AM	5-0369.dam	AC_11212018_5-369.wiff
40	J9415MS-FS-D(7)	AS4141-EFF1-18D-MS	11/22/2018 12:23:39 AM	5-0369.dam	AC_11212018_5-369.wiff
41	J9416MSD-FS(0)	AS4141-EFF1-18D-SD	11/22/2018 12:34:31 AM	5-0369.dam	AC_11212018_5-369.wiff
42	J9416MSD-FS-D(3)	AS4141-EFF1-18D-SD	11/22/2018 12:45:22 AM	5-0369.dam	AC_11212018_5-369.wiff
43	J9416MSD-FS-D(5)	AS4141-EFF1-18D-SD	11/22/2018 12:56:15 AM	5-0369.dam	AC_11212018_5-369.wiff
44	J9416MSD-FS-D(7)	AS4141-EFF1-18D-SD	11/22/2018 1:07:07 AM	5-0369.dam	AC_11212018_5-369.wiff
45	J9417-FS(0)	AS4141-EFF1D-18D	11/22/2018 1:17:59 AM	5-0369.dam	AC_11212018_5-369.wiff
46	J9417-FS-D(3)	AS4141-EFF1D-18D	11/22/2018 1:28:51 AM	5-0369.dam	AC_11212018_5-369.wiff
47	J9417-FS-D(5)	AS4141-EFF1D-18D	11/22/2018 1:39:43 AM	5-0369.dam	AC_11212018_5-369.wiff
48	J9417-FS-D(7)	AS4141-EFF1D-18D	11/22/2018 1:50:35 AM	5-0369.dam	AC_11212018_5-369.wiff
49	KC69 CCV	KC69 CCV	11/22/2018 2:01:26 AM	5-0369.dam	AC_11212018_5-369.wiff
50	MeOH	Methanol	11/22/2018 2:12:18 AM	5-0369.dam	AC_11212018_5-369.wiff
51	CS241PB-FS(0)		11/22/2018 2:23:09 AM	5-0369.dam	AC_11212018_5-369.wiff

(3)

(2)

(2)

(2)

(1)

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
52	CS242LCS-FS(0)		11/22/2018 2:34:01 AM	5-0369.dam	AC_11212018_5-369.wiff
53	J9419-FS(0)		11/22/2018 2:44:55 AM	5-0369.dam	AC_11212018_5-369.wiff
54	J9412-FS(0)		11/22/2018 2:55:46 AM	5-0369.dam	AC_11212018_5-369.wiff
1	J9412-FS-D(3)		11/22/2018 3:06:39 AM	5-0369.dam	AC_11212018_5-369.wiff
2	J9412-FS-D(5)		11/22/2018 3:17:32 AM	5-0369.dam	AC_11212018_5-369.wiff
3	J9412-FS-D(7)		11/22/2018 3:28:25 AM	5-0369.dam	AC_11212018_5-369.wiff
4	J9412-FS-D(9)		11/22/2018 3:39:18 AM	5-0369.dam	AC_11212018_5-369.wiff
5	J9413-FS(0)		11/22/2018 3:50:10 AM	5-0369.dam	AC_11212018_5-369.wiff
6	J9413-FS-D(3)		11/22/2018 4:01:03 AM	5-0369.dam	AC_11212018_5-369.wiff
7	KC70 CCV	KC70 CCV	11/22/2018 4:11:56 AM	5-0369.dam	AC_11212018_5-369.wiff
8	MeOH	Methanol	11/22/2018 4:22:48 AM	5-0369.dam	AC_11212018_5-369.wiff
9	J9413-FS-D(5)		11/22/2018 4:33:41 AM	5-0369.dam	AC_11212018_5-369.wiff
10	J9413-FS-D(7)		11/22/2018 4:44:33 AM	5-0369.dam	AC_11212018_5-369.wiff
11	J9413-FS-D(9)		11/22/2018 4:55:27 AM	5-0369.dam	AC_11212018_5-369.wiff
12	J9418-FS(0)		11/22/2018 5:06:20 AM	5-0369.dam	AC_11212018_5-369.wiff
13	J9418-FS-D(3)		11/22/2018 5:17:12 AM	5-0369.dam	AC_11212018_5-369.wiff
14	J9418-FS-D(5)		11/22/2018 5:28:04 AM	5-0369.dam	AC_11212018_5-369.wiff
15	J9418-FS-D(7)		11/22/2018 5:38:59 AM	5-0369.dam	AC_11212018_5-369.wiff
16	J9421-FS(0)		11/22/2018 5:49:52 AM	5-0369.dam	AC_11212018_5-369.wiff
17	J9421-FS-D(3)		11/22/2018 6:00:44 AM	5-0369.dam	AC_11212018_5-369.wiff
18	J9421-FS-D(5)		11/22/2018 6:11:37 AM	5-0369.dam	AC_11212018_5-369.wiff
7	KC70 CCV	KC70 CCV	11/22/2018 8:26:25 PM	5-0369.dam	AC_11212018_5-369.wiff
8	MeOH	Methanol	11/22/2018 8:38:10 PM	5-0369.dam	AC_11212018_5-369.wiff
9	J9413-FS-D(5)		11/22/2018 8:49:02 PM	5-0369.dam	AC_11212018_5-369.wiff
10	J9413-FS-D(7)		11/22/2018 8:59:54 PM	5-0369.dam	AC_11212018_5-369.wiff
11	J9413-FS-D(9)		11/22/2018 9:10:48 PM	5-0369.dam	AC_11212018_5-369.wiff
12	J9418-FS(0)		11/22/2018 9:21:38	5-0369.dam	AC_11212018_5-

(1)

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
			PM		369.wiff
13	J9418-FS-D(3)		11/22/2018 9:32:31 PM	5-0369.dam	AC_11212018_5-369.wiff
14	J9418-FS-D(5)		11/22/2018 9:43:24 PM	5-0369.dam	AC_11212018_5-369.wiff
15	J9418-FS-D(7)		11/22/2018 9:54:17 PM	5-0369.dam	AC_11212018_5-369.wiff
16	J9421-FS(0)		11/22/2018 10:05:09 PM	5-0369.dam	AC_11212018_5-369.wiff
17	J9421-FS-D(3)		11/22/2018 10:16:02 PM	5-0369.dam	AC_11212018_5-369.wiff
18	J9421-FS-D(5)		11/22/2018 10:26:54 PM	5-0369.dam	AC_11212018_5-369.wiff

(1)

(1) Samples do not apply to this batch. LMG 11/28/18

(2) Please see misc doc for details. LMG 11/28/18

(3) Sample was realiquoted and reanalyzed due to high matrix spike recoveries for PFNA and NEtFOSAA. The reanalysis was reported with acceptable results for PFNA. NEtFOSAA was recovered above the upper calibration limit in the reanalysis and so was reported from the D(3) extract of the sample. LMG 11/28/18



Sequence Report

Created with Analyst Reporter
 Printed: 28/11/2018 9:52:11 AM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	MEOH		11/26/2018 4:00:39 PM	5-0369.dam	AC_11262018_5-369.wiff
2	KC72		11/26/2018 4:11:32 PM	5-0369.dam	AC_11262018_5-369.wiff
1	MEOH		11/26/2018 4:22:25 PM	5-0369.dam	AC_11262018_5-369.wiff
2	KC72		11/26/2018 4:33:19 PM	5-0369.dam	AC_11262018_5-369.wiff
1	MEOH		11/26/2018 4:44:12 PM	5-0369.dam	AC_11262018_5-369.wiff
2	KC72		11/26/2018 4:55:06 PM	5-0369.dam	AC_11262018_5-369.wiff
3	KC73 IB		11/26/2018 5:05:59 PM	5-0369.dam	AC_11262018_5-369.wiff
4	KC68 ISC		11/26/2018 5:16:51 PM	5-0369.dam	AC_11262018_5-369.wiff
5	KC98 CHECK-1		11/26/2018 5:27:42 PM	5-0369.dam	AC_11262018_5-369.wiff
6	KC98 CHECK-2		11/26/2018 5:38:35 PM	5-0369.dam	AC_11262018_5-369.wiff
7	KD57 CHECK-1		11/26/2018 5:49:25 PM	5-0369.dam	AC_11262018_5-369.wiff
8	KD57 CHECK-2		11/26/2018 6:00:16 PM	5-0369.dam	AC_11262018_5-369.wiff
9	KE11 CHECK-1		11/26/2018 6:11:08 PM	5-0369.dam	AC_11262018_5-369.wiff
10	KE11 CHECK-2		11/26/2018 6:22:00 PM	5-0369.dam	AC_11262018_5-369.wiff
11	KE11 CHECK-1 LCS		11/26/2018 6:32:51 PM	5-0369.dam	AC_11262018_5-369.wiff
12	KE11 CHECK-2 LCS		11/26/2018 6:43:44 PM	5-0369.dam	AC_11262018_5-369.wiff
13	KC69		11/26/2018 6:54:36 PM	5-0369.dam	AC_11262018_5-369.wiff
1	MEOH		11/27/2018 9:42:01 AM	5-0369.dam	AC_11262018_5-369.wiff
2	KC72		11/27/2018 9:52:55 AM	5-0369.dam	AC_11262018_5-369.wiff
1	MEOH		11/27/2018 10:03:50 AM	5-0369.dam	AC_11262018_5-369.wiff
2	KC72		11/27/2018 10:14:43 AM	5-0369.dam	AC_11262018_5-369.wiff
1	MEOH		11/27/2018 10:25:36 AM	5-0369.dam	AC_11262018_5-369.wiff
2	KC72		11/27/2018 10:36:27 AM	5-0369.dam	AC_11262018_5-369.wiff
3	KC73 IB	IB	11/27/2018 10:47:20 AM	5-0369.dam	AC_11262018_5-369.wiff
4	KC68 ISC	ISC	11/27/2018 10:58:13 AM	5-0369.dam	AC_11262018_5-369.wiff

(1)

(1) Samples do not apply to this batch. LMG 11/28/18



Sequence Report

Created with Analyst Reporter
Printed: 28/11/2018 9:56:34 AM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File	
5	J9414-FS-D(5)	AS4141-EFF1-18D	11/27/2018 11:09:06 AM	5-0369.dam	AC_11272018_5-369.wiff	(2)
6	J9414-FS-D(7)	AS4141-EFF1-18D	11/27/2018 11:19:58 AM	5-0369.dam	AC_11272018_5-369.wiff	(2)
7	J9417-FS-D(5)	AS4141-EFF1D-18D	11/27/2018 11:30:48 AM	5-0369.dam	AC_11272018_5-369.wiff	(3)
8	J9417-FS-D(7)	AS4141-EFF1D-18D	11/27/2018 11:41:38 AM	5-0369.dam	AC_11272018_5-369.wiff	(3)
9	J9415MS-FS(0)	AS4141-EFF1-18D-MS	11/27/2018 11:52:28 AM	5-0369.dam	AC_11272018_5-369.wiff	
1	MEOH		11/27/2018 12:03:19 PM	5-0369.dam	AC_11272018_5-369.wiff	
10	KC69	CCV	11/27/2018 12:14:12 PM	5-0369.dam	AC_11272018_5-369.wiff	
1	MEOH		11/27/2018 1:38:16 PM	5-0369.dam	AC_11272018_5-369.wiff	
1	MEOH		11/27/2018 1:49:22 PM	5-0369.dam	AC_11272018_5-369.wiff	
1	MEOH		11/27/2018 2:00:17 PM	5-0369.dam	AC_11272018_5-369.wiff	
4	KC68 CCV	CCV	11/27/2018 2:11:09 PM	5-0369.dam	AC_11272018_5-369.wiff	
1	MEOH		11/27/2018 2:37:22 PM	5-0369.dam	AC_11272018_5-369.wiff	
1	MEOH		11/27/2018 2:51:50 PM	5-0369.dam	AC_11272018_5-369.wiff	
11	J9414-FS-D(9)	AS4141-EFF1-18D	11/27/2018 3:06:59 PM	5-0369.dam	AC_11272018_5-369.wiff	(2)
12	J9414-FS-D(11)	AS4141-EFF1-18D	11/27/2018 3:17:52 PM	5-0369.dam	AC_11272018_5-369.wiff	(2)
13	J9417-FS-D(9)	AS4141-EFF1D-18D	11/27/2018 3:28:45 PM	5-0369.dam	AC_11272018_5-369.wiff	(3)
14	J9417-FS-D(11)	AS4141-EFF1D-18D	11/27/2018 3:39:37 PM	5-0369.dam	AC_11272018_5-369.wiff	(3)
15	J9415MS-FS-D(9)	AS4141-EFF1-18D-MS	11/27/2018 3:50:29 PM	5-0369.dam	AC_11272018_5-369.wiff	
16	KC69	CCV	11/27/2018 4:01:22 PM	5-0369.dam	AC_11272018_5-369.wiff	
17	CS236L CS-FS(0)		11/27/2018 4:12:14 PM	5-0369.dam	AC_11272018_5-369.wiff	(1)
18	J9410-FS(0)		11/27/2018 4:23:07 PM	5-0369.dam	AC_11272018_5-369.wiff	
19	KC68	CCV	11/27/2018 4:33:58 PM	5-0369.dam	AC_11272018_5-369.wiff	

(1) Samples do not apply to this batch. LMG 11/28/18

(2) Samples were reanalyzed for confirmation only and were not reported. LMG 11/28/18

(3) Please see misc doc for details. LMG 11/28/18

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
2	KC72	Conditioner	11/28/2018 9:53:57 AM	5-0369.dam	AC_11282018_5-369.wiff
3	KC73 IB	Instrument Blank	11/28/2018 10:04:50 AM	5-0369.dam	AC_11282018_5-369.wiff
4	KC69 ISC	ISC	11/28/2018 10:15:42 AM	5-0369.dam	AC_11282018_5-369.wiff
5	J9417-FS-D(13)	AS4141-EFF1D-18D	11/28/2018 10:26:35 AM	5-0369.dam	AC_11282018_5-369.wiff
6	J9417-FS-D(15)	AS4141-EFF1D-18D	11/28/2018 10:37:28 AM	5-0369.dam	AC_11282018_5-369.wiff
7	J9417-FS-D(17)	AS4141-EFF1D-18D	11/28/2018 10:48:21 AM	5-0369.dam	AC_11282018_5-369.wiff
8	KC70	CCV	11/28/2018 10:59:11 AM	5-0369.dam	AC_11282018_5-369.wiff
1	MEOH		11/28/2018 11:14:47 AM	5-0369.dam	AC_11282018_5-369.wiff
1	MEOH		11/28/2018 12:02:16 PM	5-0369.dam	AC_11282018_5-369.wiff
7	J9417-FS-D(17)	AS4141-EFF1D-18D	11/28/2018 12:13:10 PM	5-0369.dam	AC_11282018_5-369.wiff
9	KC68	CCV	11/28/2018 12:24:05 PM	5-0369.dam	AC_11282018_5-369.wiff

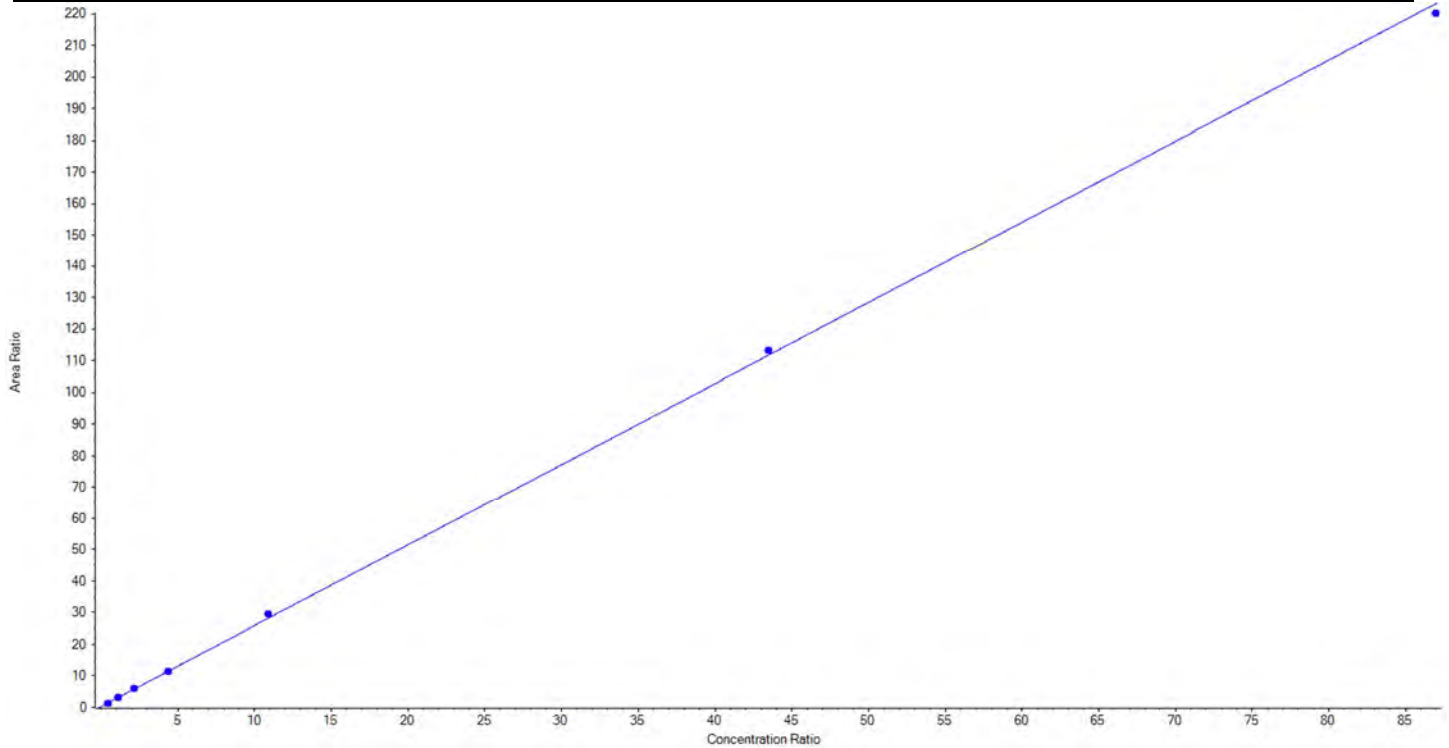
(1)

(1) Only the surrogates d3-MeFOSAA and d5-EtFOSAA were reported from this reanalysis. Please see misc doc for details. LMG 11/28/18

Analyte Name	PFBS_1	Data File	AC_11212018_5-369.wiff
MRM Transition	298.9 / 80.0	Result Table	18-0686
Internal Standard	13C3-PFBS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 2.56347 x + 0.28246$ (r = 0.99979) (weighting: 1 / x)

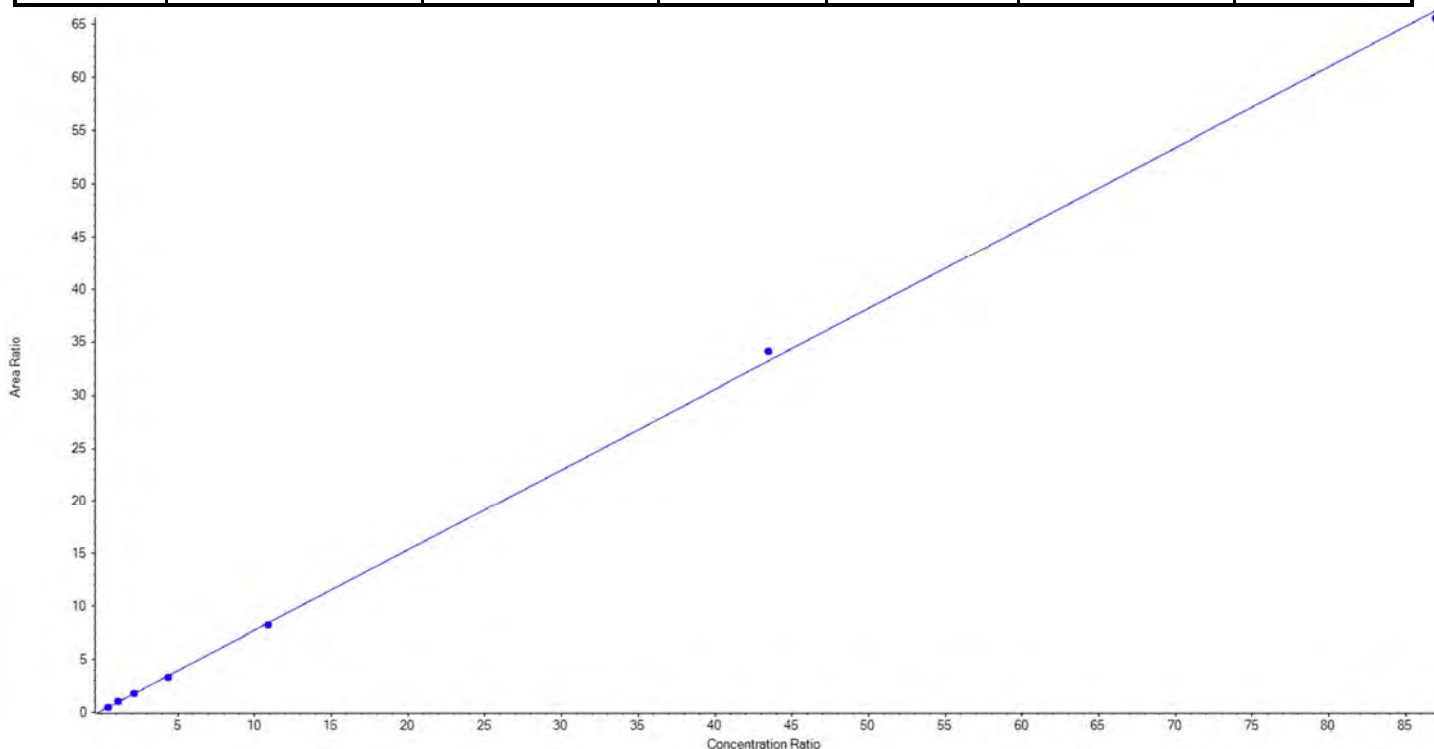
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	101.000	89.956	89.1
3	KC67	L2	True	252.500	263.111	104.2
4	KC68	L3	True	505.000	518.569	102.7
5	KC69	L4	True	1010.000	1001.658	99.2
6	KC70	L5	True	2525.000	2644.927	104.8
7	KC71	L6	True	10100.000	10249.301	101.5
8	KC72	L7	True	20200.000	19925.978	98.6



Analyte Name	PFBS_2	Data File	AC_11212018_5-369.wiff
MRM Transition	298.9 / 99.0	Result Table	18-0686
Internal Standard	13C3-PFBS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.76099x + 0.14048$ (r = 0.99968) (weighting: 1 / x)

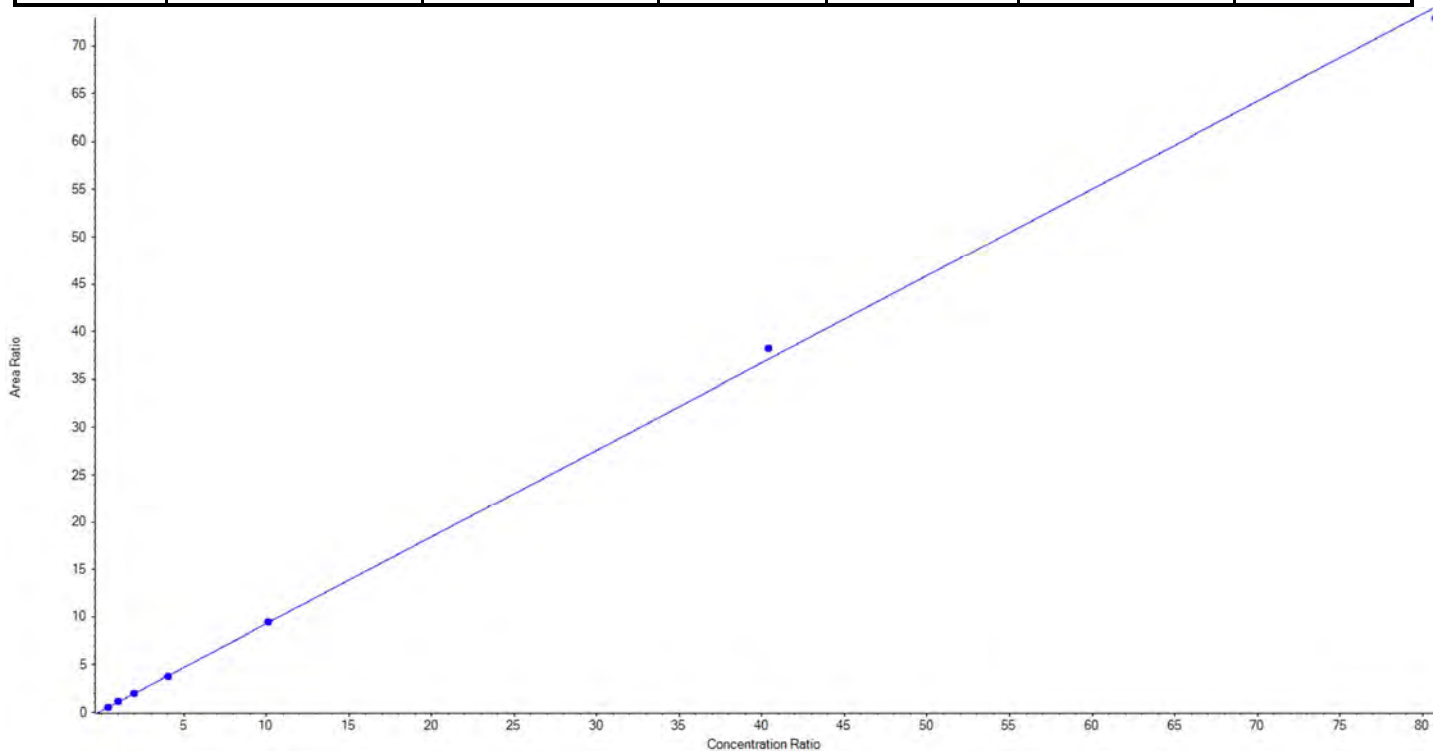
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	101.000	90.379	89.5
3	KC67	L2	True	252.500	288.738	114.4
4	KC68	L3	True	505.000	512.740	101.5
5	KC69	L4	True	1010.000	956.424	94.7
6	KC70	L5	True	2525.000	2479.672	98.2
7	KC71	L6	True	10100.000	10384.247	102.8
8	KC72	L7	True	20200.000	19981.301	98.9



Analyte Name	PFHxA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	313.0 / 269.0	Result Table	18-0686
Internal Standard	13C5-PFHxA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.91511 x + 0.13964$ (r = 0.99976) (weighting: 1 / x)

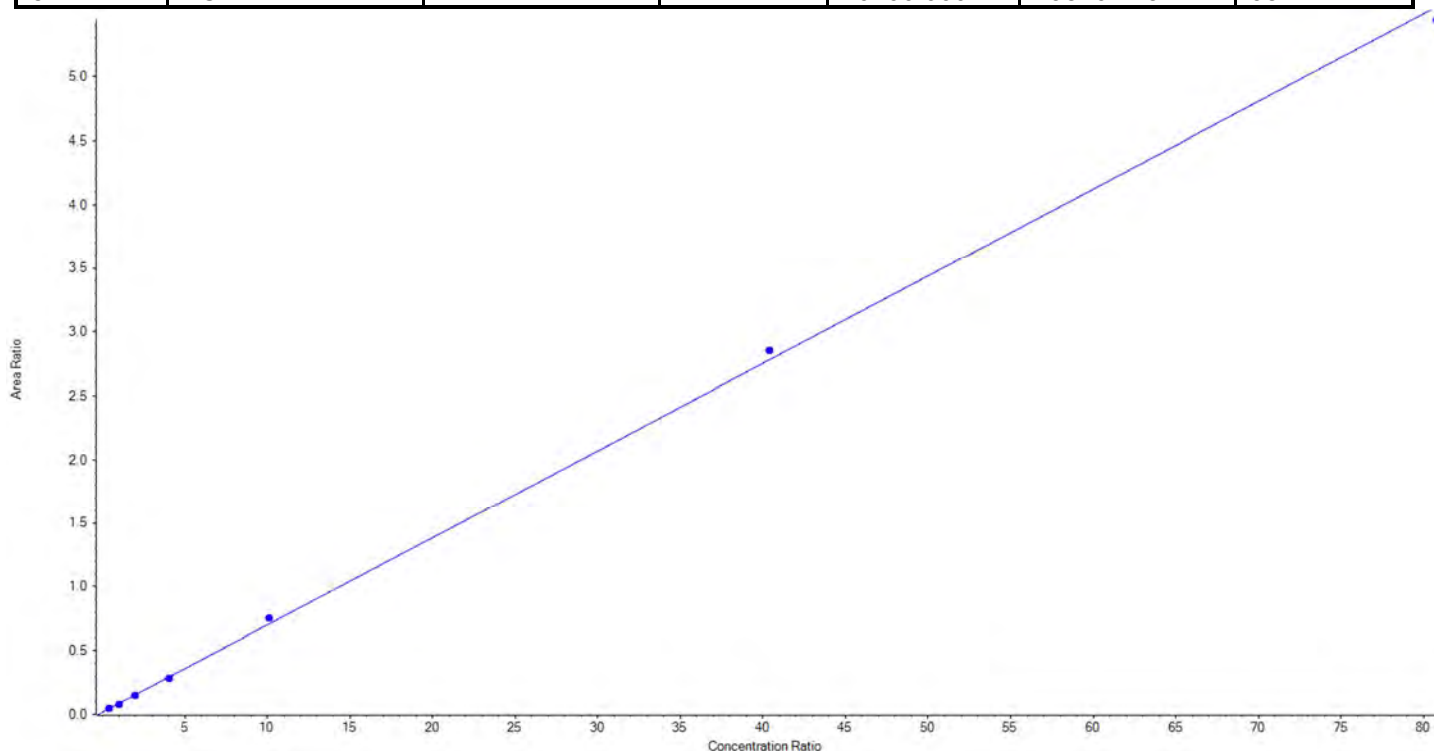
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	101.000	95.061	94.1
3	KC67	L2	True	252.500	266.903	105.7
4	KC68	L3	True	505.000	495.926	98.2
5	KC69	L4	True	1010.000	1004.311	99.4
6	KC70	L5	True	2525.000	2554.843	101.2
7	KC71	L6	True	10100.000	10397.007	102.9
8	KC72	L7	True	20200.000	19879.449	98.4



Analyte Name	PFHxA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	313.0 / 119.0	Result Table	18-0686
Internal Standard	13C5-PFHxA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.06846 x + 0.01565$ (r = 0.99951) (weighting: 1 / x)

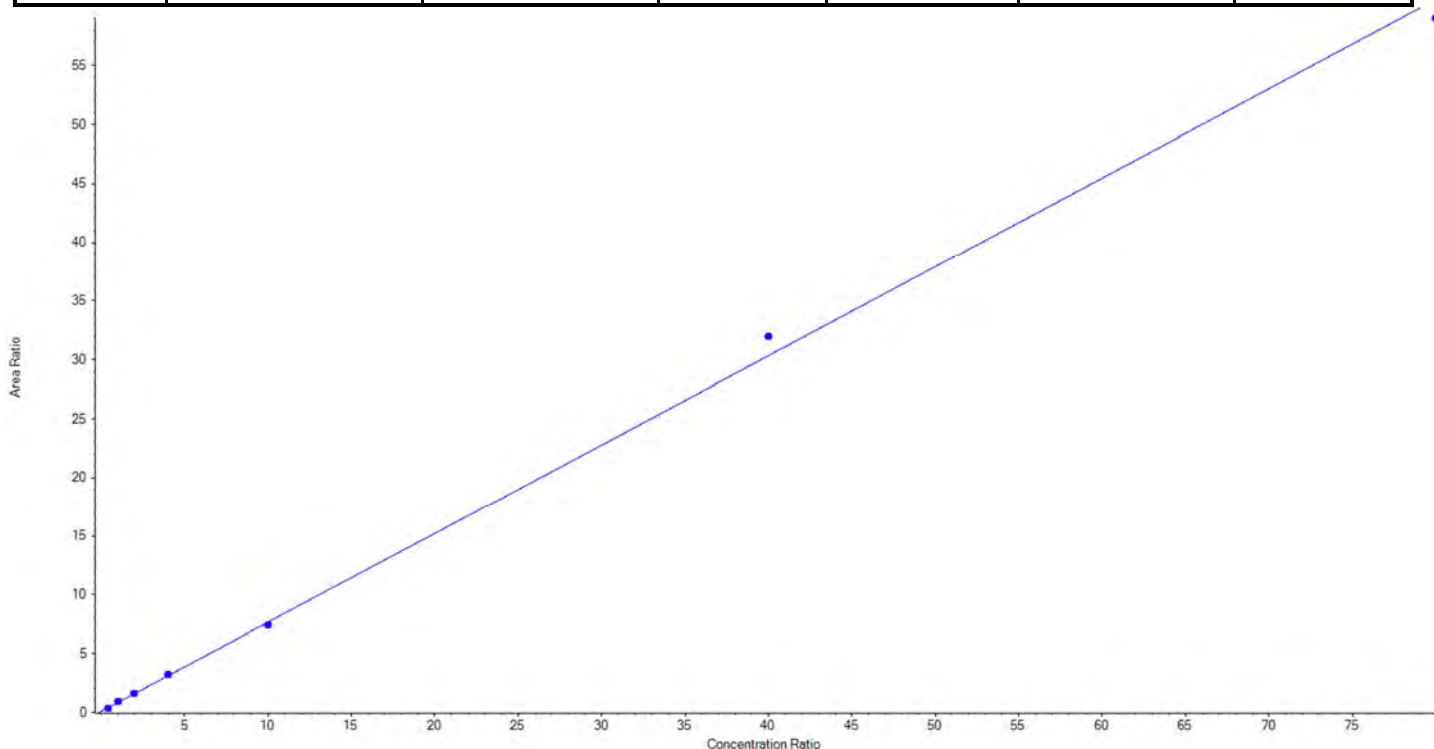
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	101.000	106.830	105.8
3	KC67	L2	True	252.500	237.770	94.2
4	KC68	L3	True	505.000	487.588	96.6
5	KC69	L4	True	1010.000	965.202	95.6
6	KC70	L5	True	2525.000	2704.907	107.1
7	KC71	L6	True	10100.000	10374.479	102.7
8	KC72	L7	True	20200.000	19816.725	98.1



Analyte Name	PFHpA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	363.0 / 319.0	Result Table	18-0686
Internal Standard	13C4-PFHpA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.75624 x + 0.08568$ (r = 0.99912) (weighting: 1 / x)

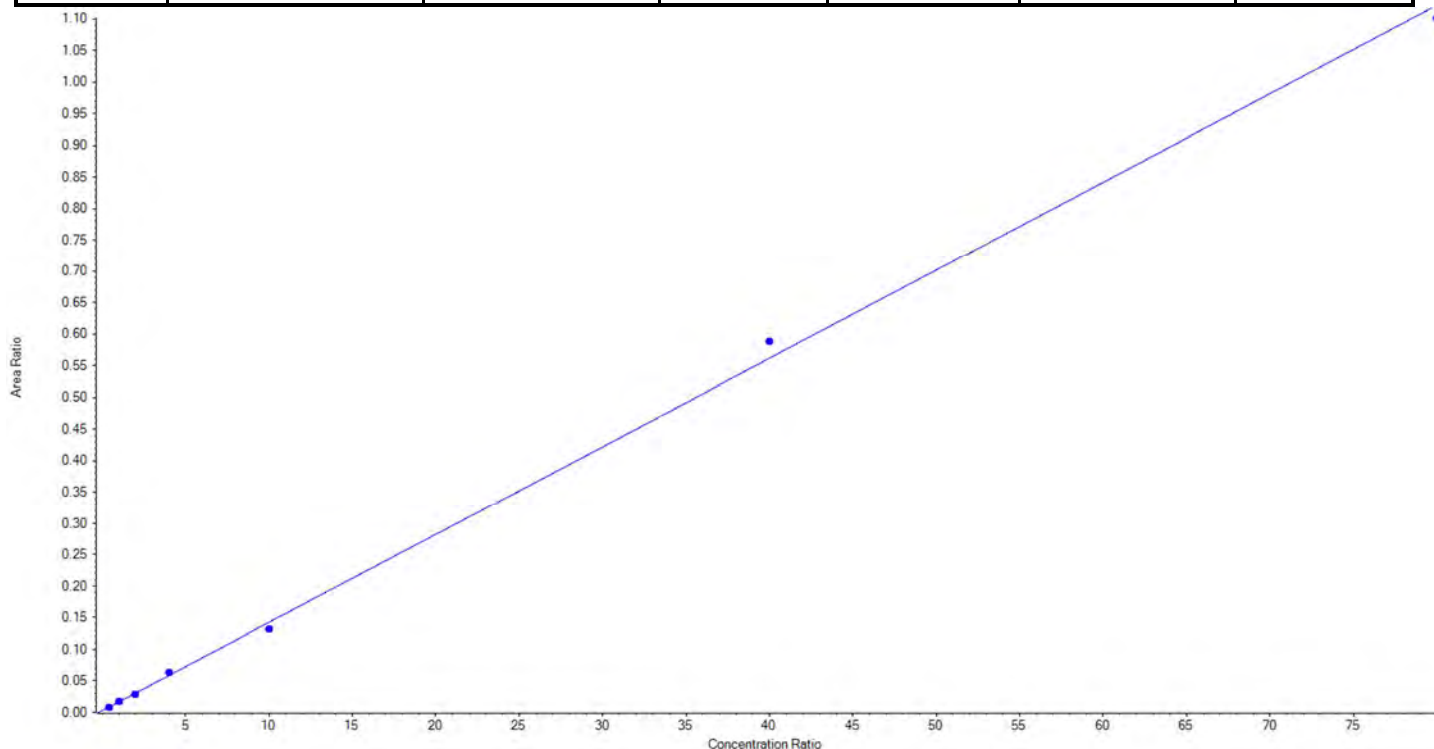
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	81.472	81.5
3	KC67	L2	True	250.000	285.632	114.3
4	KC68	L3	True	500.000	502.446	100.5
5	KC69	L4	True	1000.000	1041.125	104.1
6	KC70	L5	True	2500.000	2422.108	96.9
7	KC71	L6	True	10000.000	10540.565	105.4
8	KC72	L7	True	20000.000	19476.652	97.4



Analyte Name	PFHpA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	363.0 / 169.0	Result Table	18-0686
Internal Standard	13C4-PFHpA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.01398 x + 0.00260$ (r = 0.99908) (weighting: 1 / x)

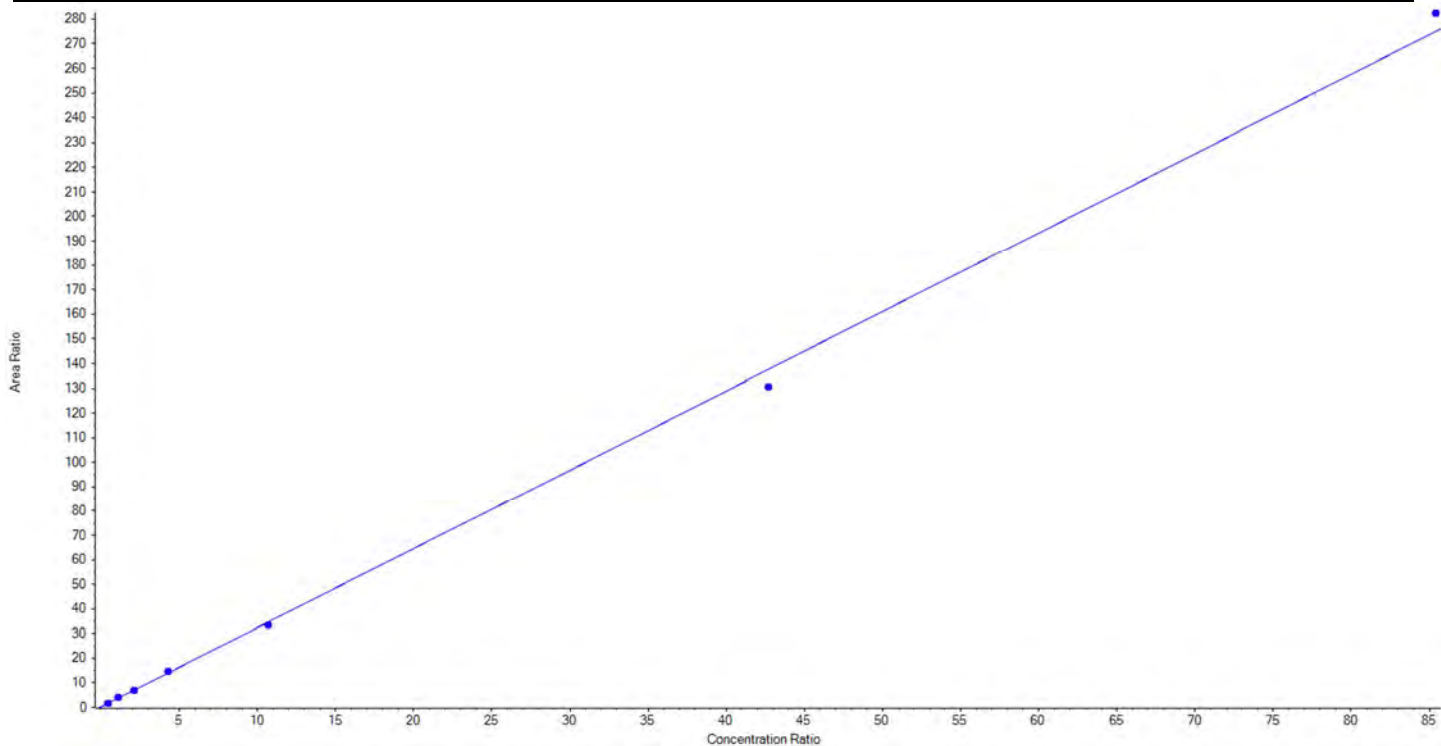
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	94.095	94.1
3	KC67	L2	True	250.000	268.539	107.4
4	KC68	L3	True	500.000	470.294	94.1
5	KC69	L4	True	1000.000	1092.912	109.3
6	KC70	L5	True	2500.000	2302.554	92.1
7	KC71	L6	True	10000.000	10485.941	104.9
8	KC72	L7	True	20000.000	19635.666	98.2



Analyte Name	PFHxS_1	Data File	AC_11212018_5-369.wiff
MRM Transition	399.0 / 80.0	Result Table	18-0686
Internal Standard	13C3-PFHxS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 3.21721 x + 0.21589$ (r = 0.99926) (weighting: 1 / x)

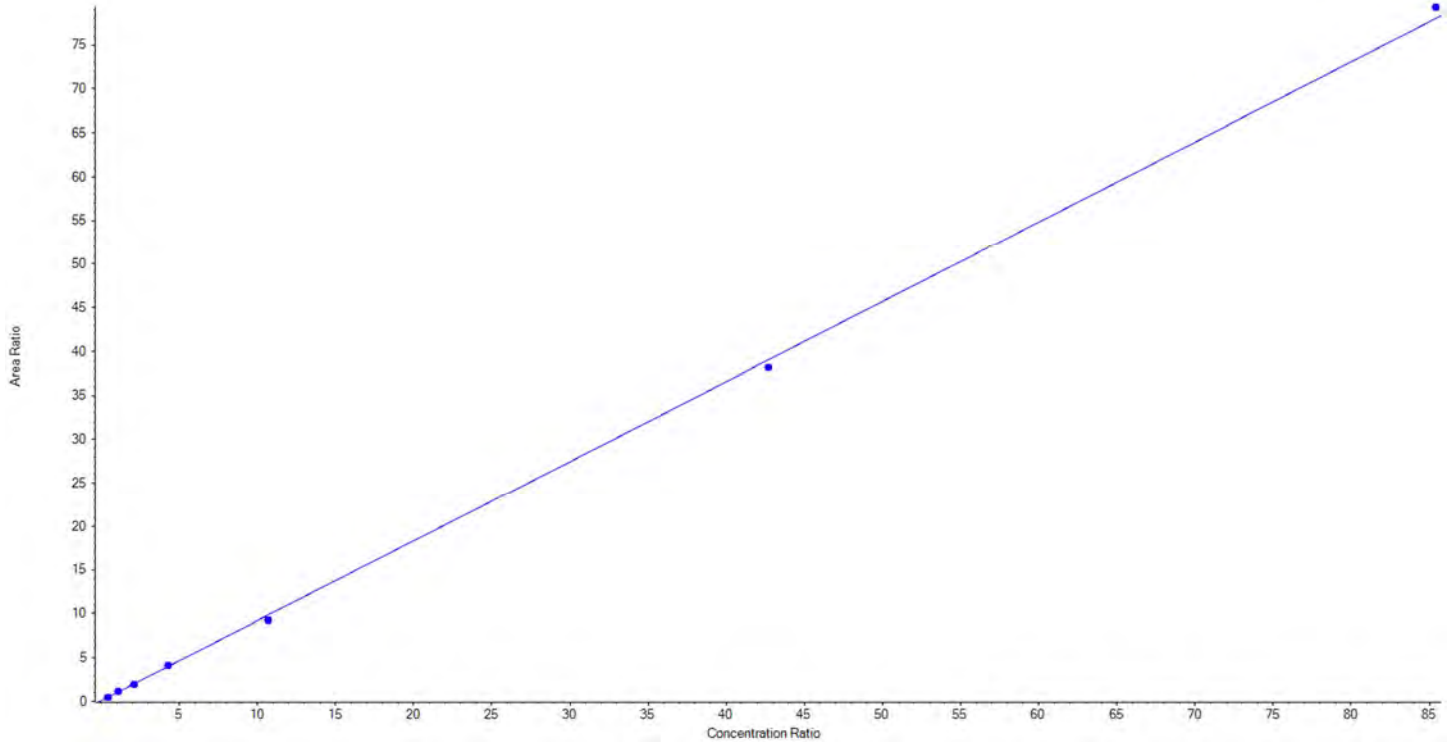
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	101.000	94.770	93.8
3	KC67	L2	True	252.500	270.836	107.3
4	KC68	L3	True	505.000	507.136	100.4
5	KC69	L4	True	1010.000	1053.727	104.3
6	KC70	L5	True	2525.000	2437.951	96.6
7	KC71	L6	True	10100.000	9586.477	94.9
8	KC72	L7	True	20200.000	20742.603	102.7



Analyte Name	PFHxS_2	Data File	AC_11212018_5-369.wiff
MRM Transition	399.0 / 99.0	Result Table	18-0686
Internal Standard	13C3-PFHxS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.91242 x + 0.08098$ (r = 0.99964) (weighting: 1 / x)

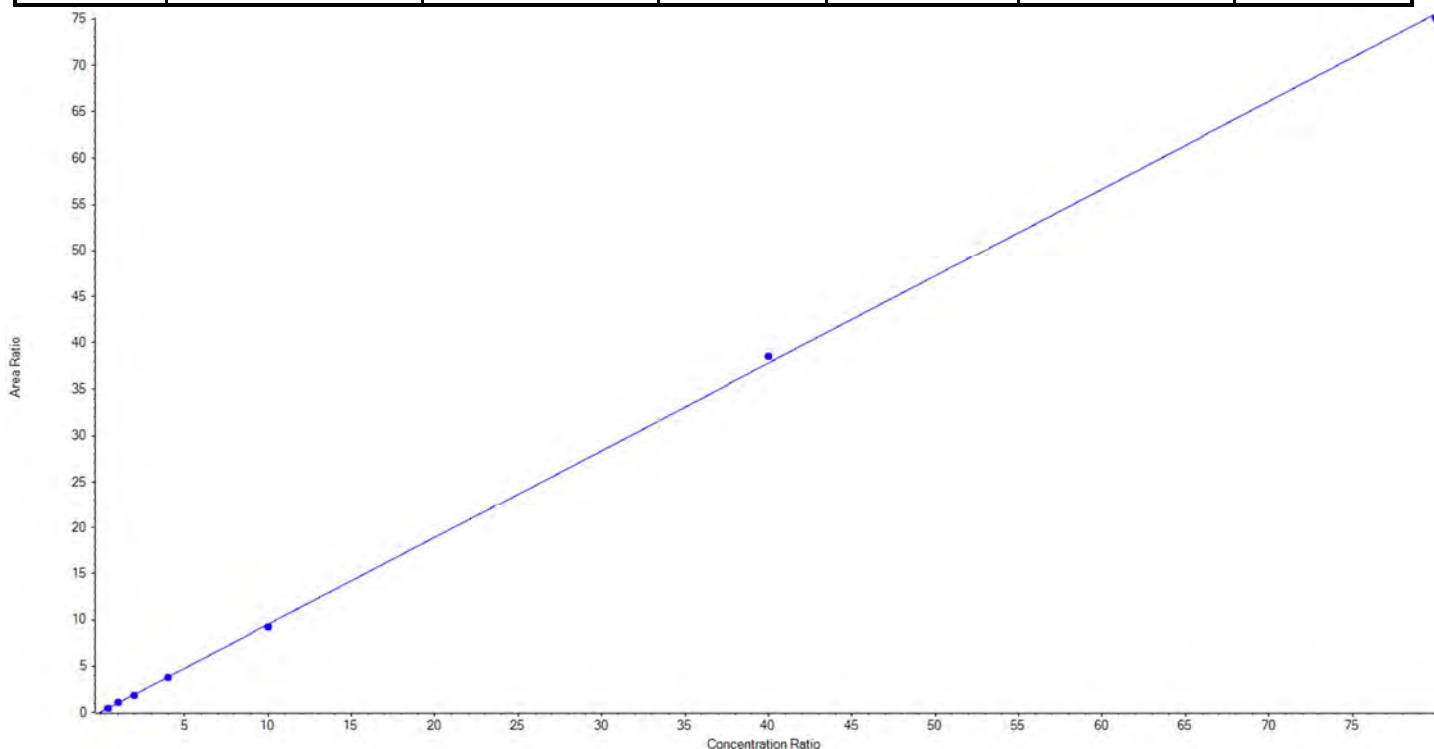
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	101.000	98.902	97.9
3	KC67	L2	True	252.500	271.206	107.4
4	KC68	L3	True	505.000	493.544	97.7
5	KC69	L4	True	1010.000	1046.780	103.6
6	KC70	L5	True	2525.000	2369.157	93.8
7	KC71	L6	True	10100.000	9878.690	97.8
8	KC72	L7	True	20200.000	20535.222	101.7



Analyte Name	PFOA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	413.0 / 369.0	Result Table	18-0686
Internal Standard	13C8-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.94367 x + 0.05468$ (r = 0.99985) (weighting: 1 / x)

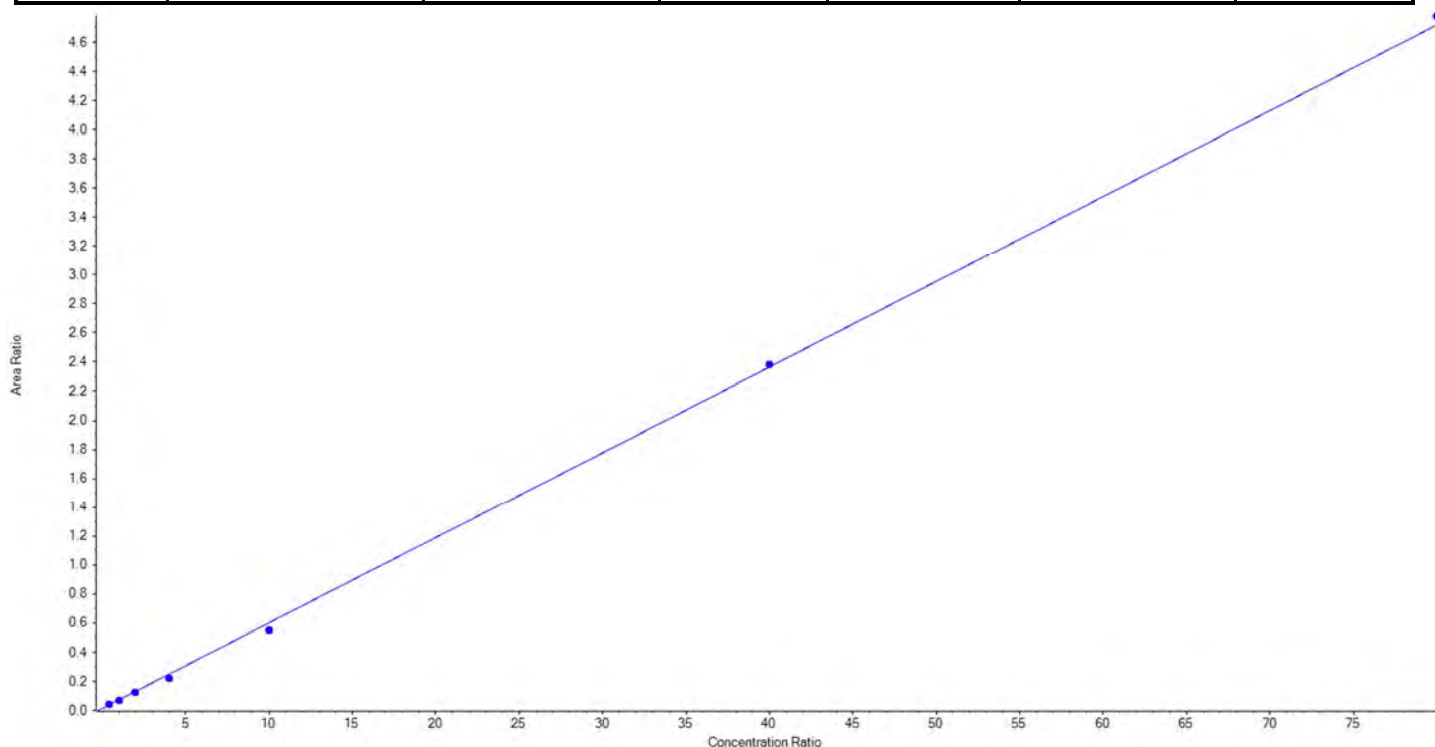
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	96.936	96.9
3	KC67	L2	True	250.000	272.887	109.2
4	KC68	L3	True	500.000	479.794	96.0
5	KC69	L4	True	1000.000	993.126	99.3
6	KC70	L5	True	2500.000	2431.596	97.3
7	KC71	L6	True	10000.000	10199.185	102.0
8	KC72	L7	True	20000.000	19876.476	99.4



Analyte Name	PFOA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	413.0 / 169.0	Result Table	18-0686
Internal Standard	13C8-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.05881 x + 0.01334$ (r = 0.99932) (weighting: 1 / x)

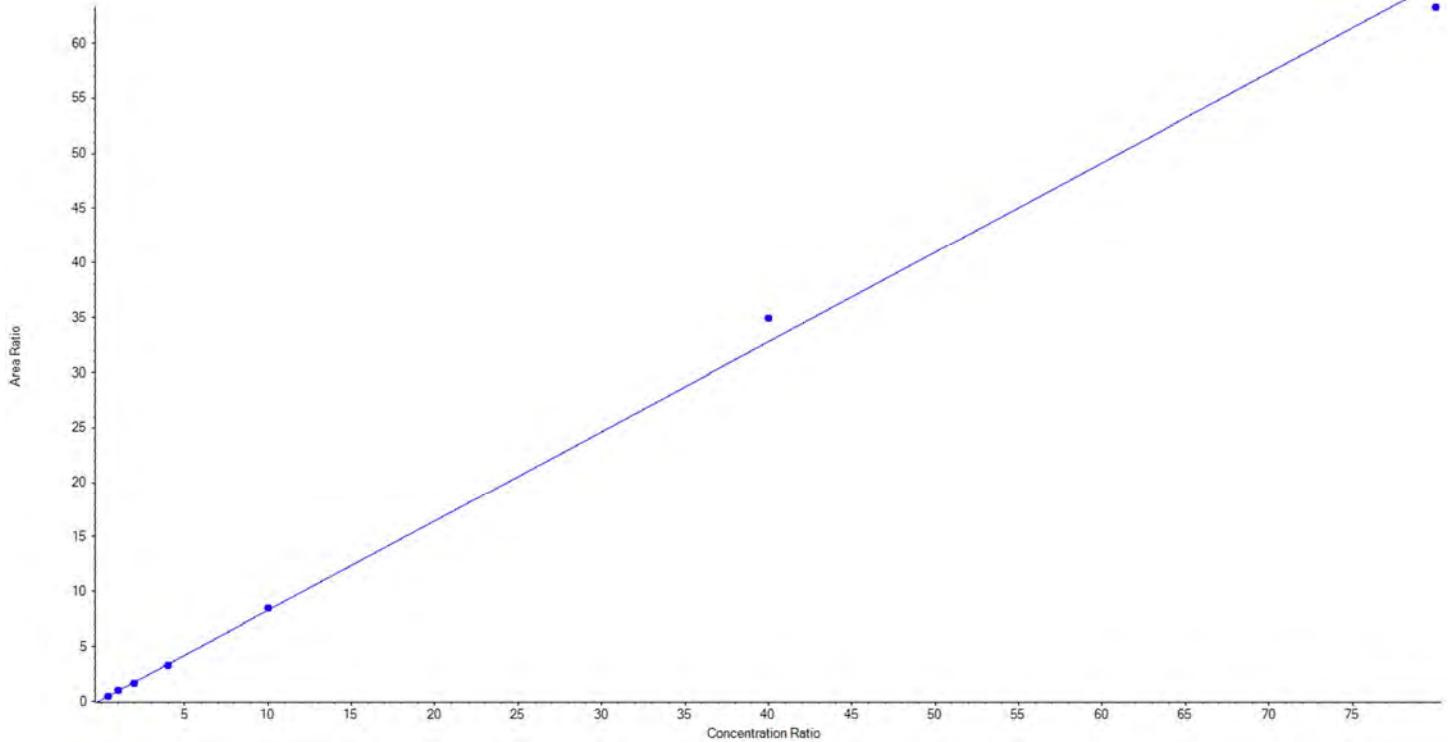
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	126.704	126.7
3	KC67	L2	True	250.000	244.723	97.9
4	KC68	L3	True	500.000	465.660	93.1
5	KC69	L4	True	1000.000	882.737	88.3
6	KC70	L5	True	2500.000	2299.526	92.0
7	KC71	L6	True	10000.000	10073.469	100.7
8	KC72	L7	True	20000.000	20257.182	101.3



Analyte Name	PFNA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	463.0 / 419.0	Result Table	18-0686
Internal Standard	13C9-PFNA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.81700 x + 0.11680$ (r = 0.99885) (weighting: 1 / x)

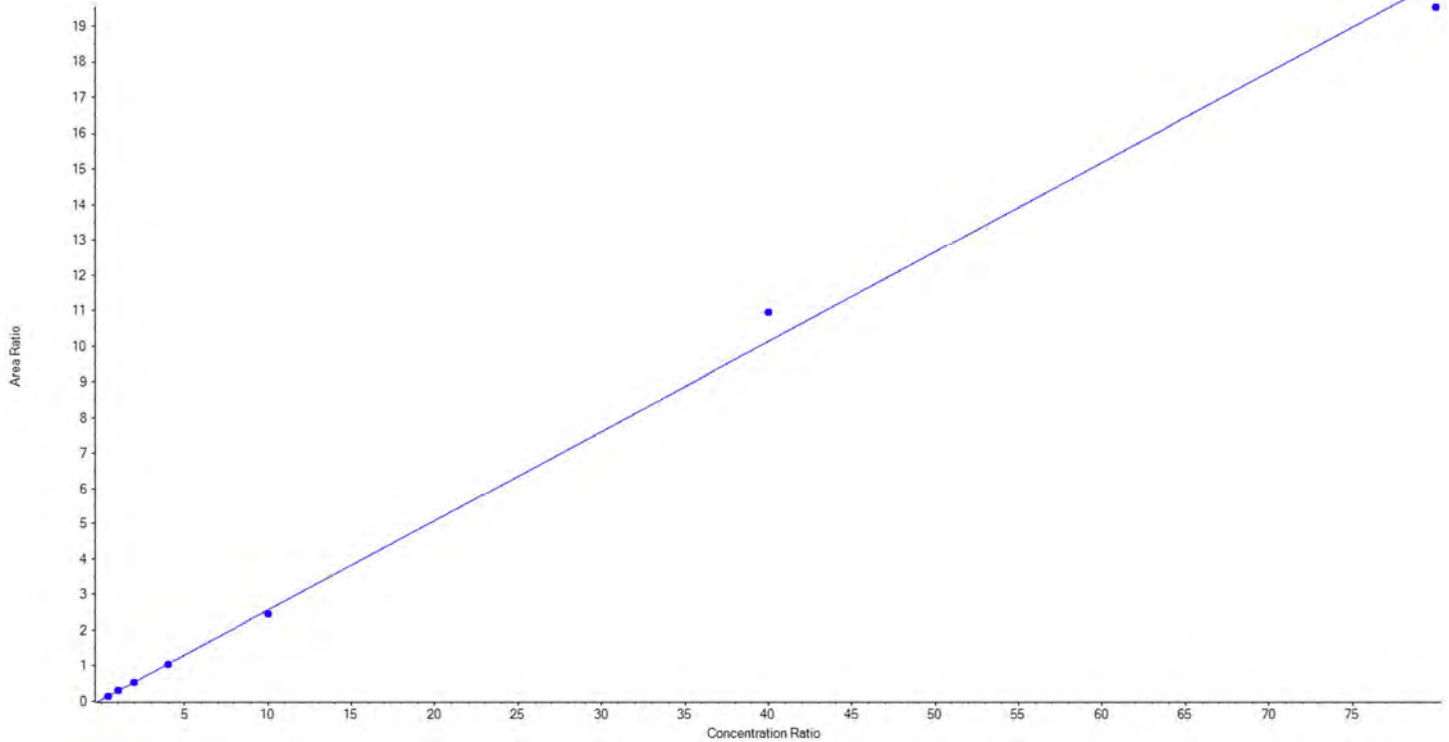
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	93.983	94.0
3	KC67	L2	True	250.000	273.520	109.4
4	KC68	L3	True	500.000	470.785	94.2
5	KC69	L4	True	1000.000	966.402	96.6
6	KC70	L5	True	2500.000	2566.227	102.7
7	KC71	L6	True	10000.000	10653.434	106.5
8	KC72	L7	True	20000.000	19325.648	96.6



Analyte Name	PFNA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	463.0 / 219.0	Result Table	18-0686
Internal Standard	13C9-PFNA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.25252 x + 0.04048$ (r = 0.99852) (weighting: 1 / x)

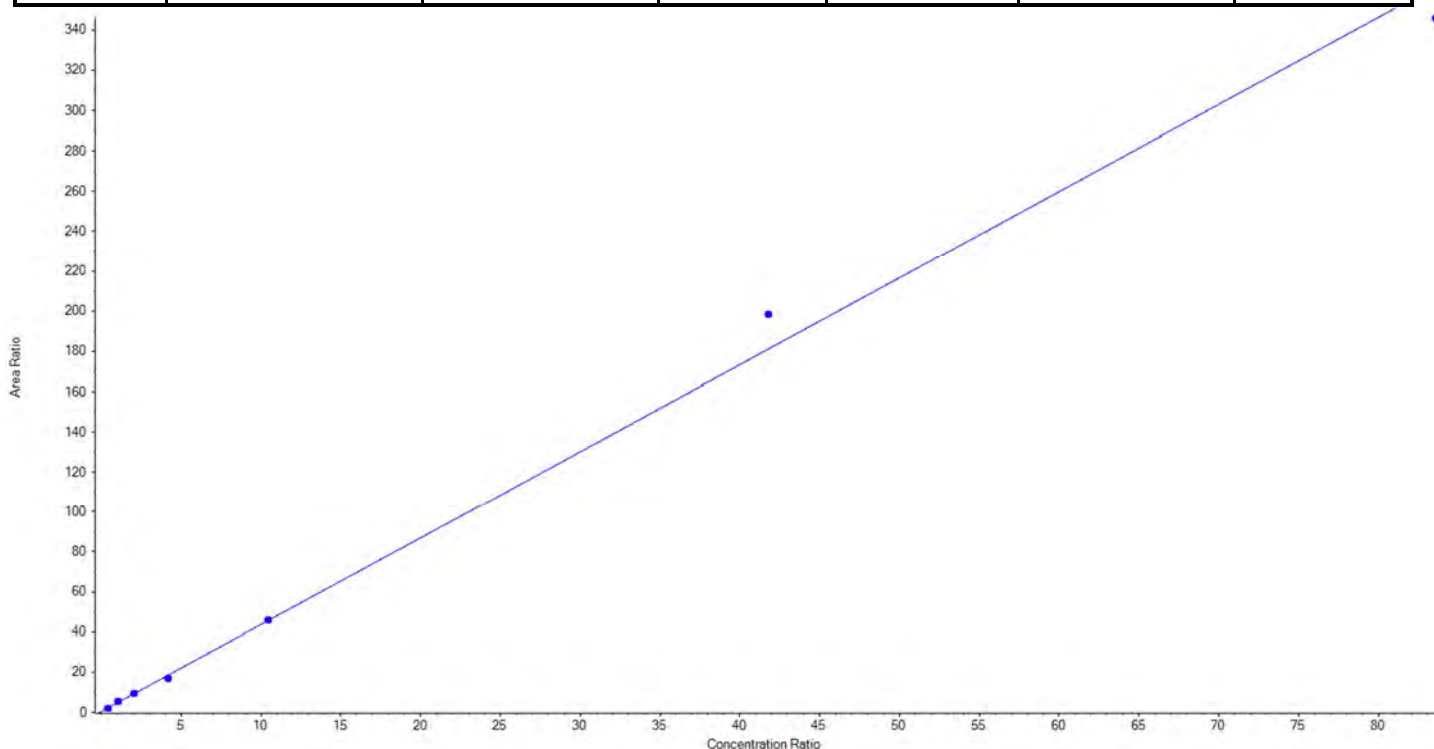
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	98.961	99.0
3	KC67	L2	True	250.000	256.525	102.6
4	KC68	L3	True	500.000	489.624	97.9
5	KC69	L4	True	1000.000	1003.426	100.3
6	KC70	L5	True	2500.000	2389.905	95.6
7	KC71	L6	True	10000.000	10801.554	108.0
8	KC72	L7	True	20000.000	19310.004	96.6



Analyte Name	PFOS_1	Data File	AC_11212018_5-369.wiff
MRM Transition	499.0 / 80.0	Result Table	18-0686
Internal Standard	13C8-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 4.32285x + 0.41720$ (r = 0.99772) (weighting: 1 / x)

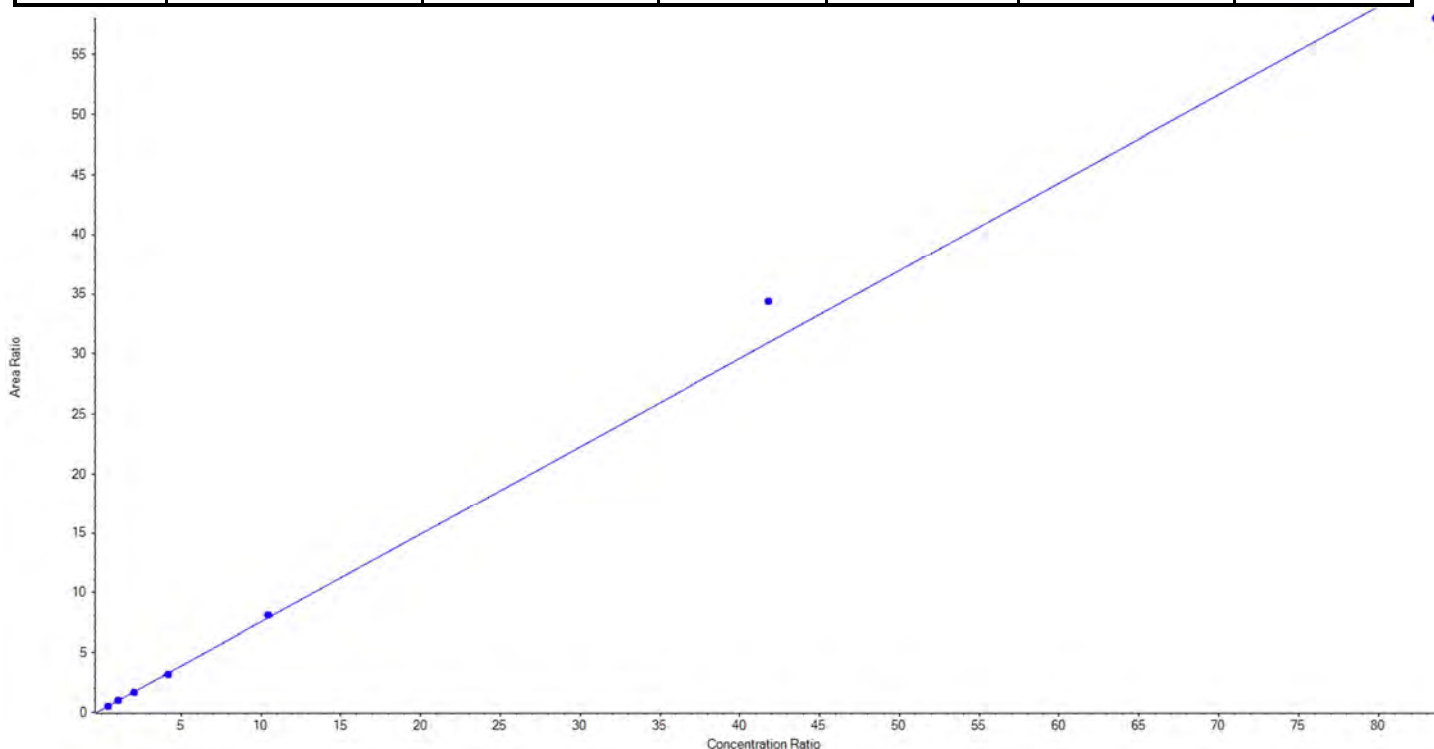
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	93.758	93.8
3	KC67	L2	True	250.000	280.301	112.1
4	KC68	L3	True	500.000	492.108	98.4
5	KC69	L4	True	1000.000	903.386	90.3
6	KC70	L5	True	2500.000	2504.827	100.2
7	KC71	L6	True	10000.000	10957.991	109.6
8	KC72	L7	True	20000.000	19117.629	95.6



Analyte Name	PFOS_2	Data File	AC_11212018_5-369.wiff
MRM Transition	499.0 / 99.0	Result Table	18-0686
Internal Standard	13C8-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.73531 x + 0.19653$ (r = 0.99682) (weighting: 1 / x)

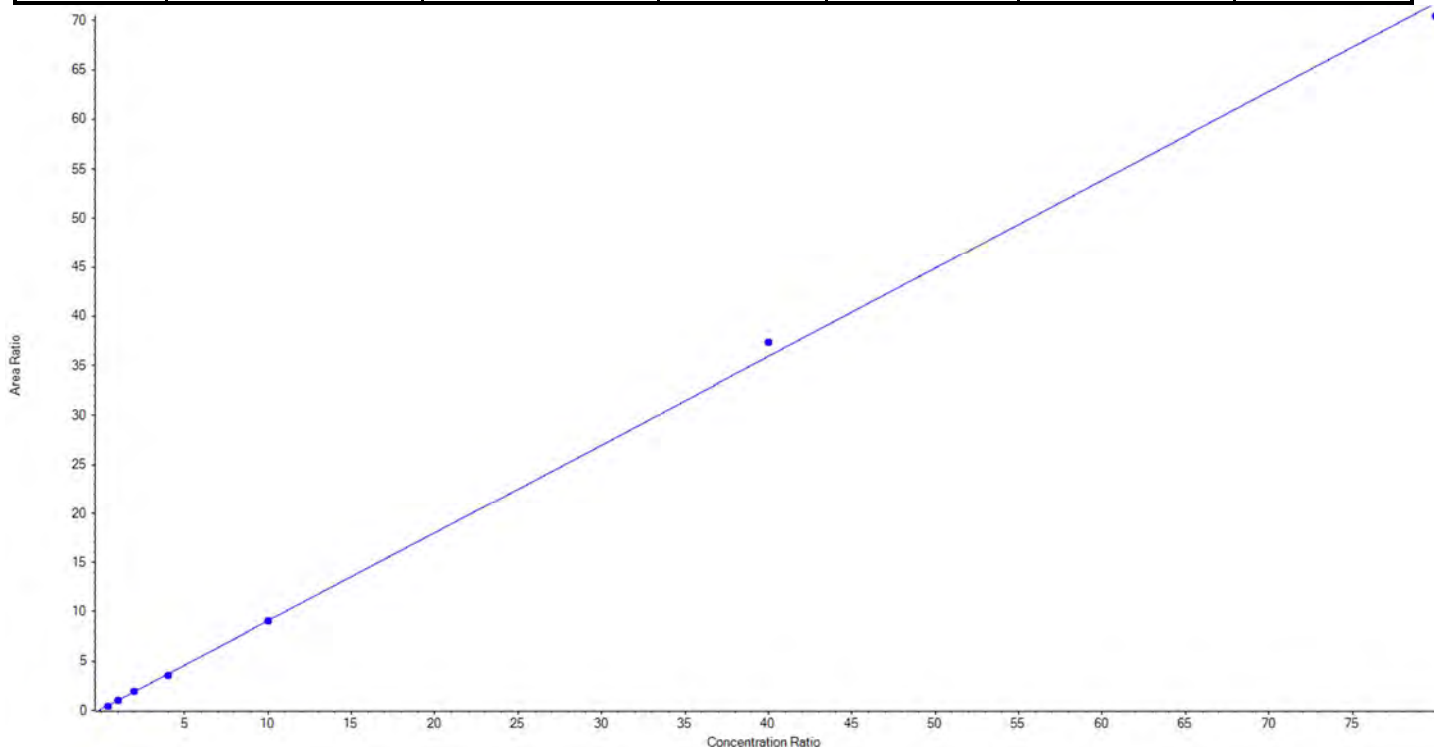
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	90.127	90.1
3	KC67	L2	True	250.000	267.967	107.2
4	KC68	L3	True	500.000	481.007	96.2
5	KC69	L4	True	1000.000	975.833	97.6
6	KC70	L5	True	2500.000	2589.134	103.6
7	KC71	L6	True	10000.000	11121.413	111.2
8	KC72	L7	True	20000.000	18824.520	94.1



Analyte Name	PFDA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	513.0 / 469.0	Result Table	18-0686
Internal Standard	13C6-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.89570 x + 0.10981$ (r = 0.99962) (weighting: 1 / x)

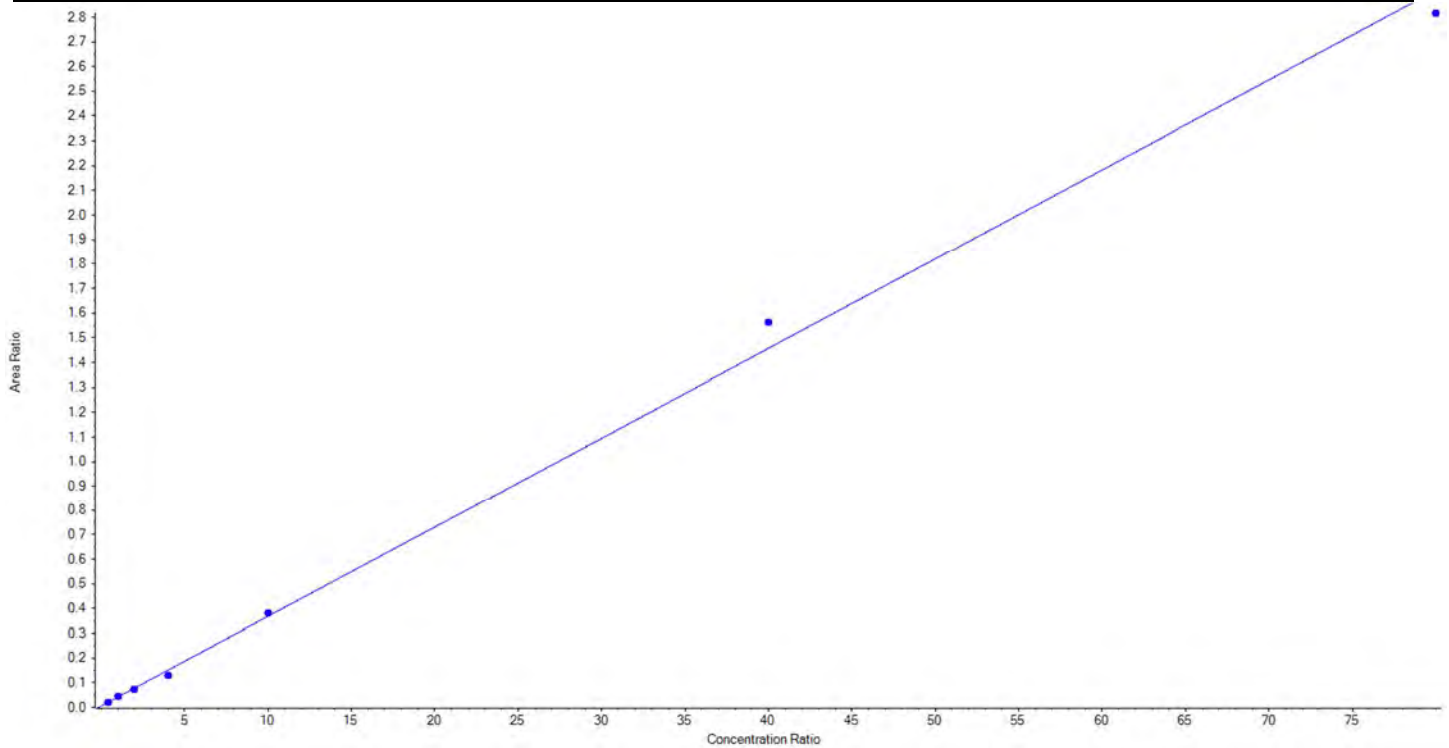
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	95.336	95.3
3	KC67	L2	True	250.000	265.534	106.2
4	KC68	L3	True	500.000	495.809	99.2
5	KC69	L4	True	1000.000	970.982	97.1
6	KC70	L5	True	2500.000	2503.536	100.1
7	KC71	L6	True	10000.000	10390.977	103.9
8	KC72	L7	True	20000.000	19627.826	98.1



Analyte Name	PFDA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	513.0 / 219.0	Result Table	18-0686
Internal Standard	13C6-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.03629x + 0.00560$ (r = 0.99835) (weighting: 1 / x)

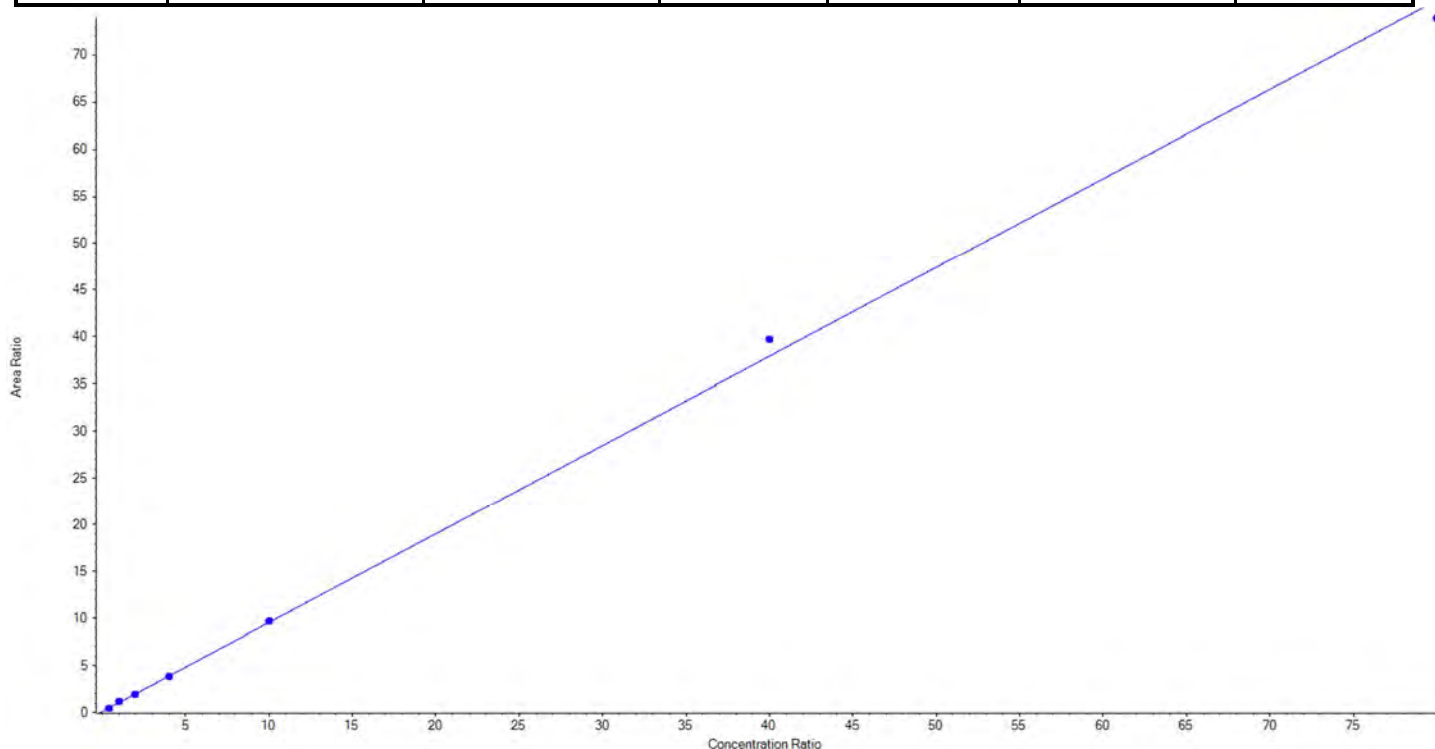
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	103.181	103.2
3	KC67	L2	True	250.000	280.376	112.2
4	KC68	L3	True	500.000	465.452	93.1
5	KC69	L4	True	1000.000	845.224	84.5
6	KC70	L5	True	2500.000	2576.721	103.1
7	KC71	L6	True	10000.000	10718.410	107.2
8	KC72	L7	True	20000.000	19360.638	96.8



Analyte Name	PFUnA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	563.0 / 519.0	Result Table	18-0686
Internal Standard	13C7-PFUnA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.94663x + 0.08125$ (r = 0.99931) (weighting: 1 / x)

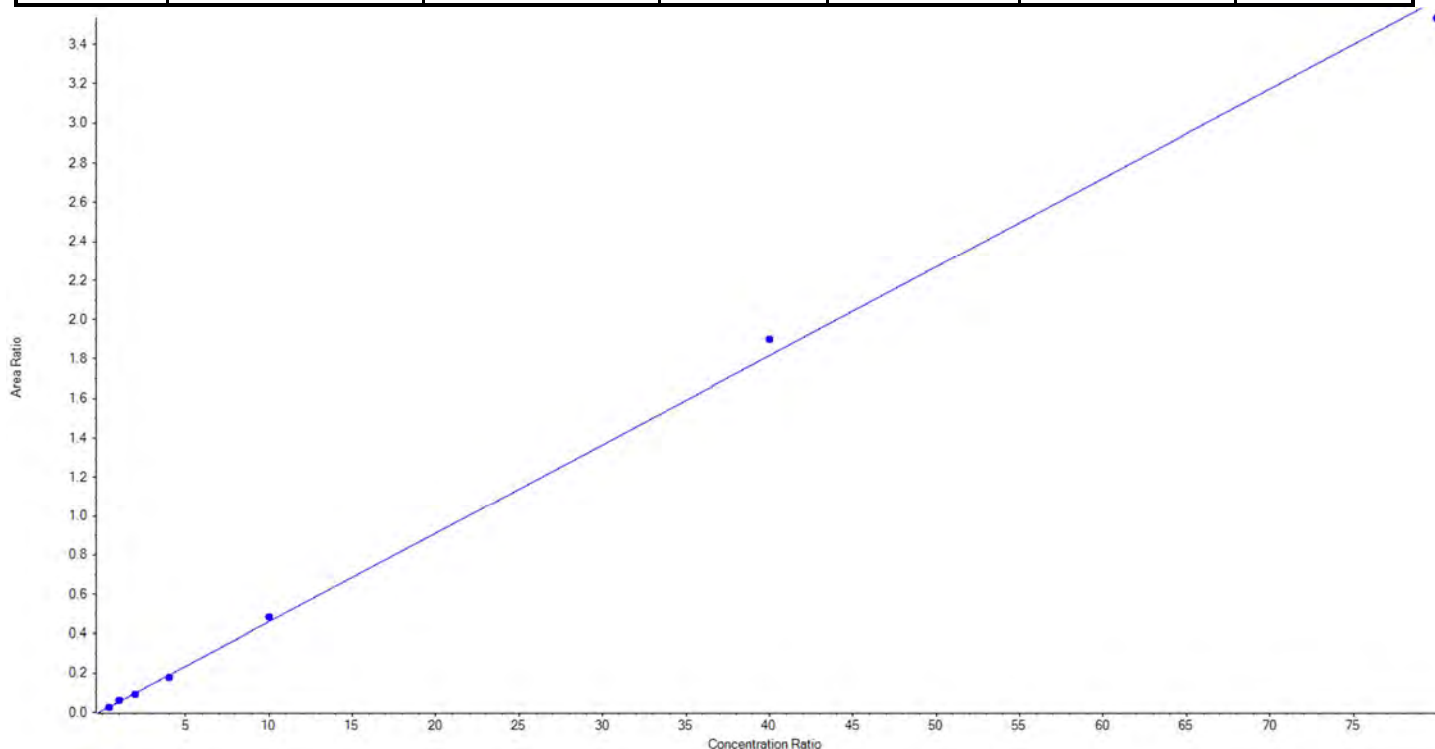
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	85.334	85.3
3	KC67	L2	True	250.000	288.689	115.5
4	KC68	L3	True	500.000	479.815	96.0
5	KC69	L4	True	1000.000	993.800	99.4
6	KC70	L5	True	2500.000	2543.600	101.7
7	KC71	L6	True	10000.000	10461.869	104.6
8	KC72	L7	True	20000.000	19496.891	97.5



Analyte Name	PFUnA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	563.0 / 269.0	Result Table	18-0686
Internal Standard	13C7-PFUnA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.04522 x + 0.00825$ (r = 0.99898) (weighting: 1 / x)

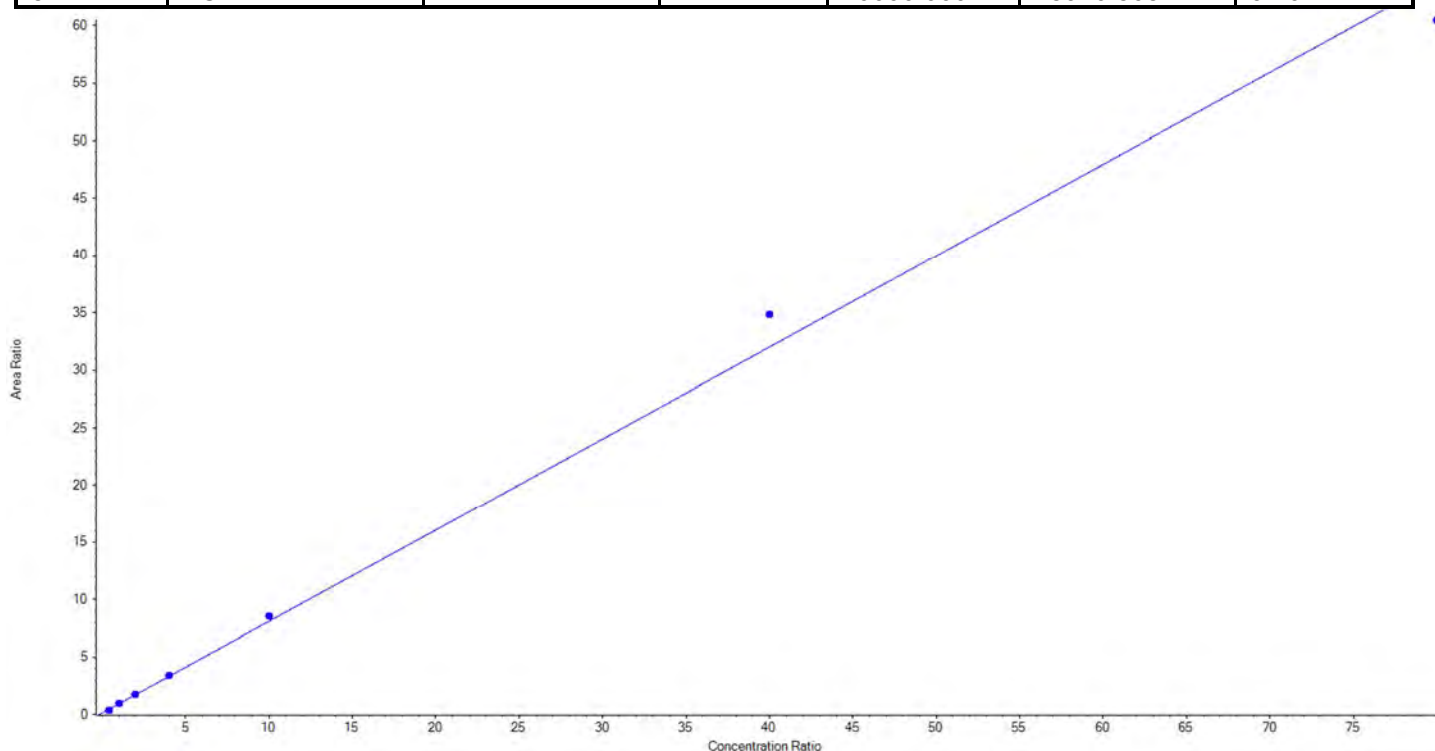
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	87.653	87.7
3	KC67	L2	True	250.000	305.033	122.0
4	KC68	L3	True	500.000	452.825	90.6
5	KC69	L4	True	1000.000	926.554	92.7
6	KC70	L5	True	2500.000	2625.960	105.0
7	KC71	L6	True	10000.000	10463.131	104.6
8	KC72	L7	True	20000.000	19488.845	97.4



Analyte Name	PFDoA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	613.0 / 569.0	Result Table	18-0686
Internal Standard	13C2-PFDoA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.79719x + 0.11545$ (r = 0.99757) (weighting: 1 / x)

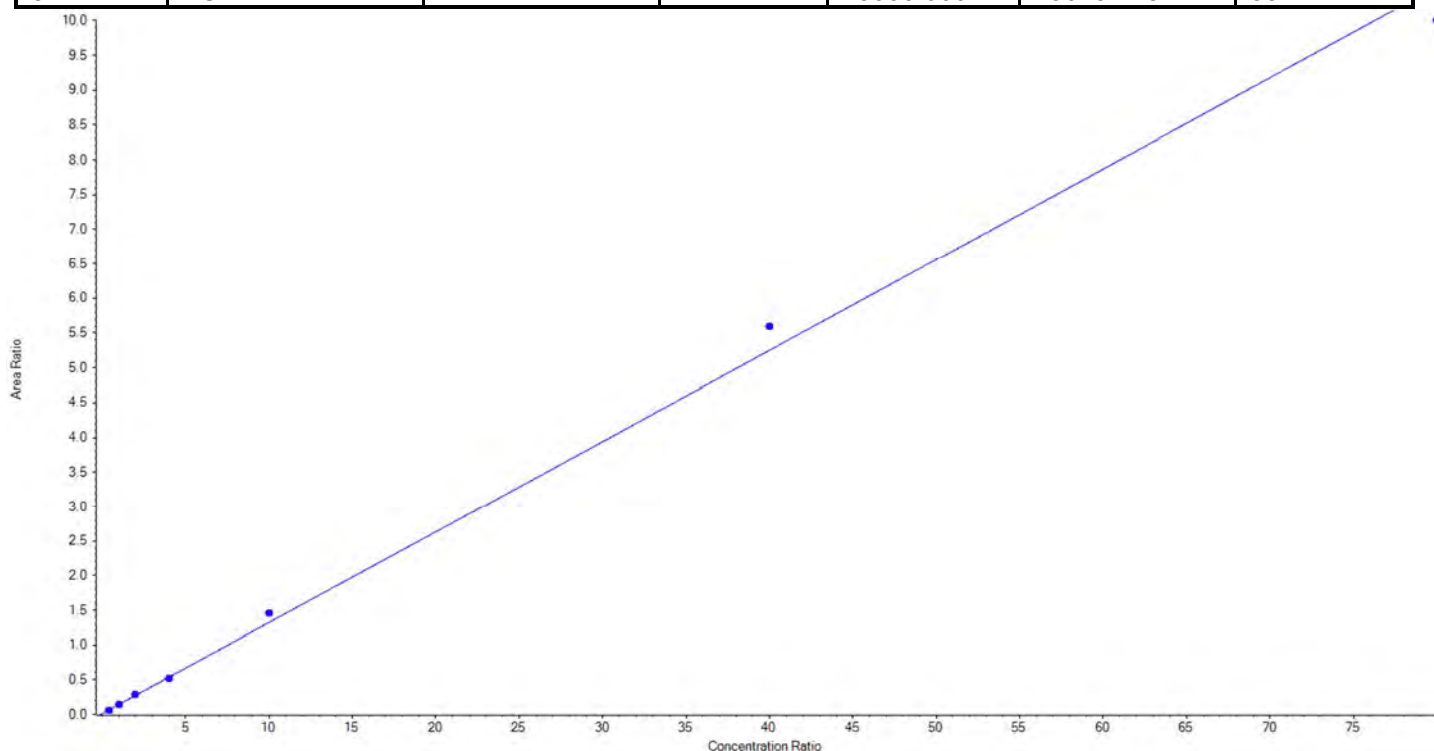
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	80.638	80.6
3	KC67	L2	True	250.000	264.229	105.7
4	KC68	L3	True	500.000	507.725	101.5
5	KC69	L4	True	1000.000	1026.042	102.6
6	KC70	L5	True	2500.000	2647.047	105.9
7	KC71	L6	True	10000.000	10903.511	109.0
8	KC72	L7	True	20000.000	18920.808	94.6



Analyte Name	PFDoA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	613.0 / 319.0	Result Table	18-0686
Internal Standard	13C2-PFDoA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.13094 x + 0.01192$ (r = 0.99810) (weighting: 1 / x)

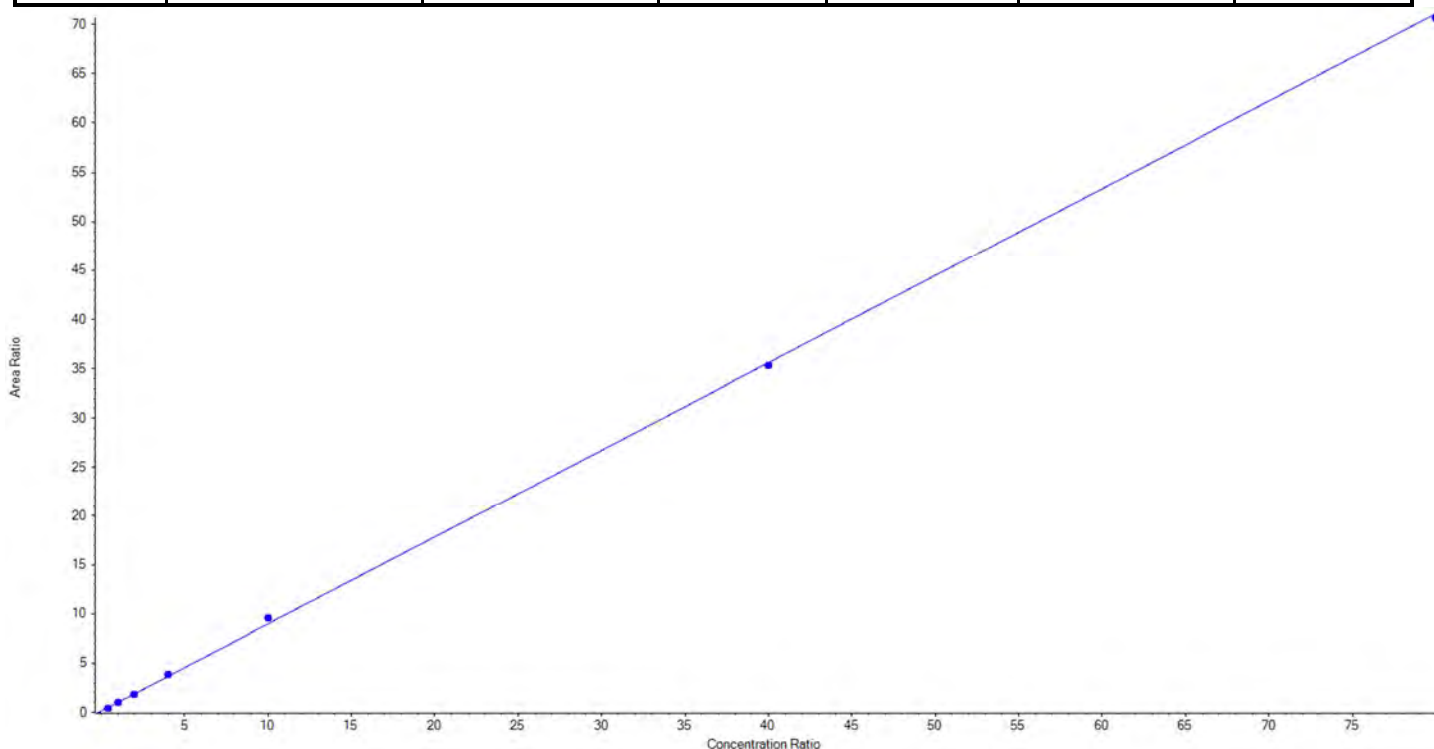
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	80.065	80.1
3	KC67	L2	True	250.000	256.275	102.5
4	KC68	L3	True	500.000	532.908	106.6
5	KC69	L4	True	1000.000	981.564	98.2
6	KC70	L5	True	2500.000	2769.713	110.8
7	KC71	L6	True	10000.000	10650.247	106.5
8	KC72	L7	True	20000.000	19079.228	95.4



Analyte Name	PFTTrDA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	663.0 / 619.0	Result Table	18-0686
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.88736 x + 0.10941$ (r = 0.99976) (weighting: 1 / x)

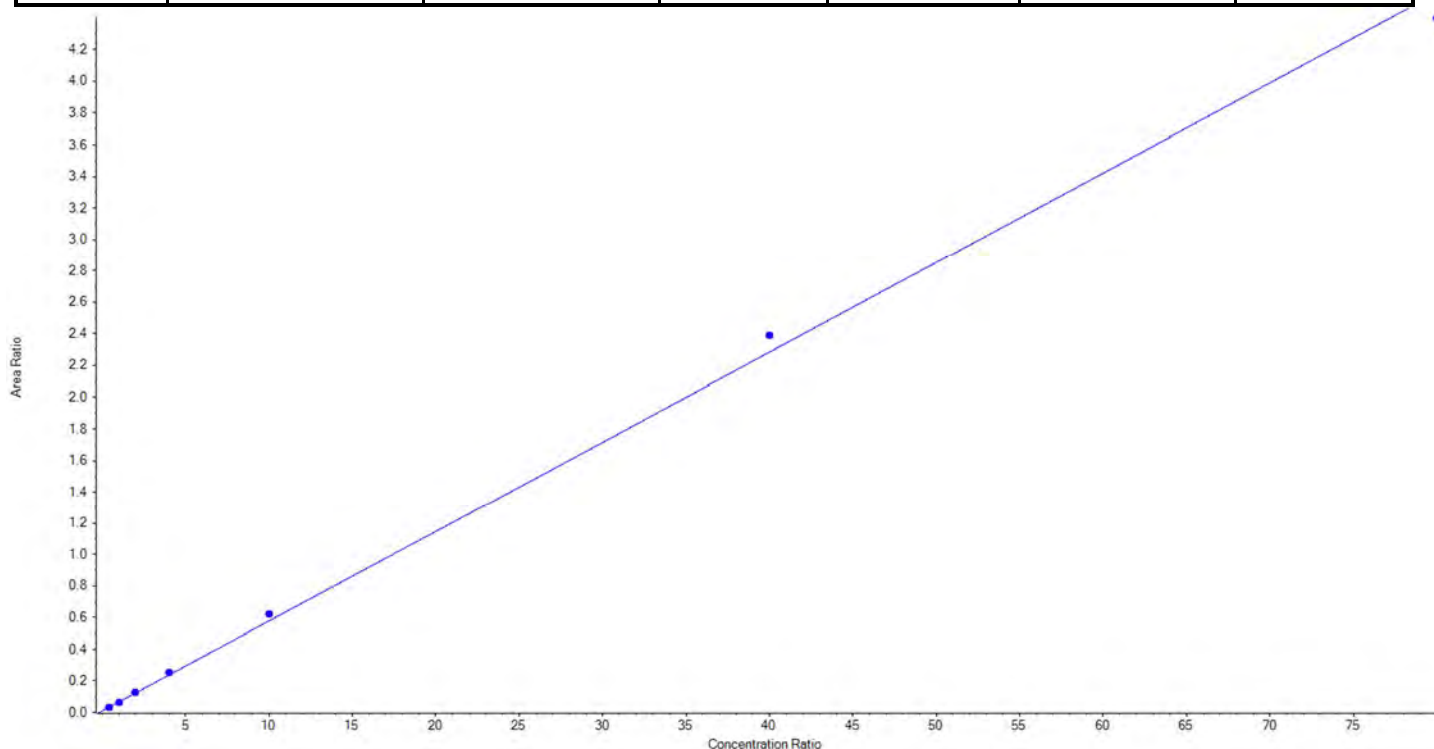
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	86.406	86.4
3	KC67	L2	True	250.000	259.747	103.9
4	KC68	L3	True	500.000	499.616	99.9
5	KC69	L4	True	1000.000	1049.842	105.0
6	KC70	L5	True	2500.000	2652.897	106.1
7	KC71	L6	True	10000.000	9932.940	99.3
8	KC72	L7	True	20000.000	19868.552	99.3



Analyte Name	PFTTrDA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	663.0 / 169.0	Result Table	18-0686
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.05686 x + 0.00932$ (r = 0.99891) (weighting: 1 / x)

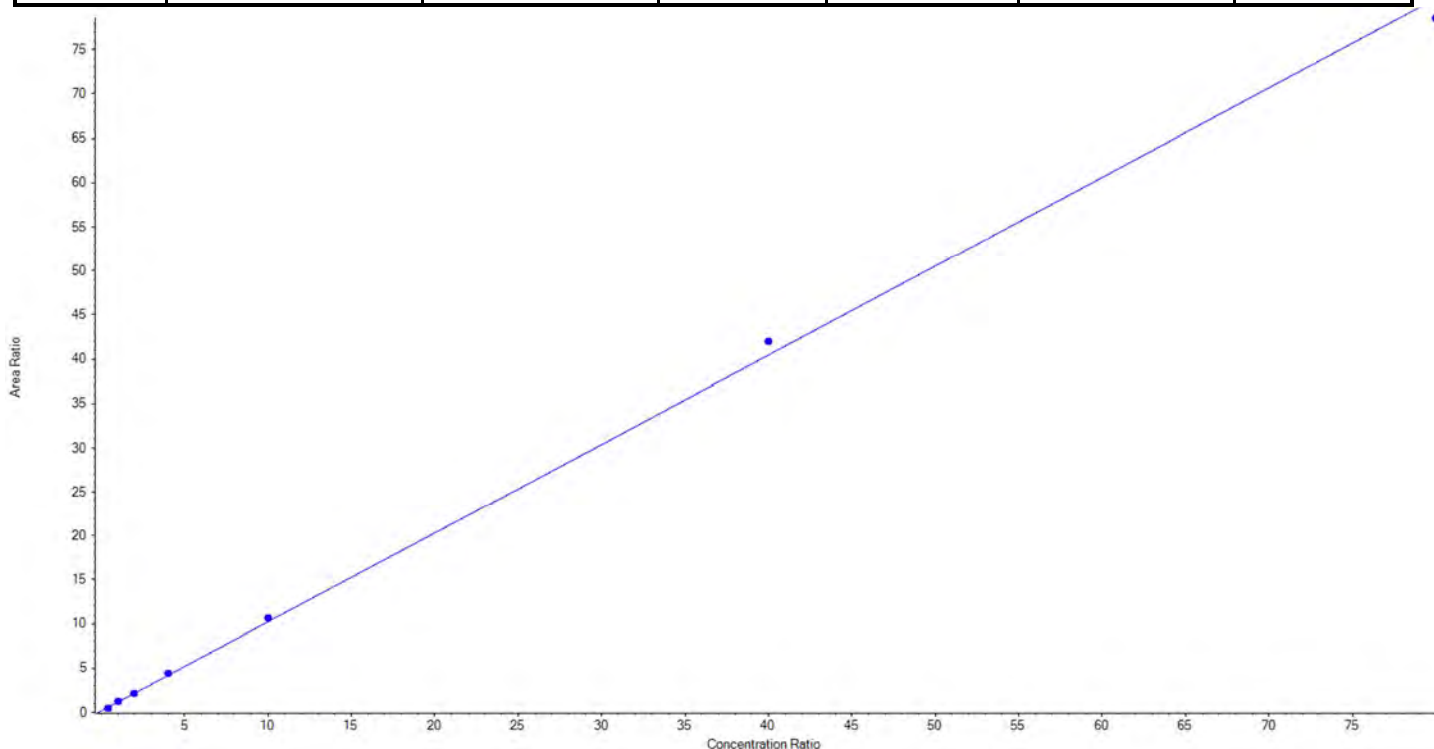
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	90.150	90.2
3	KC67	L2	True	250.000	231.157	92.5
4	KC68	L3	True	500.000	505.556	101.1
5	KC69	L4	True	1000.000	1072.597	107.3
6	KC70	L5	True	2500.000	2700.079	108.0
7	KC71	L6	True	10000.000	10452.079	104.5
8	KC72	L7	True	20000.000	19298.381	96.5



Analyte Name	PFTeDA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	713.0 / 669.0	Result Table	18-0686
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.00758 x + 0.14865$ (r = 0.99933) (weighting: 1 / x)

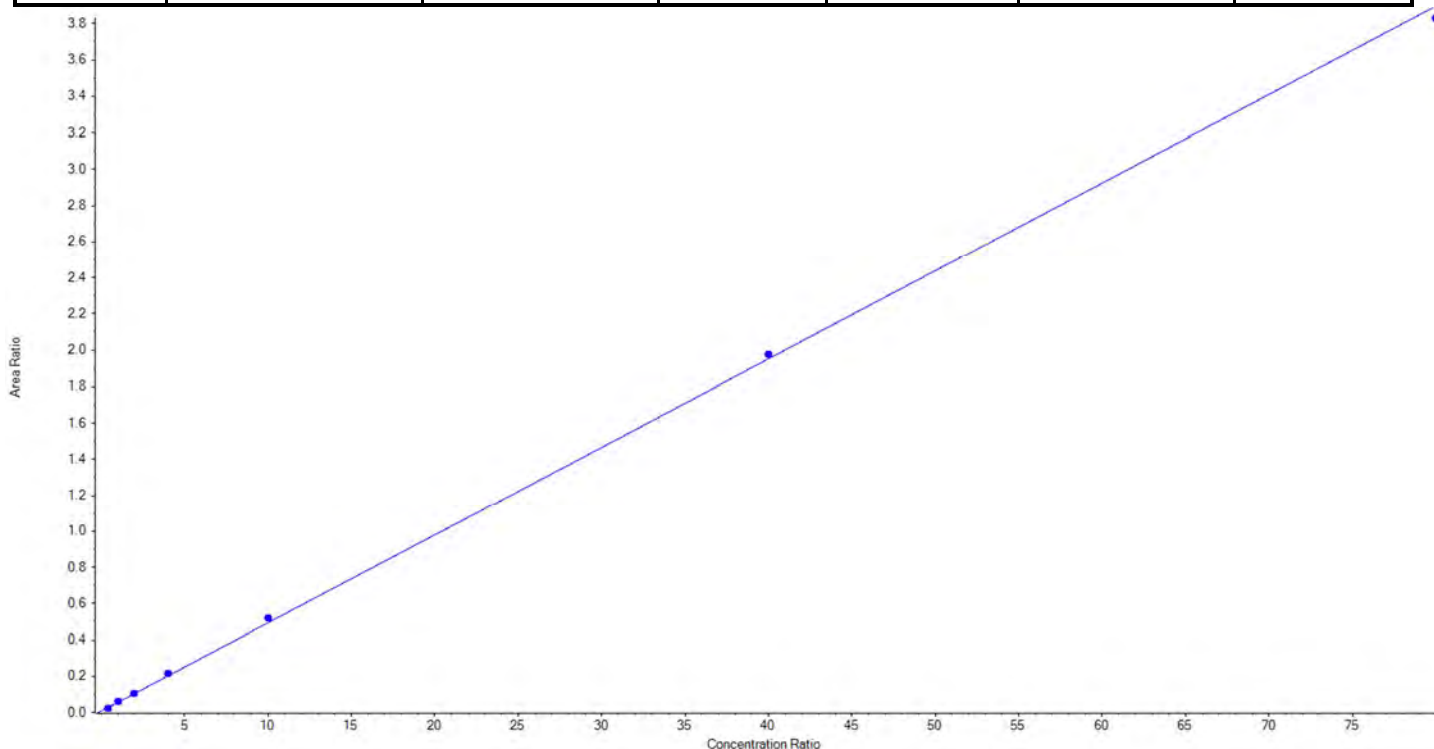
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	80.741	80.7
3	KC67	L2	True	250.000	265.020	106.0
4	KC68	L3	True	500.000	510.657	102.1
5	KC69	L4	True	1000.000	1058.415	105.8
6	KC70	L5	True	2500.000	2606.069	104.2
7	KC71	L6	True	10000.000	10377.910	103.8
8	KC72	L7	True	20000.000	19451.187	97.3



Analyte Name	PFTeDA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	713.0 / 169.0	Result Table	18-0686
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.04862x + 0.00672$ (r = 0.99953) (weighting: 1 / x)

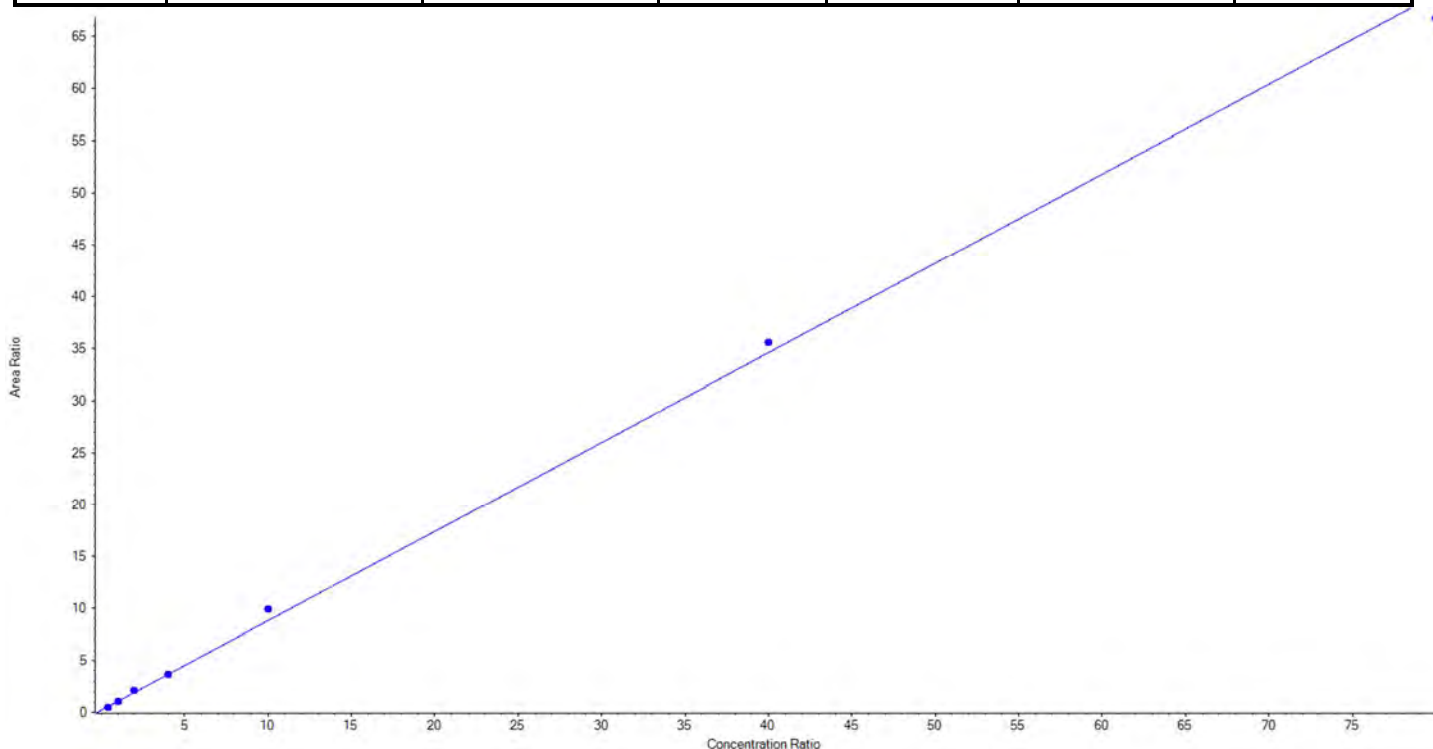
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	73.560	73.6
3	KC67	L2	True	250.000	283.240	113.3
4	KC68	L3	True	500.000	511.337	102.3
5	KC69	L4	True	1000.000	1062.365	106.2
6	KC70	L5	True	2500.000	2624.575	105.0
7	KC71	L6	True	10000.000	10136.543	101.4
8	KC72	L7	True	20000.000	19658.380	98.3



Analyte Name	NMeFOSAA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	570.0 / 419.0	Result Table	18-0686
Internal Standard	d3-MeFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.85983x + 0.19955$ (r = 0.99868) (weighting: 1 / x)

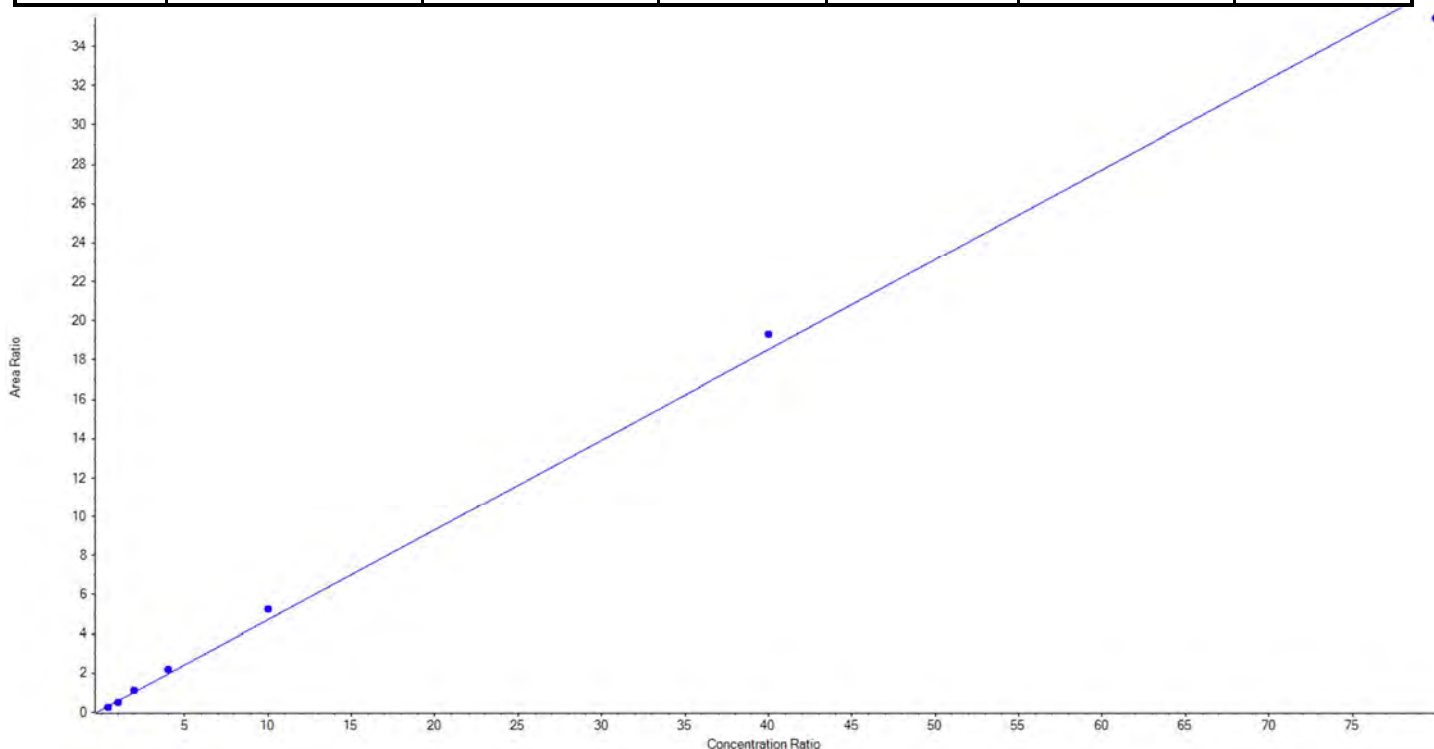
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	76.047	76.1
3	KC67	L2	True	250.000	250.079	100.0
4	KC68	L3	True	500.000	548.815	109.8
5	KC69	L4	True	1000.000	1014.938	101.5
6	KC70	L5	True	2500.000	2825.685	113.0
7	KC71	L6	True	10000.000	10292.975	102.9
8	KC72	L7	True	20000.000	19341.461	96.7



Analyte Name	NMeFOSAA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	570.0 / 512.0	Result Table	18-0686
Internal Standard	d3-MeFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.46013x + 0.11756$ (r = 0.99827) (weighting: 1 / x)

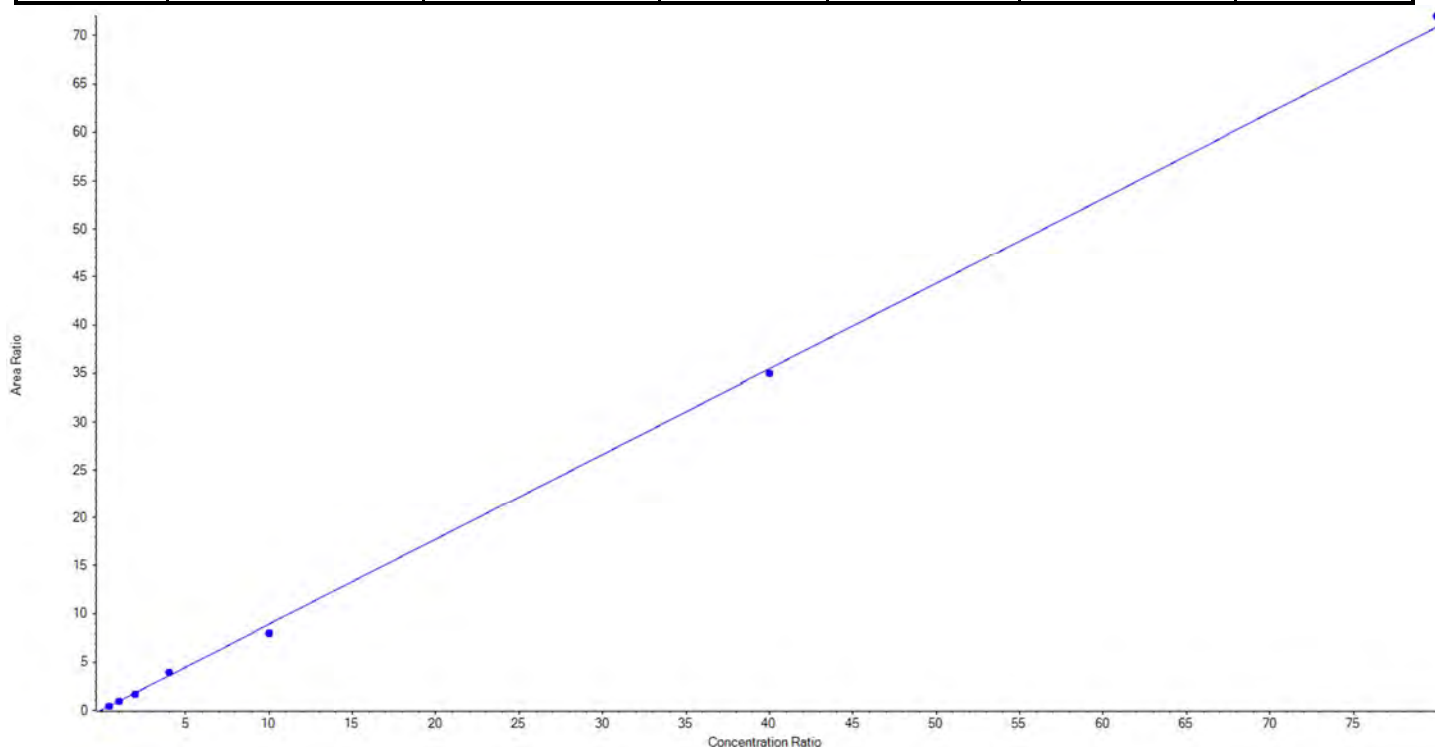
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	84.525	84.5
3	KC67	L2	True	250.000	210.925	84.4
4	KC68	L3	True	500.000	536.150	107.2
5	KC69	L4	True	1000.000	1123.849	112.4
6	KC70	L5	True	2500.000	2782.336	111.3
7	KC71	L6	True	10000.000	10427.024	104.3
8	KC72	L7	True	20000.000	19185.190	95.9



Analyte Name	NEtFOSAA_1	Data File	AC_11212018_5-369.wiff
MRM Transition	584.0 / 419.0	Result Table	18-0686
Internal Standard	d5-EtFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.88537 x + 0.05779$ (r = 0.99924) (weighting: 1 / x)

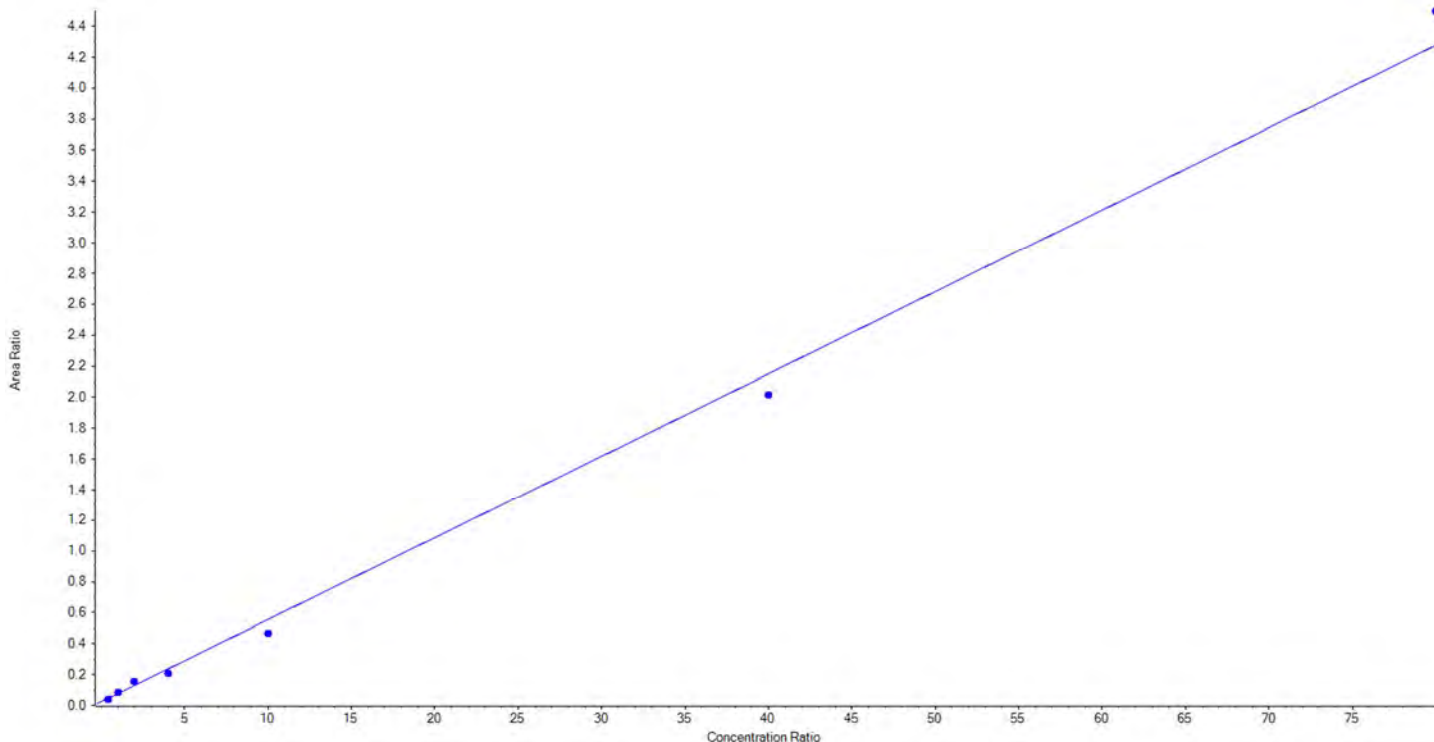
Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	108.581	108.6
3	KC67	L2	True	250.000	242.901	97.2
4	KC68	L3	True	500.000	466.078	93.2
5	KC69	L4	True	1000.000	1109.620	111.0
6	KC70	L5	True	2500.000	2248.337	89.9
7	KC71	L6	True	10000.000	9855.080	98.6
8	KC72	L7	True	20000.000	20319.403	101.6



Analyte Name	NEtFOSAA_2	Data File	AC_11212018_5-369.wiff
MRM Transition	584.0 / 483.0	Result Table	18-0686
Internal Standard	d5-EtFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.05317 x + 0.02322$ (r = 0.99646) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	100.000	88.091	88.1
3	KC67	L2	True	250.000	294.770	117.9
4	KC68	L3	True	500.000	624.986	125.0
5	KC69	L4	True	1000.000	872.961	87.3
6	KC70	L5	True	2500.000	2073.368	82.9
7	KC71	L6	True	10000.000	9358.736	93.6
8	KC72	L7	True	20000.000	21037.088	105.2





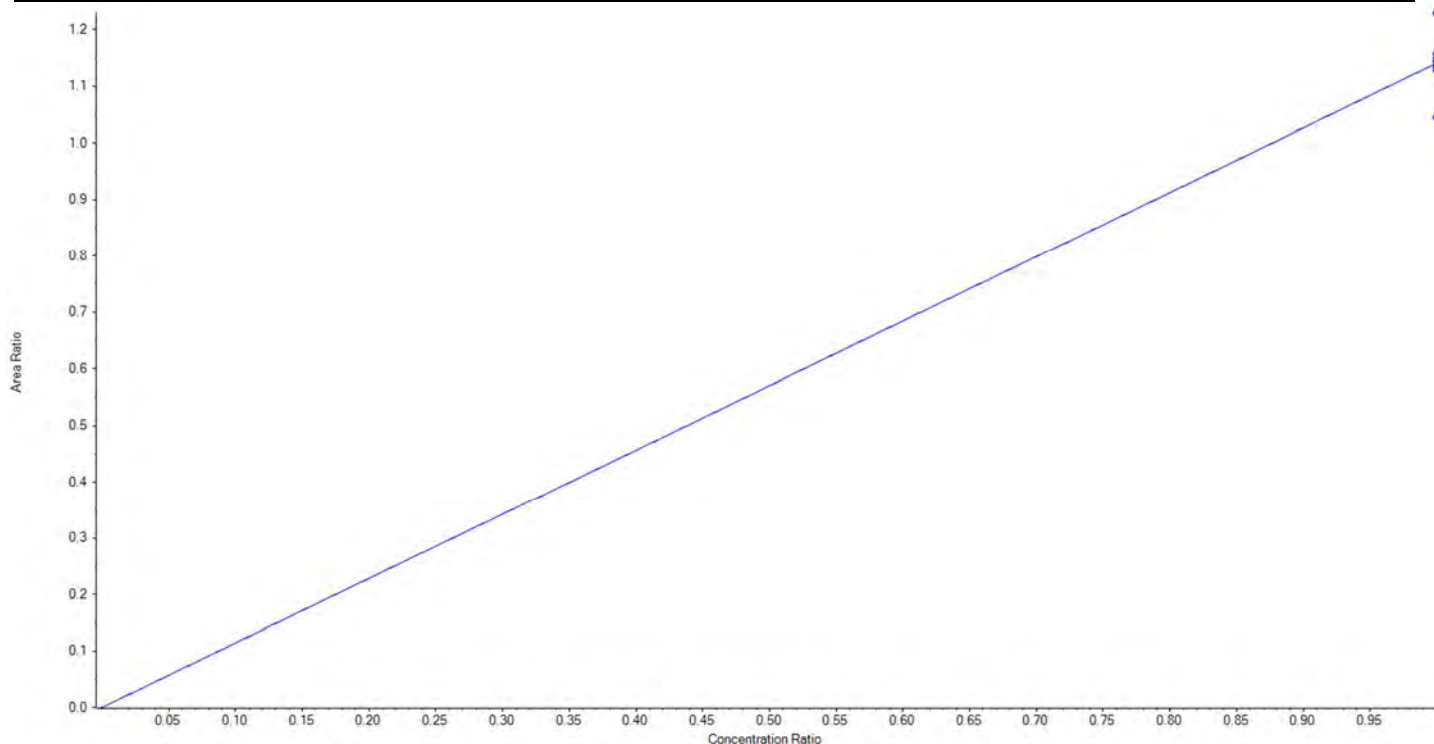
Calibration Summary Report

Created with Analyst Reporter
Printed: 28/11/2018 3:36:58 PM

Analyte Name	13C2-PFDoA	Data File	AC_11212018_5-369.wiff
MRM Transition	615.0 / 570.0	Result Table	18-0686_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.14072 x$ (std. dev. = 0.05383) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	250.000	229.072	91.6
3	KC67	L2	True	250.000	253.269	101.3
4	KC68	L3	True	250.000	247.367	99.0
5	KC69	L4	True	250.000	250.557	100.2
6	KC70	L5	True	250.000	248.549	99.4
7	KC71	L6	True	250.000	251.854	100.7
8	KC72	L7	True	250.000	269.332	107.7





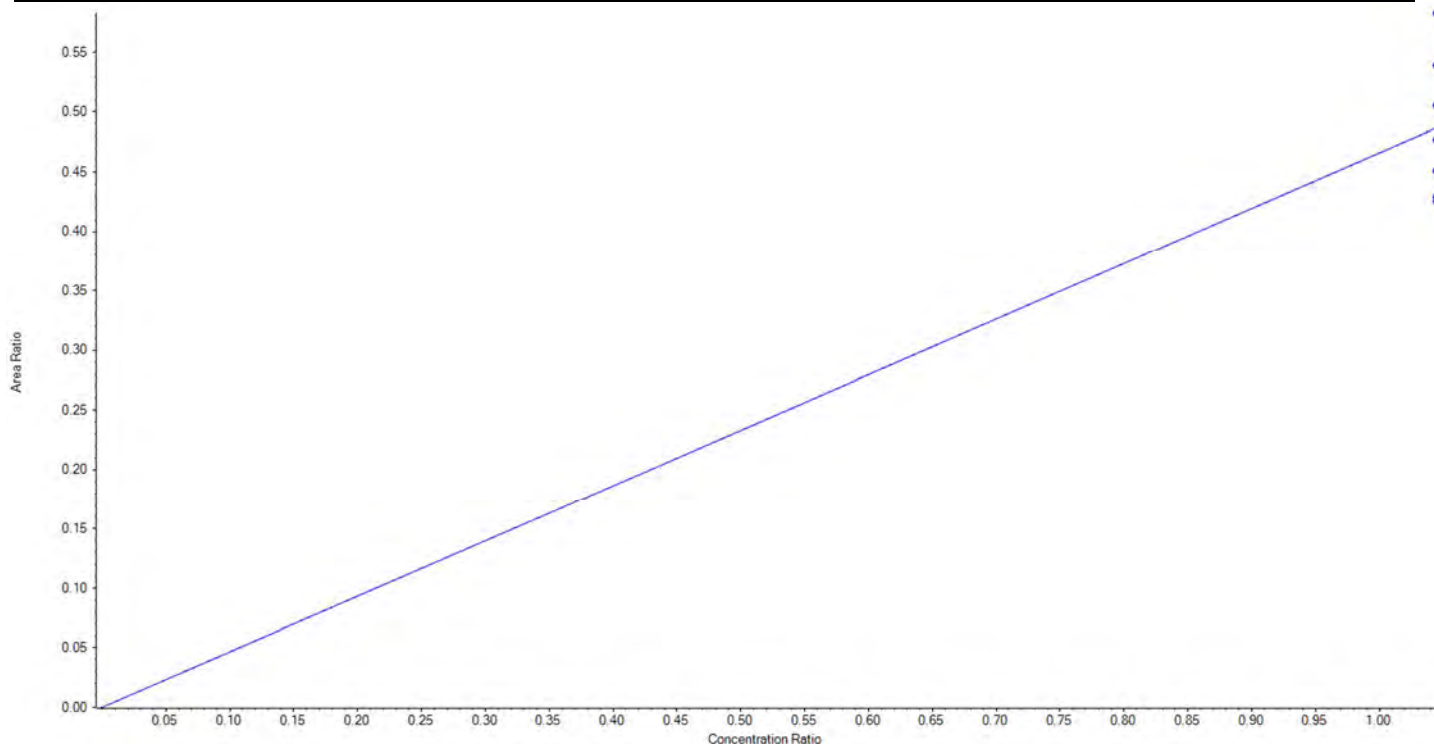
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Analyte Name	d3-MeFOSAA	Data File	AC_11212018_5-369.wiff
MRM Transition	573.0 / 419.0	Result Table	18-0686_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.46595 x$ (std. dev. = 0.05630) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	250.000	220.136	88.1
3	KC67	L2	True	250.000	218.513	87.4
4	KC68	L3	True	250.000	231.299	92.5
5	KC69	L4	True	250.000	276.622	110.7
6	KC70	L5	True	250.000	244.916	98.0
7	KC71	L6	True	250.000	259.322	103.7
8	KC72	L7	True	250.000	299.192	119.7





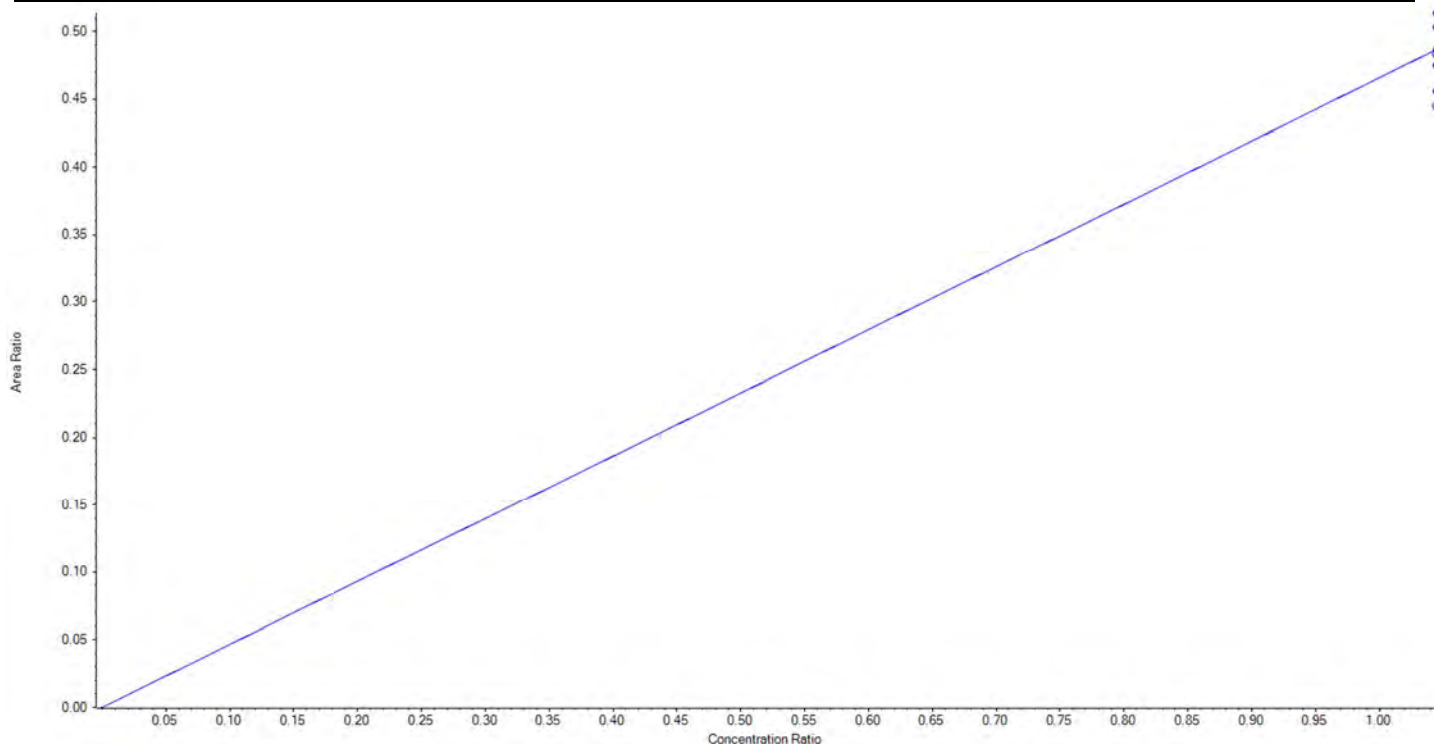
Calibration Summary Report

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Analyte Name	d5-EtFOSAA	Data File	AC_11212018_5-369.wiff
MRM Transition	589.0 / 419.0	Result Table	18-0686_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.46572 x$ (std. dev. = 0.02196) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	False	250.000	228.273	91.3
3	KC67	L2	False	250.000	248.034	99.2
4	KC68	L3	True	250.000	233.943	93.6
5	KC69	L4	True	250.000	249.841	99.9
6	KC70	L5	True	250.000	263.724	105.5
7	KC71	L6	True	250.000	258.548	103.4
8	KC72	L7	True	250.000	243.943	97.6





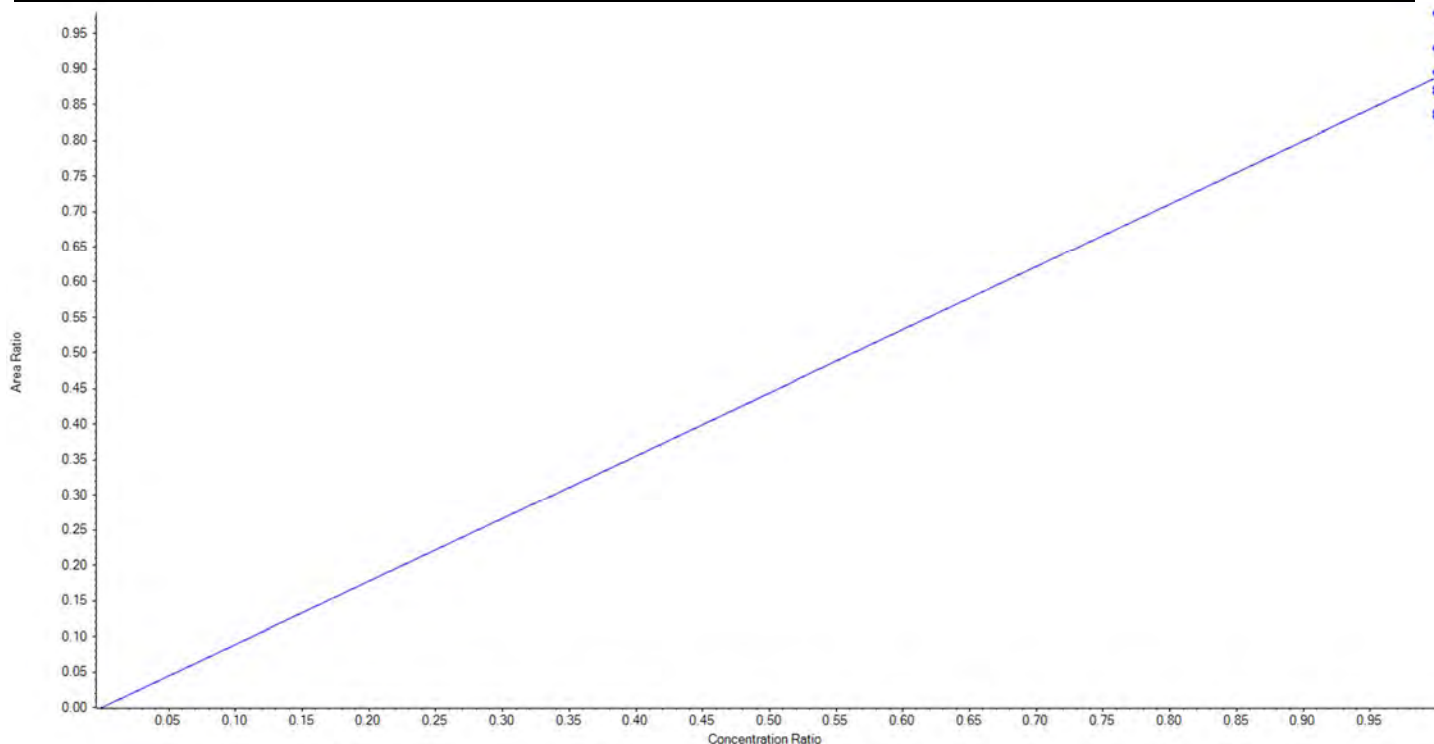
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Analyte Name	13C5-PFHxA	Data File	AC_11212018_5-369.wiff
MRM Transition	318.0 / 273.0	Result Table	18-0686_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.88810 x$ (std. dev. = 0.05152) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	250.000	234.629	93.9
3	KC67	L2	True	250.000	245.710	98.3
4	KC68	L3	True	250.000	261.593	104.6
5	KC69	L4	True	250.000	236.276	94.5
6	KC70	L5	True	250.000	244.289	97.7
7	KC71	L6	True	250.000	252.057	100.8
8	KC72	L7	True	250.000	275.446	110.2





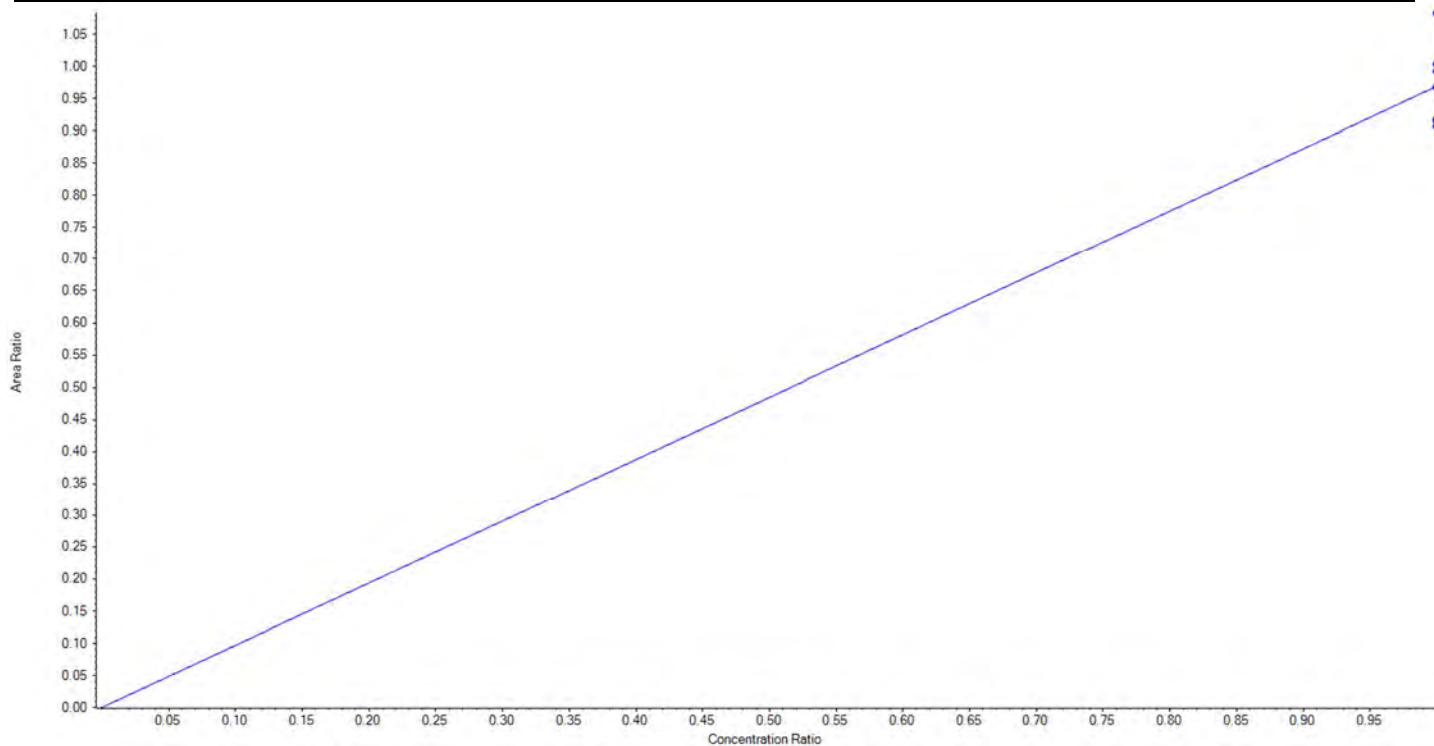
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Analyte Name	13C4-PFHpA	Data File	AC_11212018_5-369.wiff
MRM Transition	367.0 / 322.0	Result Table	18-0686_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.96933 x$ (std. dev. = 0.06360) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	250.000	233.787	93.5
3	KC67	L2	True	250.000	235.781	94.3
4	KC68	L3	True	250.000	249.494	99.8
5	KC69	L4	True	250.000	236.800	94.7
6	KC70	L5	True	250.000	255.834	102.3
7	KC71	L6	True	250.000	258.970	103.6
8	KC72	L7	True	250.000	279.333	111.7





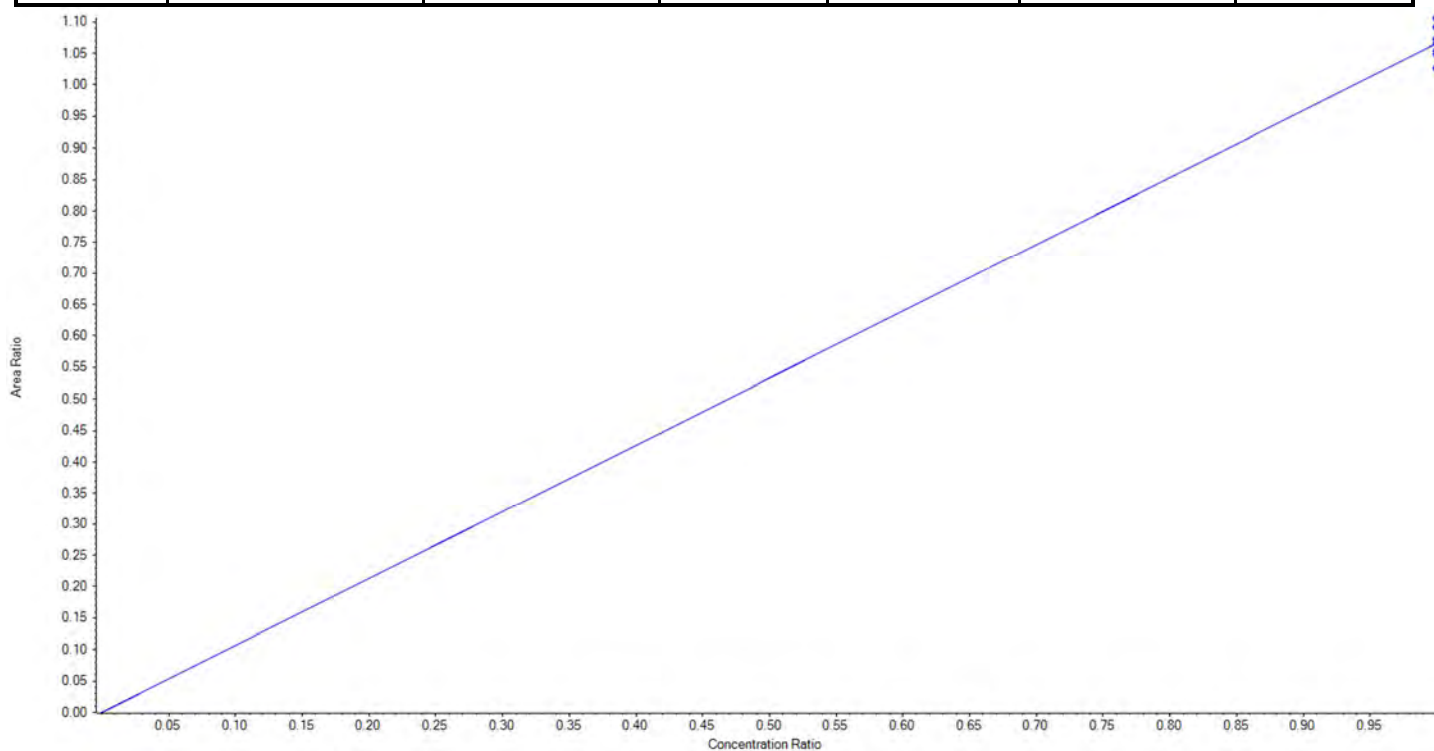
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Analyte Name	13C8-PFOA	Data File	AC_11212018_5-369.wiff
MRM Transition	421.0 / 376.0	Result Table	18-0686_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.06598 x$ (std. dev. = 0.02708) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	250.000	246.858	98.7
3	KC67	L2	True	250.000	240.601	96.2
4	KC68	L3	True	250.000	259.337	103.7
5	KC69	L4	True	250.000	251.618	100.7
6	KC70	L5	True	250.000	245.743	98.3
7	KC71	L6	True	250.000	255.981	102.4
8	KC72	L7	True	250.000	249.861	99.9





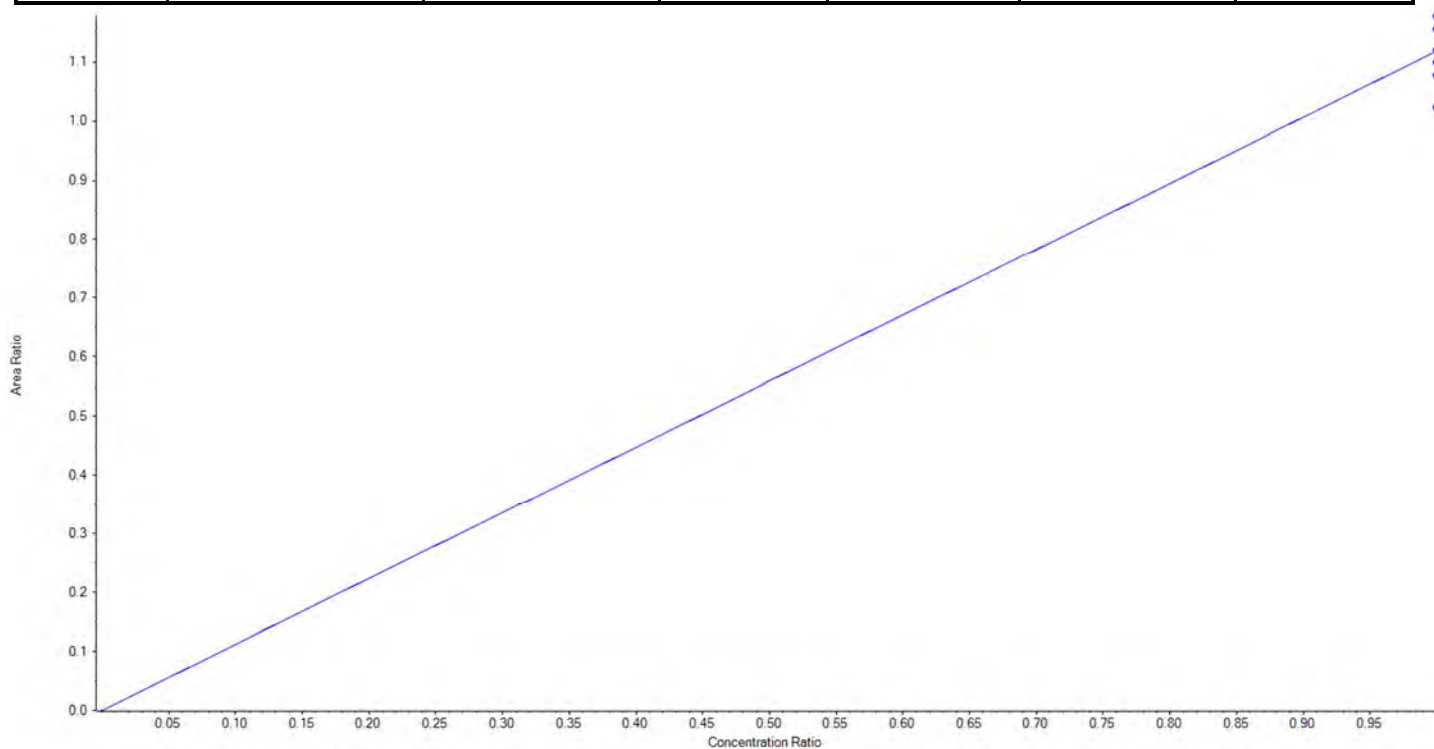
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Analyte Name	13C9-PFNA	Data File	AC_11212018_5-369.wiff
MRM Transition	472.0 / 427.0	Result Table	18-0686_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.11845 x$ (std. dev. = 0.05683) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	250.000	228.644	91.5
3	KC67	L2	True	250.000	240.975	96.4
4	KC68	L3	True	250.000	263.200	105.3
5	KC69	L4	True	250.000	250.311	100.1
6	KC70	L5	True	250.000	258.155	103.3
7	KC71	L6	True	250.000	245.646	98.3
8	KC72	L7	True	250.000	263.069	105.2





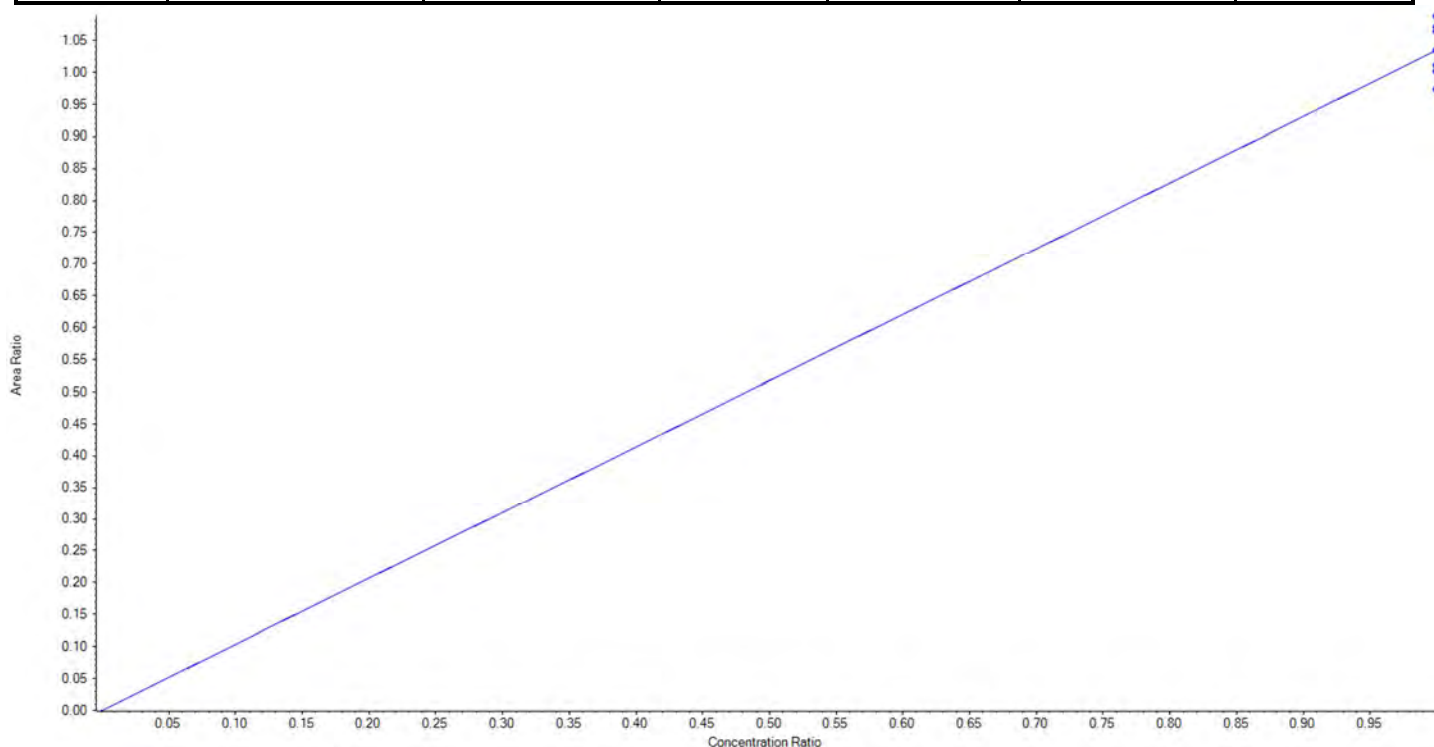
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Analyte Name	13C6-PFDA	Data File	AC_11212018_5-369.wiff
MRM Transition	519.0 / 474.0	Result Table	18-0686_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.03454 x$ (std. dev. = 0.04175) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	250.000	235.167	94.1
3	KC67	L2	True	250.000	249.861	99.9
4	KC68	L3	True	250.000	258.702	103.5
5	KC69	L4	True	250.000	257.200	102.9
6	KC70	L5	True	250.000	262.860	105.1
7	KC71	L6	True	250.000	244.244	97.7
8	KC72	L7	True	250.000	241.965	96.8





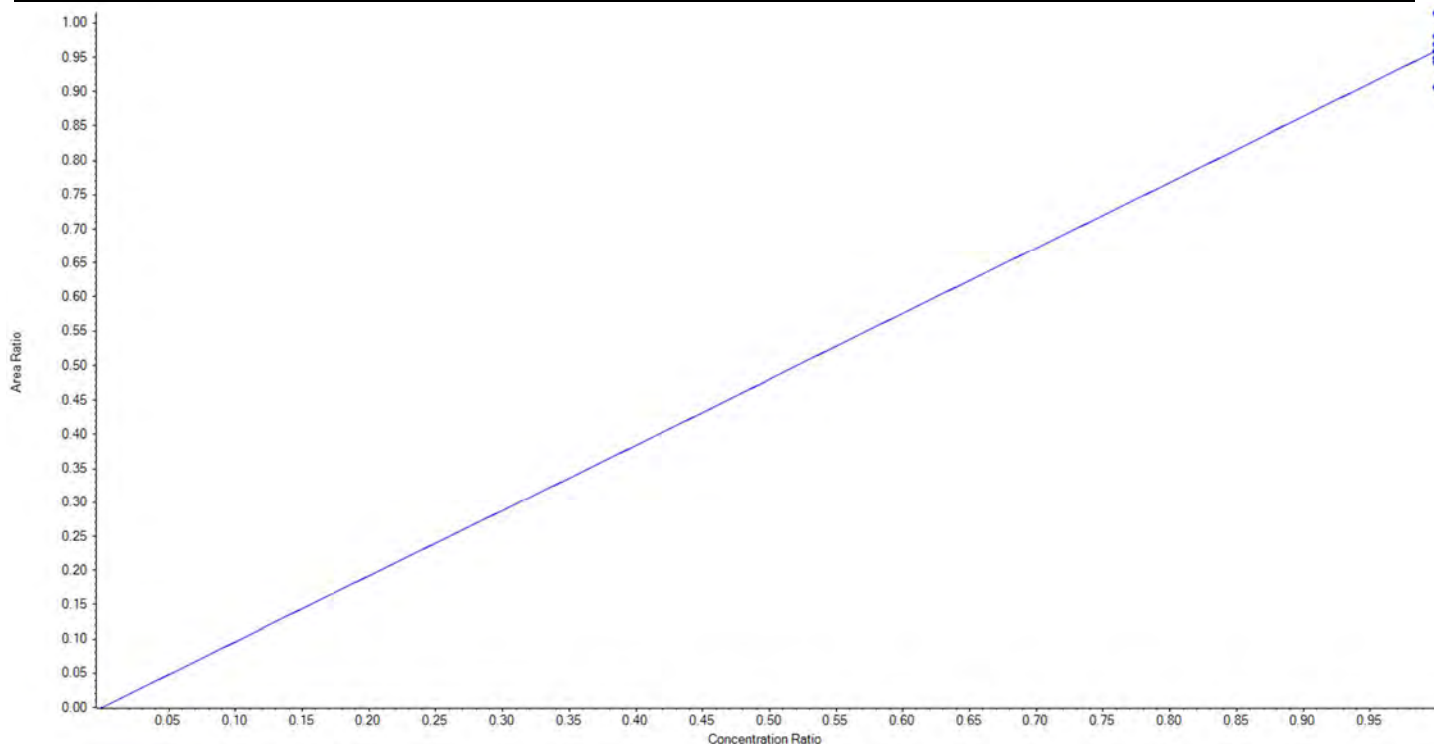
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Analyte Name	13C7-PFUnA	Data File	AC_11212018_5-369.wiff
MRM Transition	570.0 / 525.0	Result Table	18-0686_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.95999 x$ (std. dev. = 0.03354) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	250.000	236.065	94.4
3	KC67	L2	True	250.000	249.607	99.8
4	KC68	L3	True	250.000	264.144	105.7
5	KC69	L4	True	250.000	255.247	102.1
6	KC70	L5	True	250.000	247.014	98.8
7	KC71	L6	True	250.000	252.473	101.0
8	KC72	L7	True	250.000	245.450	98.2





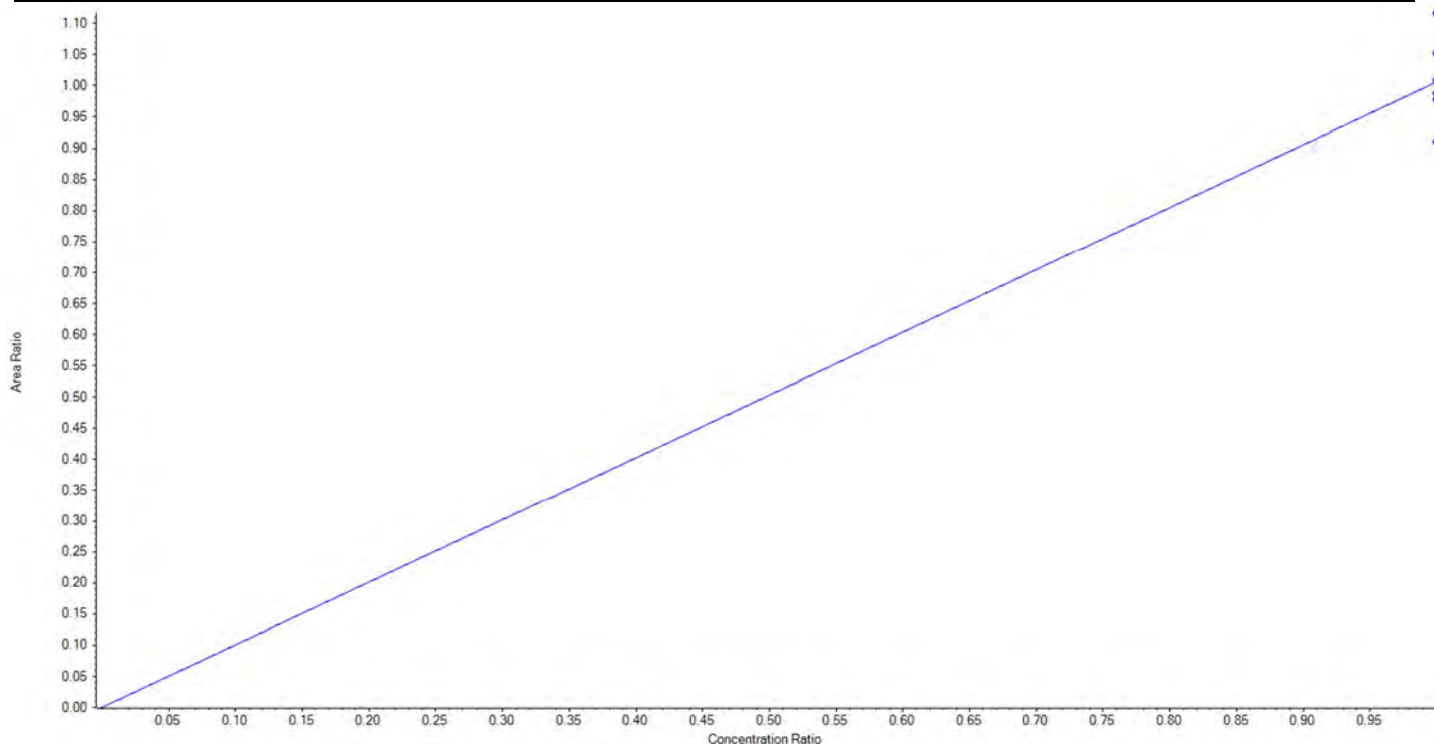
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Analyte Name	13C2-PFTeDA	Data File	AC_11212018_5-369.wiff
MRM Transition	715.0 / 670.0	Result Table	18-0686_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.00634 x$ (std. dev. = 0.06435) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	250.000	226.247	90.5
3	KC67	L2	True	250.000	245.468	98.2
4	KC68	L3	True	250.000	243.152	97.3
5	KC69	L4	True	250.000	245.589	98.2
6	KC70	L5	True	250.000	250.646	100.3
7	KC71	L6	True	250.000	261.532	104.6
8	KC72	L7	True	250.000	277.366	111.0





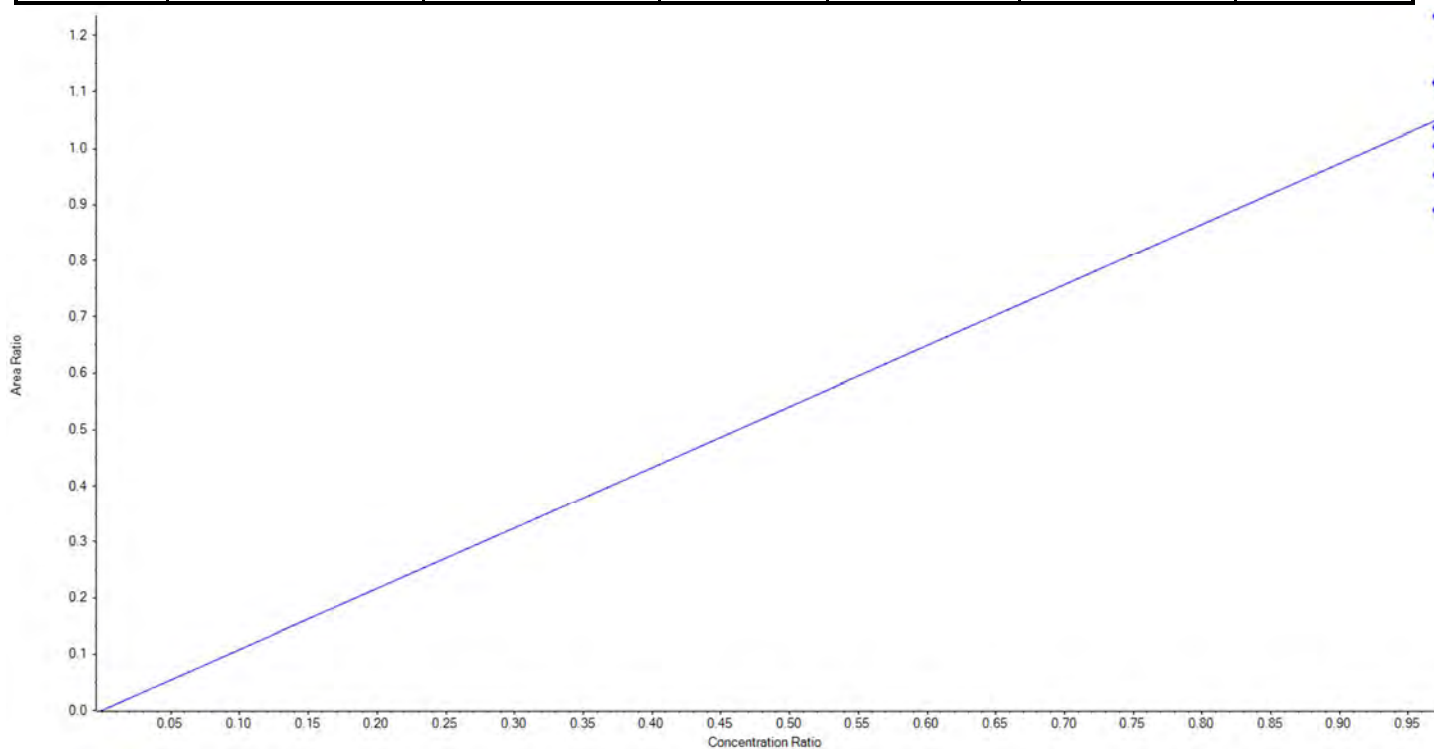
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Analyte Name	13C3-PFBS	Data File	AC_11212018_5-369.wiff
MRM Transition	302.0 / 99.0	Result Table	18-0686_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.08132 x$ (std. dev. = 0.11834) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	232.250	222.078	95.6
3	KC67	L2	True	232.250	197.174	84.9
4	KC68	L3	True	232.250	210.800	90.8
5	KC69	L4	True	232.250	246.454	106.1
6	KC70	L5	True	232.250	229.421	98.8
7	KC71	L6	True	232.250	246.833	106.3
8	KC72	L7	True	232.250	272.990	117.5





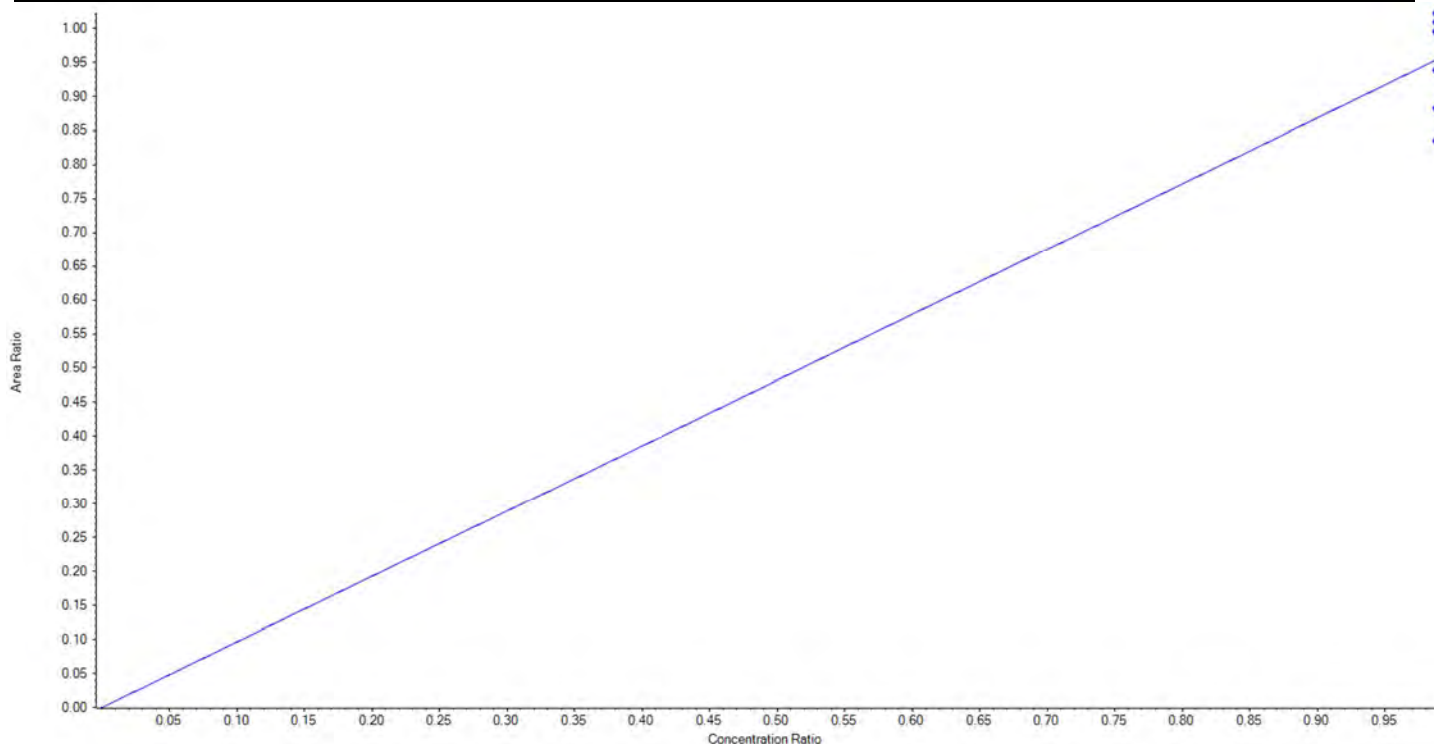
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Printed: 28/11/2018 3:36:58 PM

Analyte Name	13C3-PFHxS	Data File	AC_11212018_5-369.wiff
MRM Transition	402.0 / 99.0	Result Table	18-0686_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.96477 x$ (std. dev. = 0.07235) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	236.500	232.601	98.4
3	KC67	L2	True	236.500	206.997	87.5
4	KC68	L3	True	236.500	218.710	92.5
5	KC69	L4	True	236.500	246.602	104.3
6	KC70	L5	True	236.500	253.461	107.2
7	KC71	L6	True	236.500	247.064	104.5
8	KC72	L7	True	236.500	250.064	105.7





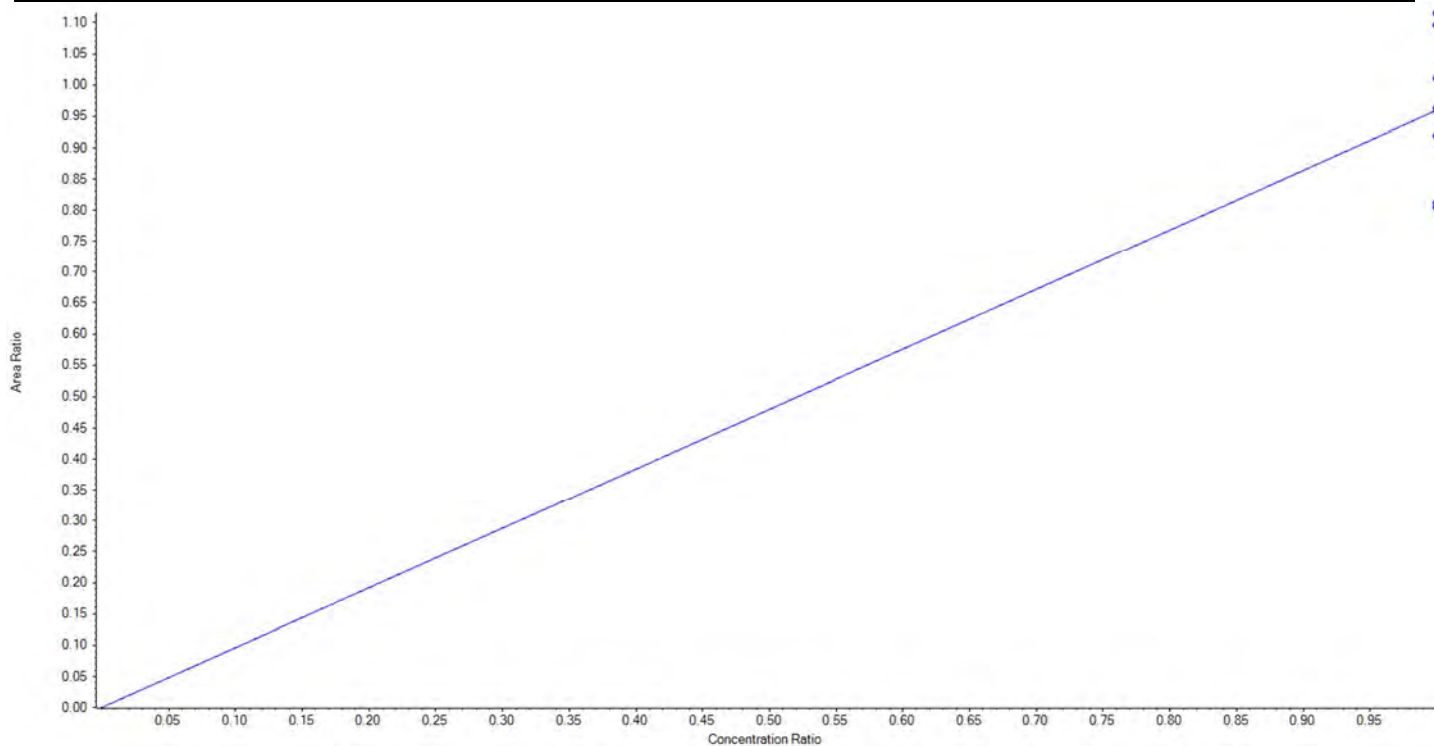
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Printed: 28/11/2018 3:36:58 PM

Analyte Name	13C8-PFOS	Data File	AC_11212018_5-369.wiff
MRM Transition	507.0 / 99.0	Result Table	18-0686_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	11/21/2018 5:30:46 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.95979 x$ (std. dev. = 0.12458) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KC66	L1	True	239.250	202.289	84.6
3	KC67	L2	True	239.250	200.553	83.8
4	KC68	L3	True	239.250	239.743	100.2
5	KC69	L4	True	239.250	277.985	116.2
6	KC70	L5	True	239.250	251.835	105.3
7	KC71	L6	True	239.250	229.044	95.7
8	KC72	L7	True	239.250	273.302	114.2





	ICC (ng/L)
	KC74
PFBA	1,000.00
PFPeA	1,000.00
PFHxA	1,010.00
PFHpA	1,000.00
PFOA	1,000.00
PFNA	1,000.00
PFDA	1,000.00
PFUnA	1,000.00
PFDoA	1,000.00
PFTTrDA	1,000.00
PFTeDA	1,000.00
NMeFOSAA	1,000.00
NEtFOSAA	1,000.00
PFOSA	1,000.00
PFBS	1,010.00
PFPeS	1,000.00
PFHxS	1,010.00
PFHpS	1,000.00
PFOS	1,000.00
PFDS	1,010.00
PFNS	1,010.00
4:2FTS	1,000.00
6:2FTS	1,000.00
8:2FTS	1,010.00
13C4-PFBA	250.00
13C5-PFPeA	250.00
13C5-PFHxA	250.00
13C4-PFHpA	250.00
13C8-PFOA	250.00
13C9-PFNA	250.00
13C6-PFDA	250.00
13C7-PFUnA	250.00
13C2-PFDoA	250.00
13C2-PFTeDA	250.00
d3-MeFOSAA	250.00
d5-EtFOSAA	250.00
13C8-FOSA	250.00
13C3-PFBS	232.25
13C3-PFHxS	236.50
13C8-PFOS	239.25
13C2-4:2FTS	233.75
13C2-6:2FTS	237.25
13C2-8:2FTS	239.50
13C3-PFBA	250.00
13C2-PFOA	250.00
13C2-PFDA	250.00
13C4-PFOS	239.25

Sample Name	KC66	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:30:46	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	46169.13	89.956	120.3	false
PFBS 2	298.9 / 99.0	1.55	15805.96	90.379	128.1	false
PFHxA 1	313.0 / 269.0	1.85	39836.11	95.061	18.7	true
PFHxA 2	313.0 / 119.0	1.85	3668.48	106.830	13.7	true
PFHpA 1	363.0 / 319.0	2.27	29509.58	81.472	37.3	true
PFHpA 2	363.0 / 169.0	2.28	698.93	94.095	19.3	true
PFHxS 1	399.0 / 80.0	2.31	49749.31	94.770	149.6	false
PFHxS 2	399.0 / 99.0	2.31	15288.92	98.902	134.2	false
PFOA 1	413.0 / 369.0	2.69	43392.08	96.936	75.8	false
PFOA 2	413.0 / 169.0	2.69	4450.86	126.704	61.6	false
PFNA 1	463.0 / 419.0	3.10	42504.63	93.983	92.0	false
PFNA 2	463.0 / 219.0	3.09	14080.05	98.961	107.8	false
PFOS 1	499.0 / 80.0	3.10	62639.57	93.758	70.4	false
PFOS 2	499.0 / 99.0	3.10	14049.14	90.127	144.3	false
PFDA 1	513.0 / 469.0	3.46	52562.63	95.336	163.8	false
PFDA 2	513.0 / 219.0	3.45	2396.37	103.181	42.7	false
PFUnA 1	563.0 / 519.0	3.79	43862.96	85.334	126.3	false
PFUnA 2	563.0 / 269.0	3.79	2614.86	87.653	70.2	false
PFDoA 1	613.0 / 569.0	4.07	46600.36	80.638	176.9	false
PFDoA 2	613.0 / 319.0	4.07	6735.40	80.065	100.1	false
PFTrDA 1	663.0 / 619.0	4.32	45346.49	86.406	233.8	false
PFTrDA 2	663.0 / 169.0	4.32	3250.02	90.150	95.2	false
PFTeDA 1	713.0 / 669.0	4.54	51663.32	80.741	458.0	false
PFTeDA 2	713.0 / 169.0	4.54	2291.54	73.560	136.2	false
NMeFOSAA 1	570.0 / 419.0	3.61	7404.51	76.047	139.2	false
NMeFOSAA 2	570.0 / 512.0	3.62	4386.01	84.525	96.0	false
NEtFOSAA 1	584.0 / 419.0	3.78	7385.82	108.581	126.6	false
NEtFOSAA 2	584.0 / 483.0	3.79	700.61	88.091	43.7	false

Sample Name	KC67	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:41:38	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	110868.52	263.111	187.2	false
PFBS 2	298.9 / 99.0	1.55	37804.16	288.738	227.3	false
PFHxA 1	313.0 / 269.0	1.86	94976.45	266.903	33.4	true
PFHxA 2	313.0 / 119.0	1.86	6869.37	237.770	27.3	true
PFHpA 1	363.0 / 319.0	2.28	84603.78	285.632	78.3	true
PFHpA 2	363.0 / 169.0	2.27	1570.05	268.539	36.6	false
PFHxS 1	399.0 / 80.0	2.31	125530.80	270.836	237.7	false
PFHxS 2	399.0 / 99.0	2.31	36282.84	271.206	261.0	false
PFOA 1	413.0 / 369.0	2.70	108441.97	272.887	139.5	false
PFOA 2	413.0 / 169.0	2.70	7088.07	244.723	87.8	false
PFNA 1	463.0 / 419.0	3.10	106173.41	273.520	207.0	false
PFNA 2	463.0 / 219.0	3.10	31472.27	256.525	173.6	false
PFOS 1	499.0 / 80.0	3.10	172278.52	280.301	133.0	false
PFOS 2	499.0 / 99.0	3.10	32059.08	267.967	183.3	false
PFDA 1	513.0 / 469.0	3.46	121682.40	265.534	250.8	false
PFDA 2	513.0 / 219.0	3.46	5308.97	280.376	91.1	false
PFUnA 1	563.0 / 519.0	3.79	124834.27	288.689	205.0	false
PFUnA 2	563.0 / 269.0	3.79	6742.05	305.033	87.1	false
PFDoA 1	613.0 / 569.0	4.07	122780.65	264.229	305.4	false
PFDoA 2	613.0 / 319.0	4.07	18730.52	256.275	143.3	false
PFTrDA 1	663.0 / 619.0	4.32	113019.56	259.747	355.3	false
PFTrDA 2	663.0 / 169.0	4.32	6782.15	231.157	182.5	false
PFTeDA 1	713.0 / 669.0	4.54	133335.83	265.020	581.0	false
PFTeDA 2	713.0 / 169.0	4.54	6772.42	283.240	320.6	false
NMeFOSAA 1	570.0 / 419.0	3.62	17942.96	250.079	287.5	false
NMeFOSAA 2	570.0 / 512.0	3.62	8564.16	210.925	184.0	false
NEtFOSAA 1	584.0 / 419.0	3.78	17493.79	242.901	303.1	false
NEtFOSAA 2	584.0 / 483.0	3.78	1637.23	294.770	119.5	false

Sample Name	KC68	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:52:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	191677.73	518.569	229.1	false
PFBS 2	298.9 / 99.0	1.55	58099.08	512.740	207.7	false
PFHxA 1	313.0 / 269.0	1.86	159471.18	495.926	50.9	true
PFHxA 2	313.0 / 119.0	1.86	12168.81	487.588	39.4	true
PFHpA 1	363.0 / 319.0	2.28	136337.31	502.446	113.2	false
PFHpA 2	363.0 / 169.0	2.27	2454.90	470.294	41.3	false
PFHxS 1	399.0 / 80.0	2.31	208176.90	507.136	300.4	false
PFHxS 2	399.0 / 99.0	2.31	58083.88	493.544	419.1	false
PFOA 1	413.0 / 369.0	2.70	181103.82	479.794	209.9	false
PFOA 2	413.0 / 169.0	2.69	11926.92	465.660	143.7	false
PFNA 1	463.0 / 419.0	3.10	171096.65	470.785	251.6	false
PFNA 2	463.0 / 219.0	3.10	55301.47	489.624	278.6	false
PFOS 1	499.0 / 80.0	3.10	302892.78	492.108	158.0	false
PFOS 2	499.0 / 99.0	3.10	54496.92	481.007	334.6	false
PFDA 1	513.0 / 469.0	3.46	210895.87	495.809	321.2	false
PFDA 2	513.0 / 219.0	3.46	8180.28	465.452	114.5	false
PFUnA 1	563.0 / 519.0	3.79	201076.28	479.815	237.8	false
PFUnA 2	563.0 / 269.0	3.79	9551.06	452.825	115.3	false
PFDoA 1	613.0 / 569.0	4.07	204465.06	507.725	369.5	false
PFDoA 2	613.0 / 319.0	4.07	34309.16	532.908	192.1	false
PFTrDA 1	663.0 / 619.0	4.32	192466.45	499.616	425.4	false
PFTrDA 2	663.0 / 169.0	4.32	12706.32	505.556	245.9	false
PFTeDA 1	713.0 / 669.0	4.54	225587.03	510.657	775.6	false
PFTeDA 2	713.0 / 169.0	4.54	10852.10	511.337	405.4	false
NMeFOSAA 1	570.0 / 419.0	3.61	31861.17	548.815	328.1	false
NMeFOSAA 2	570.0 / 512.0	3.61	16858.79	536.150	275.3	false
NEtFOSAA 1	584.0 / 419.0	3.78	27155.66	466.078	349.3	false
NEtFOSAA 2	584.0 / 483.0	3.77	2482.05	624.986	98.8	false

Sample Name	KC69	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:03:23	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	364713.45	1001.658	312.9	false
PFBS 2	298.9 / 99.0	1.56	105322.69	956.424	315.3	false
PFHxA 1	313.0 / 269.0	1.87	284763.57	1004.311	70.7	true
PFHxA 2	313.0 / 119.0	1.87	20893.44	965.202	49.1	true
PFHpA 1	363.0 / 319.0	2.29	264083.41	1041.125	179.6	false
PFHpA 2	363.0 / 169.0	2.29	5203.00	1092.912	90.1	false
PFHxS 1	399.0 / 80.0	2.31	413898.35	1053.727	314.8	false
PFHxS 2	399.0 / 99.0	2.31	117183.83	1046.780	484.6	false
PFOA 1	413.0 / 369.0	2.70	362807.35	993.126	270.8	false
PFOA 2	413.0 / 169.0	2.70	21079.34	882.737	255.6	false
PFNA 1	463.0 / 419.0	3.10	326073.93	966.402	418.9	false
PFNA 2	463.0 / 219.0	3.10	104941.58	1003.426	400.1	false
PFOS 1	499.0 / 80.0	3.10	550016.44	903.386	175.1	false
PFOS 2	499.0 / 99.0	3.10	104998.16	975.833	561.2	false
PFDA 1	513.0 / 469.0	3.46	378679.70	970.982	410.9	false
PFDA 2	513.0 / 219.0	3.46	13536.94	845.224	131.5	false
PFUnA 1	563.0 / 519.0	3.79	373568.79	993.800	306.1	false
PFUnA 2	563.0 / 269.0	3.79	17087.81	926.554	170.7	false
PFDoA 1	613.0 / 569.0	4.07	383933.05	1026.042	429.0	false
PFDoA 2	613.0 / 319.0	4.07	59624.77	981.564	216.6	false
PFTrDA 1	663.0 / 619.0	4.32	375950.43	1049.842	515.5	false
PFTrDA 2	663.0 / 169.0	4.31	24822.28	1072.597	314.2	false
PFTeDA 1	713.0 / 669.0	4.53	432663.82	1058.415	1077.7	false
PFTeDA 2	713.0 / 169.0	4.53	20907.20	1062.365	470.4	false
NMeFOSAA 1	570.0 / 419.0	3.62	59007.14	1014.938	654.9	false
NMeFOSAA 2	570.0 / 512.0	3.62	34954.54	1123.849	320.6	false
NEtFOSAA 1	584.0 / 419.0	3.78	57890.76	1109.620	554.8	false
NEtFOSAA 2	584.0 / 483.0	3.78	3032.69	872.961	732.4	false

Sample Name	KC70	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:14:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	956731.97	2644.927	513.9	false
PFBS 2	298.9 / 99.0	1.56	268277.79	2479.672	475.0	false
PFHxA 1	313.0 / 269.0	1.88	749942.05	2554.843	117.0	true
PFHxA 2	313.0 / 119.0	1.88	59765.02	2704.907	105.4	false
PFHpA 1	363.0 / 319.0	2.29	669449.73	2422.108	280.4	false
PFHpA 2	363.0 / 169.0	2.29	11867.36	2302.554	145.6	false
PFHxS 1	399.0 / 80.0	2.32	1049492.98	2437.951	558.6	false
PFHxS 2	399.0 / 99.0	2.32	289919.88	2369.157	861.8	false
PFOA 1	413.0 / 369.0	2.70	880871.22	2431.596	408.5	false
PFOA 2	413.0 / 169.0	2.70	52876.99	2299.526	390.1	false
PFNA 1	463.0 / 419.0	3.10	894143.91	2566.227	595.3	false
PFNA 2	463.0 / 219.0	3.10	258093.57	2389.905	649.6	false
PFOS 1	499.0 / 80.0	3.10	1435037.86	2504.827	314.9	false
PFOS 2	499.0 / 99.0	3.10	256182.78	2589.134	590.1	false
PFDA 1	513.0 / 469.0	3.46	1009352.91	2503.536	628.2	false
PFDA 2	513.0 / 219.0	3.46	42200.95	2576.721	248.4	false
PFUnA 1	563.0 / 519.0	3.78	941541.11	2543.600	381.9	false
PFUnA 2	563.0 / 269.0	3.78	46844.50	2625.960	200.2	false
PFDoA 1	613.0 / 569.0	4.07	991709.56	2647.047	575.6	false
PFDoA 2	613.0 / 319.0	4.06	169526.55	2769.713	380.4	false
PFTrDA 1	663.0 / 619.0	4.31	982232.98	2652.897	750.7	false
PFTrDA 2	663.0 / 169.0	4.31	64280.36	2700.079	413.6	false
PFTeDA 1	713.0 / 669.0	4.53	1098362.61	2606.069	1501.7	false
PFTeDA 2	713.0 / 169.0	4.53	53320.61	2624.575	834.8	false
NMeFOSAA 1	570.0 / 419.0	3.61	151669.08	2825.685	697.7	false
NMeFOSAA 2	570.0 / 512.0	3.61	80108.77	2782.336	657.6	false
NEtFOSAA 1	584.0 / 419.0	3.78	133785.35	2248.337	550.0	false
NEtFOSAA 2	584.0 / 483.0	3.77	7743.32	2073.368	363.0	false

Sample Name	KC71	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:25:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	3648362.58	10249.301	951.7	false
PFBS 2	298.9 / 99.0	1.56	1099096.74	10384.247	919.3	false
PFHxA 1	313.0 / 269.0	1.88	2721317.78	10397.007	279.3	false
PFHxA 2	313.0 / 119.0	1.88	203526.94	10374.479	209.0	false
PFHpA 1	363.0 / 319.0	2.29	2554193.92	10540.565	488.1	false
PFHpA 2	363.0 / 169.0	2.29	47068.94	10485.941	298.7	false
PFHxS 1	399.0 / 80.0	2.31	3719385.40	9586.477	881.9	false
PFHxS 2	399.0 / 99.0	2.31	1087506.44	9878.690	1387.1	false
PFOA 1	413.0 / 369.0	2.70	3348178.70	10199.185	889.6	false
PFOA 2	413.0 / 169.0	2.70	206943.87	10073.469	717.9	false
PFNA 1	463.0 / 419.0	3.10	3054477.93	10653.434	1330.9	false
PFNA 2	463.0 / 219.0	3.10	957539.48	10801.554	1120.0	false
PFOS 1	499.0 / 80.0	3.10	5268250.60	10957.991	559.2	false
PFOS 2	499.0 / 99.0	3.10	912788.97	11121.413	1368.7	false
PFDA 1	513.0 / 469.0	3.46	3581876.08	10390.977	1056.9	false
PFDA 2	513.0 / 219.0	3.46	149782.08	10718.410	466.3	false
PFUnA 1	563.0 / 519.0	3.78	3652632.91	10461.869	784.6	false
PFUnA 2	563.0 / 269.0	3.78	174906.65	10463.131	565.1	false
PFDoA 1	613.0 / 569.0	4.07	3804828.71	10903.511	850.8	false
PFDoA 2	613.0 / 319.0	4.06	609737.52	10650.247	633.0	false
PFTrDA 1	663.0 / 619.0	4.31	3533744.01	9932.940	1080.5	false
PFTrDA 2	663.0 / 169.0	4.31	238449.64	10452.079	734.4	false
PFTeDA 1	713.0 / 669.0	4.53	4194126.80	10377.910	2188.3	false
PFTeDA 2	713.0 / 169.0	4.53	197631.46	10136.543	1355.1	false
NMeFOSAA 1	570.0 / 419.0	3.61	535322.92	10292.975	1307.7	false
NMeFOSAA 2	570.0 / 512.0	3.61	290344.45	10427.024	1214.0	false
NEtFOSAA 1	584.0 / 419.0	3.78	522077.04	9855.080	1095.1	false
NEtFOSAA 2	584.0 / 483.0	3.78	30072.28	9358.736	1006.1	false

Sample Name	KC72	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:35:58	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	7868427.83	19925.978	1343.8	false
PFBS 2	298.9 / 99.0	1.56	2344316.93	19981.301	1228.9	false
PFHxA 1	313.0 / 269.0	1.88	5902764.04	19879.449	439.0	false
PFHxA 2	313.0 / 119.0	1.88	440646.88	19816.725	307.3	false
PFHpA 1	363.0 / 319.0	2.29	5287406.75	19476.652	639.8	false
PFHpA 2	363.0 / 169.0	2.29	98662.10	19635.666	438.6	false
PFHxS 1	399.0 / 80.0	2.32	8138361.19	20742.603	1192.6	false
PFHxS 2	399.0 / 99.0	2.32	2285606.99	20535.222	1400.9	false
PFOA 1	413.0 / 369.0	2.71	6618698.55	19876.476	1402.9	false
PFOA 2	413.0 / 169.0	2.71	421229.73	20257.182	853.9	false
PFNA 1	463.0 / 419.0	3.10	6161554.57	19325.648	1725.9	false
PFNA 2	463.0 / 219.0	3.10	1903294.15	19310.004	1394.3	false
PFOS 1	499.0 / 80.0	3.10	10942497.73	19117.629	766.9	false
PFOS 2	499.0 / 99.0	3.10	1836767.02	18824.520	1218.3	false
PFDA 1	513.0 / 469.0	3.46	7013729.49	19627.826	1371.1	false
PFDA 2	513.0 / 219.0	3.46	280399.44	19360.638	512.2	false
PFUnA 1	563.0 / 519.0	3.79	6927736.58	19496.891	791.9	false
PFUnA 2	563.0 / 269.0	3.78	331205.97	19488.845	493.6	false
PFDoA 1	613.0 / 569.0	4.07	7388107.64	18920.808	1035.8	false
PFDoA 2	613.0 / 319.0	4.07	1222838.66	19079.228	861.2	false
PFTrDA 1	663.0 / 619.0	4.31	7842843.78	19868.552	1668.1	false
PFTrDA 2	663.0 / 169.0	4.31	488381.47	19298.381	1141.0	false
PFTeDA 1	713.0 / 669.0	4.53	8721319.83	19451.187	2689.9	false
PFTeDA 2	713.0 / 169.0	4.53	425227.05	19658.380	1893.5	false
NMeFOSAA 1	570.0 / 419.0	3.61	1140201.42	19341.461	1815.7	false
NMeFOSAA 2	570.0 / 512.0	3.61	605435.94	19185.190	1482.1	false
NEtFOSAA 1	584.0 / 419.0	3.78	1032037.35	20319.403	1158.1	false
NEtFOSAA 2	584.0 / 483.0	3.78	64450.37	21037.088	680.8	false

Sample Name	KC66	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:30:46	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	125073.863	229.072	1266.3	false
d3-MeFOSAA	573.0 / 419.0	3.61	15462.925	220.136	175.8	false
d5-EtFOSAA	589.0 / 419.0	3.77	16026.385	231.406	193.1	false
13C5-PFHxA	318.0 / 273.0	1.84	81697.277	234.629	490.2	false
13C4-PFHpA	367.0 / 322.0	2.26	88849.214	233.787	574.0	false
13C8-PFOA	421.0 / 376.0	2.68	103171.573	246.858	2606.3	false
13C9-PFNA	472.0 / 427.0	3.08	100262.453	228.644	991.2	false
13C6-PFDA	519.0 / 474.0	3.44	116450.160	235.167	982.4	false
13C7-PFUnA	570.0 / 525.0	3.77	108471.785	236.065	357.7	false
13C2-PFTeDA	715.0 / 670.0	4.54	108979.464	226.247	2054.7	false
13C3-PFBS	302.0 / 99.0	1.53	36200.899	222.078	356.7	false
13C3-PFHxS	402.0 / 99.0	2.30	33829.629	232.601	284.7	false
13C8-PFOS	507.0 / 99.0	3.08	29268.939	202.289	248.7	false

Sample Name	KC67	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:41:38	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	128162.494	253.269	1261.1	false
d3-MeFOSAA	573.0 / 419.0	3.61	16614.991	218.513	188.6	false
d5-EtFOSAA	589.0 / 419.0	3.77	18850.199	251.438	238.6	false
13C5-PFHxA	318.0 / 273.0	1.84	85057.045	245.710	619.8	false
13C4-PFHpA	367.0 / 322.0	2.27	89084.379	235.781	827.9	false
13C8-PFOA	421.0 / 376.0	2.69	99969.971	240.601	1247.1	false
13C9-PFNA	472.0 / 427.0	3.08	105053.565	240.975	2609.3	false
13C6-PFDA	519.0 / 474.0	3.44	114669.108	249.861	1811.7	false
13C7-PFUnA	570.0 / 525.0	3.77	106298.117	249.607	541.8	false
13C2-PFTeDA	715.0 / 670.0	4.53	109582.368	245.468	2147.9	false
13C3-PFBS	302.0 / 99.0	1.53	34792.525	197.174	354.7	false
13C3-PFHxS	402.0 / 99.0	2.30	32589.195	206.997	387.5	false
13C8-PFOS	507.0 / 99.0	3.08	31411.432	200.553	243.1	false

Sample Name	KC68	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:52:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	117884.469	247.367	878.0	false
d3-MeFOSAA	573.0 / 419.0	3.61	15089.071	231.299	163.3	false
d5-EtFOSAA	589.0 / 419.0	3.77	15253.846	237.154	191.5	false
13C5-PFHxA	318.0 / 273.0	1.85	81573.451	261.593	631.1	false
13C4-PFHpA	367.0 / 322.0	2.27	84915.917	249.494	726.4	false
13C8-PFOA	421.0 / 376.0	2.69	97067.173	259.337	1300.8	false
13C9-PFNA	472.0 / 427.0	3.09	103361.781	263.200	841.6	false
13C6-PFDA	519.0 / 474.0	3.45	111810.687	258.702	1189.7	false
13C7-PFUnA	570.0 / 525.0	3.77	105936.587	264.144	602.0	false
13C2-PFTeDA	715.0 / 670.0	4.53	102225.600	243.152	2115.4	false
13C3-PFBS	302.0 / 99.0	1.54	31913.372	210.800	431.9	false
13C3-PFHxS	402.0 / 99.0	2.30	29542.148	218.710	363.4	false
13C8-PFOS	507.0 / 99.0	3.08	32215.909	239.743	239.7	false

Sample Name	KC69	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:03:23	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	113347.074	250.557	921.9	false
d3-MeFOSAA	573.0 / 419.0	3.61	15557.598	276.622	101.9	false
d5-EtFOSAA	589.0 / 419.0	3.77	14044.333	253.271	181.9	false
13C5-PFHxA	318.0 / 273.0	1.86	74626.573	236.276	567.7	false
13C4-PFHpA	367.0 / 322.0	2.28	81632.277	236.800	942.3	false
13C8-PFOA	421.0 / 376.0	2.69	95389.521	251.618	472.9	false
13C9-PFNA	472.0 / 427.0	3.09	99564.802	250.311	950.6	false
13C6-PFDA	519.0 / 474.0	3.45	105521.855	257.200	1513.9	false
13C7-PFUnA	570.0 / 525.0	3.77	97174.922	255.247	697.7	false
13C2-PFTeDA	715.0 / 670.0	4.53	98012.132	245.589	1940.1	false
13C3-PFBS	302.0 / 99.0	1.54	32166.484	246.454	369.9	false
13C3-PFHxS	402.0 / 99.0	2.31	28716.795	246.602	369.9	false
13C8-PFOS	507.0 / 99.0	3.09	32204.105	277.985	309.3	false

Sample Name	KC70	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:14:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	115905.247	248.549	1006.9	false
d3-MeFOSAA	573.0 / 419.0	3.61	14931.143	244.916	99.4	false
d5-EtFOSAA	589.0 / 419.0	3.77	16069.713	267.344	199.6	false
13C5-PFHxA	318.0 / 273.0	1.87	79012.361	244.289	703.2	false
13C4-PFHpA	367.0 / 322.0	2.28	90314.305	255.834	729.1	false
13C8-PFOA	421.0 / 376.0	2.70	95402.358	245.743	876.6	false
13C9-PFNA	472.0 / 427.0	3.09	105153.765	258.155	971.9	false
13C6-PFDA	519.0 / 474.0	3.44	111168.774	262.860	2103.4	false
13C7-PFUnA	570.0 / 525.0	3.77	96939.850	247.014	655.7	false
13C2-PFTeDA	715.0 / 670.0	4.53	103114.147	250.646	1822.6	false
13C3-PFBS	302.0 / 99.0	1.54	32458.059	229.421	339.8	false
13C3-PFHxS	402.0 / 99.0	2.31	31994.356	253.461	396.0	false
13C8-PFOS	507.0 / 99.0	3.09	31624.773	251.835	282.8	false

Sample Name	KC71	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:25:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	109070.964	251.854	872.2	false
d3-MeFOSAA	573.0 / 419.0	3.61	14563.638	259.322	64.7	false
d5-EtFOSAA	589.0 / 419.0	3.77	14512.900	262.097	180.4	false
13C5-PFHxA	318.0 / 273.0	1.87	71244.094	252.057	554.1	false
13C4-PFHpA	367.0 / 322.0	2.28	79892.477	258.970	566.1	false
13C8-PFOA	421.0 / 376.0	2.69	86844.903	255.981	1562.0	false
13C9-PFNA	472.0 / 427.0	3.09	87440.375	245.646	1119.1	false
13C6-PFDA	519.0 / 474.0	3.44	95929.690	244.244	1727.3	false
13C7-PFUnA	570.0 / 525.0	3.77	92016.831	252.473	485.3	false
13C2-PFTeDA	715.0 / 670.0	4.53	99920.087	261.532	1880.9	false
13C3-PFBS	302.0 / 99.0	1.54	32169.807	246.833	330.6	false
13C3-PFHxS	402.0 / 99.0	2.31	28729.366	247.064	324.8	false
13C8-PFOS	507.0 / 99.0	3.08	26496.355	229.044	240.8	false

Sample Name	KC72	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:35:58	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	122220.321	269.332	1627.9	false
d3-MeFOSAA	573.0 / 419.0	3.61	16874.396	299.192	59.8	false
d5-EtFOSAA	589.0 / 419.0	3.77	13751.432	247.291	141.3	false
13C5-PFHxA	318.0 / 273.0	1.87	80963.077	275.446	668.6	false
13C4-PFHpA	367.0 / 322.0	2.28	89614.576	279.333	672.2	false
13C8-PFOA	421.0 / 376.0	2.69	88152.448	249.861	2560.2	false
13C9-PFNA	472.0 / 427.0	3.09	97380.719	263.069	2058.9	false
13C6-PFDA	519.0 / 474.0	3.45	99581.145	241.965	1225.7	false
13C7-PFUnA	570.0 / 525.0	3.77	93736.491	245.450	490.9	false
13C2-PFTeDA	715.0 / 670.0	4.52	111038.938	277.366	1661.4	false
13C3-PFBS	302.0 / 99.0	1.54	35730.465	272.990	396.6	false
13C3-PFHxS	402.0 / 99.0	2.30	29202.079	250.064	307.5	false
13C8-PFOS	507.0 / 99.0	3.09	31750.866	273.302	210.5	false

Sample Name	KC66	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:30:46	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.342	0.308	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.092	0.078	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.024	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.307	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.103	0.068	
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.331	0.312	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.224	0.186	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.046	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.060	0.050	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.145	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.072	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.044	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.592	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.095	0.073	ü

Sample Name	KC67	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:41:38	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.341	0.308	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.072	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.019	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.289	0.287	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.065	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.296	0.312	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.186	0.186	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.044	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.054	0.050	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.153	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	0.051	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.477	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.094	0.073	ü

Sample Name	KC68	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:52:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	1.55	PFBS	0.303	0.308	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.076	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.018	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.279	0.287	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.066	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.323	0.312	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.186	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.039	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.048	0.050	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.168	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.066	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.048	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.529	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.77	NEtFOSAA	0.091	0.073	ü

Sample Name	KC69	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:03:23	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.289	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.073	0.078	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.020	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.283	0.287	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.058	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.322	0.312	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.191	0.186	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.036	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.046	0.050	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.155	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.32	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.31	PFTTrDA	0.066	0.066	ü
PFTeDA_1	713.0 / 669.0	4.53	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.53	PFTeDA	0.048	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.592	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.052	0.073	ü

Sample Name	KC70	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:14:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.078	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.018	0.019	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.276	0.287	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.060	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.289	0.312	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.179	0.186	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.042	0.041	ü
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	3.78	PFUnA	0.050	0.050	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.06	PFDoA	0.171	0.160	ü
PFTrDA_1	663.0 / 619.0	4.31	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.31	PFTrDA	0.065	0.066	ü
PFTeDA_1	713.0 / 669.0	4.53	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.53	PFTeDA	0.049	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.528	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.77	NEtFOSAA	0.058	0.073	ü

Sample Name	KC71	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:25:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.301	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.075	0.078	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.018	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.292	0.287	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.062	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.314	0.312	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.173	0.186	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.042	0.041	ü
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	3.78	PFUnA	0.048	0.050	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.06	PFDoA	0.160	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.31	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.31	PFTTrDA	0.068	0.066	ü
PFTeDA_1	713.0 / 669.0	4.53	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.53	PFTeDA	0.047	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.542	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.058	0.073	ü

Sample Name	KC72	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:35:58	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.298	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.075	0.078	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.019	0.019	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.281	0.287	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.064	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.309	0.312	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.168	0.186	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	3.78	PFUnA	0.048	0.050	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.166	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.31	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.31	PFTTrDA	0.062	0.066	ü
PFTeDA_1	713.0 / 669.0	4.53	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.53	PFTeDA	0.049	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.531	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.062	0.073	ü

Sample Name	KC66	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:30:46	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	36200.90	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	36200.90	232.25
PFHxA 1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	81697.28	250.00
PFHxA 2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	81697.28	250.00
PFHpA 1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	88849.21	250.00
PFHpA 2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	88849.21	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	33054.16	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	33054.16	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	103171.57	250.00
PFOA 2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	103171.57	250.00
PFNA 1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	100262.45	250.00
PFNA 2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	100262.45	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	29669.38	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	29669.38	239.25
PFDA 1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	116450.16	250.00
PFDA 2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	116450.16	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	108471.79	250.00
PFUnA 2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	108471.79	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	125073.86	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	125073.86	250.00
PFTTrDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	108979.46	250.00
PFTTrDA 2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	108979.46	250.00
PFTeDA 1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	108979.46	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	108979.46	250.00
NMeFOSAA 1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	16058.25	250.00
NMeFOSAA 2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	16058.25	250.00
NEtFOSAA 1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	16697.56	250.00
NEtFOSAA 2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	16697.56	250.00

Sample Name	KC67	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:41:38	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	34792.53	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	34792.53	232.25
PFHxA 1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	85057.04	250.00
PFHxA 2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	85057.04	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	89084.38	250.00
PFHpA 2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	89084.38	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	32185.77	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	32185.77	236.50
PFOA 1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	99969.97	250.00
PFOA 2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	99969.97	250.00
PFNA 1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	105053.57	250.00
PFNA 2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	105053.57	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	31427.57	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	31427.57	239.25
PFDA 1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	114669.11	250.00
PFDA 2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	114669.11	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	106298.12	250.00
PFUnA 2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	106298.12	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	128162.49	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	128162.49	250.00
PFTTrDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	109582.37	250.00
PFTTrDA 2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	109582.37	250.00
PFTeDA 1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	109582.37	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	109582.37	250.00
NMeFOSAA 1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	16932.84	250.00
NMeFOSAA 2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	16932.84	250.00
NEtFOSAA 1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	19055.96	250.00
NEtFOSAA 2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	19055.96	250.00

Sample Name	KC68	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:52:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	31913.37	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	31913.37	232.25
PFHxA 1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	81573.45	250.00
PFHxA 2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	81573.45	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	84915.92	250.00
PFHpA 2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	84915.92	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	29260.21	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	29260.21	236.50
PFOA 1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	97067.17	250.00
PFOA 2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	97067.17	250.00
PFNA 1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	103361.78	250.00
PFNA 2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	103361.78	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	32538.41	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	32538.41	239.25
PFDA 1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	111810.69	250.00
PFDA 2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	111810.69	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	105936.59	250.00
PFUnA 2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	105936.59	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	117884.47	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	117884.47	250.00
PFTrDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	102225.60	250.00
PFTrDA 2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	102225.60	250.00
PFTeDA 1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	102225.60	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	102225.60	250.00
NMeFOSAA 1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	15265.75	250.00
NMeFOSAA 2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	15265.75	250.00
NEtFOSAA 1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	15895.34	250.00
NEtFOSAA 2	584.0 / 483.0	3.77	d5-EtFOSAA	589.0 / 419.0	15895.34	250.00

Sample Name	KC69	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:03:23	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	32166.48	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	32166.48	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	74626.57	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	74626.57	250.00
PFHpA 1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	81632.28	250.00
PFHpA 2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	81632.28	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	28446.25	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	28446.25	236.50
PFOA 1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	95389.52	250.00
PFOA 2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	95389.52	250.00
PFNA 1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	99564.80	250.00
PFNA 2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	99564.80	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	32856.68	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	32856.68	239.25
PFDA 1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	105521.85	250.00
PFDA 2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	105521.85	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	97174.92	250.00
PFUnA 2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	97174.92	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	113347.07	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	113347.07	250.00
PFTTrDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	98012.13	250.00
PFTTrDA 2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	98012.13	250.00
PFTeDA 1	713.0 / 669.0	4.53	13C2-PFTeDA	715.0 / 670.0	98012.13	250.00
PFTeDA 2	713.0 / 169.0	4.53	13C2-PFTeDA	715.0 / 670.0	98012.13	250.00
NMeFOSAA 1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	15990.02	250.00
NMeFOSAA 2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	15990.02	250.00
NEtFOSAA 1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	14518.05	250.00
NEtFOSAA 2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	14518.05	250.00

Sample Name	KC70	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:14:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	32458.06	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	32458.06	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	79012.36	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	79012.36	250.00
PFHpA 1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	90314.30	250.00
PFHpA 2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	90314.30	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	31440.41	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	31440.41	236.50
PFOA 1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	95402.36	250.00
PFOA 2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	95402.36	250.00
PFNA 1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	105153.76	250.00
PFNA 2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	105153.76	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	31418.29	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	31418.29	239.25
PFDA 1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	111168.77	250.00
PFDA 2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	111168.77	250.00
PFUnA 1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	96939.85	250.00
PFUnA 2	563.0 / 269.0	3.78	13C7-PFUnA	570.0 / 525.0	96939.85	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	115905.25	250.00
PFDoA 2	613.0 / 319.0	4.06	13C2-PFDoA	615.0 / 570.0	115905.25	250.00
PFTrDA 1	663.0 / 619.0	4.31	13C2-PFTeDA	715.0 / 670.0	103114.15	250.00
PFTrDA 2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	103114.15	250.00
PFTeDA 1	713.0 / 669.0	4.53	13C2-PFTeDA	715.0 / 670.0	103114.15	250.00
PFTeDA 2	713.0 / 169.0	4.53	13C2-PFTeDA	715.0 / 670.0	103114.15	250.00
NMeFOSAA 1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	15292.32	250.00
NMeFOSAA 2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	15292.32	250.00
NEtFOSAA 1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	16680.92	250.00
NEtFOSAA 2	584.0 / 483.0	3.77	d5-EtFOSAA	589.0 / 419.0	16680.92	250.00

Sample Name	KC71	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:25:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	32169.81	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	32169.81	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	71244.09	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	71244.09	250.00
PFHpA 1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	79892.48	250.00
PFHpA 2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	79892.48	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	28473.79	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	28473.79	236.50
PFOA 1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	86844.90	250.00
PFOA 2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	86844.90	250.00
PFNA 1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	87440.37	250.00
PFNA 2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	87440.37	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	26552.37	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	26552.37	239.25
PFDA 1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	95929.69	250.00
PFDA 2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	95929.69	250.00
PFUnA 1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	92016.83	250.00
PFUnA 2	563.0 / 269.0	3.78	13C7-PFUnA	570.0 / 525.0	92016.83	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	109070.96	250.00
PFDoA 2	613.0 / 319.0	4.06	13C2-PFDoA	615.0 / 570.0	109070.96	250.00
PFTTrDA 1	663.0 / 619.0	4.31	13C2-PFTeDA	715.0 / 670.0	99920.09	250.00
PFTTrDA 2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	99920.09	250.00
PFTeDA 1	713.0 / 669.0	4.53	13C2-PFTeDA	715.0 / 670.0	99920.09	250.00
PFTeDA 2	713.0 / 169.0	4.53	13C2-PFTeDA	715.0 / 670.0	99920.09	250.00
NMeFOSAA 1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	15037.00	250.00
NMeFOSAA 2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	15037.00	250.00
NEtFOSAA 1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	14933.77	250.00
NEtFOSAA 2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	14933.77	250.00

Sample Name	KC72	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:35:58	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	35730.46	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	35730.46	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	80963.08	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	80963.08	250.00
PFHpA 1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	89614.58	250.00
PFHpA 2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	89614.58	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	28819.94	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	28819.94	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	88152.45	250.00
PFOA 2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	88152.45	250.00
PFNA 1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	97380.72	250.00
PFNA 2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	97380.72	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	31640.27	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	31640.27	239.25
PFDA 1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	99581.14	250.00
PFDA 2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	99581.14	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	93736.49	250.00
PFUnA 2	563.0 / 269.0	3.78	13C7-PFUnA	570.0 / 525.0	93736.49	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	122220.32	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	122220.32	250.00
PFTrDA 1	663.0 / 619.0	4.31	13C2-PFTeDA	715.0 / 670.0	111038.94	250.00
PFTrDA 2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	111038.94	250.00
PFTeDA 1	713.0 / 669.0	4.53	13C2-PFTeDA	715.0 / 670.0	111038.94	250.00
PFTeDA 2	713.0 / 169.0	4.53	13C2-PFTeDA	715.0 / 670.0	111038.94	250.00
NMeFOSAA 1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	17089.09	250.00
NMeFOSAA 2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	17089.09	250.00
NEtFOSAA 1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	14330.11	250.00
NEtFOSAA 2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	14330.11	250.00

Sample Name	KC66	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:30:46	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	119662.17	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	36067.09	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	36067.09	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	98017.35	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	98017.35	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	98017.35	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	98017.35	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	119662.17	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	119662.17	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	119662.17	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	36067.09	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	36067.09	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	36067.09	239.25

Sample Name	KC67	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:41:38	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	110902.44	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	39042.23	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	39042.23	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	97445.83	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	97445.83	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	97445.83	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	97445.83	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	110902.44	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	110902.44	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	110902.44	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	39042.23	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	39042.23	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	39042.23	239.25

Sample Name	KC68	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:52:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	104442.66	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	33496.50	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	33496.50	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	87780.57	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	87780.57	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	87780.57	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	87780.57	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	104442.66	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	104442.66	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	104442.66	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	33496.50	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	33496.50	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	33496.50	239.25

Sample Name	KC69	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:03:23	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	99143.75	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	28877.93	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	28877.93	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	88909.88	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	88909.88	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	88909.88	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	88909.88	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	99143.75	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	99143.75	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	99143.75	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	28877.93	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	28877.93	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	28877.93	239.25

Sample Name	KC70	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:14:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	102200.38	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	31303.11	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	31303.11	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	91047.48	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	91047.48	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	91047.48	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	91047.48	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	102200.38	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	102200.38	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	102200.38	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	31303.11	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	31303.11	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	31303.11	239.25

Sample Name	KC71	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:25:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	94912.50	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	28836.46	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	28836.46	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	79565.82	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	79565.82	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	79565.82	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	79565.82	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	94912.50	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	94912.50	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	94912.50	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	28836.46	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	28836.46	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	28836.46	239.25

Sample Name	KC72	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:35:58	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	99452.96	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	28959.35	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	28959.35	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	82742.15	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	82742.15	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	82742.15	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	82742.15	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	99452.96	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	99452.96	250.00
13C2-PFTeDA	715.0 / 670.0	4.52	13C2-PFDA	515.0 / 470.0	99452.96	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	28959.35	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	28959.35	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	28959.35	239.25

Sample Name	KC74 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:57:42	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.56	949.452	1010.000	94.01
PFBS 2	298.9 / 99.0	1.56	978.509	1010.000	96.88
PFHxA 1	313.0 / 269.0	1.88	991.320	1010.000	98.15
PFHxA 2	313.0 / 119.0	1.88	919.187	1010.000	91.01
PFHpA 1	363.0 / 319.0	2.29	927.874	1000.000	92.79
PFHpA 2	363.0 / 169.0	2.29	1148.253	1000.000	114.83
PFHxS 1	399.0 / 80.0	2.31	1063.706	1010.000	105.32
PFHxS 2	399.0 / 99.0	2.31	1096.694	1010.000	108.58
PFOA 1	413.0 / 369.0	2.70	949.572	1000.000	94.96
PFOA 2	413.0 / 169.0	2.70	848.667	1000.000	84.87
PFNA 1	463.0 / 419.0	3.10	949.985	1000.000	95.00
PFNA 2	463.0 / 219.0	3.10	997.821	1000.000	99.78
PFOS 1	499.0 / 80.0	3.09	978.882	1000.000	97.89
PFOS 2	499.0 / 99.0	3.09	997.010	1000.000	99.70
PFDA 1	513.0 / 469.0	3.45	969.808	1000.000	96.98
PFDA 2	513.0 / 219.0	3.45	1007.361	1000.000	100.74
PFUnA 1	563.0 / 519.0	3.78	966.270	1000.000	96.63
PFUnA 2	563.0 / 269.0	3.77	1069.275	1000.000	106.93
PFDoA 1	613.0 / 569.0	4.06	1095.915	1000.000	109.59
PFDoA 2	613.0 / 319.0	4.06	1067.666	1000.000	106.77
PFTrDA 1	663.0 / 619.0	4.31	1001.864	1000.000	100.19
PFTrDA 2	663.0 / 169.0	4.31	1031.188	1000.000	103.12
PFTeDA 1	713.0 / 669.0	4.53	984.894	1000.000	98.49
PFTeDA 2	713.0 / 169.0	4.52	1043.360	1000.000	104.34
NMeFOSAA 1	570.0 / 419.0	3.61	1065.871	1000.000	106.59
NMeFOSAA 2	570.0 / 512.0	3.61	1133.615	1000.000	113.36
NEtFOSAA 1	584.0 / 419.0	3.77	836.594	1000.000	83.66
NEtFOSAA 2	584.0 / 483.0	3.77	701.033	1000.000	70.10

Sample Name	KC69 CCV	Injection Vial	26
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T21:51:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.56	1065.504	1010.000	105.50
PFBS 2	298.9 / 99.0	1.56	1093.450	1010.000	108.26
PFHxA 1	313.0 / 269.0	1.88	943.852	1010.000	93.45
PFHxA 2	313.0 / 119.0	1.88	983.589	1010.000	97.39
PFHpA 1	363.0 / 319.0	2.29	985.525	1000.000	98.55
PFHpA 2	363.0 / 169.0	2.29	939.678	1000.000	93.97
PFHxS 1	399.0 / 80.0	2.31	1015.089	1010.000	100.50
PFHxS 2	399.0 / 99.0	2.31	1036.598	1010.000	102.63
PFOA 1	413.0 / 369.0	2.70	961.890	1000.000	96.19
PFOA 2	413.0 / 169.0	2.70	863.731	1000.000	86.37
PFNA 1	463.0 / 419.0	3.09	1075.305	1000.000	107.53
PFNA 2	463.0 / 219.0	3.09	1094.813	1000.000	109.48
PFOS 1	499.0 / 80.0	3.09	849.037	1000.000	84.90
PFOS 2	499.0 / 99.0	3.09	868.085	1000.000	86.81
PFDA 1	513.0 / 469.0	3.44	1006.721	1000.000	100.67
PFDA 2	513.0 / 219.0	3.44	1123.034	1000.000	112.30
PFUnA 1	563.0 / 519.0	3.77	1033.312	1000.000	103.33
PFUnA 2	563.0 / 269.0	3.77	1072.189	1000.000	107.22
PFDoA 1	613.0 / 569.0	4.05	1064.072	1000.000	106.41
PFDoA 2	613.0 / 319.0	4.05	1091.129	1000.000	109.11
PFTTrDA 1	663.0 / 619.0	4.30	1056.011	1000.000	105.60
PFTTrDA 2	663.0 / 169.0	4.30	1046.490	1000.000	104.65
PFTeDA 1	713.0 / 669.0	4.51	1048.483	1000.000	104.85
PFTeDA 2	713.0 / 169.0	4.51	1039.365	1000.000	103.94
NMeFOSAA 1	570.0 / 419.0	3.60	1095.775	1000.000	109.58
NMeFOSAA 2	570.0 / 512.0	3.60	1057.789	1000.000	105.78
NEtFOSAA 1	584.0 / 419.0	3.76	965.887	1000.000	96.59
NEtFOSAA 2	584.0 / 483.0	3.77	939.449	1000.000	93.94

Sample Name	KC70 CCV	Injection Vial	38
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:01:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.56	2474.424	2525.000	98.00
PFBS 2	298.9 / 99.0	1.56	2555.071	2525.000	101.19
PFHxA 1	313.0 / 269.0	1.87	2438.027	2525.000	96.56
PFHxA 2	313.0 / 119.0	1.87	2416.765	2525.000	95.71
PFHpA 1	363.0 / 319.0	2.28	2432.922	2500.000	97.32
PFHpA 2	363.0 / 169.0	2.28	2708.479	2500.000	108.34
PFHxS 1	399.0 / 80.0	2.30	2529.223	2525.000	100.17
PFHxS 2	399.0 / 99.0	2.30	2515.709	2525.000	99.63
PFOA 1	413.0 / 369.0	2.69	2529.855	2500.000	101.19
PFOA 2	413.0 / 169.0	2.69	2164.930	2500.000	86.60
PFNA 1	463.0 / 419.0	3.09	2494.373	2500.000	99.77
PFNA 2	463.0 / 219.0	3.09	2498.358	2500.000	99.93
PFOS 1	499.0 / 80.0	3.09	2752.804	2500.000	110.11
PFOS 2	499.0 / 99.0	3.09	2986.887	2500.000	119.48
PFDA 1	513.0 / 469.0	3.44	2720.758	2500.000	108.83
PFDA 2	513.0 / 219.0	3.44	2853.568	2500.000	114.14
PFUnA 1	563.0 / 519.0	3.77	2746.477	2500.000	109.86
PFUnA 2	563.0 / 269.0	3.76	2946.486	2500.000	117.86
PFDoA 1	613.0 / 569.0	4.05	2747.901	2500.000	109.92
PFDoA 2	613.0 / 319.0	4.05	2734.341	2500.000	109.37
PFTTrDA 1	663.0 / 619.0	4.29	2627.557	2500.000	105.10
PFTTrDA 2	663.0 / 169.0	4.29	2663.164	2500.000	106.53
PFTeDA 1	713.0 / 669.0	4.51	2623.261	2500.000	104.93
PFTeDA 2	713.0 / 169.0	4.51	2713.930	2500.000	108.56
NMeFOSAA 1	570.0 / 419.0	3.60	2784.167	2500.000	111.37
NMeFOSAA 2	570.0 / 512.0	3.60	2837.464	2500.000	113.50
NEtFOSAA 1	584.0 / 419.0	3.76	2171.009	2500.000	86.84
NEtFOSAA 2	584.0 / 483.0	3.76	2335.186	2500.000	93.41

Sample Name	KC69 CCV	Injection Vial	49
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T02:01:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.55	1008.588	1010.000	99.86
PFBS 2	298.9 / 99.0	1.55	970.651	1010.000	96.10
PFHxA 1	313.0 / 269.0	1.87	1004.661	1010.000	99.47
PFHxA 2	313.0 / 119.0	1.87	881.255	1010.000	87.25
PFHpA 1	363.0 / 319.0	2.28	1000.926	1000.000	100.09
PFHpA 2	363.0 / 169.0	2.27	1280.001	1000.000	128.00
PFHxS 1	399.0 / 80.0	2.30	1128.388	1010.000	111.72
PFHxS 2	399.0 / 99.0	2.30	1109.373	1010.000	109.84
PFOA 1	413.0 / 369.0	2.68	1045.069	1000.000	104.51
PFOA 2	413.0 / 169.0	2.68	985.651	1000.000	98.57
PFNA 1	463.0 / 419.0	3.08	1110.072	1000.000	111.01
PFNA 2	463.0 / 219.0	3.08	1100.989	1000.000	110.10
PFOS 1	499.0 / 80.0	3.08	1232.140	1000.000	123.21
PFOS 2	499.0 / 99.0	3.07	1229.167	1000.000	122.92
PFDA 1	513.0 / 469.0	3.43	1077.541	1000.000	107.75
PFDA 2	513.0 / 219.0	3.43	1159.290	1000.000	115.93
PFUnA 1	563.0 / 519.0	3.75	924.860	1000.000	92.49
PFUnA 2	563.0 / 269.0	3.75	957.435	1000.000	95.74
PFDoA 1	613.0 / 569.0	4.04	1118.257	1000.000	111.83
PFDoA 2	613.0 / 319.0	4.04	1076.806	1000.000	107.68
PFTTrDA 1	663.0 / 619.0	4.28	1045.278	1000.000	104.53
PFTTrDA 2	663.0 / 169.0	4.28	1099.151	1000.000	109.92
PFTeDA 1	713.0 / 669.0	4.50	1044.180	1000.000	104.42
PFTeDA 2	713.0 / 169.0	4.50	1041.307	1000.000	104.13
NMeFOSAA 1	570.0 / 419.0	3.59	1000.406	1000.000	100.04
NMeFOSAA 2	570.0 / 512.0	3.59	999.766	1000.000	99.98
NEtFOSAA 1	584.0 / 419.0	3.75	975.149	1000.000	97.51
NEtFOSAA 2	584.0 / 483.0	3.75	908.557	1000.000	90.86

Sample Name	KC68 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:58:13	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.57	493.410	505.000	97.70
PFBS 2	298.9 / 99.0	1.57	518.925	505.000	102.76
PFHxA 1	313.0 / 269.0	1.90	481.319	505.000	95.31
PFHxA 2	313.0 / 119.0	1.89	439.882	505.000	87.11
PFHpA 1	363.0 / 319.0	2.31	543.729	500.000	108.75
PFHpA 2	363.0 / 169.0	2.31	602.212	500.000	120.44
PFHxS 1	399.0 / 80.0	2.34	474.359	505.000	93.93
PFHxS 2	399.0 / 99.0	2.33	469.197	505.000	92.91
PFOA 1	413.0 / 369.0	2.73	518.365	500.000	103.67
PFOA 2	413.0 / 169.0	2.73	494.616	500.000	98.92
PFNA 1	463.0 / 419.0	3.13	448.294	500.000	89.66
PFNA 2	463.0 / 219.0	3.13	461.122	500.000	92.22
PFOS 1	499.0 / 80.0	3.12	517.848	500.000	103.57
PFOS 2	499.0 / 99.0	3.12	459.882	500.000	91.98
PFDA 1	513.0 / 469.0	3.49	489.459	500.000	97.89
PFDA 2	513.0 / 219.0	3.48	480.974	500.000	96.19
PFUnA 1	563.0 / 519.0	3.81	504.201	500.000	100.84
PFUnA 2	563.0 / 269.0	3.81	552.803	500.000	110.56
PFDoA 1	613.0 / 569.0	4.09	509.828	500.000	101.97
PFDoA 2	613.0 / 319.0	4.09	515.799	500.000	103.16
PFTTrDA 1	663.0 / 619.0	4.34	500.896	500.000	100.18
PFTTrDA 2	663.0 / 169.0	4.34	514.928	500.000	102.99
PFTTeDA 1	713.0 / 669.0	4.56	499.739	500.000	99.95
PFTTeDA 2	713.0 / 169.0	4.56	510.535	500.000	102.11
NMeFOSAA 1	570.0 / 419.0	3.64	507.860	500.000	101.57
NMeFOSAA 2	570.0 / 512.0	3.64	513.789	500.000	102.76
NEtFOSAA 1	584.0 / 419.0	3.81	575.498	500.000	115.10
NEtFOSAA 2	584.0 / 483.0	3.81	489.599	500.000	97.92

Sample Name	KC69	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T12:14:12	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.56	908.747	1010.000	89.97
PFBS 2	298.9 / 99.0	1.56	961.925	1010.000	95.24
PFHxA 1	313.0 / 269.0	1.89	998.688	1010.000	98.88
PFHxA 2	313.0 / 119.0	1.89	977.069	1010.000	96.74
PFHpA 1	363.0 / 319.0	2.30	1022.613	1000.000	102.26
PFHpA 2	363.0 / 169.0	2.30	1242.052	1000.000	124.21
PFHxS 1	399.0 / 80.0	2.32	1009.134	1010.000	99.91
PFHxS 2	399.0 / 99.0	2.32	1004.396	1010.000	99.45
PFOA 1	413.0 / 369.0	2.71	868.365	1000.000	86.84
PFOA 2	413.0 / 169.0	2.71	905.656	1000.000	90.57
PFNA 1	463.0 / 419.0	3.11	933.016	1000.000	93.30
PFNA 2	463.0 / 219.0	3.11	933.590	1000.000	93.36
PFOS 1	499.0 / 80.0	3.11	1295.825	1000.000	129.58
PFOS 2	499.0 / 99.0	3.11	1365.960	1000.000	136.60
PFDA 1	513.0 / 469.0	3.47	1019.742	1000.000	101.97
PFDA 2	513.0 / 219.0	3.47	933.328	1000.000	93.33
PFUnA 1	563.0 / 519.0	3.79	961.205	1000.000	96.12
PFUnA 2	563.0 / 269.0	3.80	1166.084	1000.000	116.61
PFDoA 1	613.0 / 569.0	4.08	1076.113	1000.000	107.61
PFDoA 2	613.0 / 319.0	4.07	1134.629	1000.000	113.46
PFTTrDA 1	663.0 / 619.0	4.32	1011.565	1000.000	101.16
PFTTrDA 2	663.0 / 169.0	4.32	1034.717	1000.000	103.47
PFTTeDA 1	713.0 / 669.0	4.54	1002.482	1000.000	100.25
PFTTeDA 2	713.0 / 169.0	4.54	1063.395	1000.000	106.34
NMeFOSAA 1	570.0 / 419.0	3.62	1033.365	1000.000	103.34
NMeFOSAA 2	570.0 / 512.0	3.62	1019.471	1000.000	101.95
NEtFOSAA 1	584.0 / 419.0	3.79	983.538	1000.000	98.35
NEtFOSAA 2	584.0 / 483.0	3.79	1158.166	1000.000	115.82

Sample Name	KC68	Injection Vial	4
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T14:11:09	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.57	514.081	505.000	101.80
PFBS 2	298.9 / 99.0	1.57	512.650	505.000	101.51
PFHxA 1	313.0 / 269.0	1.90	468.716	505.000	92.81
PFHxA 2	313.0 / 119.0	1.90	480.287	505.000	95.11
PFHpA 1	363.0 / 319.0	2.31	469.436	500.000	93.89
PFHpA 2	363.0 / 169.0	2.31	520.367	500.000	104.07
PFHxS 1	399.0 / 80.0	2.33	492.647	505.000	97.55
PFHxS 2	399.0 / 99.0	2.33	442.990	505.000	87.72
PFOA 1	413.0 / 369.0	2.73	465.055	500.000	93.01
PFOA 2	413.0 / 169.0	2.73	432.683	500.000	86.54
PFNA 1	463.0 / 419.0	3.12	484.057	500.000	96.81
PFNA 2	463.0 / 219.0	3.12	485.040	500.000	97.01
PFOS 1	499.0 / 80.0	3.12	494.106	500.000	98.82
PFOS 2	499.0 / 99.0	3.12	437.924	500.000	87.58
PFDA 1	513.0 / 469.0	3.48	503.970	500.000	100.79
PFDA 2	513.0 / 219.0	3.48	570.984	500.000	114.20
PFUnA 1	563.0 / 519.0	3.81	440.549	500.000	88.11
PFUnA 2	563.0 / 269.0	3.81	549.256	500.000	109.85
PFDoA 1	613.0 / 569.0	4.09	581.501	500.000	116.30
PFDoA 2	613.0 / 319.0	4.09	594.038	500.000	118.81
PFTTrDA 1	663.0 / 619.0	4.34	468.530	500.000	93.71
PFTTrDA 2	663.0 / 169.0	4.34	513.254	500.000	102.65
PFTTeDA 1	713.0 / 669.0	4.56	494.728	500.000	98.95
PFTTeDA 2	713.0 / 169.0	4.56	518.872	500.000	103.77
NMeFOSAA 1	570.0 / 419.0	3.64	460.106	500.000	92.02
NMeFOSAA 2	570.0 / 512.0	3.64	539.931	500.000	107.99
NEtFOSAA 1	584.0 / 419.0	3.81	495.670	500.000	99.13
NEtFOSAA 2	584.0 / 483.0	3.80	569.182	500.000	113.84

Sample Name	KC69	Injection Vial	16
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T16:01:22	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.57	974.285	1010.000	96.46
PFBS 2	298.9 / 99.0	1.57	931.730	1010.000	92.25
PFHxA 1	313.0 / 269.0	1.89	977.505	1010.000	96.78
PFHxA 2	313.0 / 119.0	1.89	950.257	1010.000	94.08
PFHpA 1	363.0 / 319.0	2.30	1074.571	1000.000	107.46
PFHpA 2	363.0 / 169.0	2.31	1088.761	1000.000	108.88
PFHxS 1	399.0 / 80.0	2.33	1044.250	1010.000	103.39
PFHxS 2	399.0 / 99.0	2.33	1057.812	1010.000	104.73
PFOA 1	413.0 / 369.0	2.72	1006.443	1000.000	100.64
PFOA 2	413.0 / 169.0	2.72	878.643	1000.000	87.86
PFNA 1	463.0 / 419.0	3.11	991.714	1000.000	99.17
PFNA 2	463.0 / 219.0	3.11	943.716	1000.000	94.37
PFOS 1	499.0 / 80.0	3.11	1010.793	1000.000	101.08
PFOS 2	499.0 / 99.0	3.11	982.328	1000.000	98.23
PFDA 1	513.0 / 469.0	3.47	991.565	1000.000	99.16
PFDA 2	513.0 / 219.0	3.47	1077.717	1000.000	107.77
PFUnA 1	563.0 / 519.0	3.80	1201.140	1000.000	120.11
PFUnA 2	563.0 / 269.0	3.79	1287.897	1000.000	128.79
PFDoA 1	613.0 / 569.0	4.08	1064.990	1000.000	106.50
PFDoA 2	613.0 / 319.0	4.08	1079.668	1000.000	107.97
PFTTrDA 1	663.0 / 619.0	4.32	1026.767	1000.000	102.68
PFTTrDA 2	663.0 / 169.0	4.32	1162.367	1000.000	116.24
PFTeDA 1	713.0 / 669.0	4.54	1012.855	1000.000	101.29
PFTeDA 2	713.0 / 169.0	4.54	1133.266	1000.000	113.33
NMeFOSAA 1	570.0 / 419.0	3.62	1076.669	1000.000	107.67
NMeFOSAA 2	570.0 / 512.0	3.63	1114.449	1000.000	111.44
NEtFOSAA 1	584.0 / 419.0	3.79	960.237	1000.000	96.02
NEtFOSAA 2	584.0 / 483.0	3.79	796.228	1000.000	79.62

Sample Name	KC69 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:15:42	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.56	952.345	1010.000	94.29
PFBS 2	298.9 / 99.0	1.56	978.212	1010.000	96.85
PFHxA 1	313.0 / 269.0	1.89	999.215	1010.000	98.93
PFHxA 2	313.0 / 119.0	1.89	962.340	1010.000	95.28
PFHpA 1	363.0 / 319.0	2.31	1049.802	1000.000	104.98
PFHpA 2	363.0 / 169.0	2.31	976.832	1000.000	97.68
PFHxS 1	399.0 / 80.0	2.33	1045.232	1010.000	103.49
PFHxS 2	399.0 / 99.0	2.33	1037.195	1010.000	102.69
PFOA 1	413.0 / 369.0	2.72	988.731	1000.000	98.87
PFOA 2	413.0 / 169.0	2.72	944.172	1000.000	94.42
PFNA 1	463.0 / 419.0	3.12	1044.387	1000.000	104.44
PFNA 2	463.0 / 219.0	3.12	1026.093	1000.000	102.61
PFOS 1	499.0 / 80.0	3.11	952.701	1000.000	95.27
PFOS 2	499.0 / 99.0	3.11	921.566	1000.000	92.16
PFDA 1	513.0 / 469.0	3.47	1077.097	1000.000	107.71
PFDA 2	513.0 / 219.0	3.47	1056.817	1000.000	105.68
PFUnA 1	563.0 / 519.0	3.80	988.202	1000.000	98.82
PFUnA 2	563.0 / 269.0	3.80	1037.184	1000.000	103.72
PFDoA 1	613.0 / 569.0	4.09	1072.081	1000.000	107.21
PFDoA 2	613.0 / 319.0	4.09	1071.219	1000.000	107.12
PFTTrDA 1	663.0 / 619.0	4.34	1041.922	1000.000	104.19
PFTTrDA 2	663.0 / 169.0	4.33	1003.054	1000.000	100.31
PFTeDA 1	713.0 / 669.0	4.56	1054.290	1000.000	105.43
PFTeDA 2	713.0 / 169.0	4.55	1066.438	1000.000	106.64
NMeFOSAA 1	570.0 / 419.0	3.63	1048.047	1000.000	104.80
NMeFOSAA 2	570.0 / 512.0	3.63	939.724	1000.000	93.97
NEtFOSAA 1	584.0 / 419.0	3.80	1103.141	1000.000	110.31
NEtFOSAA 2	584.0 / 483.0	3.79	811.502	1000.000	81.15

Sample Name	KC70	Injection Vial	8
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:59:11	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.56	2604.868	2525.000	103.16
PFBS 2	298.9 / 99.0	1.56	2621.027	2525.000	103.80
PFHxA 1	313.0 / 269.0	1.89	2515.456	2525.000	99.62
PFHxA 2	313.0 / 119.0	1.89	2882.321	2525.000	114.15
PFHpA 1	363.0 / 319.0	2.30	2645.184	2500.000	105.81
PFHpA 2	363.0 / 169.0	2.30	2922.683	2500.000	116.91
PFHxS 1	399.0 / 80.0	2.32	2564.941	2525.000	101.58
PFHxS 2	399.0 / 99.0	2.32	2602.672	2525.000	103.08
PFOA 1	413.0 / 369.0	2.72	2391.495	2500.000	95.66
PFOA 2	413.0 / 169.0	2.72	2297.766	2500.000	91.91
PFNA 1	463.0 / 419.0	3.11	2440.390	2500.000	97.62
PFNA 2	463.0 / 219.0	3.11	2605.408	2500.000	104.22
PFOS 1	499.0 / 80.0	3.11	2535.409	2500.000	101.42
PFOS 2	499.0 / 99.0	3.11	2660.075	2500.000	106.40
PFDA 1	513.0 / 469.0	3.47	2833.744	2500.000	113.35
PFDA 2	513.0 / 219.0	3.47	2989.150	2500.000	119.57
PFUnA 1	563.0 / 519.0	3.80	2304.975	2500.000	92.20
PFUnA 2	563.0 / 269.0	3.79	2523.375	2500.000	100.94
PFDoA 1	613.0 / 569.0	4.08	2603.341	2500.000	104.13
PFDoA 2	613.0 / 319.0	4.08	2577.855	2500.000	103.11
PFTTrDA 1	663.0 / 619.0	4.33	2600.242	2500.000	104.01
PFTTrDA 2	663.0 / 169.0	4.32	2611.283	2500.000	104.45
PFTTeDA 1	713.0 / 669.0	4.55	2605.863	2500.000	104.23
PFTTeDA 2	713.0 / 169.0	4.54	2692.631	2500.000	107.71
NMeFOSAA 1	570.0 / 419.0	3.63	2845.626	2500.000	113.83
NMeFOSAA 2	570.0 / 512.0	3.63	3019.871	2500.000	120.79
NEtFOSAA 1	584.0 / 419.0	3.79	2659.555	2500.000	106.38
NEtFOSAA 2	584.0 / 483.0	3.79	2567.232	2500.000	102.69

Sample Name	KC68	Injection Vial	9
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:24:05	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS 1	298.9 / 80.0	1.56	463.901	505.000	91.86
PFBS 2	298.9 / 99.0	1.56	469.534	505.000	92.98
PFHxA 1	313.0 / 269.0	1.89	479.166	505.000	94.88
PFHxA 2	313.0 / 119.0	1.89	496.338	505.000	98.28
PFHpA 1	363.0 / 319.0	2.31	523.076	500.000	104.62
PFHpA 2	363.0 / 169.0	2.31	482.137	500.000	96.43
PFHxS 1	399.0 / 80.0	2.33	481.429	505.000	95.33
PFHxS 2	399.0 / 99.0	2.33	511.513	505.000	101.29
PFOA 1	413.0 / 369.0	2.72	467.115	500.000	93.42
PFOA 2	413.0 / 169.0	2.72	389.255	500.000	77.85
PFNA 1	463.0 / 419.0	3.12	476.215	500.000	95.24
PFNA 2	463.0 / 219.0	3.12	463.221	500.000	92.64
PFOS 1	499.0 / 80.0	3.12	483.867	500.000	96.77
PFOS 2	499.0 / 99.0	3.11	483.564	500.000	96.71
PFDA 1	513.0 / 469.0	3.47	525.741	500.000	105.15
PFDA 2	513.0 / 219.0	3.47	471.900	500.000	94.38
PFUnA 1	563.0 / 519.0	3.80	465.782	500.000	93.16
PFUnA 2	563.0 / 269.0	3.80	514.165	500.000	102.83
PFDoA 1	613.0 / 569.0	4.08	505.830	500.000	101.17
PFDoA 2	613.0 / 319.0	4.08	557.624	500.000	111.52
PFTTrDA 1	663.0 / 619.0	4.33	488.158	500.000	97.63
PFTTrDA 2	663.0 / 169.0	4.33	534.869	500.000	106.97
PFTeDA 1	713.0 / 669.0	4.55	493.117	500.000	98.62
PFTeDA 2	713.0 / 169.0	4.55	504.434	500.000	100.89
NMeFOSAA 1	570.0 / 419.0	3.63	572.332	500.000	114.47
NMeFOSAA 2	570.0 / 512.0	3.63	464.893	500.000	92.98
NEtFOSAA 1	584.0 / 419.0	3.79	483.531	500.000	96.71
NEtFOSAA 2	584.0 / 483.0	3.79	367.742	500.000	73.55

Sample Name	KC74 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:57:42	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.05	224.269	250.000	89.71
d3-MeFOSAA	573.0 / 419.0	3.60	230.860	250.000	92.34
d5-EtFOSAA	589.0 / 419.0	3.76	265.663	250.000	106.27
13C5-PFHxA	318.0 / 273.0	1.87	225.470	250.000	90.19
13C4-PFHpA	367.0 / 322.0	2.28	237.594	250.000	95.04
13C8-PFOA	421.0 / 376.0	2.69	245.122	250.000	98.05
13C9-PFNA	472.0 / 427.0	3.08	237.106	250.000	94.84
13C6-PFDA	519.0 / 474.0	3.44	245.415	250.000	98.17
13C7-PFUnA	570.0 / 525.0	3.76	236.907	250.000	94.76
13C2-PFTeDA	715.0 / 670.0	4.52	239.656	250.000	95.86
13C3-PFBS	302.0 / 99.0	1.54	218.741	232.250	94.18
13C3-PFHxS	402.0 / 99.0	2.30	208.327	236.500	88.09
13C8-PFOS	507.0 / 99.0	3.08	236.699	239.250	98.93

Sample Name	KC69 CCV	Injection Vial	26
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T21:51:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	253.960	250.000	101.58
d3-MeFOSAA	573.0 / 419.0	3.60	232.629	250.000	93.05
d5-EtFOSAA	589.0 / 419.0	3.75	256.209	250.000	102.48
13C5-PFHxA	318.0 / 273.0	1.87	242.699	250.000	97.08
13C4-PFHpA	367.0 / 322.0	2.28	248.939	250.000	99.58
13C8-PFOA	421.0 / 376.0	2.69	254.100	250.000	101.64
13C9-PFNA	472.0 / 427.0	3.08	239.273	250.000	95.71
13C6-PFDA	519.0 / 474.0	3.43	260.696	250.000	104.28
13C7-PFUnA	570.0 / 525.0	3.75	249.710	250.000	99.88
13C2-PFTeDA	715.0 / 670.0	4.51	255.688	250.000	102.28
13C3-PFBS	302.0 / 99.0	1.54	200.076	232.250	86.15
13C3-PFHxS	402.0 / 99.0	2.30	223.496	236.500	94.50
13C8-PFOS	507.0 / 99.0	3.07	254.546	239.250	106.39

Sample Name	KC70 CCV	Injection Vial	38
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:01:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	236.804	250.000	94.72
d3-MeFOSAA	573.0 / 419.0	3.59	213.165	250.000	85.27
d5-EtFOSAA	589.0 / 419.0	3.75	261.944	250.000	104.78
13C5-PFHxA	318.0 / 273.0	1.86	259.325	250.000	103.73
13C4-PFHpA	367.0 / 322.0	2.27	261.227	250.000	104.49
13C8-PFOA	421.0 / 376.0	2.68	260.966	250.000	104.39
13C9-PFNA	472.0 / 427.0	3.07	270.205	250.000	108.08
13C6-PFDA	519.0 / 474.0	3.43	237.691	250.000	95.08
13C7-PFUnA	570.0 / 525.0	3.75	231.780	250.000	92.71
13C2-PFTeDA	715.0 / 670.0	4.50	242.841	250.000	97.14
13C3-PFBS	302.0 / 99.0	1.54	208.230	232.250	89.66
13C3-PFHxS	402.0 / 99.0	2.29	210.097	236.500	88.84
13C8-PFOS	507.0 / 99.0	3.07	214.553	239.250	89.68

Sample Name	KC69 CCV	Injection Vial	49
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T02:01:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.03	233.382	250.000	93.35
d3-MeFOSAA	573.0 / 419.0	3.58	277.786	250.000	111.11
d5-EtFOSAA	589.0 / 419.0	3.74	300.236	250.000	120.09
13C5-PFHxA	318.0 / 273.0	1.86	243.446	250.000	97.38
13C4-PFHpA	367.0 / 322.0	2.26	250.209	250.000	100.08
13C8-PFOA	421.0 / 376.0	2.67	259.873	250.000	103.95
13C9-PFNA	472.0 / 427.0	3.06	230.843	250.000	92.34
13C6-PFDA	519.0 / 474.0	3.42	244.669	250.000	97.87
13C7-PFUnA	570.0 / 525.0	3.74	282.703	250.000	113.08
13C2-PFTeDA	715.0 / 670.0	4.49	240.546	250.000	96.22
13C3-PFBS	302.0 / 99.0	1.53	249.869	232.250	107.59
13C3-PFHxS	402.0 / 99.0	2.28	227.014	236.500	95.99
13C8-PFOS	507.0 / 99.0	3.06	247.695	239.250	103.53

Sample Name	KC68 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:58:13	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.08	256.587	250.000	102.63
d3-MeFOSAA	573.0 / 419.0	3.64	303.762	250.000	121.50
d5-EtFOSAA	589.0 / 419.0	3.80	288.648	250.000	115.46
13C5-PFHxA	318.0 / 273.0	1.89	246.721	250.000	98.69
13C4-PFHpA	367.0 / 322.0	2.30	248.770	250.000	99.51
13C8-PFOA	421.0 / 376.0	2.72	263.731	250.000	105.49
13C9-PFNA	472.0 / 427.0	3.11	281.111	250.000	112.44
13C6-PFDA	519.0 / 474.0	3.47	272.413	250.000	108.97
13C7-PFUnA	570.0 / 525.0	3.79	267.109	250.000	106.84
13C2-PFTeDA	715.0 / 670.0	4.56	255.518	250.000	102.21
13C3-PFBS	302.0 / 99.0	1.55	188.523	232.250	81.17
13C3-PFHxS	402.0 / 99.0	2.32	212.875	236.500	90.01
13C8-PFOS	507.0 / 99.0	3.11	227.198	239.250	94.96

Sample Name	KC69	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T12:14:12	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.06	254.861	250.000	101.94
d3-MeFOSAA	573.0 / 419.0	3.62	306.659	250.000	122.66
d5-EtFOSAA	589.0 / 419.0	3.78	291.450	250.000	116.58
13C5-PFHxA	318.0 / 273.0	1.87	243.948	250.000	97.58
13C4-PFHpA	367.0 / 322.0	2.29	248.248	250.000	99.30
13C8-PFOA	421.0 / 376.0	2.70	283.541	250.000	113.42
13C9-PFNA	472.0 / 427.0	3.10	271.613	250.000	108.65
13C6-PFDA	519.0 / 474.0	3.45	266.541	250.000	106.62
13C7-PFUnA	570.0 / 525.0	3.78	256.802	250.000	102.72
13C2-PFTeDA	715.0 / 670.0	4.53	262.842	250.000	105.14
13C3-PFBS	302.0 / 99.0	1.55	207.005	232.250	89.13
13C3-PFHxS	402.0 / 99.0	2.31	224.258	236.500	94.82
13C8-PFOS	507.0 / 99.0	3.09	217.268	239.250	90.81

Sample Name	KC68	Injection Vial	4
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T14:11:09	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.08	232.278	250.000	92.91
d3-MeFOSAA	573.0 / 419.0	3.63	314.455	250.000	125.78
d5-EtFOSAA	589.0 / 419.0	3.79	304.063	250.000	121.63
13C5-PFHxA	318.0 / 273.0	1.89	239.798	250.000	95.92
13C4-PFHpA	367.0 / 322.0	2.30	262.454	250.000	104.98
13C8-PFOA	421.0 / 376.0	2.72	267.135	250.000	106.85
13C9-PFNA	472.0 / 427.0	3.11	262.011	250.000	104.80
13C6-PFDA	519.0 / 474.0	3.47	251.585	250.000	100.63
13C7-PFUnA	570.0 / 525.0	3.79	267.383	250.000	106.95
13C2-PFTeDA	715.0 / 670.0	4.55	252.919	250.000	101.17
13C3-PFBS	302.0 / 99.0	1.55	185.958	232.250	80.07
13C3-PFHxS	402.0 / 99.0	2.32	224.006	236.500	94.72
13C8-PFOS	507.0 / 99.0	3.11	252.883	239.250	105.70

Sample Name	KC69	Injection Vial	16
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T16:01:22	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.07	239.715	250.000	95.89
d3-MeFOSAA	573.0 / 419.0	3.62	316.406	250.000	126.56
d5-EtFOSAA	589.0 / 419.0	3.78	335.791	250.000	134.32
13C5-PFHxA	318.0 / 273.0	1.88	234.124	250.000	93.65
13C4-PFHpA	367.0 / 322.0	2.29	234.870	250.000	93.95
13C8-PFOA	421.0 / 376.0	2.71	251.045	250.000	100.42
13C9-PFNA	472.0 / 427.0	3.10	262.313	250.000	104.93
13C6-PFDA	519.0 / 474.0	3.45	252.835	250.000	101.13
13C7-PFUnA	570.0 / 525.0	3.78	218.660	250.000	87.46
13C2-PFTeDA	715.0 / 670.0	4.54	232.445	250.000	92.98
13C3-PFBS	302.0 / 99.0	1.55	200.011	232.250	86.12
13C3-PFHxS	402.0 / 99.0	2.32	209.454	236.500	88.56
13C8-PFOS	507.0 / 99.0	3.09	237.588	239.250	99.31

Sample Name	KC69 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:15:42	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.07	256.382	250.000	102.55
d3-MeFOSAA	573.0 / 419.0	3.63	375.333	250.000	150.13
d5-EtFOSAA	589.0 / 419.0	3.79	357.108	250.000	142.84
13C5-PFHxA	318.0 / 273.0	1.88	229.006	250.000	91.60
13C4-PFHpA	367.0 / 322.0	2.30	231.316	250.000	92.53
13C8-PFOA	421.0 / 376.0	2.71	249.271	250.000	99.71
13C9-PFNA	472.0 / 427.0	3.10	242.650	250.000	97.06
13C6-PFDA	519.0 / 474.0	3.46	249.710	250.000	99.88
13C7-PFUnA	570.0 / 525.0	3.79	260.203	250.000	104.08
13C2-PFTeDA	715.0 / 670.0	4.55	249.759	250.000	99.90
13C3-PFBS	302.0 / 99.0	1.55	236.487	232.250	101.82
13C3-PFHxS	402.0 / 99.0	2.32	235.091	236.500	99.40
13C8-PFOS	507.0 / 99.0	3.10	281.368	239.250	117.60

Sample Name	KC70	Injection Vial	8
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:59:11	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.07	252.528	250.000	101.01
d3-MeFOSAA	573.0 / 419.0	3.62	293.565	250.000	117.43
d5-EtFOSAA	589.0 / 419.0	3.78	300.455	250.000	120.18
13C5-PFHxA	318.0 / 273.0	1.87	240.750	250.000	96.30
13C4-PFHpA	367.0 / 322.0	2.29	252.205	250.000	100.88
13C8-PFOA	421.0 / 376.0	2.70	262.504	250.000	105.00
13C9-PFNA	472.0 / 427.0	3.10	264.840	250.000	105.94
13C6-PFDA	519.0 / 474.0	3.45	224.694	250.000	89.88
13C7-PFUnA	570.0 / 525.0	3.78	263.913	250.000	105.57
13C2-PFTeDA	715.0 / 670.0	4.54	238.403	250.000	95.36
13C3-PFBS	302.0 / 99.0	1.55	177.818	232.250	76.56
13C3-PFHxS	402.0 / 99.0	2.31	186.258	236.500	78.76
13C8-PFOS	507.0 / 99.0	3.09	223.410	239.250	93.38

Sample Name	KC68	Injection Vial	9
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:24:05	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.07	257.076	250.000	102.83
d3-MeFOSAA	573.0 / 419.0	3.62	307.033	250.000	122.81
d5-EtFOSAA	589.0 / 419.0	3.79	324.873	250.000	129.95
13C5-PFHxA	318.0 / 273.0	1.88	221.832	250.000	88.73
13C4-PFHpA	367.0 / 322.0	2.29	229.148	250.000	91.66
13C8-PFOA	421.0 / 376.0	2.71	253.526	250.000	101.41
13C9-PFNA	472.0 / 427.0	3.10	254.729	250.000	101.89
13C6-PFDA	519.0 / 474.0	3.46	256.976	250.000	102.79
13C7-PFUnA	570.0 / 525.0	3.78	258.825	250.000	103.53
13C2-PFTeDA	715.0 / 670.0	4.55	251.233	250.000	100.49
13C3-PFBS	302.0 / 99.0	1.54	194.338	232.250	83.68
13C3-PFHxS	402.0 / 99.0	2.32	211.320	236.500	89.35
13C8-PFOS	507.0 / 99.0	3.10	238.299	239.250	99.60

Sample Name	KC74 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:57:42	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	332638.94	949.452	311.0	false
PFBS 2	298.9 / 99.0	1.56	103440.13	978.509	320.9	false
PFHxA 1	313.0 / 269.0	1.88	269737.53	991.320	68.5	true
PFHxA 2	313.0 / 119.0	1.88	19138.68	919.187	48.0	true
PFHpA 1	363.0 / 319.0	2.29	238131.66	927.874	161.1	false
PFHpA 2	363.0 / 169.0	2.29	5502.24	1148.253	86.3	false
PFHxS 1	399.0 / 80.0	2.31	380986.19	1063.706	381.8	false
PFHxS 2	399.0 / 99.0	2.31	111864.30	1096.694	570.7	false
PFOA 1	413.0 / 369.0	2.70	339907.25	949.572	256.7	false
PFOA 2	413.0 / 169.0	2.70	19892.46	848.667	164.8	false
PFNA 1	463.0 / 419.0	3.10	305379.98	949.985	377.5	false
PFNA 2	463.0 / 219.0	3.10	99381.74	997.821	324.5	false
PFOS 1	499.0 / 80.0	3.09	537597.46	978.882	220.9	false
PFOS 2	499.0 / 99.0	3.09	96827.27	997.010	438.0	false
PFDA 1	513.0 / 469.0	3.45	369206.45	969.808	390.6	false
PFDA 2	513.0 / 219.0	3.45	15637.87	1007.361	168.2	false
PFUnA 1	563.0 / 519.0	3.78	345083.29	966.270	288.1	false
PFUnA 2	563.0 / 269.0	3.77	18606.69	1069.275	166.0	false
PFDaA 1	613.0 / 569.0	4.06	374680.74	1095.915	386.2	false
PFDaA 2	613.0 / 319.0	4.06	59277.24	1067.666	221.8	false
PFTrDA 1	663.0 / 619.0	4.31	358643.69	1001.864	475.0	false
PFTrDA 2	663.0 / 169.0	4.31	23858.27	1031.188	283.5	false
PFTeDA 1	713.0 / 669.0	4.53	402929.82	984.894	937.3	false
PFTeDA 2	713.0 / 169.0	4.52	20509.74	1043.360	608.2	false
NMeFOSAA 1	570.0 / 419.0	3.61	55660.40	1065.871	670.7	false
NMeFOSAA 2	570.0 / 512.0	3.61	31736.59	1133.615	446.4	false
NEtFOSAA 1	584.0 / 419.0	3.77	50256.65	836.594	555.4	false
NEtFOSAA 2	584.0 / 483.0	3.77	2867.14	701.033	92.2	true

Sample Name	KC69 CCV	Injection Vial	26
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T21:51:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	365671.13	1065.504	326.9	false
PFBS 2	298.9 / 99.0	1.56	113052.70	1093.450	334.2	false
PFHxA 1	313.0 / 269.0	1.88	274369.20	943.852	69.9	true
PFHxA 2	313.0 / 119.0	1.88	21754.55	983.589	57.3	true
PFHpA 1	363.0 / 319.0	2.29	262068.88	985.525	172.6	false
PFHpA 2	363.0 / 169.0	2.29	4714.03	939.678	98.2	false
PFHxS 1	399.0 / 80.0	2.31	419798.36	1015.089	435.6	false
PFHxS 2	399.0 / 99.0	2.31	122132.77	1036.598	586.3	false
PFOA 1	413.0 / 369.0	2.70	353520.03	961.890	371.3	false
PFOA 2	413.0 / 169.0	2.70	20768.02	863.731	224.2	false
PFNA 1	463.0 / 419.0	3.09	344097.89	1075.305	353.6	false
PFNA 2	463.0 / 219.0	3.09	108635.44	1094.813	409.1	false
PFOS 1	499.0 / 80.0	3.09	544600.96	849.037	143.2	false
PFOS 2	499.0 / 99.0	3.09	98998.38	868.085	467.4	false
PFDA 1	513.0 / 469.0	3.44	397689.90	1006.721	470.5	false
PFDA 2	513.0 / 219.0	3.44	18041.46	1123.034	164.9	false
PFUnA 1	563.0 / 519.0	3.77	379848.49	1033.312	282.3	false
PFUnA 2	563.0 / 269.0	3.77	19229.53	1072.189	175.6	false
PFDaA 1	613.0 / 569.0	4.05	403249.68	1064.072	487.4	false
PFDaA 2	613.0 / 319.0	4.05	67055.90	1091.129	281.1	false
PFTrDA 1	663.0 / 619.0	4.30	393810.85	1056.011	513.5	false
PFTrDA 2	663.0 / 169.0	4.30	25247.81	1046.490	282.8	false
PFTeDA 1	713.0 / 669.0	4.51	446559.65	1048.483	1096.2	false
PFTeDA 2	713.0 / 169.0	4.51	21319.55	1039.365	537.8	false
NMeFOSAA 1	570.0 / 419.0	3.60	62511.63	1095.775	626.1	false
NMeFOSAA 2	570.0 / 512.0	3.60	32520.80	1057.789	394.1	false
NEtFOSAA 1	584.0 / 419.0	3.76	59986.33	965.887	475.1	false
NEtFOSAA 2	584.0 / 483.0	3.77	3846.19	939.449	153.0	false

Sample Name	KC70 CCV	Injection Vial	38
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:01:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	936171.52	2474.424	548.0	false
PFBS 2	298.9 / 99.0	1.56	288797.64	2555.071	468.6	false
PFHxA 1	313.0 / 269.0	1.87	728571.05	2438.027	124.7	false
PFHxA 2	313.0 / 119.0	1.87	54458.16	2416.765	104.5	false
PFHpA 1	363.0 / 319.0	2.28	657978.43	2432.922	265.3	false
PFHpA 2	363.0 / 169.0	2.28	13619.46	2708.479	160.0	false
PFHxS 1	399.0 / 80.0	2.30	1046928.61	2529.223	373.6	false
PFHxS 2	399.0 / 99.0	2.30	295936.88	2515.709	505.2	false
PFOA 1	413.0 / 369.0	2.69	932484.50	2529.855	522.9	false
PFOA 2	413.0 / 169.0	2.69	50739.50	2164.930	316.5	false
PFNA 1	463.0 / 419.0	3.09	872126.27	2494.373	452.8	false
PFNA 2	463.0 / 219.0	3.09	270441.94	2498.358	492.5	false
PFOS 1	499.0 / 80.0	3.09	1578850.24	2752.804	305.7	false
PFOS 2	499.0 / 99.0	3.09	295158.77	2986.887	732.6	false
PFDA 1	513.0 / 469.0	3.44	1032481.15	2720.758	676.2	false
PFDA 2	513.0 / 219.0	3.44	43968.68	2853.568	292.6	false
PFUnA 1	563.0 / 519.0	3.77	993311.63	2746.477	480.1	false
PFUnA 2	563.0 / 269.0	3.76	51292.63	2946.486	312.6	false
PFDaA 1	613.0 / 569.0	4.05	1021452.45	2747.901	520.7	false
PFDaA 2	613.0 / 319.0	4.05	166154.04	2734.341	333.9	false
PFTrDA 1	663.0 / 619.0	4.29	982175.41	2627.557	864.7	false
PFTrDA 2	663.0 / 169.0	4.29	64015.40	2663.164	476.0	false
PFTeDA 1	713.0 / 669.0	4.51	1115979.87	2623.261	1724.3	false
PFTeDA 2	713.0 / 169.0	4.51	55634.43	2713.930	839.3	false
NMeFOSAA 1	570.0 / 419.0	3.60	147683.93	2784.167	854.6	false
NMeFOSAA 2	570.0 / 512.0	3.60	80676.27	2837.464	637.6	false
NEtFOSAA 1	584.0 / 419.0	3.76	145102.21	2171.009	944.0	false
NEtFOSAA 2	584.0 / 483.0	3.76	9738.31	2335.186	230.6	false

Sample Name	KC69 CCV	Injection Vial	49
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T02:01:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	395206.21	1008.588	379.0	false
PFBS 2	298.9 / 99.0	1.55	114977.59	970.651	356.6	false
PFHxA 1	313.0 / 269.0	1.87	301679.92	1004.661	84.4	true
PFHxA 2	313.0 / 119.0	1.87	20310.27	881.255	54.8	true
PFHpA 1	363.0 / 319.0	2.28	276029.99	1000.926	188.3	false
PFHpA 2	363.0 / 169.0	2.27	6578.60	1280.001	126.8	true
PFHxS 1	399.0 / 80.0	2.30	426464.91	1128.388	333.6	false
PFHxS 2	399.0 / 99.0	2.30	119479.62	1109.373	502.4	false
PFOA 1	413.0 / 369.0	2.68	405004.21	1045.069	314.0	false
PFOA 2	413.0 / 169.0	2.68	24828.86	985.651	222.6	false
PFNA 1	463.0 / 419.0	3.08	353402.39	1110.072	389.6	false
PFNA 2	463.0 / 219.0	3.08	108776.26	1100.989	327.8	false
PFOS 1	499.0 / 80.0	3.08	702647.83	1232.140	155.5	false
PFOS 2	499.0 / 99.0	3.07	123126.02	1229.167	341.4	false
PFDA 1	513.0 / 469.0	3.43	441341.51	1077.541	436.5	false
PFDA 2	513.0 / 219.0	3.43	19327.21	1159.290	185.8	false
PFUnA 1	563.0 / 519.0	3.75	427061.15	924.860	418.1	false
PFUnA 2	563.0 / 269.0	3.75	21623.49	957.435	224.9	false
PFDaA 1	613.0 / 569.0	4.04	430386.43	1118.257	395.9	false
PFDaA 2	613.0 / 319.0	4.04	67332.27	1076.806	272.6	false
PFTrDA 1	663.0 / 619.0	4.28	406040.95	1045.278	611.2	false
PFTrDA 2	663.0 / 169.0	4.28	27564.73	1099.151	362.6	false
PFTeDA 1	713.0 / 669.0	4.50	463176.66	1044.180	1068.2	false
PFTeDA 2	713.0 / 169.0	4.50	22241.05	1041.307	515.9	false
NMeFOSAA 1	570.0 / 419.0	3.59	61428.47	1000.406	503.0	false
NMeFOSAA 2	570.0 / 512.0	3.59	33034.72	999.766	576.5	false
NEtFOSAA 1	584.0 / 419.0	3.75	62981.15	975.149	474.4	false
NEtFOSAA 2	584.0 / 483.0	3.75	3882.64	908.557	315.4	false

Sample Name	KC68 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:58:13	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	173023.75	493.410	299.7	false
PFBS 2	298.9 / 99.0	1.57	55599.38	518.925	303.5	false
PFHxA 1	313.0 / 269.0	1.90	153657.13	481.319	44.4	true
PFHxA 2	313.0 / 119.0	1.89	10999.11	439.882	35.5	true
PFHpA 1	363.0 / 319.0	2.31	153891.73	543.729	139.6	false
PFHpA 2	363.0 / 169.0	2.31	3227.26	602.212	100.9	false
PFHxS 1	399.0 / 80.0	2.34	202717.71	474.359	215.4	false
PFHxS 2	399.0 / 99.0	2.33	57487.04	469.197	323.8	false
PFOA 1	413.0 / 369.0	2.73	208541.00	518.365	225.8	false
PFOA 2	413.0 / 169.0	2.73	13445.93	494.616	164.2	false
PFNA 1	463.0 / 419.0	3.13	183418.09	448.294	254.0	false
PFNA 2	463.0 / 219.0	3.13	58700.51	461.122	271.6	false
PFOS 1	499.0 / 80.0	3.12	312909.23	517.848	144.9	false
PFOS 2	499.0 / 99.0	3.12	51541.64	459.882	291.5	false
PFDA 1	513.0 / 469.0	3.49	235573.71	489.459	311.6	false
PFDA 2	513.0 / 219.0	3.48	9533.88	480.974	106.3	false
PFUnA 1	563.0 / 519.0	3.81	228949.58	504.201	281.6	false
PFUnA 2	563.0 / 269.0	3.81	12450.65	552.803	155.8	false
PFDaA 1	613.0 / 569.0	4.09	228607.83	509.828	381.4	false
PFDaA 2	613.0 / 319.0	4.09	37035.97	515.799	220.8	false
PFTrDA 1	663.0 / 619.0	4.34	217695.15	500.896	509.0	false
PFTrDA 2	663.0 / 169.0	4.34	14583.12	514.928	275.1	false
PFTeDA 1	713.0 / 669.0	4.56	249467.09	499.739	855.2	false
PFTeDA 2	713.0 / 169.0	4.56	12227.04	510.535	435.5	false
NMeFOSAA 1	570.0 / 419.0	3.64	41406.68	507.860	526.6	false
NMeFOSAA 2	570.0 / 512.0	3.64	22619.70	513.789	202.6	false
NEtFOSAA 1	584.0 / 419.0	3.81	42952.78	575.498	602.2	false
NEtFOSAA 2	584.0 / 483.0	3.81	2609.95	489.599	228.9	false

Sample Name	KC69	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T12:14:12	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	254341.87	908.747	298.9	false
PFBS 2	298.9 / 99.0	1.56	81197.72	961.925	352.8	false
PFHxA 1	313.0 / 269.0	1.89	231423.83	998.688	55.5	true
PFHxA 2	313.0 / 119.0	1.89	17270.10	977.069	43.4	true
PFHpA 1	363.0 / 319.0	2.30	215305.70	1022.613	177.6	false
PFHpA 2	363.0 / 169.0	2.30	4881.71	1242.052	85.3	false
PFHxS 1	399.0 / 80.0	2.32	329616.46	1009.134	274.4	false
PFHxS 2	399.0 / 99.0	2.32	93516.25	1004.396	340.6	false
PFOA 1	413.0 / 369.0	2.71	283490.94	868.365	289.0	false
PFOA 2	413.0 / 169.0	2.71	19257.25	905.656	236.0	false
PFNA 1	463.0 / 419.0	3.11	270687.15	933.016	314.8	false
PFNA 2	463.0 / 219.0	3.11	84087.31	933.590	427.0	false
PFOS 1	499.0 / 80.0	3.11	548652.81	1295.825	212.5	true
PFOS 2	499.0 / 99.0	3.11	101178.33	1365.960	384.0	false
PFDA 1	513.0 / 469.0	3.47	335026.79	1019.742	395.9	false
PFDA 2	513.0 / 219.0	3.47	12558.96	933.328	131.0	false
PFUnA 1	563.0 / 519.0	3.79	296147.61	961.205	303.1	false
PFUnA 2	563.0 / 269.0	3.80	17444.09	1166.084	176.9	false
PFDaA 1	613.0 / 569.0	4.08	332910.23	1076.113	446.9	false
PFDaA 2	613.0 / 319.0	4.07	56898.50	1134.629	300.1	false
PFTTrDA 1	663.0 / 619.0	4.32	315954.77	1011.565	603.4	false
PFTTrDA 2	663.0 / 169.0	4.32	20891.40	1034.717	305.1	false
PFTeDA 1	713.0 / 669.0	4.54	357719.44	1002.482	985.3	false
PFTeDA 2	713.0 / 169.0	4.54	18233.05	1063.395	485.4	false
NMeFOSAA 1	570.0 / 419.0	3.62	61074.07	1033.365	586.7	false
NMeFOSAA 2	570.0 / 512.0	3.62	32442.36	1019.471	431.8	false
NEtFOSAA 1	584.0 / 419.0	3.79	55325.05	983.538	589.2	false
NEtFOSAA 2	584.0 / 483.0	3.79	4211.51	1158.166	214.9	true

Sample Name	KC68	Injection Vial	4
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T14:11:09	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	182948.00	514.081	285.3	false
PFBS 2	298.9 / 99.0	1.57	55905.06	512.650	307.5	false
PFHxA 1	313.0 / 269.0	1.90	160632.78	468.716	47.4	true
PFHxA 2	313.0 / 119.0	1.90	12742.34	480.287	39.5	true
PFHpA 1	363.0 / 319.0	2.31	155726.82	469.436	147.8	false
PFHpA 2	363.0 / 169.0	2.31	3279.67	520.367	81.4	false
PFHxS 1	399.0 / 80.0	2.33	226142.08	492.647	294.6	false
PFHxS 2	399.0 / 99.0	2.33	58518.10	442.990	391.9	false
PFOA 1	413.0 / 369.0	2.73	209550.67	465.055	271.2	false
PFOA 2	413.0 / 169.0	2.73	13326.50	432.683	157.5	false
PFNA 1	463.0 / 419.0	3.12	202371.72	484.057	278.7	false
PFNA 2	463.0 / 219.0	3.12	63188.42	485.040	261.1	false
PFOS 1	499.0 / 80.0	3.12	344328.92	494.106	160.3	false
PFOS 2	499.0 / 99.0	3.12	56833.96	437.924	357.1	false
PFDA 1	513.0 / 469.0	3.48	246109.65	503.970	364.0	false
PFDA 2	513.0 / 219.0	3.48	11368.62	570.984	122.2	false
PFUnA 1	563.0 / 519.0	3.81	221678.08	440.549	267.5	false
PFUnA 2	563.0 / 269.0	3.81	13634.80	549.256	150.2	false
PFDaA 1	613.0 / 569.0	4.09	257643.69	581.501	417.1	false
PFDaA 2	613.0 / 319.0	4.09	42257.20	594.038	250.1	false
PFTrDA 1	663.0 / 619.0	4.34	222702.58	468.530	513.0	false
PFTrDA 2	663.0 / 169.0	4.34	15837.66	513.254	300.9	false
PFTeDA 1	713.0 / 669.0	4.56	269208.98	494.728	1022.4	false
PFTeDA 2	713.0 / 169.0	4.56	13522.73	518.872	411.7	false
NMeFOSAA 1	570.0 / 419.0	3.64	40347.26	460.106	418.6	false
NMeFOSAA 2	570.0 / 512.0	3.64	25161.78	539.931	377.7	false
NEtFOSAA 1	584.0 / 419.0	3.81	40504.97	495.670	430.1	false
NEtFOSAA 2	584.0 / 483.0	3.80	3223.08	569.182	236.3	false

Sample Name	KC69	Injection Vial	16
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T16:01:22	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	309772.88	974.285	372.2	false
PFBS 2	298.9 / 99.0	1.57	89634.73	931.730	357.7	false
PFHxA 1	313.0 / 269.0	1.89	276946.55	977.505	67.0	true
PFHxA 2	313.0 / 119.0	1.89	20551.32	950.257	48.9	true
PFHpA 1	363.0 / 319.0	2.30	272119.79	1074.571	243.9	false
PFHpA 2	363.0 / 169.0	2.31	5179.82	1088.761	142.8	false
PFHxS 1	399.0 / 80.0	2.33	371683.57	1044.250	408.6	false
PFHxS 2	399.0 / 99.0	2.33	107269.53	1057.812	523.7	false
PFOA 1	413.0 / 369.0	2.72	369476.44	1006.443	326.6	false
PFOA 2	413.0 / 169.0	2.72	21094.47	878.643	228.9	false
PFNA 1	463.0 / 419.0	3.11	352929.79	991.714	352.3	false
PFNA 2	463.0 / 219.0	3.11	104447.15	943.716	385.4	false
PFOS 1	499.0 / 80.0	3.11	549223.51	1010.793	216.1	false
PFOS 2	499.0 / 99.0	3.11	94541.41	982.328	383.4	false
PFDA 1	513.0 / 469.0	3.47	414757.62	991.565	355.8	false
PFDA 2	513.0 / 219.0	3.47	18349.81	1077.717	188.6	false
PFUnA 1	563.0 / 519.0	3.80	420735.95	1201.140	341.1	false
PFUnA 2	563.0 / 269.0	3.79	21921.63	1287.897	164.9	false
PFDaA 1	613.0 / 569.0	4.08	415724.90	1064.990	431.4	false
PFDaA 2	613.0 / 319.0	4.08	68362.01	1079.668	288.7	false
PFTrDA 1	663.0 / 619.0	4.32	380180.78	1026.767	592.6	false
PFTrDA 2	663.0 / 169.0	4.32	27716.96	1162.367	403.0	false
PFTeDA 1	713.0 / 669.0	4.54	428482.05	1012.855	1209.9	false
PFTeDA 2	713.0 / 169.0	4.54	23000.14	1133.266	681.0	false
NMeFOSAA 1	570.0 / 419.0	3.62	75260.73	1076.669	441.8	false
NMeFOSAA 2	570.0 / 512.0	3.63	41823.72	1114.449	454.7	false
NEtFOSAA 1	584.0 / 419.0	3.79	72754.49	960.237	729.2	false
NEtFOSAA 2	584.0 / 483.0	3.79	4051.04	796.228	302.2	false

Sample Name	KC69 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:15:42	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	330154.66	952.345	334.8	false
PFBS 2	298.9 / 99.0	1.56	102334.05	978.212	356.5	false
PFHxA 1	313.0 / 269.0	1.89	291028.18	999.215	70.8	true
PFHxA 2	313.0 / 119.0	1.89	21397.92	962.340	48.8	true
PFHpA 1	363.0 / 319.0	2.31	275566.36	1049.802	218.2	false
PFHpA 2	363.0 / 169.0	2.31	4836.90	976.832	106.2	false
PFHxS 1	399.0 / 80.0	2.33	388212.94	1045.232	408.8	false
PFHxS 2	399.0 / 99.0	2.33	109797.05	1037.195	565.7	false
PFOA 1	413.0 / 369.0	2.72	379193.91	988.731	265.9	false
PFOA 2	413.0 / 169.0	2.72	23575.02	944.172	242.8	false
PFNA 1	463.0 / 419.0	3.12	361006.33	1044.387	421.4	false
PFNA 2	463.0 / 219.0	3.12	110137.14	1026.093	416.1	false
PFOS 1	499.0 / 80.0	3.11	566587.47	952.701	250.5	false
PFOS 2	499.0 / 99.0	3.11	97335.40	921.566	469.6	false
PFDA 1	513.0 / 469.0	3.47	433996.85	1077.097	474.0	false
PFDA 2	513.0 / 219.0	3.47	17386.69	1056.817	155.1	false
PFUnA 1	563.0 / 519.0	3.80	404237.88	988.202	332.2	false
PFUnA 2	563.0 / 269.0	3.80	20709.04	1037.184	179.0	false
PFDaA 1	613.0 / 569.0	4.09	437500.35	1072.081	456.7	false
PFDaA 2	613.0 / 319.0	4.09	70934.63	1071.219	279.8	false
PFTrDA 1	663.0 / 619.0	4.34	405102.09	1041.922	632.0	false
PFTrDA 2	663.0 / 169.0	4.33	25261.80	1003.054	317.2	false
PFTeDA 1	713.0 / 669.0	4.56	467886.44	1054.290	1188.2	false
PFTeDA 2	713.0 / 169.0	4.55	22778.97	1066.438	592.2	false
NMeFOSAA 1	570.0 / 419.0	3.63	80410.56	1048.047	1467.1	false
NMeFOSAA 2	570.0 / 512.0	3.63	39044.31	939.724	392.5	false
NEtFOSAA 1	584.0 / 419.0	3.80	82694.53	1103.141	693.7	false
NEtFOSAA 2	584.0 / 483.0	3.79	4084.49	811.502	128.8	false

Sample Name	KC70	Injection Vial	8
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:59:11	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	794658.62	2604.868	517.2	false
PFBS 2	298.9 / 99.0	1.56	238901.02	2621.027	523.0	false
PFHxA 1	313.0 / 269.0	1.89	685343.40	2515.456	113.2	false
PFHxA 2	313.0 / 119.0	1.89	59021.70	2882.321	106.8	false
PFHpA 1	363.0 / 319.0	2.30	677978.60	2645.184	331.7	false
PFHpA 2	363.0 / 169.0	2.30	13923.74	2922.683	190.9	false
PFHxS 1	399.0 / 80.0	2.32	890018.93	2564.941	459.3	false
PFHxS 2	399.0 / 99.0	2.32	256606.57	2602.672	674.0	false
PFOA 1	413.0 / 369.0	2.72	871469.57	2391.495	523.3	false
PFOA 2	413.0 / 169.0	2.72	53144.80	2297.766	341.8	false
PFNA 1	463.0 / 419.0	3.11	821951.91	2440.390	528.2	false
PFNA 2	463.0 / 219.0	3.11	271423.11	2605.408	514.7	false
PFOS 1	499.0 / 80.0	3.11	1389034.12	2535.409	322.2	false
PFOS 2	499.0 / 99.0	3.11	251557.51	2660.075	683.1	false
PFDA 1	513.0 / 469.0	3.47	1024987.72	2833.744	563.7	false
PFDA 2	513.0 / 219.0	3.47	43893.35	2989.150	250.3	false
PFUnA 1	563.0 / 519.0	3.80	958925.90	2304.975	419.1	false
PFUnA 2	563.0 / 269.0	3.79	50583.19	2523.375	288.6	false
PFDaA 1	613.0 / 569.0	4.08	1041749.90	2603.341	522.2	false
PFDaA 2	613.0 / 319.0	4.08	168591.57	2577.855	441.6	false
PFTrDA 1	663.0 / 619.0	4.33	962663.53	2600.242	951.9	false
PFTrDA 2	663.0 / 169.0	4.32	62178.78	2611.283	437.3	false
PFTeDA 1	713.0 / 669.0	4.55	1097937.43	2605.863	1677.6	false
PFTeDA 2	713.0 / 169.0	4.54	54668.34	2692.631	978.7	false
NMeFOSAA 1	570.0 / 419.0	3.63	194809.18	2845.626	1239.4	false
NMeFOSAA 2	570.0 / 512.0	3.63	110716.19	3019.871	683.8	false
NEtFOSAA 1	584.0 / 419.0	3.79	186995.94	2659.555	1035.2	false
NEtFOSAA 2	584.0 / 483.0	3.79	11232.51	2567.232	470.5	false

Sample Name	KC68	Injection Vial	9
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:24:05	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	167743.80	463.901	288.2	false
PFBS 2	298.9 / 99.0	1.56	52127.68	469.534	309.2	false
PFHxA 1	313.0 / 269.0	1.89	147418.97	479.166	48.6	true
PFHxA 2	313.0 / 119.0	1.89	11800.15	496.338	37.9	true
PFHpA 1	363.0 / 319.0	2.31	146403.51	523.076	157.8	false
PFHpA 2	363.0 / 169.0	2.31	2595.68	482.137	69.9	false
PFHxS 1	399.0 / 80.0	2.33	202736.92	481.429	337.0	false
PFHxS 2	399.0 / 99.0	2.33	61567.68	511.513	477.2	false
PFOA 1	413.0 / 369.0	2.72	194142.66	467.115	207.4	false
PFOA 2	413.0 / 169.0	2.72	11202.85	389.255	175.8	false
PFNA 1	463.0 / 419.0	3.12	188359.51	476.215	261.6	false
PFNA 2	463.0 / 219.0	3.12	57232.87	463.221	341.3	false
PFOS 1	499.0 / 80.0	3.12	305817.47	483.867	151.8	false
PFOS 2	499.0 / 99.0	3.11	56180.09	483.564	368.7	false
PFDA 1	513.0 / 469.0	3.47	240631.23	525.741	312.2	false
PFDA 2	513.0 / 219.0	3.47	8944.51	471.900	111.2	false
PFUnA 1	563.0 / 519.0	3.80	208147.05	465.782	265.8	false
PFUnA 2	563.0 / 269.0	3.80	11423.44	514.165	111.5	false
PFDaA 1	613.0 / 569.0	4.08	230143.50	505.830	370.4	false
PFDaA 2	613.0 / 319.0	4.08	40476.73	557.624	200.8	false
PFTrDA 1	663.0 / 619.0	4.33	211468.60	488.158	471.8	false
PFTrDA 2	663.0 / 169.0	4.33	15034.33	534.869	260.7	false
PFTeDA 1	713.0 / 669.0	4.55	245215.93	493.117	830.3	false
PFTeDA 2	713.0 / 169.0	4.55	12032.66	504.434	400.2	false
NMeFOSAA 1	570.0 / 419.0	3.63	46134.34	572.332	2958.6	false
NMeFOSAA 2	570.0 / 512.0	3.63	20709.61	464.893	319.6	false
NEtFOSAA 1	584.0 / 419.0	3.79	41476.03	483.531	442.7	false
NEtFOSAA 2	584.0 / 483.0	3.79	2376.67	367.742	67.8	false

Sample Name	KC74 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:57:42	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	103788.443	224.269	1336.6	false
d3-MeFOSAA	573.0 / 419.0	3.60	14056.647	230.860	115.6	false
d5-EtFOSAA	589.0 / 419.0	3.76	16167.656	265.663	160.0	false
13C5-PFHxA	318.0 / 273.0	1.87	71580.785	225.470	792.9	false
13C4-PFHpA	367.0 / 322.0	2.28	82328.513	237.594	804.0	false
13C8-PFOA	421.0 / 376.0	2.69	93406.077	245.122	810.8	false
13C9-PFNA	472.0 / 427.0	3.08	94799.017	237.106	1033.7	false
13C6-PFDA	519.0 / 474.0	3.44	103002.839	245.415	4570.3	false
13C7-PFUnA	570.0 / 525.0	3.76	92267.085	236.907	473.2	false
13C2-PFTeDA	715.0 / 670.0	4.52	97844.141	239.656	1724.4	false
13C3-PFBS	302.0 / 99.0	1.54	30908.442	218.741	304.7	false
13C3-PFHxS	402.0 / 99.0	2.30	26264.242	208.327	318.9	false
13C8-PFOS	507.0 / 99.0	3.08	29686.977	236.699	243.9	false

Sample Name	KC69 CCV	Injection Vial	26
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T21:51:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	114934.935	253.960	1410.3	false
d3-MeFOSAA	573.0 / 419.0	3.60	15212.895	232.629	158.0	false
d5-EtFOSAA	589.0 / 419.0	3.75	16746.466	256.209	167.3	false
13C5-PFHxA	318.0 / 273.0	1.87	76329.434	242.699	669.7	false
13C4-PFHpA	367.0 / 322.0	2.28	85452.154	248.939	639.6	false
13C8-PFOA	421.0 / 376.0	2.69	95921.259	254.100	1643.4	false
13C9-PFNA	472.0 / 427.0	3.08	94769.693	239.273	2745.3	false
13C6-PFDA	519.0 / 474.0	3.43	107001.348	260.696	428841.2	false
13C7-PFUnA	570.0 / 525.0	3.75	95107.074	249.710	547.4	false
13C2-PFTeDA	715.0 / 670.0	4.51	102085.699	255.688	1916.2	false
13C3-PFBS	302.0 / 99.0	1.54	30363.764	200.076	398.4	false
13C3-PFHxS	402.0 / 99.0	2.30	30262.309	223.496	310.5	false
13C8-PFOS	507.0 / 99.0	3.07	34288.484	254.546	317.9	false

Sample Name	KC70 CCV	Injection Vial	38
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:01:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	115056.878	236.804	1469.9	false
d3-MeFOSAA	573.0 / 419.0	3.59	14965.820	213.165	105.8	false
d5-EtFOSAA	589.0 / 419.0	3.75	18381.170	261.944	193.4	false
13C5-PFHxA	318.0 / 273.0	1.86	80382.031	259.325	824.6	false
13C4-PFHpA	367.0 / 322.0	2.27	88376.725	261.227	917.8	false
13C8-PFOA	421.0 / 376.0	2.68	97092.103	260.966	982.1	false
13C9-PFNA	472.0 / 427.0	3.07	105477.208	270.205	1141.7	false
13C6-PFDA	519.0 / 474.0	3.43	104738.251	237.691	1587.6	false
13C7-PFUnA	570.0 / 525.0	3.75	94774.158	231.780	940.5	false
13C2-PFTeDA	715.0 / 670.0	4.50	104090.954	242.841	1880.2	false
13C3-PFBS	302.0 / 99.0	1.54	33926.621	208.230	385.7	false
13C3-PFHxS	402.0 / 99.0	2.29	30541.321	210.097	367.1	false
13C8-PFOS	507.0 / 99.0	3.07	31028.051	214.553	226.6	false

Sample Name	KC69 CCV	Injection Vial	49
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T02:01:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	116911.999	233.382	1428.2	false
d3-MeFOSAA	573.0 / 419.0	3.58	16585.904	277.786	163.7	false
d5-EtFOSAA	589.0 / 419.0	3.74	17917.324	300.236	208.3	false
13C5-PFHxA	318.0 / 273.0	1.86	79033.276	243.446	674.3	false
13C4-PFHpA	367.0 / 322.0	2.26	88657.668	250.209	991.8	false
13C8-PFOA	421.0 / 376.0	2.67	101263.662	259.873	1365.7	false
13C9-PFNA	472.0 / 427.0	3.06	94378.962	230.843	2052.4	false
13C6-PFDA	519.0 / 474.0	3.42	111157.572	244.669	1412.4	false
13C7-PFUnA	570.0 / 525.0	3.74	119182.646	282.703	614.9	false
13C2-PFTeDA	715.0 / 670.0	4.49	106305.928	240.546	2274.7	false
13C3-PFBS	302.0 / 99.0	1.53	34622.273	249.869	342.5	false
13C3-PFHxS	402.0 / 99.0	2.28	28065.054	227.014	265.6	false
13C8-PFOS	507.0 / 99.0	3.06	30463.594	247.695	242.8	false

Sample Name	KC68 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:58:13	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	131296.194	256.587	1699.6	false
d3-MeFOSAA	573.0 / 419.0	3.64	20971.059	303.762	211.0	false
d5-EtFOSAA	589.0 / 419.0	3.80	19917.596	288.648	282.0	false
13C5-PFHxA	318.0 / 273.0	1.89	80809.565	246.721	692.6	false
13C4-PFHpA	367.0 / 322.0	2.30	88932.383	248.770	770.3	false
13C8-PFOA	421.0 / 376.0	2.72	103682.031	263.731	1014.1	false
13C9-PFNA	472.0 / 427.0	3.11	115954.023	281.111	1476.7	false
13C6-PFDA	519.0 / 474.0	3.47	126419.032	272.413	1634.7	false
13C7-PFUnA	570.0 / 525.0	3.79	115025.845	267.109	41517.1	false
13C2-PFTeDA	715.0 / 670.0	4.56	115346.944	255.518	1934.6	false
13C3-PFBS	302.0 / 99.0	1.55	30204.048	188.523	573.8	false
13C3-PFHxS	402.0 / 99.0	2.32	30429.623	212.875	434.6	false
13C8-PFOS	507.0 / 99.0	3.11	32309.273	227.198	301.4	false

Sample Name	KC69	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T12:14:12	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	93859.540	254.861	1216.8	false
d3-MeFOSAA	573.0 / 419.0	3.62	15743.573	306.659	208.9	false
d5-EtFOSAA	589.0 / 419.0	3.78	14955.247	291.450	148.1	false
13C5-PFHxA	318.0 / 273.0	1.87	60977.020	243.948	461.3	false
13C4-PFHpA	367.0 / 322.0	2.29	67726.726	248.248	967.2	false
13C8-PFOA	421.0 / 376.0	2.70	85068.674	283.541	1571.3	false
13C9-PFNA	472.0 / 427.0	3.10	85501.205	271.613	1983.8	false
13C6-PFDA	519.0 / 474.0	3.45	89023.988	266.541	816.9	false
13C7-PFUnA	570.0 / 525.0	3.78	79590.924	256.802	837.3	false
13C2-PFTeDA	715.0 / 670.0	4.53	85395.704	262.842	1215.6	false
13C3-PFBS	302.0 / 99.0	1.55	24662.749	207.005	380.9	false
13C3-PFHxS	402.0 / 99.0	2.31	23838.618	224.258	307.1	false
13C8-PFOS	507.0 / 99.0	3.09	22976.286	217.268	224.1	false

Sample Name	KC68	Injection Vial	4
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T14:11:09	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	130803.111	232.278	2746.9	false
d3-MeFOSAA	573.0 / 419.0	3.63	22379.730	314.455	215.5	false
d5-EtFOSAA	589.0 / 419.0	3.79	21629.215	304.063	235.2	false
13C5-PFHxA	318.0 / 273.0	1.89	86578.643	239.798	770.6	false
13C4-PFHpA	367.0 / 322.0	2.30	103424.722	262.454	910.6	false
13C8-PFOA	421.0 / 376.0	2.72	115765.967	267.135	1612.0	false
13C9-PFNA	472.0 / 427.0	3.11	119133.929	262.011	118671.8	false
13C6-PFDA	519.0 / 474.0	3.47	128488.105	251.585	35165.9	false
13C7-PFUnA	570.0 / 525.0	3.79	126716.781	267.383	1018.8	false
13C2-PFTeDA	715.0 / 670.0	4.55	125648.401	252.919	1930.9	false
13C3-PFBS	302.0 / 99.0	1.55	30713.193	185.958	371.3	false
13C3-PFHxS	402.0 / 99.0	2.32	33009.540	224.006	538.7	false
13C8-PFOS	507.0 / 99.0	3.11	37072.459	252.883	280.1	false

Sample Name	KC69	Injection Vial	16
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T16:01:22	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	118391.854	239.715	1278.5	false
d3-MeFOSAA	573.0 / 419.0	3.62	19133.844	316.406	202.6	false
d5-EtFOSAA	589.0 / 419.0	3.78	20295.896	335.791	275.8	false
13C5-PFHxA	318.0 / 273.0	1.88	74493.546	234.124	718.3	false
13C4-PFHpA	367.0 / 322.0	2.29	81565.579	234.870	729.1	false
13C8-PFOA	421.0 / 376.0	2.71	95875.762	251.045	1669.6	false
13C9-PFNA	472.0 / 427.0	3.10	105110.232	262.313	1197.1	false
13C6-PFDA	519.0 / 474.0	3.45	113248.112	252.835	938.8	false
13C7-PFUnA	570.0 / 525.0	3.78	90883.751	218.660	585.2	false
13C2-PFTeDA	715.0 / 670.0	4.54	101277.614	232.445	1704.3	false
13C3-PFBS	302.0 / 99.0	1.55	28068.876	200.011	404.0	false
13C3-PFHxS	402.0 / 99.0	2.32	26225.998	209.454	318.3	false
13C8-PFOS	507.0 / 99.0	3.09	29594.986	237.588	236.2	false

Sample Name	KC69 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:15:42	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	123795.987	256.382	1075.2	false
d3-MeFOSAA	573.0 / 419.0	3.63	20918.550	375.333	254.4	false
d5-EtFOSAA	589.0 / 419.0	3.79	19892.776	357.108	262.6	false
13C5-PFHxA	318.0 / 273.0	1.88	76643.008	229.006	736.1	false
13C4-PFHpA	367.0 / 322.0	2.30	84496.315	231.316	979.8	false
13C8-PFOA	421.0 / 376.0	2.71	100134.642	249.271	6509.6	false
13C9-PFNA	472.0 / 427.0	3.10	102272.606	242.650	1166.6	false
13C6-PFDA	519.0 / 474.0	3.46	109351.459	249.710	1027.3	false
13C7-PFUnA	570.0 / 525.0	3.79	105735.801	260.203	891.6	false
13C2-PFTeDA	715.0 / 670.0	4.55	106391.856	249.759	1962.9	false
13C3-PFBS	302.0 / 99.0	1.55	30586.841	236.487	441.1	false
13C3-PFHxS	402.0 / 99.0	2.32	27129.058	235.091	344.6	false
13C8-PFOS	507.0 / 99.0	3.10	32301.677	281.368	352.4	false

Sample Name	KC70	Injection Vial	8
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:59:11	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	123769.693	252.528	1651.1	false
d3-MeFOSAA	573.0 / 419.0	3.62	19471.158	293.565	209.6	false
d5-EtFOSAA	589.0 / 419.0	3.78	19918.121	300.455	202.6	false
13C5-PFHxA	318.0 / 273.0	1.87	73320.089	240.750	675.3	false
13C4-PFHpA	367.0 / 322.0	2.29	83833.154	252.205	598.6	false
13C8-PFOA	421.0 / 376.0	2.70	95957.217	262.504	941.5	false
13C9-PFNA	472.0 / 427.0	3.10	101576.235	264.840	2228.9	false
13C6-PFDA	519.0 / 474.0	3.45	99876.685	224.694	1481.3	false
13C7-PFUnA	570.0 / 525.0	3.78	108856.624	263.913	907.5	false
13C2-PFTeDA	715.0 / 670.0	4.54	103082.256	238.403	1791.7	false
13C3-PFBS	302.0 / 99.0	1.55	27370.123	177.818	420.6	false
13C3-PFHxS	402.0 / 99.0	2.31	25579.207	186.258	287.8	false
13C8-PFOS	507.0 / 99.0	3.09	30522.925	223.410	299.1	false

Sample Name	KC68	Injection Vial	9
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:24:05	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	133153.166	257.076	1961.3	false
d3-MeFOSAA	573.0 / 419.0	3.62	21137.003	307.033	268.1	false
d5-EtFOSAA	589.0 / 419.0	3.79	22353.916	324.873	212.4	true
13C5-PFHxA	318.0 / 273.0	1.88	77851.552	221.832	681.3	false
13C4-PFHpA	367.0 / 322.0	2.29	87773.976	229.148	617.3	false
13C8-PFOA	421.0 / 376.0	2.71	106795.260	253.526	5791.8	false
13C9-PFNA	472.0 / 427.0	3.10	112583.451	254.729	1115.3	false
13C6-PFDA	519.0 / 474.0	3.46	120712.291	256.976	2033.5	false
13C7-PFUnA	570.0 / 525.0	3.78	112820.290	258.825	905.4	false
13C2-PFTeDA	715.0 / 670.0	4.55	114797.989	251.233	2456.8	false
13C3-PFBS	302.0 / 99.0	1.54	31047.649	194.338	477.8	false
13C3-PFHxS	402.0 / 99.0	2.32	30121.944	211.320	412.1	false
13C8-PFOS	507.0 / 99.0	3.10	33792.174	238.299	377.8	false

Sample Name	KC74 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:57:42	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.311	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.071	0.078	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.023	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.294	0.287	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.059	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.325	0.312	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.180	0.186	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.042	0.041	ü
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.054	0.050	ü
PFDaA_1	613.0 / 569.0	4.06	PFDaA			
PFDaA_2	613.0 / 319.0	4.06	PFDaA	0.158	0.160	ü
PFTrDA_1	663.0 / 619.0	4.31	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.31	PFTrDA	0.067	0.066	ü
PFTeDA_1	713.0 / 669.0	4.53	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	0.051	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.570	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.77	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.77	NEtFOSAA	0.057	0.073	ü

Sample Name	KC69 CCV	Injection Vial	26
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T21:51:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.309	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.079	0.078	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.018	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.291	0.287	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.059	0.068	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.316	0.312	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.182	0.186	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.045	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.051	0.050	ü
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.05	PFDaA	0.166	0.160	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.064	0.066	ü
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.51	PFTeDA	0.048	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.520	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.77	NEtFOSAA	0.064	0.073	ü

Sample Name	KC70 CCV	Injection Vial	38
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:01:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.309	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.075	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.021	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.283	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.054	0.068	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.310	0.312	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.187	0.186	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.043	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.052	0.050	ü
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.05	PFDaA	0.163	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.065	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	0.546	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.067	0.073	ü

Sample Name	KC69 CCV	Injection Vial	49
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T02:01:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.291	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.067	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.024	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.287	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.061	0.068	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.308	0.312	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.175	0.186	ü
PFDA_1	513.0 / 469.0	3.43	PFDA			
PFDA_2	513.0 / 219.0	3.43	PFDA	0.044	0.041	ü
PFUnA_1	563.0 / 519.0	3.75	PFUnA			
PFUnA_2	563.0 / 269.0	3.75	PFUnA	0.051	0.050	ü
PFDaA_1	613.0 / 569.0	4.04	PFDaA			
PFDaA_2	613.0 / 319.0	4.04	PFDaA	0.156	0.160	ü
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.28	PFTrDA	0.068	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.048	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.538	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.75	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.75	NEtFOSAA	0.062	0.073	ü

Sample Name	KC68 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:58:13	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.321	0.308	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.072	0.078	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.021	0.019	ü
PFHxS_1	399.0 / 80.0	2.34	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.284	0.287	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.73	PFOA	0.065	0.068	ü
PFNA_1	463.0 / 419.0	3.13	PFNA			
PFNA_2	463.0 / 219.0	3.13	PFNA	0.320	0.312	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.165	0.186	ü
PFDA_1	513.0 / 469.0	3.49	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.041	0.041	ü
PFUnA_1	563.0 / 519.0	3.81	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.054	0.050	ü
PFDaA_1	613.0 / 569.0	4.09	PFDaA			
PFDaA_2	613.0 / 319.0	4.09	PFDaA	0.162	0.160	ü
PFTrDA_1	663.0 / 619.0	4.34	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.067	0.066	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.049	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.64	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.64	NMeFOSAA	0.546	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.81	NEtFOSAA	0.061	0.073	ü

Sample Name	KC69	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T12:14:12	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.319	0.308	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.075	0.078	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.023	0.019	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.284	0.287	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.068	0.068	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.311	0.312	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.184	0.186	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.038	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.059	0.050	ü
PFDaA_1	613.0 / 569.0	4.08	PFDaA			
PFDaA_2	613.0 / 319.0	4.07	PFDaA	0.171	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.066	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.051	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.531	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.076	0.073	ü

Sample Name	KC68	Injection Vial	4
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T14:11:09	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.306	0.308	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.90	PFHxA	0.079	0.078	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.021	0.019	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.259	0.287	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.73	PFOA	0.064	0.068	ü
PFNA_1	463.0 / 419.0	3.12	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.312	0.312	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.165	0.186	ü
PFDA_1	513.0 / 469.0	3.48	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.046	0.041	ü
PFUnA_1	563.0 / 519.0	3.81	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.062	0.050	ü
PFDaA_1	613.0 / 569.0	4.09	PFDaA			
PFDaA_2	613.0 / 319.0	4.09	PFDaA	0.164	0.160	ü
PFTrDA_1	663.0 / 619.0	4.34	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.071	0.066	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.64	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.64	NMeFOSAA	0.624	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.080	0.073	ü

Sample Name	KC69	Injection Vial	16
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T16:01:22	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.289	0.308	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.074	0.078	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.019	0.019	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.289	0.287	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.057	0.068	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.296	0.312	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.172	0.186	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.044	0.041	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.052	0.050	ü
PFDaA_1	613.0 / 569.0	4.08	PFDaA			
PFDaA_2	613.0 / 319.0	4.08	PFDaA	0.164	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.073	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.054	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.556	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.056	0.073	ü

Sample Name	KC69 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:15:42	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.310	0.308	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.074	0.078	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.018	0.019	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.283	0.287	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.062	0.068	ü
PFNA_1	463.0 / 419.0	3.12	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.305	0.312	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.172	0.186	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	0.051	0.050	ü
PFDaA_1	613.0 / 569.0	4.09	PFDaA			
PFDaA_2	613.0 / 319.0	4.09	PFDaA	0.162	0.160	ü
PFTrDA_1	663.0 / 619.0	4.34	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.062	0.066	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.55	PFTeDA	0.049	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.486	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.049	0.073	ü

Sample Name	KC70	Injection Vial	8
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:59:11	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.301	0.308	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.086	0.078	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.021	0.019	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.288	0.287	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.061	0.068	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.330	0.312	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.181	0.186	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.043	0.041	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.053	0.050	ü
PFDaA_1	613.0 / 569.0	4.08	PFDaA			
PFDaA_2	613.0 / 319.0	4.08	PFDaA	0.162	0.160	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.065	0.066	ü
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.568	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.073	ü

Sample Name	KC68	Injection Vial	9
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:24:05	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.311	0.308	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.080	0.078	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.018	0.019	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.304	0.287	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.058	0.068	ü
PFNA_1	463.0 / 419.0	3.12	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.304	0.312	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.184	0.186	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.037	0.041	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.055	0.050	ü
PFDaA_1	613.0 / 569.0	4.08	PFDaA			
PFDaA_2	613.0 / 319.0	4.08	PFDaA	0.176	0.160	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.071	0.066	ü
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.55	PFTeDA	0.049	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.449	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.057	0.073	ü

Sample Name	KC74 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:57:42	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	30908.44	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	30908.44	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	71580.79	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	71580.79	250.00
PFHpA 1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	82328.51	250.00
PFHpA 2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	82328.51	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	25942.24	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	25942.24	236.50
PFOA 1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	93406.08	250.00
PFOA 2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	93406.08	250.00
PFNA 1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	94799.02	250.00
PFNA 2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	94799.02	250.00
PFOS 1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	29695.01	239.25
PFOS 2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	29695.01	239.25
PFDA 1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	103002.84	250.00
PFDA 2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	103002.84	250.00
PFUnA 1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	92267.08	250.00
PFUnA 2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	92267.08	250.00
PFDoA 1	613.0 / 569.0	4.06	13C2-PFDoA	615.0 / 570.0	103788.44	250.00
PFDoA 2	613.0 / 319.0	4.06	13C2-PFDoA	615.0 / 570.0	103788.44	250.00
PFTeDA 1	663.0 / 619.0	4.31	13C2-PFTeDA	715.0 / 670.0	97844.14	250.00
PFTeDA 2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	97844.14	250.00
PFTeDA 1	713.0 / 669.0	4.53	13C2-PFTeDA	715.0 / 670.0	97844.14	250.00
PFTeDA 2	713.0 / 169.0	4.52	13C2-PFTeDA	715.0 / 670.0	97844.14	250.00
NMeFOSAA 1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	14399.56	250.00
NMeFOSAA 2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	14399.56	250.00
NEtFOSAA 1	584.0 / 419.0	3.77	d5-EtFOSAA	589.0 / 419.0	16638.06	250.00
NEtFOSAA 2	584.0 / 483.0	3.77	d5-EtFOSAA	589.0 / 419.0	16638.06	250.00

Sample Name	KC69 CCV	Injection Vial	26
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T21:51:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	30363.76	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	30363.76	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	76329.43	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	76329.43	250.00
PFHpA 1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	85452.15	250.00
PFHpA 2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	85452.15	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	29933.04	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	29933.04	236.50
PFOA 1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	95921.26	250.00
PFOA 2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	95921.26	250.00
PFNA 1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	94769.69	250.00
PFNA 2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	94769.69	250.00
PFOS 1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	34560.56	239.25
PFOS 2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	34560.56	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	107001.35	250.00
PFDA 2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	107001.35	250.00
PFUnA 1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	95107.07	250.00
PFUnA 2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	95107.07	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	114934.93	250.00
PFDoA 2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	114934.93	250.00
PFTeDA 1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	102085.70	250.00
PFTeDA 2	663.0 / 169.0	4.30	13C2-PFTeDA	715.0 / 670.0	102085.70	250.00
PFTeDA 1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	102085.70	250.00
PFTeDA 2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	102085.70	250.00
NMeFOSAA 1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	15752.85	250.00
NMeFOSAA 2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	15752.85	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	17245.01	250.00
NEtFOSAA 2	584.0 / 483.0	3.77	d5-EtFOSAA	589.0 / 419.0	17245.01	250.00

Sample Name	KC70 CCV	Injection Vial	38
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:01:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	33926.62	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	33926.62	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	80382.03	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	80382.03	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	88376.72	250.00
PFHpA 2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	88376.72	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	30238.83	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	30238.83	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	97092.10	250.00
PFOA 2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	97092.10	250.00
PFNA 1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	105477.21	250.00
PFNA 2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	105477.21	250.00
PFOS 1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	31478.93	239.25
PFOS 2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	31478.93	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	104738.25	250.00
PFDA 2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	104738.25	250.00
PFUnA 1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	94774.16	250.00
PFUnA 2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	94774.16	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	115056.88	250.00
PFDoA 2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	115056.88	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	104090.95	250.00
PFTeDA 2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	104090.95	250.00
PFTeDA 1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	104090.95	250.00
PFTeDA 2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	104090.95	250.00
NMeFOSAA 1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	15108.03	250.00
NMeFOSAA 2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	15108.03	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	18731.56	250.00
NEtFOSAA 2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	18731.56	250.00

Sample Name	KC69 CCV	Injection Vial	49
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T02:01:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	34622.27	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	34622.27	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	79033.28	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	79033.28	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	88657.67	250.00
PFHpA 2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	88657.67	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	27397.49	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	27397.49	236.50
PFOA 1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	101263.66	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	101263.66	250.00
PFNA 1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	94378.96	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	94378.96	250.00
PFOS 1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	30981.06	239.25
PFOS 2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	30981.06	239.25
PFDA 1	513.0 / 469.0	3.43	13C6-PFDA	519.0 / 474.0	111157.57	250.00
PFDA 2	513.0 / 219.0	3.43	13C6-PFDA	519.0 / 474.0	111157.57	250.00
PFUnA 1	563.0 / 519.0	3.75	13C7-PFUnA	570.0 / 525.0	119182.65	250.00
PFUnA 2	563.0 / 269.0	3.75	13C7-PFUnA	570.0 / 525.0	119182.65	250.00
PFDoA 1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	116912.00	250.00
PFDoA 2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	116912.00	250.00
PFTrDA 1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	106305.93	250.00
PFTrDA 2	663.0 / 169.0	4.28	13C2-PFTeDA	715.0 / 670.0	106305.93	250.00
PFTeDA 1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	106305.93	250.00
PFTeDA 2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	106305.93	250.00
NMeFOSAA 1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	16874.71	250.00
NMeFOSAA 2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	16874.71	250.00
NEtFOSAA 1	584.0 / 419.0	3.75	d5-EtFOSAA	589.0 / 419.0	17936.84	250.00
NEtFOSAA 2	584.0 / 483.0	3.75	d5-EtFOSAA	589.0 / 419.0	17936.84	250.00

Sample Name	KC68 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:58:13	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	30204.05	232.25
PFBS 2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	30204.05	232.25
PFHxA 1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	80809.57	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	80809.57	250.00
PFHpA 1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	88932.38	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	88932.38	250.00
PFHxS 1	399.0 / 80.0	2.34	13C3-PFHxS	402.0 / 99.0	30397.91	236.50
PFHxS 2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	30397.91	236.50
PFOA 1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	103682.03	250.00
PFOA 2	413.0 / 169.0	2.73	13C8-PFOA	421.0 / 376.0	103682.03	250.00
PFNA 1	463.0 / 419.0	3.13	13C9-PFNA	472.0 / 427.0	115954.02	250.00
PFNA 2	463.0 / 219.0	3.13	13C9-PFNA	472.0 / 427.0	115954.02	250.00
PFOS 1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	32014.94	239.25
PFOS 2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	32014.94	239.25
PFDA 1	513.0 / 469.0	3.49	13C6-PFDA	519.0 / 474.0	126419.03	250.00
PFDA 2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	126419.03	250.00
PFUnA 1	563.0 / 519.0	3.81	13C7-PFUnA	570.0 / 525.0	115025.84	250.00
PFUnA 2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	115025.84	250.00
PFDoA 1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	131296.19	250.00
PFDoA 2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	131296.19	250.00
PFTeDA 1	663.0 / 619.0	4.34	13C2-PFTeDA	715.0 / 670.0	115346.94	250.00
PFTeDA 2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	115346.94	250.00
PFTeDA 1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	115346.94	250.00
PFTeDA 2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	115346.94	250.00
NMeFOSAA 1	570.0 / 419.0	3.64	d3-MeFOSAA	573.0 / 419.0	21275.17	250.00
NMeFOSAA 2	570.0 / 512.0	3.64	d3-MeFOSAA	573.0 / 419.0	21275.17	250.00
NEtFOSAA 1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	20493.59	250.00
NEtFOSAA 2	584.0 / 483.0	3.81	d5-EtFOSAA	589.0 / 419.0	20493.59	250.00

Sample Name	KC69	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T12:14:12	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	24662.75	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	24662.75	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	60977.02	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	60977.02	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	67726.73	250.00
PFHpA 2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	67726.73	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	23639.31	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	23639.31	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	85068.67	250.00
PFOA 2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	85068.67	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	85501.21	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	85501.21	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	23023.05	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	23023.05	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	89023.99	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	89023.99	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	79590.92	250.00
PFUnA 2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	79590.92	250.00
PFDoA 1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	93859.54	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	93859.54	250.00
PFTeDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	85395.70	250.00
PFTeDA 2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	85395.70	250.00
PFTeDA 1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	85395.70	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	85395.70	250.00
NMeFOSAA 1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	16270.70	250.00
NMeFOSAA 2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	16270.70	250.00
NEtFOSAA 1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	15624.20	250.00
NEtFOSAA 2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	15624.20	250.00

Sample Name	KC68	Injection Vial	4
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T14:11:09	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	30713.19	232.25
PFBS 2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	30713.19	232.25
PFHxA 1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	86578.64	250.00
PFHxA 2	313.0 / 119.0	1.90	13C5-PFHxA	318.0 / 273.0	86578.64	250.00
PFHpA 1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	103424.72	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	103424.72	250.00
PFHxS 1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	32690.91	236.50
PFHxS 2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	32690.91	236.50
PFOA 1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	115765.97	250.00
PFOA 2	413.0 / 169.0	2.73	13C8-PFOA	421.0 / 376.0	115765.97	250.00
PFNA 1	463.0 / 419.0	3.12	13C9-PFNA	472.0 / 427.0	119133.93	250.00
PFNA 2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	119133.93	250.00
PFOS 1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	36846.84	239.25
PFOS 2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	36846.84	239.25
PFDA 1	513.0 / 469.0	3.48	13C6-PFDA	519.0 / 474.0	128488.11	250.00
PFDA 2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	128488.11	250.00
PFUnA 1	563.0 / 519.0	3.81	13C7-PFUnA	570.0 / 525.0	126716.78	250.00
PFUnA 2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	126716.78	250.00
PFDoA 1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	130803.11	250.00
PFDoA 2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	130803.11	250.00
PFTeDA 1	663.0 / 619.0	4.34	13C2-PFTeDA	715.0 / 670.0	125648.40	250.00
PFTeDA 2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	125648.40	250.00
PFTeDA 1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	125648.40	250.00
PFTeDA 2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	125648.40	250.00
NMeFOSAA 1	570.0 / 419.0	3.64	d3-MeFOSAA	573.0 / 419.0	22641.50	250.00
NMeFOSAA 2	570.0 / 512.0	3.64	d3-MeFOSAA	573.0 / 419.0	22641.50	250.00
NEtFOSAA 1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	22338.91	250.00
NEtFOSAA 2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	22338.91	250.00

Sample Name	KC69	Injection Vial	16
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T16:01:22	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	28068.88	232.25
PFBS 2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	28068.88	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	74493.55	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	74493.55	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	81565.58	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	81565.58	250.00
PFHxS 1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	25773.28	236.50
PFHxS 2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	25773.28	236.50
PFOA 1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	95875.76	250.00
PFOA 2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	95875.76	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	105110.23	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	105110.23	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	29400.84	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	29400.84	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	113248.11	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	113248.11	250.00
PFUnA 1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	90883.75	250.00
PFUnA 2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	90883.75	250.00
PFDoA 1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	118391.85	250.00
PFDoA 2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	118391.85	250.00
PFTeDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	101277.61	250.00
PFTeDA 2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	101277.61	250.00
PFTeDA 1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	101277.61	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	101277.61	250.00
NMeFOSAA 1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	19284.96	250.00
NMeFOSAA 2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	19284.96	250.00
NEtFOSAA 1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	21036.64	250.00
NEtFOSAA 2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	21036.64	250.00

Sample Name	KC69 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:15:42	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	30586.84	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	30586.84	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	76643.01	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	76643.01	250.00
PFHpA 1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	84496.31	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	84496.31	250.00
PFHxS 1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	26894.55	236.50
PFHxS 2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	26894.55	236.50
PFOA 1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	100134.64	250.00
PFOA 2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	100134.64	250.00
PFNA 1	463.0 / 419.0	3.12	13C9-PFNA	472.0 / 427.0	102272.61	250.00
PFNA 2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	102272.61	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	32136.01	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	32136.01	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	109351.46	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	109351.46	250.00
PFUnA 1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	105735.80	250.00
PFUnA 2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	105735.80	250.00
PFDoA 1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	123795.99	250.00
PFDoA 2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	123795.99	250.00
PFTeDA 1	663.0 / 619.0	4.34	13C2-PFTeDA	715.0 / 670.0	106391.86	250.00
PFTeDA 2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	106391.86	250.00
PFTeDA 1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	106391.86	250.00
PFTeDA 2	713.0 / 169.0	4.55	13C2-PFTeDA	715.0 / 670.0	106391.86	250.00
NMeFOSAA 1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	21137.74	250.00
NMeFOSAA 2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	21137.74	250.00
NEtFOSAA 1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	20858.45	250.00
NEtFOSAA 2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	20858.45	250.00

Sample Name	KC70	Injection Vial	8
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:59:11	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	27370.12	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	27370.12	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	73320.09	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	73320.09	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	83833.15	250.00
PFHpA 2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	83833.15	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	25350.97	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	25350.97	236.50
PFOA 1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	95957.22	250.00
PFOA 2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	95957.22	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	101576.24	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	101576.24	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	30047.59	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	30047.59	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	99876.68	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	99876.68	250.00
PFUnA 1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	108856.62	250.00
PFUnA 2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	108856.62	250.00
PFDoA 1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	123769.69	250.00
PFDoA 2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	123769.69	250.00
PFTeDA 1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	103082.26	250.00
PFTeDA 2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	103082.26	250.00
PFTeDA 1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	103082.26	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	103082.26	250.00
NMeFOSAA 1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	19507.12	250.00
NMeFOSAA 2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	19507.12	250.00
NEtFOSAA 1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	19732.41	250.00
NEtFOSAA 2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	19732.41	250.00

Sample Name	KC68	Injection Vial	9
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:24:05	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	31047.65	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	31047.65	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	77851.55	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	77851.55	250.00
PFHpA 1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	87773.98	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	87773.98	250.00
PFHxS 1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	29968.59	236.50
PFHxS 2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	29968.59	236.50
PFOA 1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	106795.26	250.00
PFOA 2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	106795.26	250.00
PFNA 1	463.0 / 419.0	3.12	13C9-PFNA	472.0 / 427.0	112583.45	250.00
PFNA 2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	112583.45	250.00
PFOS 1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	33386.70	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	33386.70	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	120712.29	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	120712.29	250.00
PFUnA 1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	112820.29	250.00
PFUnA 2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	112820.29	250.00
PFDoA 1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	133153.17	250.00
PFDoA 2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	133153.17	250.00
PFTeDA 1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	114797.99	250.00
PFTeDA 2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	114797.99	250.00
PFTeDA 1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	114797.99	250.00
PFTeDA 2	713.0 / 169.0	4.55	13C2-PFTeDA	715.0 / 670.0	114797.99	250.00
NMeFOSAA 1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	21279.83	250.00
NMeFOSAA 2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	21279.83	250.00
NEtFOSAA 1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	23429.98	250.00
NEtFOSAA 2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	23429.98	250.00

Sample Name	KC74 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:57:42	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	101424.20	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	31264.01	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	31264.01	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	89368.50	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	89368.50	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	89368.50	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	89368.50	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	101424.20	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	101424.20	250.00
13C2-PFTeDA	715.0 / 670.0	4.52	13C2-PFDA	515.0 / 470.0	101424.20	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	31264.01	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	31264.01	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	31264.01	239.25

Sample Name	KC69 CCV	Injection Vial	26
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T21:51:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	99185.75	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	33578.26	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	33578.26	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	88532.06	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	88532.06	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	88532.06	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	88532.06	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	99185.75	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	99185.75	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	99185.75	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	33578.26	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	33578.26	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	33578.26	239.25

Sample Name	KC70 CCV	Injection Vial	38
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:01:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	106484.57	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	36049.13	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	36049.13	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	87254.96	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	87254.96	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	87254.96	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	87254.96	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	106484.57	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	106484.57	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	106484.57	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	36049.13	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	36049.13	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	36049.13	239.25

Sample Name	KC69 CCV	Injection Vial	49
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T02:01:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	109787.79	250.00
d3-MeFOSAA	573.0 / 419.0	3.58	13C4-PFOS	503.0 / 99.0	30657.74	239.25
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	30657.74	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	91386.65	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	91386.65	250.00
13C8-PFOA	421.0 / 376.0	2.67	13C2-PFOA	415.0 / 370.0	91386.65	250.00
13C9-PFNA	472.0 / 427.0	3.06	13C2-PFOA	415.0 / 370.0	91386.65	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	109787.79	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	109787.79	250.00
13C2-PFTeDA	715.0 / 670.0	4.49	13C2-PFDA	515.0 / 470.0	109787.79	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	30657.74	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	30657.74	239.25
13C8-PFOS	507.0 / 99.0	3.06	13C4-PFOS	503.0 / 99.0	30657.74	239.25

Sample Name	KC68 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:58:13	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.08	13C2-PFDA	515.0 / 470.0	112144.80	250.00
d3-MeFOSAA	573.0 / 419.0	3.64	13C4-PFOS	503.0 / 99.0	35448.48	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	35448.48	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	92200.34	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	92200.34	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	92200.34	250.00
13C9-PFNA	472.0 / 427.0	3.11	13C2-PFOA	415.0 / 370.0	92200.34	250.00
13C6-PFDA	519.0 / 474.0	3.47	13C2-PFDA	515.0 / 470.0	112144.80	250.00
13C7-PFUnA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	112144.80	250.00
13C2-PFTeDA	715.0 / 670.0	4.56	13C2-PFDA	515.0 / 470.0	112144.80	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	35448.48	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	35448.48	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	35448.48	239.25

Sample Name	KC69	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T12:14:12	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	80711.82	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	26360.84	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	26360.84	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	70363.14	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	70363.14	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	70363.14	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	70363.14	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	80711.82	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	80711.82	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	80711.82	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	26360.84	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	26360.84	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	26360.84	239.25

Sample Name	KC68	Injection Vial	4
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T14:11:09	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.08	13C2-PFDA	515.0 / 470.0	123415.99	250.00
d3-MeFOSAA	573.0 / 419.0	3.63	13C4-PFOS	503.0 / 99.0	36543.21	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	36543.21	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	101634.40	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	101634.40	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	101634.40	250.00
13C9-PFNA	472.0 / 427.0	3.11	13C2-PFOA	415.0 / 370.0	101634.40	250.00
13C6-PFDA	519.0 / 474.0	3.47	13C2-PFDA	515.0 / 470.0	123415.99	250.00
13C7-PFUnA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	123415.99	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	123415.99	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	36543.21	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	36543.21	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	36543.21	239.25

Sample Name	KC69	Injection Vial	16
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T16:01:22	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.07	13C2-PFDA	515.0 / 470.0	108240.20	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	31050.51	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	31050.51	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	89567.16	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	89567.16	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	89567.16	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	89567.16	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	108240.20	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	108240.20	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	108240.20	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	31050.51	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	31050.51	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	31050.51	239.25

Sample Name	KC69 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:15:42	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.07	13C2-PFDA	515.0 / 470.0	105823.45	250.00
d3-MeFOSAA	573.0 / 419.0	3.63	13C4-PFOS	503.0 / 99.0	28617.08	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	28617.08	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	94211.21	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	94211.21	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	94211.21	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	94211.21	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	105823.45	250.00
13C7-PFUnA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	105823.45	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	105823.45	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	28617.08	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	28617.08	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	28617.08	239.25

Sample Name	KC70	Injection Vial	8
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:59:11	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.07	13C2-PFDA	515.0 / 470.0	107415.41	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	34056.43	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	34056.43	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	85730.03	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	85730.03	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85730.03	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	85730.03	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	107415.41	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	107415.41	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	107415.41	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	34056.43	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	34056.43	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	34056.43	239.25

Sample Name	KC68	Injection Vial	9
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:24:05	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.07	13C2-PFDA	515.0 / 470.0	113514.72	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	35348.35	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	35348.35	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	98791.66	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	98791.66	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	98791.66	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	98791.66	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	113514.72	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	113514.72	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	113514.72	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	35348.35	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	35348.35	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	35348.35	239.25

Raw Analytical Data

Sample Name	KC73 IB	Injection Vial	9
Sample ID	Instrument blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:46:49	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.58	7263.58	< 0	24.8	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	2.31	5485.87	< 0	11.1	true
PFHpA 2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS 1	399.0 / 80.0	2.33	7056.83	1.081	30.0	false
PFHxS 2	399.0 / 99.0	2.32	1550.51	< 0	24.3	false
PFOA 1	413.0 / 369.0	2.70	5928.15	1.432	18.6	true
PFOA 2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA 1	463.0 / 419.0	3.11	5609.40	< 0	29.5	true
PFNA 2	463.0 / 219.0	3.10	1127.18	< 0	14.0	true
PFOS 1	499.0 / 80.0	3.08	12695.54	< 0	19.6	false
PFOS 2	499.0 / 99.0	3.10	1597.12	< 0	20.0	false
PFDA 1	513.0 / 469.0	3.46	6336.98	< 0	28.3	true
PFDA 2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA 1	563.0 / 519.0	3.78	4959.36	< 0	28.8	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.07	5006.16	< 0	52.6	true
PFDoA 2	613.0 / 319.0	4.07	1296.74	< 0	20.8	false
PFTTrDA 1	663.0 / 619.0	4.32	4549.49	< 0	103.4	true
PFTTrDA 2	663.0 / 169.0	4.33	652.55	< 0	19.2	false
PFTeDA 1	713.0 / 669.0	4.53	6635.84	< 0	137.2	false
PFTeDA 2	713.0 / 169.0	4.54	273.21	< 0	27.9	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

Sample Name	CS243PB-FS(0)	Injection Vial	28
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:13:14	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	3973.31	< 0	17.9	true
PFBS 2	298.9 / 99.0	1.51	3092.61	< 0	27.9	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	2.30	3115.24	< 0	13.9	false
PFHxS 2	399.0 / 99.0	2.30	1145.80	< 0	13.7	true
PFOA 1	413.0 / 369.0	2.69	115708.40	328.671	195.8	false
PFOA 2	413.0 / 169.0	2.69	6706.68	262.479	121.5	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	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	3.44	2109.18	< 0	16.5	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	4.29	799.75	< 0	29.9	true
PFTrDA 2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA 1	713.0 / 669.0	4.51	614.23	< 0	15.1	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

Sample Name	J9415MS-FS-D(7)	Injection Vial	40
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:23:39	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	184278.15	485.929	207.7	false
PFBS 2	298.9 / 99.0	1.55	58326.44	502.511	198.4	false
PFHxA 1	313.0 / 269.0	1.87	205741.39	745.637	53.4	true
PFHxA 2	313.0 / 119.0	1.87	14276.63	669.824	42.6	true
PFHpA 1	363.0 / 319.0	2.28	86148.72	324.138	78.5	true
PFHpA 2	363.0 / 169.0	2.28	1375.75	257.850	40.0	true
PFHxS 1	399.0 / 80.0	2.30	1262933.83	3472.989	393.2	false
PFHxS 2	399.0 / 99.0	2.30	334125.07	3233.591	711.0	false
PFOA 1	413.0 / 369.0	2.69	201201.20	557.726	197.8	false
PFOA 2	413.0 / 169.0	2.68	9582.49	380.622	162.1	true
PFNA 1	463.0 / 419.0	3.08	45050.68	119.997	118.5	false
PFNA 2	463.0 / 219.0	3.08	15311.76	131.185	136.1	false
PFOS 1	499.0 / 80.0	3.08	11142595.02	22855.465	802.4	false
PFOS 2	499.0 / 99.0	3.08	1950564.69	23481.312	1162.0	false
PFDA 1	513.0 / 469.0	3.43	53796.37	116.683	174.4	false
PFDA 2	513.0 / 219.0	3.44	2935.00	159.812	46.8	false
PFUnA 1	563.0 / 519.0	3.76	40774.01	88.382	132.1	false
PFUnA 2	563.0 / 269.0	3.77	2572.33	99.442	38.3	false
PFDoA 1	613.0 / 569.0	4.04	37124.10	65.429	183.1	false
PFDoA 2	613.0 / 319.0	4.05	6917.53	92.545	94.7	false
PFTrDA 1	663.0 / 619.0	4.29	36664.14	76.480	269.7	false
PFTrDA 2	663.0 / 169.0	4.29	2999.45	96.027	131.8	false
PFTeDA 1	713.0 / 669.0	4.50	40880.98	68.487	387.9	false
PFTeDA 2	713.0 / 169.0	4.50	2033.67	74.068	125.3	false
NMeFOSAA 1	570.0 / 419.0	3.59	6332.69	76.278	171.2	false
NMeFOSAA 2	570.0 / 512.0	3.59	3413.68	71.408	127.4	false
NEtFOSAA 1	584.0 / 419.0	3.75	5897.68	90.866	164.9	false
NEtFOSAA 2	584.0 / 483.0	3.76	577.35	65.527	37.7	false

Sample Name	CS244LCS-FS(0)	Injection Vial	29
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:24:08	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	5691084.12	16849.615	1319.1	false
PFBS 2	298.9 / 99.0	1.56	1639293.69	16331.325	1072.6	false
PFHxA 1	313.0 / 269.0	1.88	4422915.43	17201.017	377.9	false
PFHxA 2	313.0 / 119.0	1.88	327158.59	16987.038	271.6	false
PFHpA 1	363.0 / 319.0	2.28	3764491.12	16417.879	575.0	false
PFHpA 2	363.0 / 169.0	2.28	75993.75	17907.325	386.6	false
PFHxS 1	399.0 / 80.0	2.31	5782918.79	17512.480	1177.2	false
PFHxS 2	399.0 / 99.0	2.31	1596648.95	17043.231	1000.3	false
PFOA 1	413.0 / 369.0	2.69	4939450.60	15887.053	1310.6	false
PFOA 2	413.0 / 169.0	2.69	307841.24	15846.263	939.8	false
PFNA 1	463.0 / 419.0	3.09	4922084.95	17002.973	1131.5	false
PFNA 2	463.0 / 219.0	3.09	1604624.92	17931.737	1280.8	false
PFOS 1	499.0 / 80.0	3.09	8070253.18	17672.200	674.6	false
PFOS 2	499.0 / 99.0	3.09	1385804.47	17799.833	1362.6	false
PFDA 1	513.0 / 469.0	3.44	5429109.24	17901.335	1296.7	false
PFDA 2	513.0 / 219.0	3.44	225184.81	18320.254	650.4	false
PFUnA 1	563.0 / 519.0	3.77	5498067.63	17721.534	780.4	false
PFUnA 2	563.0 / 269.0	3.77	283579.72	19112.090	591.6	false
PFDoA 1	613.0 / 569.0	4.05	5344246.51	16676.724	901.0	false
PFDoA 2	613.0 / 319.0	4.05	860736.59	16364.604	678.6	false
PFTrDA 1	663.0 / 619.0	4.29	5287267.62	16112.379	1529.5	false
PFTrDA 2	663.0 / 169.0	4.29	330283.45	15697.482	902.1	false
PFTeDA 1	713.0 / 669.0	4.51	5947992.98	15956.841	2514.4	false
PFTeDA 2	713.0 / 169.0	4.51	284556.29	15823.511	1703.7	false
NMeFOSAA 1	570.0 / 419.0	3.60	823053.07	16250.947	1225.6	false
NMeFOSAA 2	570.0 / 512.0	3.60	466489.60	17209.352	1064.3	false
NEtFOSAA 1	584.0 / 419.0	3.76	726279.27	18940.225	1441.5	false
NEtFOSAA 2	584.0 / 483.0	3.76	45333.26	19593.105	681.6	false

Sample Name	J9420-FS(0)	Injection Vial	30
Sample ID	AS4141-FB-111618	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:35:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	5455.76	< 0	32.6	true
PFBS 2	298.9 / 99.0	1.54	4322.33	1.527	34.8	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	2.29	7349.63	2.799	14.0	true
PFHpA 2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS 1	399.0 / 80.0	2.31	6821.25	2.669	29.0	false
PFHxS 2	399.0 / 99.0	2.32	1999.62	< 0	29.3	false
PFOA 1	413.0 / 369.0	2.69	119076.45	332.402	169.3	false
PFOA 2	413.0 / 169.0	2.69	7759.86	306.056	105.5	false
PFNA 1	463.0 / 419.0	3.09	6232.41	< 0	29.9	true
PFNA 2	463.0 / 219.0	3.08	1821.49	< 0	26.7	true
PFOS 1	499.0 / 80.0	3.11	13805.28	3.129	21.8	false
PFOS 2	499.0 / 99.0	3.09	1958.28	< 0	26.7	false
PFDA 1	513.0 / 469.0	3.45	6288.60	< 0	33.1	true
PFDA 2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA 1	563.0 / 519.0	3.77	5531.81	< 0	33.5	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.05	6706.35	< 0	59.8	false
PFDoA 2	613.0 / 319.0	4.04	1002.47	< 0	27.0	false
PFTTrDA 1	663.0 / 619.0	4.29	6640.49	< 0	91.1	false
PFTTrDA 2	663.0 / 169.0	4.27	680.53	< 0	20.9	false
PFTeDA 1	713.0 / 669.0	4.51	8255.63	< 0	133.9	false
PFTeDA 2	713.0 / 169.0	4.51	489.51	< 0	34.7	false
NMeFOSAA 1	570.0 / 419.0	3.60	1132.33	< 0	30.5	false
NMeFOSAA 2	570.0 / 512.0	3.60	1012.94	< 0	42.7	true
NEtFOSAA 1	584.0 / 419.0	3.76	1177.42	5.886	53.4	false
NEtFOSAA 2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J9414-FS(0)	Injection Vial	31
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:45:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	16048649.30	54133.430	431.4	false
PFBS 2	298.9 / 99.0	1.56	4922176.95	55912.109	526.0	false
PFHxA 1	313.0 / 269.0	1.87	25293564.03	90924.559	294.4	false
PFHxA 2	313.0 / 119.0	1.87	1650613.56	79285.898	455.3	false
PFHpA 1	363.0 / 319.0	2.28	6915613.16	27664.454	281.1	false
PFHpA 2	363.0 / 169.0	2.27	148948.02	32208.030	377.7	false
PFHxS 1	399.0 / 80.0	2.31	95288895.47	257105.500	866.8	false
PFHxS 2	399.0 / 99.0	2.30	40681008.38	387032.191	1582.3	false
PFOA 1	413.0 / 369.0	2.69	12662520.39	39912.331	532.5	false
PFOA 2	413.0 / 169.0	2.68	594392.26	30018.489	565.3	false
PFNA 1	463.0 / 419.0	3.08	201906.26	1470.638	125.6	false
PFNA 2	463.0 / 219.0	3.08	67195.78	1581.951	139.8	false
PFOS 1	499.0 / 80.0	3.00	195681204.66	725432.088	437.0	false
PFOS 2	499.0 / 99.0	3.08	81560138.64	1777561.529	4665.1	false
PFDA 1	513.0 / 469.0	3.44	76373.01	172.706	110.5	false
PFDA 2	513.0 / 219.0	3.43	3424.99	186.508	28.2	true
PFUnA 1	563.0 / 519.0	3.73	13741.24	16.096	33.6	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.05	8797.02	< 0	46.0	false
PFDoA 2	613.0 / 319.0	4.04	979.74	< 0	15.7	true
PFTrDA 1	663.0 / 619.0	4.27	5224.10	< 0	56.9	true
PFTrDA 2	663.0 / 169.0	4.31	154.59	< 0	7.9	true
PFTeDA 1	713.0 / 669.0	4.50	1561.47	< 0	29.2	false
PFTeDA 2	713.0 / 169.0	4.56	264.17	< 0	14.1	false
NMeFOSAA 1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA 2	570.0 / 512.0	3.60	557.82	< 0	17.3	false
NEtFOSAA 1	584.0 / 419.0	3.76	5636.46	73.516	113.5	false
NEtFOSAA 2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J9414-FS-D(3)	Injection Vial	32
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:56:43	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	4955743.21	12037.304	413.2	false
PFBS 2	298.9 / 99.0	1.56	1442602.22	11785.868	424.2	false
PFHxA 1	313.0 / 269.0	1.87	6628845.77	21481.662	216.9	false
PFHxA 2	313.0 / 119.0	1.88	433530.61	18754.663	249.8	false
PFHpA 1	363.0 / 319.0	2.28	1756072.38	5846.887	231.0	false
PFHpA 2	363.0 / 169.0	2.28	42427.50	7629.715	215.9	false
PFHxS 1	399.0 / 80.0	2.31	38396291.81	91444.416	1536.7	false
PFHxS 2	399.0 / 99.0	2.31	11745080.99	98625.660	2263.3	false
PFOA 1	413.0 / 369.0	2.69	2961956.60	8853.194	462.4	false
PFOA 2	413.0 / 169.0	2.68	145866.35	6951.030	402.8	false
PFNA 1	463.0 / 419.0	3.09	72468.24	283.313	105.5	false
PFNA 2	463.0 / 219.0	3.09	22567.31	281.388	103.2	false
PFOS 1	499.0 / 80.0	3.05	131300513.93	338384.858	728.9	false
PFOS 2	499.0 / 99.0	3.09	31215811.74	472923.485	4959.6	false
PFDA 1	513.0 / 469.0	3.44	28409.69	47.276	80.2	false
PFDA 2	513.0 / 219.0	3.43	1651.04	73.187	26.5	true
PFUnA 1	563.0 / 519.0	3.76	5177.46	< 0	27.0	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.06	3008.64	< 0	26.5	true
PFDoA 2	613.0 / 319.0	4.04	860.31	< 0	17.2	true
PFTrDA 1	663.0 / 619.0	4.28	2213.83	< 0	52.8	true
PFTrDA 2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA 1	713.0 / 669.0	4.50	1123.51	< 0	47.6	true
PFTeDA 2	713.0 / 169.0	4.51	446.89	< 0	18.9	false
NMeFOSAA 1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA 2	570.0 / 512.0	3.61	375.24	< 0	15.5	false
NEtFOSAA 1	584.0 / 419.0	3.76	965.84	< 0	26.2	true
NEtFOSAA 2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J9414-FS-D(5)	Injection Vial	33
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:07:35	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	859212.84	2368.255	296.5	false
PFBS 2	298.9 / 99.0	1.55	268584.80	2477.854	342.2	false
PFHxA 1	313.0 / 269.0	1.87	1045164.04	4109.366	105.1	false
PFHxA 2	313.0 / 119.0	1.87	73955.93	3865.575	110.6	false
PFHpA 1	363.0 / 319.0	2.28	301075.10	1196.638	136.4	false
PFHpA 2	363.0 / 169.0	2.26	6512.65	1386.400	77.3	false
PFHxS 1	399.0 / 80.0	2.31	6528878.99	18699.206	1156.9	false
PFHxS 2	399.0 / 99.0	2.31	1836126.59	18537.331	985.5	false
PFOA 1	413.0 / 369.0	2.69	643127.51	1978.047	356.2	false
PFOA 2	413.0 / 169.0	2.68	36047.27	1735.444	240.6	true
PFNA 1	463.0 / 419.0	3.09	23068.61	46.666	65.9	false
PFNA 2	463.0 / 219.0	3.08	10148.33	77.219	87.8	false
PFOS 1	499.0 / 80.0	3.08	38587296.28	82245.048	862.1	false
PFOS 2	499.0 / 99.0	3.08	6513447.50	81575.317	2502.5	false
PFDA 1	513.0 / 469.0	3.44	13581.63	7.591	74.5	false
PFDA 2	513.0 / 219.0	3.47	882.73	22.753	11.0	false
PFUnA 1	563.0 / 519.0	3.77	2539.52	< 0	16.2	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.05	1918.83	< 0	25.0	true
PFDoA 2	613.0 / 319.0	4.03	498.70	< 0	10.4	true
PFTTrDA 1	663.0 / 619.0	4.29	1289.46	< 0	31.8	false
PFTTrDA 2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA 1	713.0 / 669.0	4.50	777.22	< 0	23.8	true
PFTeDA 2	713.0 / 169.0	4.53	356.59	< 0	27.7	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

Sample Name	J9414-FS-D(7)	Injection Vial	34
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:18:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	168316.27	439.013	187.7	false
PFBS 2	298.9 / 99.0	1.55	53943.78	458.714	172.4	false
PFHxA 1	313.0 / 269.0	1.87	210735.13	696.818	54.2	true
PFHxA 2	313.0 / 119.0	1.87	14788.85	632.269	40.9	true
PFHpA 1	363.0 / 319.0	2.28	70657.90	254.272	71.3	true
PFHpA 2	363.0 / 169.0	2.28	2319.58	455.156	60.5	true
PFHxS 1	399.0 / 80.0	2.30	1323128.90	3613.985	439.6	false
PFHxS 2	399.0 / 99.0	2.30	366442.05	3523.679	553.9	false
PFOA 1	413.0 / 369.0	2.69	173540.50	462.009	191.4	false
PFOA 2	413.0 / 169.0	2.69	8814.00	331.654	140.8	true
PFNA 1	463.0 / 419.0	3.09	9767.86	< 0	41.2	true
PFNA 2	463.0 / 219.0	3.08	3346.87	< 0	52.4	false
PFOS 1	499.0 / 80.0	3.08	8454159.02	15505.714	706.8	false
PFOS 2	499.0 / 99.0	3.08	1468716.96	15796.178	1525.6	false
PFDA 1	513.0 / 469.0	3.44	10747.59	< 0	63.9	false
PFDA 2	513.0 / 219.0	3.44	1308.93	53.318	29.1	false
PFUnA 1	563.0 / 519.0	3.76	1924.03	< 0	18.0	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.05	1590.18	< 0	18.1	true
PFDoA 2	613.0 / 319.0	4.06	310.39	< 0	8.7	true
PFTrDA 1	663.0 / 619.0	4.29	467.62	< 0	18.1	true
PFTrDA 2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA 1	713.0 / 669.0	4.51	536.00	< 0	21.5	true
PFTeDA 2	713.0 / 169.0	4.54	191.81	< 0	14.6	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

Sample Name	J9415MS-FS-D(3)	Injection Vial	36
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:40:09	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	5783815.80	13761.602	475.6	false
PFBS 2	298.9 / 99.0	1.55	1723199.02	13794.257	499.8	false
PFHxA 1	313.0 / 269.0	1.87	6534567.19	20170.992	220.1	false
PFHxA 2	313.0 / 119.0	1.87	440902.90	18168.554	273.2	false
PFHpA 1	363.0 / 319.0	2.28	2334874.19	8273.383	285.5	false
PFHpA 2	363.0 / 169.0	2.27	47606.09	9106.963	270.8	false
PFHxS 1	399.0 / 80.0	2.30	35428310.44	84822.515	1036.7	false
PFHxS 2	399.0 / 99.0	2.30	11231407.07	94811.941	1471.3	false
PFOA 1	413.0 / 369.0	2.69	3771583.51	11517.424	490.9	false
PFOA 2	413.0 / 169.0	2.68	198403.64	9677.898	428.5	true
PFNA 1	463.0 / 419.0	3.08	736393.45	3636.655	310.8	false
PFNA 2	463.0 / 219.0	3.08	232081.24	3704.568	400.7	false
PFOS 1	499.0 / 80.0	3.03	147506157.70	386926.099	743.2	false
PFOS 2	499.0 / 99.0	3.08	38676863.14	596416.035	3163.1	false
PFDA 1	513.0 / 469.0	3.44	1244851.33	3425.100	502.6	false
PFDA 2	513.0 / 219.0	3.44	50478.31	3420.290	256.5	false
PFUnA 1	563.0 / 519.0	3.76	1175683.43	3005.512	463.6	false
PFUnA 2	563.0 / 269.0	3.76	60552.98	3218.040	269.9	false
PFDoA 1	613.0 / 569.0	4.05	1074837.66	2880.032	578.1	false
PFDoA 2	613.0 / 319.0	4.05	177766.14	2913.558	355.1	false
PFTrDA 1	663.0 / 619.0	4.29	1097593.67	3159.533	905.9	false
PFTrDA 2	663.0 / 169.0	4.29	72478.70	3246.970	444.8	false
PFTeDA 1	713.0 / 669.0	4.51	1214513.39	3072.117	1702.2	false
PFTeDA 2	713.0 / 169.0	4.51	60538.17	3177.248	868.8	false
NMeFOSAA 1	570.0 / 419.0	3.59	172444.42	3312.006	848.1	false
NMeFOSAA 2	570.0 / 512.0	3.59	89536.78	3205.906	632.0	false
NEtFOSAA 1	584.0 / 419.0	3.76	160419.87	2834.832	695.0	false
NEtFOSAA 2	584.0 / 483.0	3.76	10900.55	3116.741	441.4	false

Sample Name	J9415MS-FS-D(5)	Injection Vial	37
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:51:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	971162.51	2507.634	311.1	false
PFBS 2	298.9 / 99.0	1.56	305092.31	2637.913	337.4	false
PFHxA 1	313.0 / 269.0	1.87	1023561.81	3823.601	118.8	false
PFHxA 2	313.0 / 119.0	1.88	67089.26	3326.105	111.0	false
PFHpA 1	363.0 / 319.0	2.28	390386.55	1615.978	169.5	false
PFHpA 2	363.0 / 169.0	2.28	8192.21	1819.451	114.1	false
PFHxS 1	399.0 / 80.0	2.30	6064363.73	17158.218	716.5	false
PFHxS 2	399.0 / 99.0	2.30	1740870.73	17362.544	1077.5	false
PFOA 1	413.0 / 369.0	2.69	703101.77	2207.898	343.7	false
PFOA 2	413.0 / 169.0	2.68	41297.83	2037.992	260.9	true
PFNA 1	463.0 / 419.0	3.08	173175.88	656.381	211.7	false
PFNA 2	463.0 / 219.0	3.08	53347.04	649.748	245.5	false
PFOS 1	499.0 / 80.0	3.08	50331741.40	129514.054	1099.2	false
PFOS 2	499.0 / 99.0	3.08	9288694.11	140478.615	2703.7	false
PFDA 1	513.0 / 469.0	3.44	214016.83	571.713	267.3	false
PFDA 2	513.0 / 219.0	3.44	9007.74	587.201	101.7	false
PFUnA 1	563.0 / 519.0	3.76	207820.43	567.225	248.0	false
PFUnA 2	563.0 / 269.0	3.76	10269.84	563.367	148.5	false
PFDoA 1	613.0 / 569.0	4.05	194659.30	555.975	292.5	false
PFDoA 2	613.0 / 319.0	4.05	29304.43	519.982	161.1	false
PFTrDA 1	663.0 / 619.0	4.29	193633.14	578.098	390.7	false
PFTrDA 2	663.0 / 169.0	4.29	11562.02	526.478	214.4	false
PFTeDA 1	713.0 / 669.0	4.51	208167.00	539.637	764.4	false
PFTeDA 2	713.0 / 169.0	4.51	10008.75	539.924	379.2	false
NMeFOSAA 1	570.0 / 419.0	3.60	30925.03	564.019	390.6	false
NMeFOSAA 2	570.0 / 512.0	3.59	16351.77	550.745	294.9	false
NEtFOSAA 1	584.0 / 419.0	3.76	30891.18	528.169	342.6	false
NEtFOSAA 2	584.0 / 483.0	3.76	1917.15	453.481	541.9	false

Sample Name	J9416MSD-FS(0)	Injection Vial	41
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:34:31	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	21795414.86	76977.543	437.3	false
PFBS 2	298.9 / 99.0	1.55	6585978.26	78338.483	583.0	false
PFHxA 1	313.0 / 269.0	1.87	30375113.99	111576.988	313.2	false
PFHxA 2	313.0 / 119.0	1.87	2061769.38	101206.918	457.1	false
PFHpA 1	363.0 / 319.0	2.28	10832035.09	45154.704	326.9	false
PFHpA 2	363.0 / 169.0	2.27	213228.68	48051.962	467.0	false
PFHxS 1	399.0 / 80.0	2.30	97413196.86	277982.359	929.1	false
PFHxS 2	399.0 / 99.0	2.30	43279600.17	435481.381	1738.8	false
PFOA 1	413.0 / 369.0	2.69	17778959.79	60678.235	592.2	false
PFOA 2	413.0 / 169.0	2.68	984646.67	53882.106	581.6	true
PFNA 1	463.0 / 419.0	3.09	2638020.16	18883.811	395.8	false
PFNA 2	463.0 / 219.0	3.08	804883.01	18636.452	410.5	false
PFOS 1	499.0 / 80.0	3.00	191734756.83	725219.298	445.3	false
PFOS 2	499.0 / 99.0	3.08	84175703.18	1871781.227	4941.5	false
PFDA 1	513.0 / 469.0	3.44	5774738.55	16596.594	657.3	false
PFDA 2	513.0 / 219.0	3.44	265150.72	18806.021	483.1	false
PFUnA 1	563.0 / 519.0	3.76	5449222.65	16486.644	711.9	false
PFUnA 2	563.0 / 269.0	3.76	301455.19	19072.141	520.8	false
PFDoA 1	613.0 / 569.0	4.05	5447174.59	16645.503	991.6	false
PFDoA 2	613.0 / 319.0	4.04	870375.43	16204.627	806.0	false
PFTrDA 1	663.0 / 619.0	4.29	6231978.59	20134.375	1498.6	false
PFTrDA 2	663.0 / 169.0	4.29	425183.44	21430.894	1241.1	false
PFTeDA 1	713.0 / 669.0	4.51	6002585.15	17068.611	2855.4	false
PFTeDA 2	713.0 / 169.0	4.50	293968.96	17327.522	1600.0	false
NMeFOSAA 1	570.0 / 419.0	3.59	881871.59	14800.556	1151.8	false
NMeFOSAA 2	570.0 / 512.0	3.59	485561.71	15224.073	1063.7	false
NEtFOSAA 1	584.0 / 419.0	3.76	946651.65	17667.971	1135.9	false
NEtFOSAA 2	584.0 / 483.0	3.76	59582.27	18424.367	539.2	false

Sample Name	J9416MSD-FS-D(3)	Injection Vial	42
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:45:22	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	5711854.86	15722.070	428.9	false
PFBS 2	298.9 / 99.0	1.55	1727864.76	16004.274	453.5	false
PFHxA 1	313.0 / 269.0	1.87	7010105.89	23439.460	222.5	false
PFHxA 2	313.0 / 119.0	1.87	469634.05	20966.067	276.1	false
PFHpA 1	363.0 / 319.0	2.28	2430216.08	9218.979	294.7	false
PFHpA 2	363.0 / 169.0	2.27	50922.38	10431.975	316.4	false
PFHxS 1	399.0 / 80.0	2.30	35092181.60	91303.134	1051.6	false
PFHxS 2	399.0 / 99.0	2.30	11161451.91	102391.883	1658.9	false
PFOA 1	413.0 / 369.0	2.68	3773579.15	12794.806	482.4	false
PFOA 2	413.0 / 169.0	2.67	201392.28	10913.267	471.6	true
PFNA 1	463.0 / 419.0	3.08	825112.11	3812.216	381.2	false
PFNA 2	463.0 / 219.0	3.08	252478.40	3769.463	413.8	false
PFOS 1	499.0 / 80.0	3.05	128023467.24	342873.147	914.7	false
PFOS 2	499.0 / 99.0	3.08	29292673.94	461182.455	1980.2	false
PFDA 1	513.0 / 469.0	3.43	1256023.03	3324.529	499.0	false
PFDA 2	513.0 / 219.0	3.43	55281.72	3606.477	286.7	false
PFUnA 1	563.0 / 519.0	3.76	1154928.65	3280.108	482.9	false
PFUnA 2	563.0 / 269.0	3.76	61808.83	3653.232	310.5	false
PFDoA 1	613.0 / 569.0	4.04	1069753.46	3314.103	603.2	false
PFDoA 2	613.0 / 319.0	4.04	174746.16	3309.068	422.6	false
PFTrDA 1	663.0 / 619.0	4.29	1092043.93	3450.158	942.1	false
PFTrDA 2	663.0 / 169.0	4.29	73772.88	3629.101	517.6	false
PFTeDA 1	713.0 / 669.0	4.50	1205186.75	3346.388	1474.9	false
PFTeDA 2	713.0 / 169.0	4.50	58763.66	3384.394	1075.7	false
NMeFOSAA 1	570.0 / 419.0	3.59	176726.24	3623.230	712.5	false
NMeFOSAA 2	570.0 / 512.0	3.59	96014.63	3673.484	709.5	false
NEtFOSAA 1	584.0 / 419.0	3.75	173560.58	3845.353	629.0	false
NEtFOSAA 2	584.0 / 483.0	3.75	11570.47	4177.476	6482.2	false

Sample Name	J9416MSD-FS-D(5)	Injection Vial	43
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:56:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	1077741.83	3068.424	351.1	false
PFBS 2	298.9 / 99.0	1.55	324693.76	3097.135	369.2	false
PFHxA 1	313.0 / 269.0	1.87	1124863.78	4503.115	120.5	false
PFHxA 2	313.0 / 119.0	1.87	74243.70	3949.190	105.7	false
PFHpA 1	363.0 / 319.0	2.28	433737.45	1820.996	173.2	false
PFHpA 2	363.0 / 169.0	2.27	7708.94	1730.928	104.3	false
PFHxS 1	399.0 / 80.0	2.30	6410022.43	17465.873	838.2	false
PFHxS 2	399.0 / 99.0	2.30	1827653.64	17554.287	1180.3	false
PFOA 1	413.0 / 369.0	2.68	783466.23	2427.921	319.6	false
PFOA 2	413.0 / 169.0	2.68	42222.80	2055.508	269.6	true
PFNA 1	463.0 / 419.0	3.08	180978.54	658.812	255.9	false
PFNA 2	463.0 / 219.0	3.08	56301.73	659.014	231.2	false
PFOS 1	499.0 / 80.0	3.08	38394070.07	87103.494	753.9	false
PFOS 2	499.0 / 99.0	3.08	6653482.39	88699.956	2192.4	false
PFDA 1	513.0 / 469.0	3.43	240824.82	641.879	288.6	false
PFDA 2	513.0 / 219.0	3.43	9313.53	603.398	125.1	false
PFUnA 1	563.0 / 519.0	3.76	220985.09	618.459	230.6	false
PFUnA 2	563.0 / 269.0	3.76	12123.37	689.293	153.5	false
PFDoA 1	613.0 / 569.0	4.04	218072.59	647.570	368.0	false
PFDoA 2	613.0 / 319.0	4.04	34234.74	630.760	236.7	false
PFTTrDA 1	663.0 / 619.0	4.29	200292.36	599.713	445.1	false
PFTTrDA 2	663.0 / 169.0	4.29	12378.77	567.214	227.4	false
PFTeDA 1	713.0 / 669.0	4.50	215022.75	559.262	798.6	false
PFTeDA 2	713.0 / 169.0	4.50	10811.53	586.668	356.0	false
NMeFOSAA 1	570.0 / 419.0	3.59	34926.68	707.204	547.7	false
NMeFOSAA 2	570.0 / 512.0	3.59	17048.03	634.100	333.5	false
NEtFOSAA 1	584.0 / 419.0	3.76	34661.59	600.369	381.1	false
NEtFOSAA 2	584.0 / 483.0	3.76	2086.41	508.913	100.7	false

Sample Name	J9416MSD-FS-D(7)	Injection Vial	44
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:07:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	180797.02	529.754	202.4	false
PFBS 2	298.9 / 99.0	1.55	56015.74	536.729	212.0	false
PFHxA 1	313.0 / 269.0	1.87	204576.92	821.834	56.4	true
PFHxA 2	313.0 / 119.0	1.87	15348.03	805.237	41.4	true
PFHpA 1	363.0 / 319.0	2.28	85612.21	362.595	71.4	true
PFHpA 2	363.0 / 169.0	2.28	2235.49	505.472	47.5	false
PFHxS 1	399.0 / 80.0	2.30	1199509.85	3384.635	434.9	false
PFHxS 2	399.0 / 99.0	2.30	336622.39	3343.861	576.7	false
PFOA 1	413.0 / 369.0	2.68	215239.73	645.648	178.5	false
PFOA 2	413.0 / 169.0	2.68	13809.47	622.943	165.2	false
PFNA 1	463.0 / 419.0	3.08	42096.53	125.112	123.6	false
PFNA 2	463.0 / 219.0	3.08	15109.12	146.717	158.4	false
PFOS 1	499.0 / 80.0	3.08	7723851.31	17907.473	472.3	false
PFOS 2	499.0 / 99.0	3.08	1329206.75	18076.728	1134.9	false
PFDA 1	513.0 / 469.0	3.43	48761.95	132.136	156.6	false
PFDA 2	513.0 / 219.0	3.43	2585.67	174.471	40.4	false
PFUnA 1	563.0 / 519.0	3.76	38548.46	95.355	139.3	false
PFUnA 2	563.0 / 269.0	3.76	2339.47	102.787	53.0	true
PFDoA 1	613.0 / 569.0	4.04	37726.15	82.681	161.7	false
PFDoA 2	613.0 / 319.0	4.04	6902.94	109.684	109.6	false
PFTTrDA 1	663.0 / 619.0	4.29	35563.91	85.410	294.8	false
PFTTrDA 2	663.0 / 169.0	4.28	2988.10	111.439	114.2	false
PFTeDA 1	713.0 / 669.0	4.50	39689.27	77.356	404.4	false
PFTeDA 2	713.0 / 169.0	4.50	2197.29	96.509	132.2	false
NMeFOSAA 1	570.0 / 419.0	3.59	5794.79	68.653	128.8	false
NMeFOSAA 2	570.0 / 512.0	3.59	3884.69	94.813	133.3	false
NEtFOSAA 1	584.0 / 419.0	3.75	6889.23	115.830	116.7	false
NEtFOSAA 2	584.0 / 483.0	3.76	646.77	97.391	52.1	false

Sample Name	J9417-FS(0)	Injection Vial	45
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:17:59	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	18699351.63	54149.551	455.9	false
PFBS 2	298.9 / 99.0	1.55	5697392.81	55560.212	642.4	false
PFHxA 1	313.0 / 269.0	1.86	29181618.23	95775.547	285.6	false
PFHxA 2	313.0 / 119.0	1.87	1911901.75	83849.022	430.7	false
PFHpA 1	363.0 / 319.0	2.27	7904747.20	29677.718	296.0	false
PFHpA 2	363.0 / 169.0	2.25	178378.20	36204.400	435.5	false
PFHxS 1	399.0 / 80.0	2.30	101268324.07	249083.194	926.5	false
PFHxS 2	399.0 / 99.0	2.30	46820714.17	406066.452	1805.1	false
PFOA 1	413.0 / 369.0	2.68	15522605.82	43351.466	624.5	false
PFOA 2	413.0 / 169.0	2.67	774194.08	34650.915	585.7	true
PFNA 1	463.0 / 419.0	3.07	231420.75	1685.944	139.7	false
PFNA 2	463.0 / 219.0	3.07	76118.99	1792.136	159.4	false
PFOS 1	499.0 / 80.0	2.99	189723440.82	713288.352	359.0	false
PFOS 2	499.0 / 99.0	3.07	93764740.97	2072455.407	2727.3	false
PFDA 1	513.0 / 469.0	3.43	129971.78	268.593	119.0	false
PFDA 2	513.0 / 219.0	3.44	6004.58	302.648	43.0	true
PFUnA 1	563.0 / 519.0	3.74	22974.03	33.263	49.3	true
PFUnA 2	563.0 / 269.0	3.73	737.28	< 0	14.0	true
PFDoA 1	613.0 / 569.0	4.04	13059.05	< 0	56.5	false
PFDoA 2	613.0 / 319.0	4.03	1947.75	8.558	26.4	true
PFTTrDA 1	663.0 / 619.0	4.27	5725.82	< 0	90.2	true
PFTTrDA 2	663.0 / 169.0	4.31	242.39	< 0	11.8	true
PFTeDA 1	713.0 / 669.0	4.50	1245.43	< 0	25.9	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	3.58	1046.41	< 0	18.2	true
NEtFOSAA 1	584.0 / 419.0	3.75	8534.66	118.827	130.8	true
NEtFOSAA 2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:47:20	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.58	5291.16	< 0	28.0	true
PFBS 2	298.9 / 99.0	1.56	1933.60	< 0	24.3	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	2.32	9431.01	1.960	19.0	true
PFHpA 2	363.0 / 169.0	2.31	243.51	< 0	8.6	true
PFHxS 1	399.0 / 80.0	2.34	8493.00	3.442	32.2	false
PFHxS 2	399.0 / 99.0	2.34	3455.76	6.719	44.6	false
PFOA 1	413.0 / 369.0	2.74	10969.03	9.560	35.6	true
PFOA 2	413.0 / 169.0	2.75	820.50	< 0	15.6	true
PFNA 1	463.0 / 419.0	3.13	8118.08	< 0	32.9	true
PFNA 2	463.0 / 219.0	3.12	2083.36	< 0	32.8	true
PFOS 1	499.0 / 80.0	3.11	11891.17	< 0	22.3	false
PFOS 2	499.0 / 99.0	3.12	2556.58	< 0	31.9	false
PFDA 1	513.0 / 469.0	3.49	10424.83	< 0	56.2	false
PFDA 2	513.0 / 219.0	3.52	1635.12	43.710	24.2	false
PFUnA 1	563.0 / 519.0	3.82	7942.02	< 0	42.0	true
PFUnA 2	563.0 / 269.0	3.74	667.00	< 0	15.0	true
PFDoA 1	613.0 / 569.0	4.10	9772.92	< 0	79.8	false
PFDoA 2	613.0 / 319.0	4.10	2561.15	10.817	38.6	false
PFTrDA 1	663.0 / 619.0	4.35	8613.01	< 0	137.7	false
PFTrDA 2	663.0 / 169.0	4.34	832.49	< 0	33.7	false
PFTeDA 1	713.0 / 669.0	4.57	12718.76	< 0	217.7	false
PFTeDA 2	713.0 / 169.0	4.57	657.71	< 0	65.6	false
NMeFOSAA 1	570.0 / 419.0	3.65	3205.90	< 0	115.0	false
NMeFOSAA 2	570.0 / 512.0	3.65	2026.13	< 0	57.9	false
NEtFOSAA 1	584.0 / 419.0	3.81	2906.14	15.093	86.2	false
NEtFOSAA 2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J9415MS-FS(0)	Injection Vial	9
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T11:52:28	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	20692103.22	72135.287	468.9	false
PFBS 2	298.9 / 99.0	1.56	6437446.93	75581.199	728.4	false
PFHxA 1	313.0 / 269.0	1.88	30884773.56	103574.104	293.8	false
PFHxA 2	313.0 / 119.0	1.89	2035229.89	91204.912	446.4	false
PFHpA 1	363.0 / 319.0	2.30	12009431.96	44245.307	369.9	false
PFHpA 2	363.0 / 169.0	2.29	246009.86	48998.585	556.1	false
PFHxS 1	399.0 / 80.0	2.32	98822087.31	305277.834	895.2	false
PFHxS 2	399.0 / 99.0	2.32	43543556.46	474298.286	1594.8	false
PFOA 1	413.0 / 369.0	2.71	18512155.58	56114.256	713.9	false
PFOA 2	413.0 / 169.0	2.69	1537564.18	74752.016	702.1	false
PFNA 1	463.0 / 419.0	3.11	2517312.11	19511.849	368.0	false
PFNA 2	463.0 / 219.0	3.11	785459.65	19693.722	514.1	false
PFOS 1	499.0 / 80.0	3.03	194794660.29	1039395.776	479.8	false
PFOS 2	499.0 / 99.0	3.11	97422217.16	3056070.069	3816.5	false
PFDA 1	513.0 / 469.0	3.47	6274709.77	18353.805	599.9	false
PFDA 2	513.0 / 219.0	3.47	268679.96	19392.575	483.3	false
PFUnA 1	563.0 / 519.0	3.80	5757772.08	16513.298	790.4	false
PFUnA 2	563.0 / 269.0	3.80	315586.39	18926.386	563.4	false
PFDoA 1	613.0 / 569.0	4.08	6142952.37	17943.685	1071.3	false
PFDoA 2	613.0 / 319.0	4.08	1001929.75	17830.597	767.9	false
PFTrDA 1	663.0 / 619.0	4.33	6482983.40	20741.027	1884.5	false
PFTrDA 2	663.0 / 169.0	4.33	459040.29	22913.536	986.3	false
PFTeDA 1	713.0 / 669.0	4.54	6179908.66	17401.374	2892.0	false
PFTeDA 2	713.0 / 169.0	4.54	320927.62	18734.010	1728.8	false
NMeFOSAA 1	570.0 / 419.0	3.63	1125769.42	16971.087	1149.6	false
NMeFOSAA 2	570.0 / 512.0	3.63	610447.16	17191.461	1042.5	false
NEtFOSAA 1	584.0 / 419.0	3.79	1077529.19	16604.516	1507.0	false
NEtFOSAA 2	584.0 / 483.0	3.79	66253.87	16907.668	777.0	false

Sample Name	J9415MS-FS-D(9)	Injection Vial	15
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T15:50:29	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	71855.52	212.325	138.5	false
PFBS 2	298.9 / 99.0	1.56	23864.17	223.295	161.7	false
PFHxA 1	313.0 / 269.0	1.88	94756.85	328.929	28.7	true
PFHxA 2	313.0 / 119.0	1.88	7076.68	309.290	19.5	true
PFHpA 1	363.0 / 319.0	2.30	46571.17	161.117	64.1	false
PFHpA 2	363.0 / 169.0	2.31	820.54	133.964	34.5	true
PFHxS 1	399.0 / 80.0	2.33	562719.88	1577.372	372.6	false
PFHxS 2	399.0 / 99.0	2.32	157043.96	1546.823	507.0	false
PFOA 1	413.0 / 369.0	2.71	101673.02	276.561	162.4	false
PFOA 2	413.0 / 169.0	2.71	8289.28	324.077	94.2	false
PFNA 1	463.0 / 419.0	3.11	28405.52	56.248	95.7	false
PFNA 2	463.0 / 219.0	3.11	9388.41	58.296	87.0	false
PFOS 1	499.0 / 80.0	3.11	5362610.53	10714.635	486.1	false
PFOS 2	499.0 / 99.0	3.11	955559.24	11184.551	1982.1	false
PFDA 1	513.0 / 469.0	3.47	29885.11	49.262	118.7	false
PFDA 2	513.0 / 219.0	3.44	1843.62	83.088	27.8	false
PFUnA 1	563.0 / 519.0	3.80	21761.30	36.957	93.4	false
PFUnA 2	563.0 / 269.0	3.75	1459.45	36.393	27.6	false
PFDoA 1	613.0 / 569.0	4.08	20023.37	19.729	123.6	false
PFDoA 2	613.0 / 319.0	4.08	3832.45	42.427	69.3	false
PFTrDA 1	663.0 / 619.0	4.33	16636.79	20.484	185.0	false
PFTrDA 2	663.0 / 169.0	4.32	1104.97	12.206	34.0	false
PFTeDA 1	713.0 / 669.0	4.54	21299.18	20.966	287.9	false
PFTeDA 2	713.0 / 169.0	4.54	1153.80	30.379	75.1	false
NMeFOSAA 1	570.0 / 419.0	3.63	3308.41	< 0	133.9	false
NMeFOSAA 2	570.0 / 512.0	3.62	2396.87	8.056	80.1	false
NEtFOSAA 1	584.0 / 419.0	3.79	3312.44	31.991	79.0	false
NEtFOSAA 2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:04:50	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	4470.45	< 0	22.5	true
PFBS 2	298.9 / 99.0	1.56	2256.79	< 0	29.6	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	2.32	4925.40	< 0	15.0	true
PFHpA 2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS 1	399.0 / 80.0	2.34	7234.21	2.207	33.3	false
PFHxS 2	399.0 / 99.0	2.34	1448.45	< 0	26.3	false
PFOA 1	413.0 / 369.0	2.73	9051.46	8.372	35.4	true
PFOA 2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA 1	463.0 / 419.0	3.13	4552.83	< 0	21.7	true
PFNA 2	463.0 / 219.0	3.12	1609.89	< 0	19.9	true
PFOS 1	499.0 / 80.0	3.11	10327.16	< 0	22.5	false
PFOS 2	499.0 / 99.0	3.12	1464.10	< 0	18.7	false
PFDA 1	513.0 / 469.0	3.48	7725.50	< 0	45.6	false
PFDA 2	513.0 / 219.0	3.45	1476.33	42.575	17.4	false
PFUnA 1	563.0 / 519.0	3.80	7204.69	< 0	48.4	true
PFUnA 2	563.0 / 269.0	3.77	996.17	0.538	17.6	false
PFDoA 1	613.0 / 569.0	4.09	6801.41	< 0	83.5	false
PFDoA 2	613.0 / 319.0	4.08	1435.43	< 0	31.0	false
PFTrDA 1	663.0 / 619.0	4.34	6903.34	< 0	122.9	false
PFTrDA 2	663.0 / 169.0	4.35	729.42	< 0	28.4	false
PFTeDA 1	713.0 / 669.0	4.56	9011.57	< 0	205.4	false
PFTeDA 2	713.0 / 169.0	4.54	544.40	< 0	36.6	false
NMeFOSAA 1	570.0 / 419.0	3.63	2215.75	< 0	51.9	false
NMeFOSAA 2	570.0 / 512.0	3.63	1539.99	< 0	30.7	false
NEtFOSAA 1	584.0 / 419.0	3.79	2445.35	12.391	94.3	false
NEtFOSAA 2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J9417-FS-D(13)	Injection Vial	5
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:26:35	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	4755870.06	12123.647	402.0	false
PFBS 2	298.9 / 99.0	1.56	1411242.29	12101.353	501.3	false
PFHxA 1	313.0 / 269.0	1.88	6490581.88	19318.424	213.2	false
PFHxA 2	313.0 / 119.0	1.89	420001.87	16684.815	225.6	false
PFHpA 1	363.0 / 319.0	2.30	1760407.77	6040.714	225.9	false
PFHpA 2	363.0 / 169.0	2.29	39662.78	7347.992	212.4	false
PFHxS 1	399.0 / 80.0	2.32	35355168.82	94730.264	1291.9	false
PFHxS 2	399.0 / 99.0	2.32	10804649.46	102073.504	1594.2	false
PFOA 1	413.0 / 369.0	2.71	3028637.91	8627.621	536.2	false
PFOA 2	413.0 / 169.0	2.66	282484.13	12878.023	367.0	false
PFNA 1	463.0 / 419.0	3.11	75571.40	272.006	98.5	false
PFNA 2	463.0 / 219.0	3.11	25953.70	301.880	124.0	false
PFOS 1	499.0 / 80.0	3.07	135354903.31	365691.068	1000.2	false
PFOS 2	499.0 / 99.0	3.11	31968571.34	507735.062	5233.4	false
PFDA 1	513.0 / 469.0	3.47	40891.85	58.785	96.8	false
PFDA 2	513.0 / 219.0	3.47	1871.98	62.464	33.9	false
PFUnA 1	563.0 / 519.0	3.79	8385.92	< 0	33.6	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.08	5895.13	< 0	44.2	false
PFDoA 2	613.0 / 319.0	4.07	839.04	< 0	16.0	true
PFTTrDA 1	663.0 / 619.0	4.32	5749.66	< 0	79.0	false
PFTTrDA 2	663.0 / 169.0	4.34	238.51	< 0	7.7	true
PFTeDA 1	713.0 / 669.0	4.55	2434.17	< 0	49.2	false
PFTeDA 2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA 1	570.0 / 419.0	3.60	2418.86	< 0	34.6	false
NMeFOSAA 2	570.0 / 512.0	3.62	374.82	< 0	12.8	false
NEtFOSAA 1	584.0 / 419.0	3.79	2154.67	10.766	47.3	true
NEtFOSAA 2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J9417-FS-D(15)	Injection Vial	6
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:37:28	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	861060.71	2709.558	321.6	false
PFBS 2	298.9 / 99.0	1.56	265292.08	2795.834	308.5	false
PFHxA 1	313.0 / 269.0	1.88	1085762.79	3836.425	92.8	false
PFHxA 2	313.0 / 119.0	1.89	72403.01	3396.332	89.0	false
PFHpA 1	363.0 / 319.0	2.30	332266.35	1363.575	184.4	false
PFHpA 2	363.0 / 169.0	2.30	8133.09	1795.924	151.2	false
PFHxS 1	399.0 / 80.0	2.33	6640305.43	20104.584	1123.1	false
PFHxS 2	399.0 / 99.0	2.33	1847147.32	19713.883	1891.9	false
PFOA 1	413.0 / 369.0	2.71	692988.33	1937.991	332.8	false
PFOA 2	413.0 / 169.0	2.67	64709.75	2868.943	224.1	false
PFNA 1	463.0 / 419.0	3.11	24915.51	43.601	60.9	false
PFNA 2	463.0 / 219.0	3.11	9759.91	60.484	80.6	false
PFOS 1	499.0 / 80.0	3.11	44939636.34	94306.163	1304.0	false
PFOS 2	499.0 / 99.0	3.11	7692584.82	94863.102	3581.8	false
PFDA 1	513.0 / 469.0	3.47	20816.80	22.041	93.4	false
PFDA 2	513.0 / 219.0	3.49	1655.03	64.805	25.4	false
PFUnA 1	563.0 / 519.0	3.79	3137.87	< 0	27.3	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.08	3080.17	< 0	32.2	true
PFDoA 2	613.0 / 319.0	4.08	865.58	< 0	16.3	true
PFTrDA 1	663.0 / 619.0	4.33	2095.45	< 0	53.0	false
PFTrDA 2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA 1	713.0 / 669.0	4.55	1900.80	< 0	59.8	false
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

Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:48:21	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	153121.52	461.919	177.3	false
PFBS 2	298.9 / 99.0	1.56	48146.18	473.493	188.8	false
PFHxA 1	313.0 / 269.0	1.88	211801.39	754.679	47.0	true
PFHxA 2	313.0 / 119.0	1.88	14198.17	653.246	35.2	true
PFHpA 1	363.0 / 319.0	2.30	73301.18	275.069	79.9	false
PFHpA 2	363.0 / 169.0	2.30	2340.12	477.251	53.1	false
PFHxS 1	399.0 / 80.0	2.32	1340838.10	3775.712	536.8	false
PFHxS 2	399.0 / 99.0	2.32	388227.92	3849.929	723.6	false
PFOA 1	413.0 / 369.0	2.71	201909.98	502.544	226.8	false
PFOA 2	413.0 / 169.0	2.69	15383.58	575.435	159.0	false
PFNA 1	463.0 / 419.0	3.11	12421.82	2.522	44.5	true
PFNA 2	463.0 / 219.0	3.11	4178.77	1.573	55.3	true
PFOS 1	499.0 / 80.0	3.11	9851322.79	16392.476	881.8	false
PFOS 2	499.0 / 99.0	3.11	1741931.98	17000.545	2105.7	false
PFDA 1	513.0 / 469.0	3.47	12809.97	0.953	65.0	false
PFDA 2	513.0 / 219.0	3.45	837.51	12.403	12.0	true
PFUnA 1	563.0 / 519.0	3.79	2548.73	< 0	23.0	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.09	1810.85	< 0	25.5	true
PFDoA 2	613.0 / 319.0	4.07	149.80	< 0	4.3	true
PFTrDA 1	663.0 / 619.0	4.33	930.57	< 0	29.5	true
PFTrDA 2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA 1	713.0 / 669.0	4.55	867.01	< 0	32.8	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

Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:13:10	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	156169.02	482.619	215.7	false
PFBS 2	298.9 / 99.0	1.57	45100.72	451.529	205.8	false
PFHxA 1	313.0 / 269.0	1.89	217379.75	790.317	50.5	true
PFHxA 2	313.0 / 119.0	1.90	14017.38	656.919	32.6	true
PFHpA 1	363.0 / 319.0	2.31	74183.30	280.550	86.2	false
PFHpA 2	363.0 / 169.0	2.31	1867.63	373.985	42.4	false
PFHxS 1	399.0 / 80.0	2.34	1367113.40	3997.605	503.5	false
PFHxS 2	399.0 / 99.0	2.34	387369.10	3988.823	853.4	false
PFOA 1	413.0 / 369.0	2.73	197018.65	524.560	223.3	false
PFOA 2	413.0 / 169.0	2.70	16142.24	652.023	149.1	false
PFNA 1	463.0 / 419.0	3.13	10955.04	< 0	44.2	false
PFNA 2	463.0 / 219.0	3.12	4681.49	4.187	54.8	false
PFOS 1	499.0 / 80.0	3.12	10182389.40	18745.989	870.3	false
PFOS 2	499.0 / 99.0	3.12	1765033.50	19063.063	1302.5	false
PFDA 1	513.0 / 469.0	3.48	12777.54	1.469	64.1	false
PFDA 2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA 1	563.0 / 519.0	3.83	2051.42	< 0	23.2	true
PFUnA 2	563.0 / 269.0	3.84	116.19	< 0	4.9	true
PFDoA 1	613.0 / 569.0	4.09	1914.20	< 0	25.9	true
PFDoA 2	613.0 / 319.0	4.04	111.39	< 0	4.8	true
PFTrDA 1	663.0 / 619.0	4.34	635.28	< 0	24.6	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

Sample Name	KC73 IB	Injection Vial	9
Sample ID	Instrument blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:46:49	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	117948.902	228.076	1245.9	false
d3-MeFOSAA	573.0 / 419.0	3.61	15361.358	219.883	166.6	false
d5-EtFOSAA	589.0 / 419.0	3.77	16508.561	236.423	226.3	false
13C5-PFHxA	318.0 / 273.0	1.87	76423.004	225.867	613.5	false
13C4-PFHpA	367.0 / 322.0	2.28	93399.130	252.910	1025.8	false
13C8-PFOA	421.0 / 376.0	2.70	98664.928	242.944	1332.9	false
13C9-PFNA	472.0 / 427.0	3.09	103635.174	243.211	2387924.3	false
13C6-PFDA	519.0 / 474.0	3.44	112024.139	238.852	2290.6	false
13C7-PFUnA	570.0 / 525.0	3.77	102160.983	234.737	790.4	false
13C2-PFTeDA	715.0 / 670.0	4.53	105121.015	230.414	1690.2	false
13C3-PFBS	302.0 / 99.0	1.54	33984.809	209.620	421.2	false
13C3-PFHxS	402.0 / 99.0	2.31	30921.891	213.768	356.6	false
13C8-PFOS	507.0 / 99.0	3.09	37685.666	261.880	242.0	false

Sample Name	CS243PB-FS(0)	Injection Vial	28
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:13:14	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	89948.782	191.800	1194.1	false
d3-MeFOSAA	573.0 / 419.0	3.59	13694.102	197.918	194.9	false
d5-EtFOSAA	589.0 / 419.0	3.75	12963.048	187.446	171.2	false
13C5-PFHxA	318.0 / 273.0	1.87	63410.679	198.198	546.6	false
13C4-PFHpA	367.0 / 322.0	2.28	74297.550	212.768	913.0	false
13C8-PFOA	421.0 / 376.0	2.68	89328.490	232.617	2386.2	false
13C9-PFNA	472.0 / 427.0	3.07	88408.789	219.422	969714.9	false
13C6-PFDA	519.0 / 474.0	3.43	92212.789	216.808	1056.3	false
13C7-PFUnA	570.0 / 525.0	3.75	88315.944	223.770	534.3	false
13C2-PFTeDA	715.0 / 670.0	4.51	80227.744	193.915	1578.9	false
13C3-PFBS	302.0 / 99.0	1.54	28964.730	180.388	363.5	false
13C3-PFHxS	402.0 / 99.0	2.30	23897.855	166.811	254.4	false
13C8-PFOS	507.0 / 99.0	3.07	27276.679	191.385	217.1	false

Sample Name	CS244LCS-FS(0)	Injection Vial	29
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:24:08	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	100279.931	211.591	1127.2	false
d3-MeFOSAA	573.0 / 419.0	3.59	14495.330	255.670	65.9	false
d5-EtFOSAA	589.0 / 419.0	3.75	10986.342	193.876	122.3	false
13C5-PFHxA	318.0 / 273.0	1.86	70090.782	224.676	746.4	false
13C4-PFHpA	367.0 / 322.0	2.27	75669.695	222.235	616.5	false
13C8-PFOA	421.0 / 376.0	2.68	82291.897	219.770	1159.1	false
13C9-PFNA	472.0 / 427.0	3.07	88395.772	224.997	8141.7	false
13C6-PFDA	519.0 / 474.0	3.43	84504.174	196.604	1427.4	false
13C7-PFUnA	570.0 / 525.0	3.75	81835.855	205.181	559.3	false
13C2-PFTeDA	715.0 / 670.0	4.51	92274.728	220.698	1530.7	false
13C3-PFBS	302.0 / 99.0	1.54	30554.394	232.227	340.5	false
13C3-PFHxS	402.0 / 99.0	2.30	24598.193	209.541	287.8	false
13C8-PFOS	507.0 / 99.0	3.07	25299.048	216.631	205.9	false

Sample Name	J9420-FS(0)	Injection Vial	30
Sample ID	AS4141-FB-111618	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:35:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	100620.351	203.946	1024.6	false
d3-MeFOSAA	573.0 / 419.0	3.59	13928.533	205.919	154.4	false
d5-EtFOSAA	589.0 / 419.0	3.75	15368.211	227.318	236.0	false
13C5-PFHxA	318.0 / 273.0	1.87	67532.839	215.245	688.2	false
13C4-PFHpA	367.0 / 322.0	2.28	78065.135	227.965	569.3	false
13C8-PFOA	421.0 / 376.0	2.68	90939.984	241.483	1625.4	false
13C9-PFNA	472.0 / 427.0	3.07	90170.516	228.208	1094587.8	false
13C6-PFDA	519.0 / 474.0	3.43	100186.072	223.908	1559.1	false
13C7-PFUnA	570.0 / 525.0	3.75	101277.968	243.924	642.7	false
13C2-PFTeDA	715.0 / 670.0	4.51	88217.182	202.682	895.7	false
13C3-PFBS	302.0 / 99.0	1.54	29709.645	189.267	300.4	false
13C3-PFHxS	402.0 / 99.0	2.30	27536.478	196.614	262.2	false
13C8-PFOS	507.0 / 99.0	3.07	28787.908	206.617	271.2	false

Sample Name	J9414-FS(0)	Injection Vial	31
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:45:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	98811.589	183.316	935.1	false
d3-MeFOSAA	573.0 / 419.0	3.59	12383.996	436.388	156.9	false
d5-EtFOSAA	589.0 / 419.0	3.75	17440.549	614.881	188.5	false
13C5-PFHxA	318.0 / 273.0	1.86	75965.286	213.331	207.2	false
13C4-PFHpA	367.0 / 322.0	2.27	82555.407	212.411	438.4	false
13C8-PFOA	421.0 / 376.0	2.68	84018.134	196.574	611.6	false
13C9-PFNA	472.0 / 427.0	3.07	41014.264	91.458	411.0	false
13C6-PFDA	519.0 / 474.0	3.43	104825.142	214.432	746.5	false
13C7-PFUnA	570.0 / 525.0	3.75	96631.177	213.020	639.2	false
13C2-PFTeDA	715.0 / 670.0	4.50	89530.574	188.277	1319.9	false
13C3-PFBS	302.0 / 99.0	1.54	26846.980	407.656	224.0	false
13C3-PFHxS	402.0 / 99.0	2.29	28573.760	486.289	217.7	false
13C8-PFOS	507.0 / 99.0	3.07	14782.829	252.891	121.4	false

Sample Name	J9414-FS-D(3)	Injection Vial	32
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:56:43	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	116017.873	201.227	1176.7	false
d3-MeFOSAA	573.0 / 419.0	3.59	12758.143	283.455	165.9	false
d5-EtFOSAA	589.0 / 419.0	3.75	16498.959	366.752	168.4	false
13C5-PFHxA	318.0 / 273.0	1.87	84152.688	222.452	273.6	false
13C4-PFHpA	367.0 / 322.0	2.27	98809.858	239.311	570.5	false
13C8-PFOA	421.0 / 376.0	2.68	88488.389	194.881	739.7	false
13C9-PFNA	472.0 / 427.0	3.07	69502.982	145.888	618.0	false
13C6-PFDA	519.0 / 474.0	3.43	101759.435	194.611	943.7	false
13C7-PFUnA	570.0 / 525.0	3.75	99714.485	205.508	796.0	false
13C2-PFTeDA	715.0 / 670.0	4.51	98252.977	193.170	1588.9	false
13C3-PFBS	302.0 / 99.0	1.54	36698.133	351.340	291.8	true
13C3-PFHxS	402.0 / 99.0	2.30	31141.803	334.161	273.5	false
13C8-PFOS	507.0 / 99.0	3.07	21008.020	226.593	205.4	false

Sample Name	J9414-FS-D(5)	Injection Vial	33
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:07:35	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	100565.442	192.982	1470.5	false
d3-MeFOSAA	573.0 / 419.0	3.59	12320.838	226.492	167.0	false
d5-EtFOSAA	589.0 / 419.0	3.75	14932.594	274.641	208.7	false
13C5-PFHxA	318.0 / 273.0	1.86	68843.836	200.857	332.3	false
13C4-PFHpA	367.0 / 322.0	2.27	81251.886	217.195	866.4	false
13C8-PFOA	421.0 / 376.0	2.68	85508.470	207.848	1108.8	false
13C9-PFNA	472.0 / 427.0	3.07	85660.594	198.450	2095.6	false
13C6-PFDA	519.0 / 474.0	3.43	99133.590	209.759	67546.7	false
13C7-PFUnA	570.0 / 525.0	3.75	90740.530	206.909	730.8	false
13C2-PFTeDA	715.0 / 670.0	4.50	87604.217	190.558	1574.6	false
13C3-PFBS	302.0 / 99.0	1.54	32518.633	257.591	303.8	false
13C3-PFHxS	402.0 / 99.0	2.30	25874.917	229.724	256.3	false
13C8-PFOS	507.0 / 99.0	3.07	25455.518	227.174	220.1	false

Sample Name	J9414-FS-D(7)	Injection Vial	34
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:18:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	108114.075	199.000	957.3	false
d3-MeFOSAA	573.0 / 419.0	3.59	14312.707	192.541	214.5	false
d5-EtFOSAA	589.0 / 419.0	3.75	17739.185	238.756	177.9	false
13C5-PFHxA	318.0 / 273.0	1.86	78331.739	217.223	524.2	false
13C4-PFHpA	367.0 / 322.0	2.27	82656.007	210.008	1178.1	false
13C8-PFOA	421.0 / 376.0	2.68	96485.171	222.917	1167.5	false
13C9-PFNA	472.0 / 427.0	3.07	95300.082	209.850	1027.8	false
13C6-PFDA	519.0 / 474.0	3.43	98113.816	199.128	2400.3	false
13C7-PFUnA	570.0 / 525.0	3.75	97373.364	212.971	642.5	false
13C2-PFTeDA	715.0 / 670.0	4.50	95975.840	200.247	1843.5	false
13C3-PFBS	302.0 / 99.0	1.53	32822.429	190.265	371.8	false
13C3-PFHxS	402.0 / 99.0	2.30	27168.033	176.512	377.2	false
13C8-PFOS	507.0 / 99.0	3.07	29638.405	193.563	265.9	false

Sample Name	J9415MS-FS-D(3)	Injection Vial	36
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:40:09	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	115584.657	217.945	1037.4	false
d3-MeFOSAA	573.0 / 419.0	3.59	14591.541	338.097	115.4	false
d5-EtFOSAA	589.0 / 419.0	3.75	15351.896	355.895	195.8	false
13C5-PFHxA	318.0 / 273.0	1.86	88335.957	262.696	295.1	false
13C4-PFHpA	367.0 / 322.0	2.27	92977.399	253.330	801.8	false
13C8-PFOA	421.0 / 376.0	2.68	86644.312	214.669	1049.6	false
13C9-PFNA	472.0 / 427.0	3.07	61359.203	144.891	764.2	false
13C6-PFDA	519.0 / 474.0	3.42	100543.348	209.041	1086.1	false
13C7-PFUnA	570.0 / 525.0	3.74	102575.251	229.826	923.0	false
13C2-PFTeDA	715.0 / 670.0	4.50	96926.709	207.168	1502.1	false
13C3-PFBS	302.0 / 99.0	1.53	38007.242	379.484	312.8	false
13C3-PFHxS	402.0 / 99.0	2.29	31013.113	347.057	321.5	false
13C8-PFOS	507.0 / 99.0	3.07	20737.413	233.271	214.8	false

Sample Name	J9415MS-FS-D(5)	Injection Vial	37
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:51:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	103086.381	210.650	1213.5	false
d3-MeFOSAA	573.0 / 419.0	3.59	14234.359	257.933	155.2	false
d5-EtFOSAA	589.0 / 419.0	3.75	15949.521	289.159	179.9	false
13C5-PFHxA	318.0 / 273.0	1.86	72409.977	222.512	389.1	false
13C4-PFHpA	367.0 / 322.0	2.27	78486.422	220.975	933.8	false
13C8-PFOA	421.0 / 376.0	2.68	83814.015	214.578	2586.4	false
13C9-PFNA	472.0 / 427.0	3.07	76563.996	186.821	3613.8	false
13C6-PFDA	519.0 / 474.0	3.43	99167.373	223.440	5454.8	false
13C7-PFUnA	570.0 / 525.0	3.75	93232.400	226.379	523.2	false
13C2-PFTeDA	715.0 / 670.0	4.50	89589.870	207.516	1850.5	false
13C3-PFBS	302.0 / 99.0	1.54	34733.283	271.208	345.4	false
13C3-PFHxS	402.0 / 99.0	2.30	26473.272	231.682	251.4	false
13C8-PFOS	507.0 / 99.0	3.07	21495.197	189.093	184.9	false

Sample Name	J9415MS-FS-D(7)	Injection Vial	40
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:23:39	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	114550.696	219.370	1255.9	false
d3-MeFOSAA	573.0 / 419.0	3.58	13561.836	214.886	200.4	false
d5-EtFOSAA	589.0 / 419.0	3.75	15465.353	245.171	177.6	false
13C5-PFHxA	318.0 / 273.0	1.86	71712.119	196.789	564.1	false
13C4-PFHpA	367.0 / 322.0	2.27	80801.059	203.151	2912.2	false
13C8-PFOA	421.0 / 376.0	2.68	93151.803	212.968	1446.8	false
13C9-PFNA	472.0 / 427.0	3.07	88517.185	192.878	931.1	false
13C6-PFDA	519.0 / 474.0	3.42	101914.955	215.204	1054.7	false
13C7-PFUnA	570.0 / 525.0	3.74	98035.277	223.086	747.7	false
13C2-PFTeDA	715.0 / 670.0	4.50	96263.565	208.966	1673.0	false
13C3-PFBS	302.0 / 99.0	1.54	32639.144	222.851	303.5	false
13C3-PFHxS	402.0 / 99.0	2.29	27015.247	206.735	259.2	false
13C8-PFOS	507.0 / 99.0	3.06	26624.985	204.807	278.6	false

Sample Name	J9416-MSD-FS(0)	Injection Vial	41
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:34:31	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	102402.577	202.343	936.5	false
d3-MeFOSAA	573.0 / 419.0	3.59	16928.147	607.960	144.1	false
d5-EtFOSAA	589.0 / 419.0	3.75	14628.992	525.652	175.4	false
13C5-PFHxA	318.0 / 273.0	1.86	74346.983	204.045	224.8	false
13C4-PFHpA	367.0 / 322.0	2.27	79253.068	199.284	413.2	false
13C8-PFOA	421.0 / 376.0	2.68	77604.571	177.445	565.9	false
13C9-PFNA	472.0 / 427.0	3.07	42666.446	92.982	472.5	false
13C6-PFDA	519.0 / 474.0	3.42	96937.100	211.202	793.9	false
13C7-PFUnA	570.0 / 525.0	3.74	87176.175	204.684	488.8	false
13C2-PFTeDA	715.0 / 670.0	4.50	87069.214	195.018	1384.6	false
13C3-PFBS	302.0 / 99.0	1.54	25643.925	396.859	194.3	false
13C3-PFHxS	402.0 / 99.0	2.29	25945.876	450.038	173.4	false
13C8-PFOS	507.0 / 99.0	3.07	13963.821	243.464	124.0	false

Sample Name	J9416MSD-FS-D(3)	Injection Vial	42
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:45:22	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	100133.431	197.553	1280.8	false
d3-MeFOSAA	573.0 / 419.0	3.59	13634.258	321.080	140.2	false
d5-EtFOSAA	589.0 / 419.0	3.75	12348.956	290.958	153.7	false
13C5-PFHxA	318.0 / 273.0	1.86	81571.649	257.935	327.9	false
13C4-PFHpA	367.0 / 322.0	2.27	86878.264	251.696	724.8	false
13C8-PFOA	421.0 / 376.0	2.68	78045.148	205.604	1031.6	false
13C9-PFNA	472.0 / 427.0	3.07	65614.836	164.748	585.1	false
13C6-PFDA	519.0 / 474.0	3.42	104486.476	227.298	1124.8	false
13C7-PFUnA	570.0 / 525.0	3.74	92383.735	216.575	688.2	false
13C2-PFTeDA	715.0 / 670.0	4.50	88385.176	197.659	1655.9	false
13C3-PFBS	302.0 / 99.0	1.54	32861.611	333.470	250.9	false
13C3-PFHxS	402.0 / 99.0	2.29	29059.592	330.511	341.4	false
13C8-PFOS	507.0 / 99.0	3.07	20462.924	233.945	173.5	false

Sample Name	J9416MSD-FS-D(5)	Injection Vial	43
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:56:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	100015.739	183.955	1191.2	false
d3-MeFOSAA	573.0 / 419.0	3.59	12600.609	221.033	111.4	false
d5-EtFOSAA	589.0 / 419.0	3.75	15756.399	276.529	174.6	false
13C5-PFHxA	318.0 / 273.0	1.86	67669.302	218.943	469.6	false
13C4-PFHpA	367.0 / 322.0	2.27	77534.701	229.842	756.5	false
13C8-PFOA	421.0 / 376.0	2.68	84980.625	229.073	1385.4	false
13C9-PFNA	472.0 / 427.0	3.07	79733.568	204.846	1178.1	false
13C6-PFDA	519.0 / 474.0	3.42	99946.927	202.696	16455.7	false
13C7-PFUnA	570.0 / 525.0	3.74	91200.906	199.320	863.2	false
13C2-PFTeDA	715.0 / 670.0	4.50	89494.065	186.582	1508.4	false
13C3-PFBS	302.0 / 99.0	1.53	31558.765	238.546	334.8	false
13C3-PFHxS	402.0 / 99.0	2.29	27590.956	233.747	288.9	false
13C8-PFOS	507.0 / 99.0	3.07	23859.443	203.184	218.4	false

Sample Name	J9416MSD-FS-D(7)	Injection Vial	44
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:07:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	99515.581	208.266	1658.4	false
d3-MeFOSAA	573.0 / 419.0	3.59	13096.615	225.463	181.2	false
d5-EtFOSAA	589.0 / 419.0	3.74	14449.097	248.872	166.9	false
13C5-PFHxA	318.0 / 273.0	1.86	64988.291	195.513	680.6	false
13C4-PFHpA	367.0 / 322.0	2.27	72398.560	199.556	934.8	false
13C8-PFOA	421.0 / 376.0	2.68	86379.037	216.503	1333.3	false
13C9-PFNA	472.0 / 427.0	3.06	80082.592	191.305	1895.3	false
13C6-PFDA	519.0 / 474.0	3.42	83607.673	192.932	1268.1	false
13C7-PFUnA	570.0 / 525.0	3.74	87151.303	216.726	595.1	false
13C2-PFTeDA	715.0 / 670.0	4.50	86201.807	204.492	1729.3	false
13C3-PFBS	302.0 / 99.0	1.53	29495.512	218.806	354.4	false
13C3-PFHxS	402.0 / 99.0	2.29	26218.602	217.992	392.3	false
13C8-PFOS	507.0 / 99.0	3.06	22603.915	188.914	212.2	false

Sample Name	J9417-FS(0)	Injection Vial	45
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:17:59	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	118781.476	198.337	1282.6	false
d3-MeFOSAA	573.0 / 419.0	3.58	17094.967	630.392	153.7	false
d5-EtFOSAA	589.0 / 419.0	3.74	18226.700	672.464	188.1	false
13C5-PFHxA	318.0 / 273.0	1.85	83205.170	206.510	172.5	false
13C4-PFHpA	367.0 / 322.0	2.26	87967.966	200.036	360.6	false
13C8-PFOA	421.0 / 376.0	2.67	94827.285	196.082	614.3	false
13C9-PFNA	472.0 / 427.0	3.06	41130.893	81.060	421.9	false
13C6-PFDA	519.0 / 474.0	3.42	121228.746	223.199	839.8	false
13C7-PFUnA	570.0 / 525.0	3.74	110876.930	219.992	650.0	false
13C2-PFTeDA	715.0 / 670.0	4.50	101384.057	191.893	1412.4	false
13C3-PFBS	302.0 / 99.0	1.53	31271.898	496.917	234.9	false
13C3-PFHxS	402.0 / 99.0	2.28	30529.978	543.731	237.4	false
13C8-PFOS	507.0 / 99.0	3.06	14358.866	257.056	88.2	false

Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:47:20	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.09	145677.922	234.433	1557.3	false
d3-MeFOSAA	573.0 / 419.0	3.64	23082.338	300.385	281.6	false
d5-EtFOSAA	589.0 / 419.0	3.80	25725.142	334.946	262.3	false
13C5-PFHxA	318.0 / 273.0	1.89	91529.184	231.199	863.0	false
13C4-PFHpA	367.0 / 322.0	2.30	102947.828	238.252	1568.8	false
13C8-PFOA	421.0 / 376.0	2.72	120852.828	254.330	4524.1	false
13C9-PFNA	472.0 / 427.0	3.11	128789.342	258.317	1021.7	false
13C6-PFDA	519.0 / 474.0	3.47	136872.253	242.869	2821.1	false
13C7-PFUnA	570.0 / 525.0	3.80	130992.099	250.483	1082.3	false
13C2-PFTeDA	715.0 / 670.0	4.56	131094.419	239.134	2562.2	false
13C3-PFBS	302.0 / 99.0	1.55	32635.550	183.010	489.7	false
13C3-PFHxS	402.0 / 99.0	2.32	32491.989	204.216	402.1	false
13C8-PFOS	507.0 / 99.0	3.11	38869.615	245.569	344.2	false

Sample Name	J9415MS-FS(0)	Injection Vial	9
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T11:52:28	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	107144.583	221.545	957.8	false
d3-MeFOSAA	573.0 / 419.0	3.62	18989.284	969.532	154.3	false
d5-EtFOSAA	589.0 / 419.0	3.79	17570.875	897.564	179.2	false
13C5-PFHxA	318.0 / 273.0	1.87	81433.263	238.266	177.5	false
13C4-PFHpA	367.0 / 322.0	2.29	89672.378	240.389	479.8	false
13C8-PFOA	421.0 / 376.0	2.70	87375.415	212.993	671.9	false
13C9-PFNA	472.0 / 427.0	3.10	39406.063	91.553	354.5	false
13C6-PFDA	519.0 / 474.0	3.46	95262.249	217.192	787.7	false
13C7-PFUnA	570.0 / 525.0	3.78	91963.836	225.953	749.7	false
13C2-PFTeDA	715.0 / 670.0	4.54	87930.773	206.094	1333.9	false
13C3-PFBS	302.0 / 99.0	1.54	25979.488	571.571	247.6	false
13C3-PFHxS	402.0 / 99.0	2.31	25135.567	619.808	195.1	false
13C8-PFOS	507.0 / 99.0	3.10	9634.417	238.805	115.6	false

Sample Name	J9415MS-FS-D(9)	Injection Vial	15
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T15:50:29	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	112264.528	221.158	1394.4	false
d3-MeFOSAA	573.0 / 419.0	3.62	17973.545	282.675	228.7	false
d5-EtFOSAA	589.0 / 419.0	3.78	19080.178	300.230	210.7	false
13C5-PFHxA	318.0 / 273.0	1.87	70521.388	209.940	609.9	false
13C4-PFHpA	367.0 / 322.0	2.29	81268.755	221.663	1027.0	false
13C8-PFOA	421.0 / 376.0	2.70	92546.833	229.536	808.8	false
13C9-PFNA	472.0 / 427.0	3.09	94491.102	223.364	2214.1	false
13C6-PFDA	519.0 / 474.0	3.45	104383.159	226.737	927.7	false
13C7-PFUnA	570.0 / 525.0	3.78	98381.704	230.295	1010.6	false
13C2-PFTeDA	715.0 / 670.0	4.54	91352.698	203.993	1591.6	false
13C3-PFBS	302.0 / 99.0	1.54	27363.036	185.440	384.7	false
13C3-PFHxS	402.0 / 99.0	2.31	26081.083	198.104	283.2	false
13C8-PFOS	507.0 / 99.0	3.09	27783.060	212.128	265.7	false

Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:04:50	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	133128.449	232.871	1408.4	false
d3-MeFOSAA	573.0 / 419.0	3.62	23483.366	308.634	227.3	false
d5-EtFOSAA	589.0 / 419.0	3.79	23684.266	311.431	276.6	false
13C5-PFHxA	318.0 / 273.0	1.88	80648.553	224.960	673.4	false
13C4-PFHpA	367.0 / 322.0	2.30	95996.993	245.335	1051.9	false
13C8-PFOA	421.0 / 376.0	2.71	104909.472	243.802	1273.4	false
13C9-PFNA	472.0 / 427.0	3.10	111425.054	246.796	4653.6	false
13C6-PFDA	519.0 / 474.0	3.46	125308.321	241.688	1126.1	false
13C7-PFUnA	570.0 / 525.0	3.79	119313.974	247.996	797.0	false
13C2-PFTeDA	715.0 / 670.0	4.55	116156.500	230.314	2754.5	false
13C3-PFBS	302.0 / 99.0	1.55	32744.190	185.441	445.7	false
13C3-PFHxS	402.0 / 99.0	2.32	29601.260	187.892	311.5	false
13C8-PFOS	507.0 / 99.0	3.10	33564.581	214.156	306.8	false

Sample Name	J9417-FS-D(13)	Injection Vial	5
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:26:35	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	116652.314	194.101	1221.2	false
d3-MeFOSAA	573.0 / 419.0	3.62	19264.612	431.815	204.4	false
d5-EtFOSAA	589.0 / 419.0	3.78	22338.466	500.967	237.9	false
13C5-PFHxA	318.0 / 273.0	1.87	91605.954	260.892	303.9	false
13C4-PFHpA	367.0 / 322.0	2.29	95890.312	250.211	656.3	false
13C8-PFOA	421.0 / 376.0	2.71	92842.168	220.291	793.5	false
13C9-PFNA	472.0 / 427.0	3.10	75142.298	169.930	824.4	false
13C6-PFDA	519.0 / 474.0	3.45	127618.972	234.143	1069.1	false
13C7-PFUnA	570.0 / 525.0	3.78	108417.223	214.359	723.2	false
13C2-PFTeDA	715.0 / 670.0	4.54	100614.964	189.771	1508.6	false
13C3-PFBS	302.0 / 99.0	1.54	35465.711	342.557	306.4	false
13C3-PFHxS	402.0 / 99.0	2.31	27568.637	298.447	266.8	false
13C8-PFOS	507.0 / 99.0	3.09	20655.942	224.774	184.1	false

Sample Name	J9417-FS-D(15)	Injection Vial	6
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:37:28	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	113458.834	203.190	1227.5	false
d3-MeFOSAA	573.0 / 419.0	3.62	19281.524	356.717	242.9	false
d5-EtFOSAA	589.0 / 419.0	3.78	20420.688	377.983	222.3	false
13C5-PFHxA	318.0 / 273.0	1.88	76556.061	224.405	436.2	false
13C4-PFHpA	367.0 / 322.0	2.29	78915.026	211.937	924.1	false
13C8-PFOA	421.0 / 376.0	2.71	94028.080	229.628	2421.2	false
13C9-PFNA	472.0 / 427.0	3.10	96092.882	223.662	1290.0	false
13C6-PFDA	519.0 / 474.0	3.46	110274.128	217.756	829.5	false
13C7-PFUnA	570.0 / 525.0	3.78	93798.299	199.604	1242.8	false
13C2-PFTeDA	715.0 / 670.0	4.54	98384.850	199.722	1801.6	false
13C3-PFBS	302.0 / 99.0	1.54	28522.031	227.379	365.3	false
13C3-PFHxS	402.0 / 99.0	2.32	24457.140	218.526	280.4	false
13C8-PFOS	507.0 / 99.0	3.10	26437.150	237.444	232.5	false

Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:48:21	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	116572.130	206.517	1557.3	false
d3-MeFOSAA	573.0 / 419.0	3.62	22196.664	337.064	245.1	false
d5-EtFOSAA	589.0 / 419.0	3.78	18091.260	274.860	178.3	false
13C5-PFHxA	318.0 / 273.0	1.87	72982.429	200.655	571.8	false
13C4-PFHpA	367.0 / 322.0	2.29	79870.410	201.193	910.5	false
13C8-PFOA	421.0 / 376.0	2.71	103457.044	236.977	5221.6	false
13C9-PFNA	472.0 / 427.0	3.10	99342.386	216.878	1168.9	false
13C6-PFDA	519.0 / 474.0	3.45	113144.123	221.017	7785.4	false
13C7-PFUnA	570.0 / 525.0	3.78	104401.462	219.775	1040.1	false
13C2-PFTeDA	715.0 / 670.0	4.54	99813.729	200.440	1659.0	false
13C3-PFBS	302.0 / 99.0	1.54	28456.388	186.205	405.8	false
13C3-PFHxS	402.0 / 99.0	2.31	26084.644	191.304	302.7	false
13C8-PFOS	507.0 / 99.0	3.09	33178.516	244.594	313.6	false

Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:13:10	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	115912.640	209.029	1269.0	false
d3-MeFOSAA	573.0 / 419.0	3.63	20233.660	277.758	209.7	false
d5-EtFOSAA	589.0 / 419.0	3.79	21321.778	292.843	222.7	false
13C5-PFHxA	318.0 / 273.0	1.89	71682.496	188.609	512.0	false
13C4-PFHpA	367.0 / 322.0	2.30	79397.204	191.403	5164.2	false
13C8-PFOA	421.0 / 376.0	2.72	96827.666	212.258	940.5	false
13C9-PFNA	472.0 / 427.0	3.11	104721.996	218.794	1111.8	false
13C6-PFDA	519.0 / 474.0	3.47	111042.222	220.798	1252.5	false
13C7-PFUnA	570.0 / 525.0	3.79	113479.062	243.165	685.3	false
13C2-PFTeDA	715.0 / 670.0	4.56	101197.020	206.860	2328.3	false
13C3-PFBS	302.0 / 99.0	1.55	27840.618	164.687	356.1	false
13C3-PFHxS	402.0 / 99.0	2.33	25196.173	167.048	305.7	false
13C8-PFOS	507.0 / 99.0	3.11	30077.615	200.447	331.5	false

Sample Name	KC73 IB	Injection Vial	9
Sample ID	Instrument blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:46:49	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.58	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.308	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.078	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.019	
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.220	0.287	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.068	
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.201	0.312	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.126	0.186	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	
PFDaA_1	613.0 / 569.0	4.07	PFDaA			
PFDaA_2	613.0 / 319.0	4.07	PFDaA	0.259	0.160	
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.143	0.066	
PFTeDA_1	713.0 / 669.0	4.53	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.041	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.542	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	ü

Sample Name	CS243PB-FS(0)	Injection Vial	28
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:13:14	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	1.51	PFBS	0.778	0.308	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.078	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.368	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.058	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.312	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.186	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.542	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	ü

Sample Name	CS244LCS-FS(0)	Injection Vial	29
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:24:08	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.288	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.074	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.276	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.062	0.068	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.326	0.312	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.172	0.186	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.042	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.052	0.050	ü
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.05	PFDaA	0.161	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.063	0.066	ü
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.51	PFTeDA	0.048	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.567	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.062	0.073	ü

Sample Name	J9420-FS(0)	Injection Vial	30
Sample ID	AS4141-FB-111618	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:35:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	1.54	PFBS	0.792	0.308	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.078	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.019	
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.293	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.065	0.068	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.292	0.312	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.142	0.186	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.04	PFDaA	0.150	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.27	PFTrDA	0.103	0.066	
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.51	PFTeDA	0.059	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.895	0.542	
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	

Sample Name	J9414-FS(0)	Injection Vial	31
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:45:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.307	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.065	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.022	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.427	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.047	0.068	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.333	0.312	ü
PFOS_1	499.0 / 80.0	3.00	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.417	0.186	
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.43	PFDA	0.045	0.041	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.04	PFDaA	0.111	0.160	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.31	PFTrDA	0.030	0.066	
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.169	0.048	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	N/A	0.542	
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	

Sample Name	J9414-FS-D(3)	Injection Vial	32
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:56:43	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.291	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.065	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.024	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.306	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.049	0.068	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.311	0.312	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.238	0.186	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.43	PFDA	0.058	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	
PFDaA_1	613.0 / 569.0	4.06	PFDaA			
PFDaA_2	613.0 / 319.0	4.04	PFDaA	0.286	0.160	
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.51	PFTeDA	0.398	0.048	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	N/A	0.542	
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	

Sample Name	J9414-FS-D(5)	Injection Vial	33
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:07:35	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	1.55	PFBS	0.313	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.071	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.022	0.019	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.281	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.056	0.068	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.440	0.312	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.169	0.186	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.065	0.041	
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.03	PFDaA	0.260	0.160	
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.53	PFTeDA	0.459	0.048	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.542	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	ü

Sample Name	J9414-FS-D(7)	Injection Vial	34
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:18:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.321	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.033	0.019	
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.277	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.051	0.068	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.343	0.312	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.174	0.186	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.122	0.041	
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.06	PFDaA	0.195	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.358	0.048	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.542	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	ü

Sample Name	J9415MS-FS-D(3)	Injection Vial	36
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:40:09	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.298	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.068	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.317	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.053	0.068	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.315	0.312	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.262	0.186	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.041	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.052	0.050	ü
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.05	PFDaA	0.165	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.066	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	0.519	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.068	0.073	ü

Sample Name	J9415MS-FS-D(5)	Injection Vial	37
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:51:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.314	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.066	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.021	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.287	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.059	0.068	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.308	0.312	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.185	0.186	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.042	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.049	0.050	ü
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.05	PFDaA	0.151	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	4.51	PFTeDA	0.048	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.529	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.062	0.073	ü

Sample Name	J9415MS-FS-D(7)	Injection Vial	40
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:23:39	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	1.55	PFBS	0.317	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.069	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.016	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.265	0.287	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.048	0.068	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.340	0.312	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.175	0.186	ü
PFDA_1	513.0 / 469.0	3.43	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.055	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.063	0.050	ü
PFDoA_1	613.0 / 569.0	4.04	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.186	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.082	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.539	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.75	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.098	0.073	ü

Sample Name	J9416MSD-FS(0)	Injection Vial	41
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:34:31	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	1.55	PFBS	0.302	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.068	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.444	0.287	
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.055	0.068	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.305	0.312	ü
PFOS_1	499.0 / 80.0	3.00	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.439	0.186	
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.046	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.055	0.050	ü
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.04	PFDaA	0.160	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.29	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.29	PFTTrDA	0.068	0.066	ü
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.049	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.551	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.063	0.073	ü

Sample Name	J9416MSD-FS-D(3)	Injection Vial	42
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:45:22	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.303	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.067	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.021	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.318	0.287	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.053	0.068	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.306	0.312	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.229	0.186	ü
PFDA_1	513.0 / 469.0	3.43	PFDA			
PFDA_2	513.0 / 219.0	3.43	PFDA	0.044	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.054	0.050	ü
PFDaA_1	613.0 / 569.0	4.04	PFDaA			
PFDaA_2	613.0 / 319.0	4.04	PFDaA	0.163	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.068	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.049	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.543	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.75	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.75	NEtFOSAA	0.067	0.073	ü

Sample Name	J9416MSD-FS-D(5)	Injection Vial	43
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:56:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.301	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.066	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.018	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.285	0.287	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.054	0.068	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.311	0.312	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.173	0.186	ü
PFDA_1	513.0 / 469.0	3.43	PFDA			
PFDA_2	513.0 / 219.0	3.43	PFDA	0.039	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.055	0.050	ü
PFDaA_1	613.0 / 569.0	4.04	PFDaA			
PFDaA_2	613.0 / 319.0	4.04	PFDaA	0.157	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.062	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.488	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.060	0.073	ü

Sample Name	J9416MSD-FS-D(7)	Injection Vial	44
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:07:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.310	0.308	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.075	0.078	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.026	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.281	0.287	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.064	0.068	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.359	0.312	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.172	0.186	ü
PFDA_1	513.0 / 469.0	3.43	PFDA			
PFDA_2	513.0 / 219.0	3.43	PFDA	0.053	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.061	0.050	ü
PFDaA_1	613.0 / 569.0	4.04	PFDaA			
PFDaA_2	613.0 / 319.0	4.04	PFDaA	0.183	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.28	PFTrDA	0.084	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.055	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.670	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.75	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.094	0.073	ü

Sample Name	J9417-FS(0)	Injection Vial	45
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:17:59	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.305	0.308	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.066	0.078	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.023	0.019	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.462	0.287	
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.050	0.068	ü
PFNA_1	463.0 / 419.0	3.07	PFNA			
PFNA_2	463.0 / 219.0	3.07	PFNA	0.329	0.312	ü
PFOS_1	499.0 / 80.0	2.99	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.494	0.186	
PFDA_1	513.0 / 469.0	3.43	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.046	0.041	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.032	0.050	ü
PFDaA_1	613.0 / 569.0	4.04	PFDaA			
PFDaA_2	613.0 / 319.0	4.03	PFDaA	0.149	0.160	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.31	PFTrDA	0.042	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.58	NMeFOSAA	N/A	0.542	
NEtFOSAA_1	584.0 / 419.0	3.75	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	

Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:47:20	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.58	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.365	0.308	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.078	ü
PFHpA_1	363.0 / 319.0	2.32	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.026	0.019	ü
PFHxS_1	399.0 / 80.0	2.34	PFHxS			
PFHxS_2	399.0 / 99.0	2.34	PFHxS	0.407	0.287	ü
PFOA_1	413.0 / 369.0	2.74	PFOA			
PFOA_2	413.0 / 169.0	2.75	PFOA	0.075	0.068	ü
PFNA_1	463.0 / 419.0	3.13	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.257	0.312	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.215	0.186	ü
PFDA_1	513.0 / 469.0	3.49	PFDA			
PFDA_2	513.0 / 219.0	3.52	PFDA	0.157	0.041	
PFUnA_1	563.0 / 519.0	3.82	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.084	0.050	
PFDaA_1	613.0 / 569.0	4.10	PFDaA			
PFDaA_2	613.0 / 319.0	4.10	PFDaA	0.262	0.160	
PFTrDA_1	663.0 / 619.0	4.35	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.097	0.066	ü
PFTeDA_1	713.0 / 669.0	4.57	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.57	PFTeDA	0.052	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.65	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.65	NMeFOSAA	0.632	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	

Sample Name	J9415MS-FS(0)	Injection Vial	9
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T11:52:28	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.311	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.066	0.078	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.021	0.019	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.441	0.287	
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.083	0.068	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.312	0.312	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.500	0.186	
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.043	0.041	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.055	0.050	ü
PFDaA_1	613.0 / 569.0	4.08	PFDaA			
PFDaA_2	613.0 / 319.0	4.08	PFDaA	0.163	0.160	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.071	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.052	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.542	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.062	0.073	ü

Sample Name	J9415MS-FS-D(9)	Injection Vial	15
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T15:50:29	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.332	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.075	0.078	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.018	0.019	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.279	0.287	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.082	0.068	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.331	0.312	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.178	0.186	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.062	0.041	
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.75	PFUnA	0.067	0.050	ü
PFDaA_1	613.0 / 569.0	4.08	PFDaA			
PFDaA_2	613.0 / 319.0	4.08	PFDaA	0.191	0.160	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.066	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.054	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.725	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	

Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:04:50	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.505	0.308	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.078	ü
PFHpA_1	363.0 / 319.0	2.32	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.019	
PFHxS_1	399.0 / 80.0	2.34	PFHxS			
PFHxS_2	399.0 / 99.0	2.34	PFHxS	0.200	0.287	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.068	
PFNA_1	463.0 / 419.0	3.13	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.354	0.312	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.142	0.186	ü
PFDA_1	513.0 / 469.0	3.48	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.191	0.041	
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.138	0.050	
PFDaA_1	613.0 / 569.0	4.09	PFDaA			
PFDaA_2	613.0 / 319.0	4.08	PFDaA	0.211	0.160	ü
PFTrDA_1	663.0 / 619.0	4.34	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.35	PFTrDA	0.106	0.066	
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.060	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.695	0.542	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	

Sample Name	J9417-FS-D(13)	Injection Vial	5
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:26:35	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.297	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.065	0.078	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.023	0.019	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.306	0.287	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.093	0.068	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.343	0.312	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.236	0.186	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.046	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	
PFDaA_1	613.0 / 569.0	4.08	PFDaA			
PFDaA_2	613.0 / 319.0	4.07	PFDaA	0.142	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.32	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.34	PFTTrDA	0.042	0.066	ü
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.155	0.542	
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	

Sample Name	J9417-FS-D(15)	Injection Vial	6
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:37:28	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.308	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.067	0.078	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.025	0.019	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.278	0.287	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.093	0.068	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.392	0.312	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.171	0.186	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.49	PFDA	0.080	0.041	
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	
PFDaA_1	613.0 / 569.0	4.08	PFDaA			
PFDaA_2	613.0 / 319.0	4.08	PFDaA	0.281	0.160	
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.542	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	ü

Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:48:21	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.314	0.308	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.067	0.078	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.032	0.019	
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.290	0.287	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.076	0.068	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.336	0.312	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.177	0.186	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.065	0.041	
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	
PFDaA_1	613.0 / 569.0	4.09	PFDaA			
PFDaA_2	613.0 / 319.0	4.07	PFDaA	0.083	0.160	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.542	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	ü

Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:13:10	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	0.289	0.308	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.90	PFHxA	0.065	0.078	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.025	0.019	ü
PFHxS_1	399.0 / 80.0	2.34	PFHxS			
PFHxS_2	399.0 / 99.0	2.34	PFHxS	0.283	0.287	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.082	0.068	ü
PFNA_1	463.0 / 419.0	3.13	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.427	0.312	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.173	0.186	ü
PFDA_1	513.0 / 469.0	3.48	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	
PFUnA_1	563.0 / 519.0	3.83	PFUnA			
PFUnA_2	563.0 / 269.0	3.84	PFUnA	0.057	0.050	ü
PFDaA_1	613.0 / 569.0	4.09	PFDaA			
PFDaA_2	613.0 / 319.0	4.04	PFDaA	0.058	0.160	
PFTrDA_1	663.0 / 619.0	4.34	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	
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	0.542	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.073	ü

Sample Name	KC73 IB	Injection Vial	9
Sample ID	Instrument blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:46:49	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.58	13C3-PFBS	302.0 / 99.0	33984.81	232.25
PFBS 2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	33984.81	232.25
PFHxA 1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	76423.00	250.00
PFHxA 2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	76423.00	250.00
PFHpA 1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	93399.13	250.00
PFHpA 2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	93399.13	250.00
PFHxS 1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	30602.55	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	30602.55	236.50
PFOA 1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	98664.93	250.00
PFOA 2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	98664.93	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	103635.17	250.00
PFNA 2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	103635.17	250.00
PFOS 1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	37638.27	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	37638.27	239.25
PFDA 1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	112024.14	250.00
PFDA 2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	112024.14	250.00
PFUnA 1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	102160.98	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	102160.98	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	117948.90	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	117948.90	250.00
PFTeDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	105121.01	250.00
PFTeDA 2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	105121.01	250.00
PFTeDA 1	713.0 / 669.0	4.53	13C2-PFTeDA	715.0 / 670.0	105121.01	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	105121.01	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	15811.68	250.00
NMeFOSAA 2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	15811.68	250.00
NEtFOSAA 1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16989.45	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16989.45	250.00

Sample Name	CS243PB-FS(0)	Injection Vial	28
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:13:14	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	28964.73	232.25
PFBS 2	298.9 / 99.0	1.51	13C3-PFBS	302.0 / 99.0	28964.73	232.25
PFHxA 1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	63410.68	250.00
PFHxA 2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	63410.68	250.00
PFHpA 1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	74297.55	250.00
PFHpA 2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	74297.55	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	23610.02	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	23610.02	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	89328.49	250.00
PFOA 2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	89328.49	250.00
PFNA 1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	88408.79	250.00
PFNA 2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	88408.79	250.00
PFOS 1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	27623.40	239.25
PFOS 2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	27623.40	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	92212.79	250.00
PFDA 2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	92212.79	250.00
PFUnA 1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	88315.94	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	88315.94	250.00
PFDoA 1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	89948.78	250.00
PFDoA 2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	89948.78	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	80227.74	250.00
PFTeDA 2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	80227.74	250.00
PFTeDA 1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	80227.74	250.00
PFTeDA 2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	80227.74	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13734.80	250.00
NMeFOSAA 2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13734.80	250.00
NEtFOSAA 1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13378.57	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13378.57	250.00

Sample Name	CS244LCS-FS(0)	Injection Vial	29
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:24:08	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	30554.39	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	30554.39	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	70090.78	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	70090.78	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	75669.70	250.00
PFHpA 2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	75669.70	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	24252.56	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	24252.56	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	82291.90	250.00
PFOA 2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	82291.90	250.00
PFNA 1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	88395.77	250.00
PFNA 2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	88395.77	250.00
PFOS 1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	25241.28	239.25
PFOS 2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	25241.28	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	84504.17	250.00
PFDA 2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	84504.17	250.00
PFUnA 1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	81835.86	250.00
PFUnA 2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	81835.86	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	100279.93	250.00
PFDoA 2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	100279.93	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	92274.73	250.00
PFTeDA 2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	92274.73	250.00
PFTeDA 1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	92274.73	250.00
PFTeDA 2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	92274.73	250.00
NMeFOSAA 1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	14673.34	250.00
NMeFOSAA 2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	14673.34	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	10818.28	250.00
NEtFOSAA 2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	10818.28	250.00

Sample Name	J9420-FS(0)	Injection Vial	30
Sample ID	AS4141-FB-111618	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:35:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	29709.65	232.25
PFBS 2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	29709.65	232.25
PFHxA 1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	67532.84	250.00
PFHxA 2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	67532.84	250.00
PFHpA 1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	78065.14	250.00
PFHpA 2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	78065.14	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	27047.31	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	27047.31	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	90939.98	250.00
PFOA 2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	90939.98	250.00
PFNA 1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	90170.52	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	90170.52	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	29142.04	239.25
PFOS 2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	29142.04	239.25
PFDA 1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	100186.07	250.00
PFDA 2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	100186.07	250.00
PFUnA 1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	101277.97	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	101277.97	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	100620.35	250.00
PFDoA 2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	100620.35	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	88217.18	250.00
PFTeDA 2	663.0 / 169.0	4.27	13C2-PFTeDA	715.0 / 670.0	88217.18	250.00
PFTeDA 1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	88217.18	250.00
PFTeDA 2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	88217.18	250.00
NMeFOSAA 1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	14245.30	250.00
NMeFOSAA 2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	14245.30	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	14972.76	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14972.76	250.00

Sample Name	J9414-FS(0)	Injection Vial	31
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:45:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	26846.98	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	26846.98	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	75965.29	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	75965.29	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	82555.41	250.00
PFHpA 2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	82555.41	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	27243.05	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	27243.05	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	84018.13	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	84018.13	250.00
PFNA 1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	41014.26	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	41014.26	250.00
PFOS 1	499.0 / 80.0	3.00	13C8-PFOS	507.0 / 99.0	14928.65	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	14928.65	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	104825.14	250.00
PFDA 2	513.0 / 219.0	3.43	13C6-PFDA	519.0 / 474.0	104825.14	250.00
PFUnA 1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	96631.18	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	96631.18	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	98811.59	250.00
PFDoA 2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	98811.59	250.00
PFTeDA 1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	89530.57	250.00
PFTeDA 2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	89530.57	250.00
PFTeDA 1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	89530.57	250.00
PFTeDA 2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	89530.57	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12721.08	250.00
NMeFOSAA 2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	12721.08	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	17716.44	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17716.44	250.00

Sample Name	J9414-FS-D(3)	Injection Vial	32
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:56:43	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	37220.74	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	37220.74	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	84152.69	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	84152.69	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	98809.86	250.00
PFHpA 2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	98809.86	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	30860.88	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	30860.88	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	88488.39	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	88488.39	250.00
PFNA 1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	69502.98	250.00
PFNA 2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	69502.98	250.00
PFOS 1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	21473.74	239.25
PFOS 2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	21473.74	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	101759.44	250.00
PFDA 2	513.0 / 219.0	3.43	13C6-PFDA	519.0 / 474.0	101759.44	250.00
PFUnA 1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	99714.48	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	99714.48	250.00
PFDoA 1	613.0 / 569.0	4.06	13C2-PFDoA	615.0 / 570.0	116017.87	250.00
PFDoA 2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	116017.87	250.00
PFTeDA 1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	98252.98	250.00
PFTeDA 2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	98252.98	250.00
PFTeDA 1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	98252.98	250.00
PFTeDA 2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	98252.98	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12777.42	250.00
NMeFOSAA 2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	12777.42	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	16903.45	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16903.45	250.00

Sample Name	J9414-FS-D(5)	Injection Vial	33
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:07:35	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	32518.63	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	32518.63	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	68843.84	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	68843.84	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	81251.89	250.00
PFHpA 2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	81251.89	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	25644.76	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	25644.76	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	85508.47	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	85508.47	250.00
PFNA 1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	85660.59	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	85660.59	250.00
PFOS 1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	25959.40	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	25959.40	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	99133.59	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	99133.59	250.00
PFUnA 1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	90740.53	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	90740.53	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	100565.44	250.00
PFDoA 2	613.0 / 319.0	4.03	13C2-PFDoA	615.0 / 570.0	100565.44	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	87604.22	250.00
PFTeDA 2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	87604.22	250.00
PFTeDA 1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	87604.22	250.00
PFTeDA 2	713.0 / 169.0	4.53	13C2-PFTeDA	715.0 / 670.0	87604.22	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12388.87	250.00
NMeFOSAA 2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12388.87	250.00
NEtFOSAA 1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15401.10	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15401.10	250.00

Sample Name	J9414-FS-D(7)	Injection Vial	34
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:18:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	32822.43	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	32822.43	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	78331.74	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	78331.74	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	82656.01	250.00
PFHpA 2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	82656.01	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	26795.66	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	26795.66	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	96485.17	250.00
PFOA 2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	96485.17	250.00
PFNA 1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	95300.08	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	95300.08	250.00
PFOS 1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	30131.05	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	30131.05	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	98113.82	250.00
PFDA 2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	98113.82	250.00
PFUnA 1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	97373.36	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	97373.36	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	108114.08	250.00
PFDoA 2	613.0 / 319.0	4.06	13C2-PFDoA	615.0 / 570.0	108114.08	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	95975.84	250.00
PFTeDA 2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	95975.84	250.00
PFTeDA 1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	95975.84	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	95975.84	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14536.03	250.00
NMeFOSAA 2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14536.03	250.00
NEtFOSAA 1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	18180.93	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	18180.93	250.00

Sample Name	J9415MS-FS-D(3)	Injection Vial	36
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:40:09	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	38007.24	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	38007.24	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	88335.96	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	88335.96	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	92977.40	250.00
PFHpA 2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	92977.40	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	30697.97	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	30697.97	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	86644.31	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	86644.31	250.00
PFNA 1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	61359.20	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	61359.20	250.00
PFOS 1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	21097.85	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	21097.85	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	100543.35	250.00
PFDA 2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	100543.35	250.00
PFUnA 1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	102575.25	250.00
PFUnA 2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	102575.25	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	115584.66	250.00
PFDoA 2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	115584.66	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	96926.71	250.00
PFTeDA 2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	96926.71	250.00
PFTeDA 1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	96926.71	250.00
PFTeDA 2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	96926.71	250.00
NMeFOSAA 1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	14877.96	250.00
NMeFOSAA 2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	14877.96	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	15887.36	250.00
NEtFOSAA 2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	15887.36	250.00

Sample Name	J9415MS-FS-D(5)	Injection Vial	37
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:51:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	34733.28	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	34733.28	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	72409.98	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	72409.98	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	78486.42	250.00
PFHpA 2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	78486.42	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	25957.51	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	25957.51	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	83814.02	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	83814.02	250.00
PFNA 1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	76564.00	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	76564.00	250.00
PFOS 1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	21504.51	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	21504.51	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	99167.37	250.00
PFDA 2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	99167.37	250.00
PFUnA 1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	93232.40	250.00
PFUnA 2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	93232.40	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	103086.38	250.00
PFDoA 2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	103086.38	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	89589.87	250.00
PFTeDA 2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	89589.87	250.00
PFTeDA 1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	89589.87	250.00
PFTeDA 2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	89589.87	250.00
NMeFOSAA 1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	14455.04	250.00
NMeFOSAA 2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	14455.04	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	16019.93	250.00
NEtFOSAA 2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	16019.93	250.00

Sample Name	J9415MS-FS-D(7)	Injection Vial	40
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:23:39	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	32639.14	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	32639.14	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	71712.12	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	71712.12	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	80801.06	250.00
PFHpA 2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	80801.06	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	26610.24	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	26610.24	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	93151.80	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	93151.80	250.00
PFNA 1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	88517.18	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	88517.18	250.00
PFOS 1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	26955.02	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	26955.02	239.25
PFDA 1	513.0 / 469.0	3.43	13C6-PFDA	519.0 / 474.0	101914.96	250.00
PFDA 2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	101914.96	250.00
PFUnA 1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	98035.28	250.00
PFUnA 2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	98035.28	250.00
PFDoA 1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	114550.70	250.00
PFDoA 2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	114550.70	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	96263.57	250.00
PFTeDA 2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	96263.57	250.00
PFTeDA 1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	96263.57	250.00
PFTeDA 2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	96263.57	250.00
NMeFOSAA 1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	13710.21	250.00
NMeFOSAA 2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	13710.21	250.00
NEtFOSAA 1	584.0 / 419.0	3.75	d5-EtFOSAA	589.0 / 419.0	15536.94	250.00
NEtFOSAA 2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	15536.94	250.00

Sample Name	J9416MSD-FS(0)	Injection Vial	41
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:34:31	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	25643.92	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	25643.92	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	74346.98	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	74346.98	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	79253.07	250.00
PFHpA 2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	79253.07	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	25758.90	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	25758.90	236.50
PFOA 1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	77604.57	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	77604.57	250.00
PFNA 1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	42666.45	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	42666.45	250.00
PFOS 1	499.0 / 80.0	3.00	13C8-PFOS	507.0 / 99.0	14631.86	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	14631.86	239.25
PFDA 1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	96937.10	250.00
PFDA 2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	96937.10	250.00
PFUnA 1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	87176.18	250.00
PFUnA 2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	87176.18	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	102402.58	250.00
PFDoA 2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	102402.58	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	87069.21	250.00
PFTeDA 2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	87069.21	250.00
PFTeDA 1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	87069.21	250.00
PFTeDA 2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	87069.21	250.00
NMeFOSAA 1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	17256.62	250.00
NMeFOSAA 2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	17256.62	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	15115.28	250.00
NEtFOSAA 2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	15115.28	250.00

Sample Name	J9416MSD-FS-D(3)	Injection Vial	42
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:45:22	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	32861.61	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	32861.61	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	81571.65	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	81571.65	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	86878.26	250.00
PFHpA 2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	86878.26	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	28248.85	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	28248.85	236.50
PFOA 1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	78045.15	250.00
PFOA 2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	78045.15	250.00
PFNA 1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	65614.84	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	65614.84	250.00
PFOS 1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	20663.73	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	20663.73	239.25
PFDA 1	513.0 / 469.0	3.43	13C6-PFDA	519.0 / 474.0	104486.48	250.00
PFDA 2	513.0 / 219.0	3.43	13C6-PFDA	519.0 / 474.0	104486.48	250.00
PFUnA 1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	92383.74	250.00
PFUnA 2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	92383.74	250.00
PFDoA 1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	100133.43	250.00
PFDoA 2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	100133.43	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	88385.18	250.00
PFTeDA 2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	88385.18	250.00
PFTeDA 1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	88385.18	250.00
PFTeDA 2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	88385.18	250.00
NMeFOSAA 1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	13958.32	250.00
NMeFOSAA 2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	13958.32	250.00
NEtFOSAA 1	584.0 / 419.0	3.75	d5-EtFOSAA	589.0 / 419.0	12690.81	250.00
NEtFOSAA 2	584.0 / 483.0	3.75	d5-EtFOSAA	589.0 / 419.0	12690.81	250.00

Sample Name	J9416MSD-FS-D(5)	Injection Vial	43
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:56:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	31558.76	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	31558.76	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	67669.30	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	67669.30	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	77534.70	250.00
PFHpA 2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	77534.70	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	26954.20	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	26954.20	236.50
PFOA 1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	84980.63	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	84980.63	250.00
PFNA 1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	79733.57	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	79733.57	250.00
PFOS 1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	24389.08	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	24389.08	239.25
PFDA 1	513.0 / 469.0	3.43	13C6-PFDA	519.0 / 474.0	99946.93	250.00
PFDA 2	513.0 / 219.0	3.43	13C6-PFDA	519.0 / 474.0	99946.93	250.00
PFUnA 1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	91200.91	250.00
PFUnA 2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	91200.91	250.00
PFDoA 1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	100015.74	250.00
PFDoA 2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	100015.74	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	89494.06	250.00
PFTeDA 2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	89494.06	250.00
PFTeDA 1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	89494.06	250.00
PFTeDA 2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	89494.06	250.00
NMeFOSAA 1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	13270.75	250.00
NMeFOSAA 2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	13270.75	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	15870.74	250.00
NEtFOSAA 2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	15870.74	250.00

Sample Name	J9416MSD-FS-D(7)	Injection Vial	44
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:07:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	29495.51	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	29495.51	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	64988.29	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	64988.29	250.00
PFHpA 1	363.0 / 319.0	2.28	13C4-PFHpA	367.0 / 322.0	72398.56	250.00
PFHpA 2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	72398.56	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	25930.56	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	25930.56	236.50
PFOA 1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	86379.04	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	86379.04	250.00
PFNA 1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	80082.59	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	80082.59	250.00
PFOS 1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	23840.86	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	23840.86	239.25
PFDA 1	513.0 / 469.0	3.43	13C6-PFDA	519.0 / 474.0	83607.67	250.00
PFDA 2	513.0 / 219.0	3.43	13C6-PFDA	519.0 / 474.0	83607.67	250.00
PFUnA 1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	87151.30	250.00
PFUnA 2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	87151.30	250.00
PFDoA 1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	99515.58	250.00
PFDoA 2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	99515.58	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	86201.81	250.00
PFTeDA 2	663.0 / 169.0	4.28	13C2-PFTeDA	715.0 / 670.0	86201.81	250.00
PFTeDA 1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	86201.81	250.00
PFTeDA 2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	86201.81	250.00
NMeFOSAA 1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	13300.75	250.00
NMeFOSAA 2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	13300.75	250.00
NEtFOSAA 1	584.0 / 419.0	3.75	d5-EtFOSAA	589.0 / 419.0	14720.47	250.00
NEtFOSAA 2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	14720.47	250.00

Sample Name	J9417-FS(0)	Injection Vial	45
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:17:59	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	31271.90	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	31271.90	232.25
PFHxA 1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	83205.17	250.00
PFHxA 2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	83205.17	250.00
PFHpA 1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	87967.97	250.00
PFHpA 2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	87967.97	250.00
PFHxS 1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	29884.99	236.50
PFHxS 2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	29884.99	236.50
PFOA 1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	94827.28	250.00
PFOA 2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	94827.28	250.00
PFNA 1	463.0 / 419.0	3.07	13C9-PFNA	472.0 / 427.0	41130.89	250.00
PFNA 2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	41130.89	250.00
PFOS 1	499.0 / 80.0	2.99	13C8-PFOS	507.0 / 99.0	14720.54	239.25
PFOS 2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	14720.54	239.25
PFDA 1	513.0 / 469.0	3.43	13C6-PFDA	519.0 / 474.0	121228.75	250.00
PFDA 2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	121228.75	250.00
PFUnA 1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	110876.93	250.00
PFUnA 2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	110876.93	250.00
PFDoA 1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	118781.48	250.00
PFDoA 2	613.0 / 319.0	4.03	13C2-PFDoA	615.0 / 570.0	118781.48	250.00
PFTeDA 1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	101384.06	250.00
PFTeDA 2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	101384.06	250.00
PFTeDA 1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	101384.06	250.00
PFTeDA 2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	101384.06	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17372.73	250.00
NMeFOSAA 2	570.0 / 512.0	3.58	d3-MeFOSAA	573.0 / 419.0	17372.73	250.00
NEtFOSAA 1	584.0 / 419.0	3.75	d5-EtFOSAA	589.0 / 419.0	17831.94	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17831.94	250.00

Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:47:20	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.58	13C3-PFBS	302.0 / 99.0	32635.55	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	32635.55	232.25
PFHxA 1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	91529.18	250.00
PFHxA 2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	91529.18	250.00
PFHpA 1	363.0 / 319.0	2.32	13C4-PFHpA	367.0 / 322.0	102947.83	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	102947.83	250.00
PFHxS 1	399.0 / 80.0	2.34	13C3-PFHxS	402.0 / 99.0	32327.66	236.50
PFHxS 2	399.0 / 99.0	2.34	13C3-PFHxS	402.0 / 99.0	32327.66	236.50
PFOA 1	413.0 / 369.0	2.74	13C8-PFOA	421.0 / 376.0	120852.83	250.00
PFOA 2	413.0 / 169.0	2.75	13C8-PFOA	421.0 / 376.0	120852.83	250.00
PFNA 1	463.0 / 419.0	3.13	13C9-PFNA	472.0 / 427.0	128789.34	250.00
PFNA 2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	128789.34	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	38295.68	239.25
PFOS 2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	38295.68	239.25
PFDA 1	513.0 / 469.0	3.49	13C6-PFDA	519.0 / 474.0	136872.25	250.00
PFDA 2	513.0 / 219.0	3.52	13C6-PFDA	519.0 / 474.0	136872.25	250.00
PFUnA 1	563.0 / 519.0	3.82	13C7-PFUnA	570.0 / 525.0	130992.10	250.00
PFUnA 2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	130992.10	250.00
PFDoA 1	613.0 / 569.0	4.10	13C2-PFDoA	615.0 / 570.0	145677.92	250.00
PFDoA 2	613.0 / 319.0	4.10	13C2-PFDoA	615.0 / 570.0	145677.92	250.00
PFTeDA 1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	131094.42	250.00
PFTeDA 2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	131094.42	250.00
PFTeDA 1	713.0 / 669.0	4.57	13C2-PFTeDA	715.0 / 670.0	131094.42	250.00
PFTeDA 2	713.0 / 169.0	4.57	13C2-PFTeDA	715.0 / 670.0	131094.42	250.00
NMeFOSAA 1	570.0 / 419.0	3.65	d3-MeFOSAA	573.0 / 419.0	23259.60	250.00
NMeFOSAA 2	570.0 / 512.0	3.65	d3-MeFOSAA	573.0 / 419.0	23259.60	250.00
NEtFOSAA 1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	26124.18	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	26124.18	250.00

Sample Name	J9415MS-FS(0)	Injection Vial	9
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T11:52:28	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	25979.49	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	25979.49	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	81433.26	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	81433.26	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	89672.38	250.00
PFHpA 2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	89672.38	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	23795.11	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	23795.11	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	87375.41	250.00
PFOA 2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	87375.41	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	39406.06	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	39406.06	250.00
PFOS 1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	10372.14	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	10372.14	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	95262.25	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	95262.25	250.00
PFUnA 1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	91963.84	250.00
PFUnA 2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	91963.84	250.00
PFDoA 1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	107144.58	250.00
PFDoA 2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	107144.58	250.00
PFTeDA 1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	87930.77	250.00
PFTeDA 2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	87930.77	250.00
PFTeDA 1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	87930.77	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	87930.77	250.00
NMeFOSAA 1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	19221.40	250.00
NMeFOSAA 2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	19221.40	250.00
NEtFOSAA 1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	18305.85	250.00
NEtFOSAA 2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	18305.85	250.00

Sample Name	J9415MS-FS-D(9)	Injection Vial	15
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T15:50:29	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	27363.04	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	27363.04	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	70521.39	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	70521.39	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	81268.75	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	81268.75	250.00
PFHxS 1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	25963.42	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	25963.42	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	92546.83	250.00
PFOA 2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	92546.83	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	94491.10	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	94491.10	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	27640.50	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	27640.50	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	104383.16	250.00
PFDA 2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	104383.16	250.00
PFUnA 1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	98381.70	250.00
PFUnA 2	563.0 / 269.0	3.75	13C7-PFUnA	570.0 / 525.0	98381.70	250.00
PFDoA 1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	112264.53	250.00
PFDoA 2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	112264.53	250.00
PFTeDA 1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	91352.70	250.00
PFTeDA 2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	91352.70	250.00
PFTeDA 1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	91352.70	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	91352.70	250.00
NMeFOSAA 1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	18104.93	250.00
NMeFOSAA 2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	18104.93	250.00
NEtFOSAA 1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	19361.34	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19361.34	250.00

Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:04:50	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	32744.19	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	32744.19	232.25
PFHxA 1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	80648.55	250.00
PFHxA 2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	80648.55	250.00
PFHpA 1	363.0 / 319.0	2.32	13C4-PFHpA	367.0 / 322.0	95996.99	250.00
PFHpA 2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	95996.99	250.00
PFHxS 1	399.0 / 80.0	2.34	13C3-PFHxS	402.0 / 99.0	29417.30	236.50
PFHxS 2	399.0 / 99.0	2.34	13C3-PFHxS	402.0 / 99.0	29417.30	236.50
PFOA 1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	104909.47	250.00
PFOA 2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	104909.47	250.00
PFNA 1	463.0 / 419.0	3.13	13C9-PFNA	472.0 / 427.0	111425.05	250.00
PFNA 2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	111425.05	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	33588.62	239.25
PFOS 2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	33588.62	239.25
PFDA 1	513.0 / 469.0	3.48	13C6-PFDA	519.0 / 474.0	125308.32	250.00
PFDA 2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	125308.32	250.00
PFUnA 1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	119313.97	250.00
PFUnA 2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	119313.97	250.00
PFDoA 1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	133128.45	250.00
PFDoA 2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	133128.45	250.00
PFTeDA 1	663.0 / 619.0	4.34	13C2-PFTeDA	715.0 / 670.0	116156.50	250.00
PFTeDA 2	663.0 / 169.0	4.35	13C2-PFTeDA	715.0 / 670.0	116156.50	250.00
PFTeDA 1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	116156.50	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	116156.50	250.00
NMeFOSAA 1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	23681.81	250.00
NMeFOSAA 2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	23681.81	250.00
NEtFOSAA 1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	24051.06	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	24051.06	250.00

Sample Name	J9417-FS-D(13)	Injection Vial	5
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:26:35	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	35465.71	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	35465.71	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	91605.95	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	91605.95	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	95890.31	250.00
PFHpA 2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	95890.31	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	27431.09	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	27431.09	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	92842.17	250.00
PFOA 2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	92842.17	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	75142.30	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	75142.30	250.00
PFOS 1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	20483.97	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	20483.97	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	127618.97	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	127618.97	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	108417.22	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	108417.22	250.00
PFDoA 1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	116652.31	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	116652.31	250.00
PFTeDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	100614.96	250.00
PFTeDA 2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	100614.96	250.00
PFTeDA 1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	100614.96	250.00
PFTeDA 2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	100614.96	250.00
NMeFOSAA 1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	19618.39	250.00
NMeFOSAA 2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	19618.39	250.00
NEtFOSAA 1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	22463.03	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	22463.03	250.00

Sample Name	J9417-FS-D(15)	Injection Vial	6
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:37:28	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	28522.03	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	28522.03	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	76556.06	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	76556.06	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	78915.03	250.00
PFHpA 2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	78915.03	250.00
PFHxS 1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	24260.62	236.50
PFHxS 2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	24260.62	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	94028.08	250.00
PFOA 2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	94028.08	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	96092.88	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	96092.88	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	26367.26	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	26367.26	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	110274.13	250.00
PFDA 2	513.0 / 219.0	3.49	13C6-PFDA	519.0 / 474.0	110274.13	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	93798.30	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	93798.30	250.00
PFDoA 1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	113458.83	250.00
PFDoA 2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	113458.83	250.00
PFTeDA 1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	98384.85	250.00
PFTeDA 2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	98384.85	250.00
PFTeDA 1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	98384.85	250.00
PFTeDA 2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	98384.85	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	19372.45	250.00
NMeFOSAA 2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	19372.45	250.00
NEtFOSAA 1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	21014.98	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	21014.98	250.00

Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:48:21	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	28456.39	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	28456.39	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	72982.43	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	72982.43	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	79870.41	250.00
PFHpA 2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	79870.41	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	25996.05	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	25996.05	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	103457.04	250.00
PFOA 2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	103457.04	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	99342.39	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	99342.39	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	33213.96	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	33213.96	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	113144.12	250.00
PFDA 2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	113144.12	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	104401.46	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	104401.46	250.00
PFDoA 1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	116572.13	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	116572.13	250.00
PFTeDA 1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	99813.73	250.00
PFTeDA 2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	99813.73	250.00
PFTeDA 1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	99813.73	250.00
PFTeDA 2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	99813.73	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	22291.01	250.00
NMeFOSAA 2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	22291.01	250.00
NEtFOSAA 1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	18575.02	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	18575.02	250.00

Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:13:10	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
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	27840.62	232.25
PFBS 2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	27840.62	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	71682.50	250.00
PFHxA 2	313.0 / 119.0	1.90	13C5-PFHxA	318.0 / 273.0	71682.50	250.00
PFHpA 1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	79397.20	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	79397.20	250.00
PFHxS 1	399.0 / 80.0	2.34	13C3-PFHxS	402.0 / 99.0	25040.07	236.50
PFHxS 2	399.0 / 99.0	2.34	13C3-PFHxS	402.0 / 99.0	25040.07	236.50
PFOA 1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	96827.67	250.00
PFOA 2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	96827.67	250.00
PFNA 1	463.0 / 419.0	3.13	13C9-PFNA	472.0 / 427.0	104722.00	250.00
PFNA 2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	104722.00	250.00
PFOS 1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	30025.39	239.25
PFOS 2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	30025.39	239.25
PFDA 1	513.0 / 469.0	3.48	13C6-PFDA	519.0 / 474.0	111042.22	250.00
PFDA 2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	111042.22	250.00
PFUnA 1	563.0 / 519.0	3.83	13C7-PFUnA	570.0 / 525.0	113479.06	250.00
PFUnA 2	563.0 / 269.0	3.84	13C7-PFUnA	570.0 / 525.0	113479.06	250.00
PFDoA 1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	115912.64	250.00
PFDoA 2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	115912.64	250.00
PFTeDA 1	663.0 / 619.0	4.34	13C2-PFTeDA	715.0 / 670.0	101197.02	250.00
PFTeDA 2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	101197.02	250.00
PFTeDA 1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	101197.02	250.00
PFTeDA 2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	101197.02	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	20382.57	250.00
NMeFOSAA 2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	20382.57	250.00
NEtFOSAA 1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	21460.13	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	21460.13	250.00

Sample Name	KC73 IB	Injection Vial	9
Sample ID	Instrument blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:46:49	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	113338.12	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	35871.46	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	35871.46	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	95246.18	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	95246.18	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	95246.18	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	95246.18	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	113338.12	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	113338.12	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	113338.12	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	35871.46	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	35871.46	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	35871.46	239.25

Sample Name	CS243PB-FS(0)	Injection Vial	28
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:13:14	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	102780.12	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	35527.11	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	35527.11	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	90061.51	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	90061.51	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	90061.51	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	90061.51	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	102780.12	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	102780.12	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	102780.12	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	35527.11	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	35527.11	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	35527.11	239.25

Sample Name	CS244LCS-FS(0)	Injection Vial	29
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:24:08	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	103867.36	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	29111.14	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	29111.14	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	87817.24	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	87817.24	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	87817.24	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	87817.24	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	103867.36	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	103867.36	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	103867.36	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	29111.14	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	29111.14	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	29111.14	239.25

Sample Name	J9420-FS(0)	Injection Vial	30
Sample ID	AS4141-FB-111618	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:35:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	108126.62	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	34731.15	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	34731.15	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	88319.92	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	88319.92	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	88319.92	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	88319.92	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	108126.62	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	108126.62	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	108126.62	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	34731.15	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	34731.15	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	34731.15	239.25

Sample Name	J9414-FS(0)	Injection Vial	31
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:45:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	118132.44	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	14571.32	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	14571.32	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	100239.38	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	100239.38	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	100239.38	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	100239.38	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	118132.44	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	118132.44	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	118132.44	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	14571.32	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	14571.32	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	14571.32	239.25

Sample Name	J9414-FS-D(3)	Injection Vial	32
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:56:43	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	126357.49	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	23110.73	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	23110.73	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	106489.58	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	106489.58	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	106489.58	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	106489.58	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	126357.49	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	126357.49	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	126357.49	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	23110.73	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	23110.73	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	23110.73	239.25

Sample Name	J9414-FS-D(5)	Injection Vial	33
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:07:35	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	114207.33	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	27931.80	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	27931.80	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	96483.59	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	96483.59	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	96483.59	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	96483.59	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	114207.33	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	114207.33	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	114207.33	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	27931.80	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	27931.80	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	27931.80	239.25

Sample Name	J9414-FS-D(7)	Injection Vial	34
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:18:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	119066.86	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	38168.85	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	38168.85	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	101509.80	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	101509.80	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	101509.80	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	101509.80	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	119066.86	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	119066.86	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	119066.86	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	38168.85	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	38168.85	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	38168.85	239.25

Sample Name	J9415MS-FS-D(3)	Injection Vial	36
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:40:09	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	116229.36	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	22160.02	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	22160.02	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	94658.84	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	94658.84	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	94658.84	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	94658.84	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	116229.36	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	116229.36	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	116229.36	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	22160.02	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	22160.02	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	22160.02	239.25

Sample Name	J9415MS-FS-D(5)	Injection Vial	37
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:51:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	107251.30	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	28336.17	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	28336.17	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	91605.57	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	91605.57	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	91605.57	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	91605.57	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	107251.30	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	107251.30	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	107251.30	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	28336.17	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	28336.17	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	28336.17	239.25

Sample Name	J9415MS-FS-D(7)	Injection Vial	40
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:23:39	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	114441.10	250.00
d3-MeFOSAA	573.0 / 419.0	3.58	13C4-PFOS	503.0 / 99.0	32405.67	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	32405.67	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	102581.37	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	102581.37	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	102581.37	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	102581.37	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	114441.10	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	114441.10	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	114441.10	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	32405.67	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	32405.67	239.25
13C8-PFOS	507.0 / 99.0	3.06	13C4-PFOS	503.0 / 99.0	32405.67	239.25

Sample Name	J9416-MSD-FS(0)	Injection Vial	41
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:34:31	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	110913.91	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	14297.01	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	14297.01	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	102568.38	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	102568.38	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	102568.38	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	102568.38	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	110913.91	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	110913.91	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	110913.91	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	14297.01	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	14297.01	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	14297.01	239.25

Sample Name	J9416MSD-FS-D(3)	Injection Vial	42
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:45:22	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	111085.87	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	21803.65	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	21803.65	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	89023.58	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	89023.58	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	89023.58	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	89023.58	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	111085.87	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	111085.87	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	111085.87	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	21803.65	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	21803.65	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	21803.65	239.25

Sample Name	J9416MSD-FS-D(5)	Injection Vial	43
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:56:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	119156.92	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	29271.57	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	29271.57	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	87003.67	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	87003.67	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	87003.67	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	87003.67	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	119156.92	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	119156.92	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	119156.92	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	29271.57	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	29271.57	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	29271.57	239.25

Sample Name	J9416MSD-FS-D(7)	Injection Vial	44
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:07:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	104721.45	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	29826.00	239.25
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	29826.00	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	93569.71	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	93569.71	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	93569.71	250.00
13C9-PFNA	472.0 / 427.0	3.06	13C2-PFOA	415.0 / 370.0	93569.71	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	104721.45	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	104721.45	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	104721.45	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	29826.00	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	29826.00	239.25
13C8-PFOS	507.0 / 99.0	3.06	13C4-PFOS	503.0 / 99.0	29826.00	239.25

Sample Name	J9417-FS(0)	Injection Vial	45
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:17:59	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	131252.19	250.00
d3-MeFOSAA	573.0 / 419.0	3.58	13C4-PFOS	503.0 / 99.0	13924.14	239.25
d5-EtFOSAA	589.0 / 419.0	3.74	13C4-PFOS	503.0 / 99.0	13924.14	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	113419.01	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	113419.01	250.00
13C8-PFOA	421.0 / 376.0	2.67	13C2-PFOA	415.0 / 370.0	113419.01	250.00
13C9-PFNA	472.0 / 427.0	3.06	13C2-PFOA	415.0 / 370.0	113419.01	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	131252.19	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	131252.19	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	131252.19	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	13924.14	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	13924.14	239.25
13C8-PFOS	507.0 / 99.0	3.06	13C4-PFOS	503.0 / 99.0	13924.14	239.25

Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:47:20	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.09	13C2-PFDA	515.0 / 470.0	136187.76	250.00
d3-MeFOSAA	573.0 / 419.0	3.64	13C4-PFOS	503.0 / 99.0	39455.96	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	39455.96	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	111442.35	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	111442.35	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	111442.35	250.00
13C9-PFNA	472.0 / 427.0	3.11	13C2-PFOA	415.0 / 370.0	111442.35	250.00
13C6-PFDA	519.0 / 474.0	3.47	13C2-PFDA	515.0 / 470.0	136187.76	250.00
13C7-PFUnA	570.0 / 525.0	3.80	13C2-PFDA	515.0 / 470.0	136187.76	250.00
13C2-PFTeDA	715.0 / 670.0	4.56	13C2-PFDA	515.0 / 470.0	136187.76	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	39455.96	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	39455.96	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	39455.96	239.25

Sample Name	J9415MS-FS(0)	Injection Vial	9
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T11:52:28	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.07	13C2-PFDA	515.0 / 470.0	105991.51	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	10056.75	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	10056.75	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	96208.88	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	96208.88	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	96208.88	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	96208.88	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	105991.51	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	105991.51	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	105991.51	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	10056.75	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	10056.75	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	10056.75	239.25

Sample Name	J9415MS-FS-D(9)	Injection Vial	15
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T15:50:29	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.07	13C2-PFDA	515.0 / 470.0	111250.49	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	32648.10	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	32648.10	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	94558.66	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	94558.66	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	94558.66	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	94558.66	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	111250.49	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	111250.49	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	111250.49	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	32648.10	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	32648.10	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	32648.10	239.25

Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:04:50	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.08	13C2-PFDA	515.0 / 470.0	125290.60	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	39068.54	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	39068.54	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	100917.90	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	100917.90	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	100917.90	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	100917.90	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	125290.60	250.00
13C7-PFUnA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	125290.60	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	125290.60	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	39068.54	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	39068.54	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	39068.54	239.25

Sample Name	J9417-FS-D(13)	Injection Vial	5
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:26:35	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.07	13C2-PFDA	515.0 / 470.0	131712.76	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	22907.30	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	22907.30	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	98841.42	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	98841.42	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	98841.42	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	98841.42	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	131712.76	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	131712.76	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	131712.76	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	22907.30	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	22907.30	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	22907.30	239.25

Sample Name	J9417-FS-D(15)	Injection Vial	6
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:37:28	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.07	13C2-PFDA	515.0 / 470.0	122376.37	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	27754.17	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	27754.17	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	96033.55	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	96033.55	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	96033.55	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	96033.55	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	122376.37	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	122376.37	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	122376.37	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	27754.17	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	27754.17	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	27754.17	239.25

Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:48:21	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	4.07	13C2-PFDA	515.0 / 470.0	123708.83	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	33813.18	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	33813.18	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	102386.82	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	102386.82	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	102386.82	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	102386.82	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	123708.83	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	123708.83	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	123708.83	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	33813.18	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	33813.18	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	33813.18	239.25

Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:13:10	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Results Summary

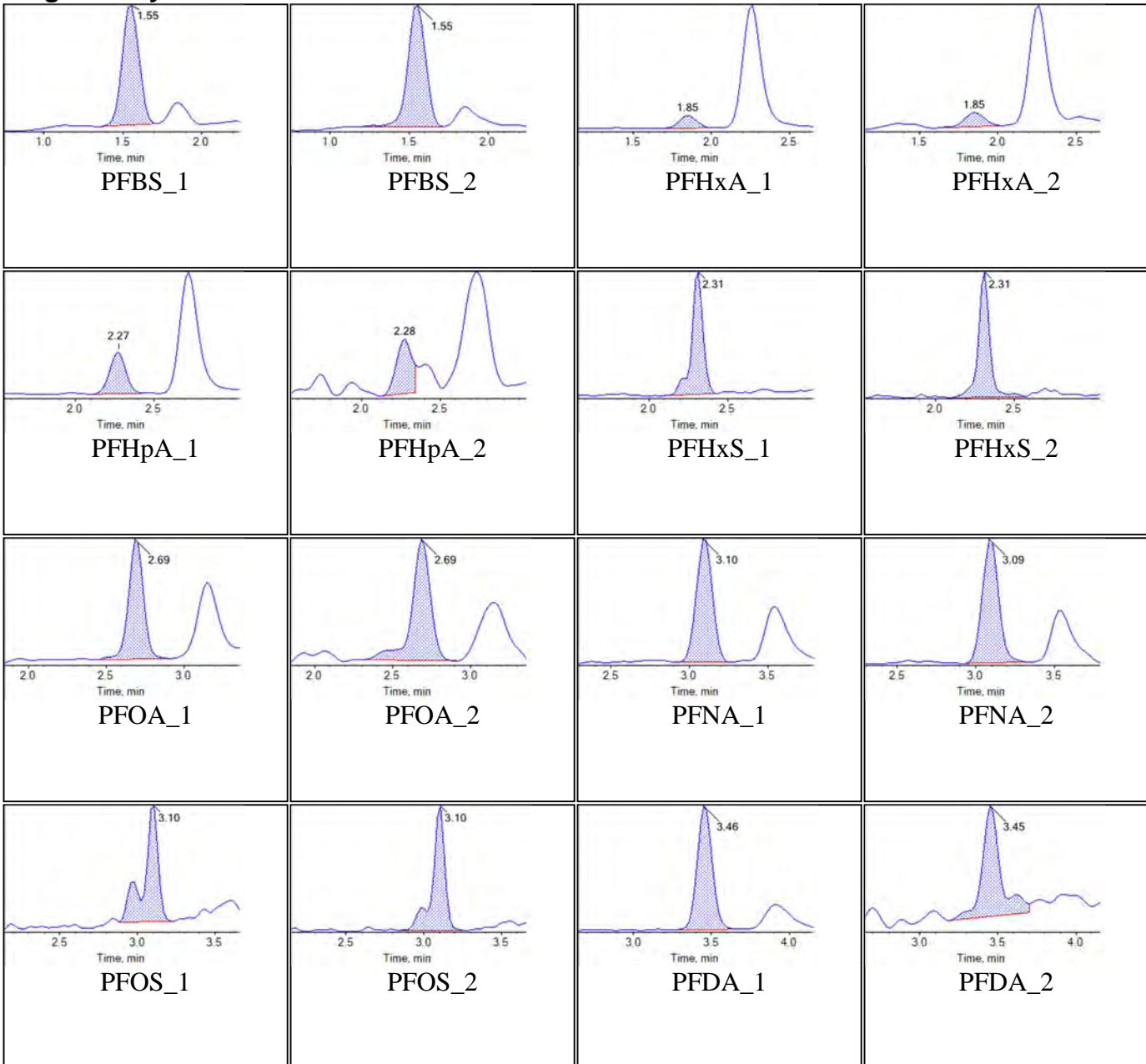
Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.08	13C2-PFDA	515.0 / 470.0	121530.74	250.00
d3-MeFOSAA	573.0 / 419.0	3.63	13C4-PFOS	503.0 / 99.0	37404.03	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	37404.03	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	106985.76	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	106985.76	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	106985.76	250.00
13C9-PFNA	472.0 / 427.0	3.11	13C2-PFOA	415.0 / 370.0	106985.76	250.00
13C6-PFDA	519.0 / 474.0	3.47	13C2-PFDA	515.0 / 470.0	121530.74	250.00
13C7-PFUnA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	121530.74	250.00
13C2-PFTeDA	715.0 / 670.0	4.56	13C2-PFDA	515.0 / 470.0	121530.74	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	37404.03	239.25
13C3-PFHxS	402.0 / 99.0	2.33	13C4-PFOS	503.0 / 99.0	37404.03	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	37404.03	239.25

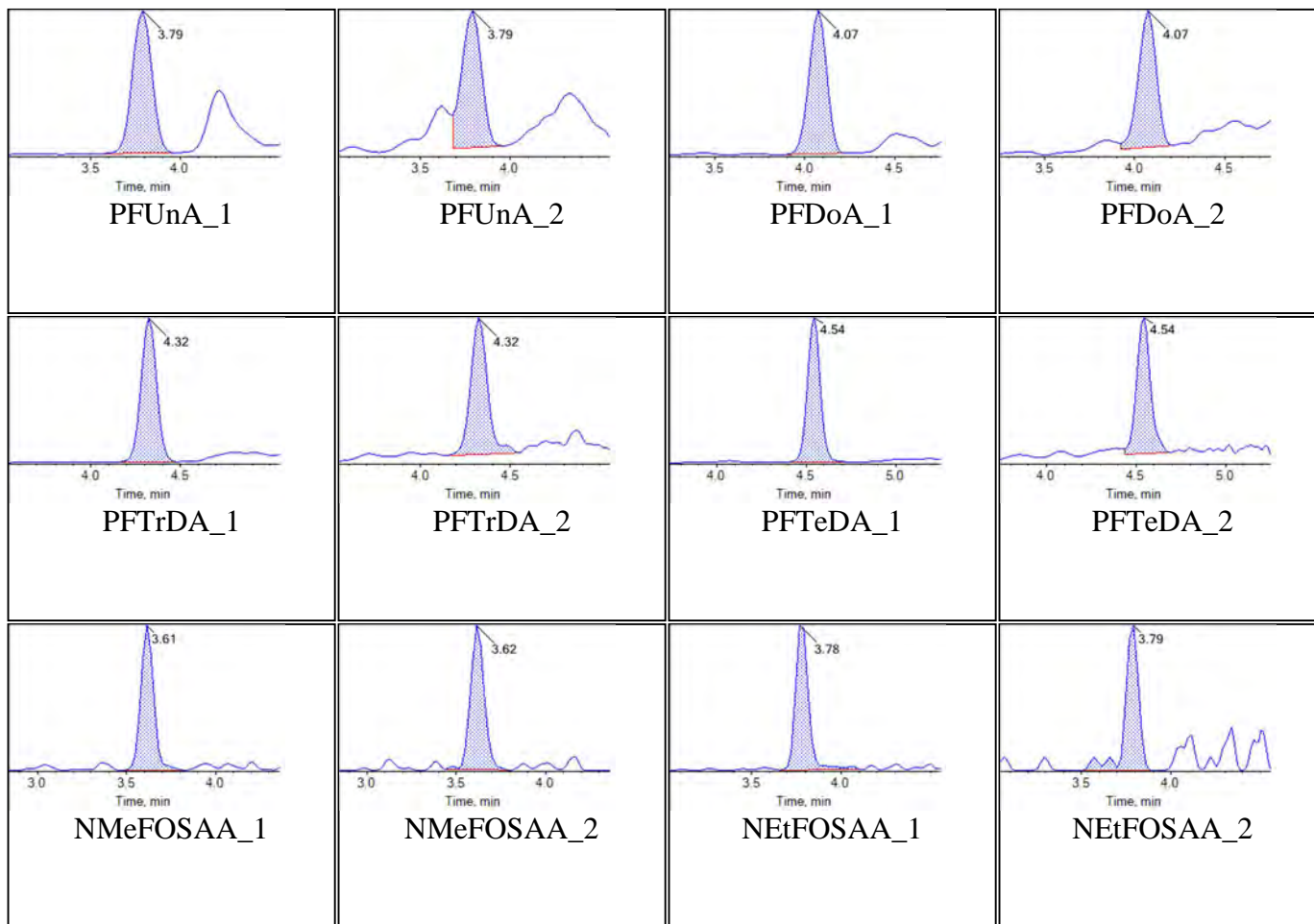
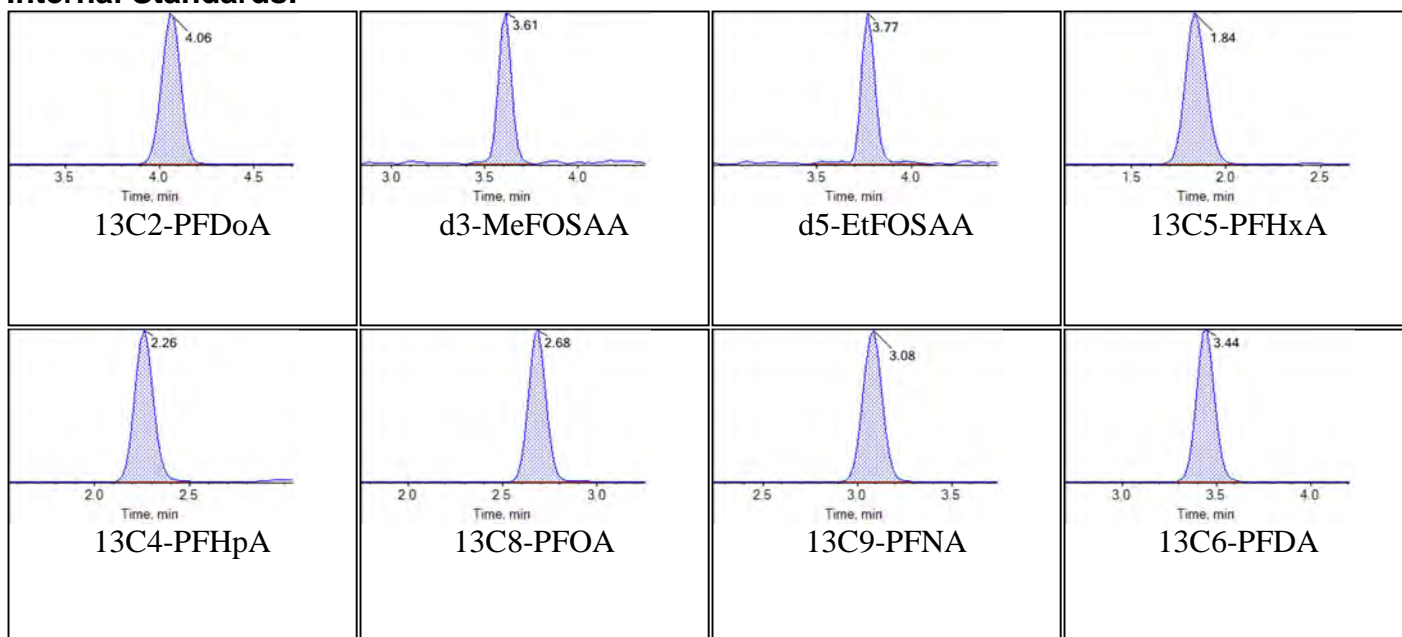
Chromatograms

Sample Name	KC66	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:30:46	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

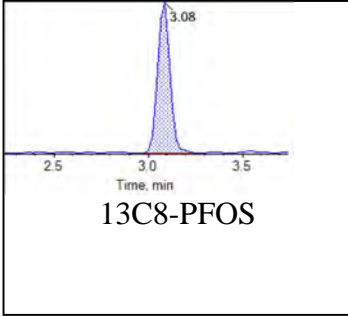
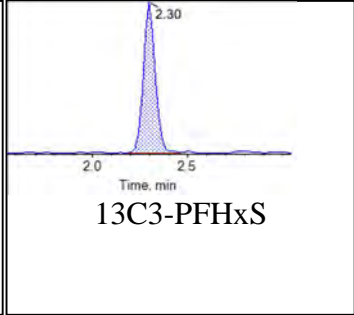
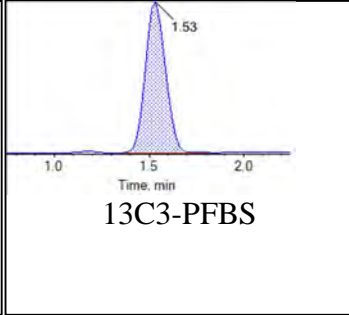
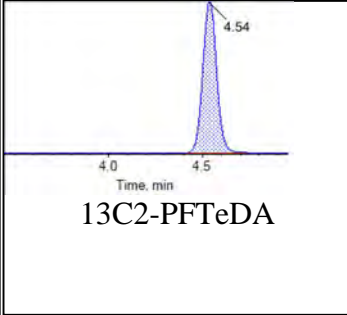
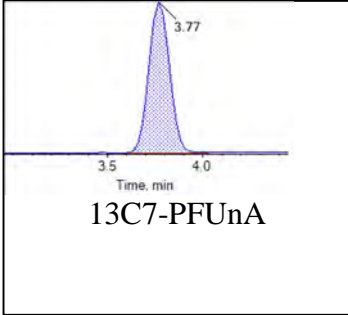


**Internal Standards:**



Chromatogram Report

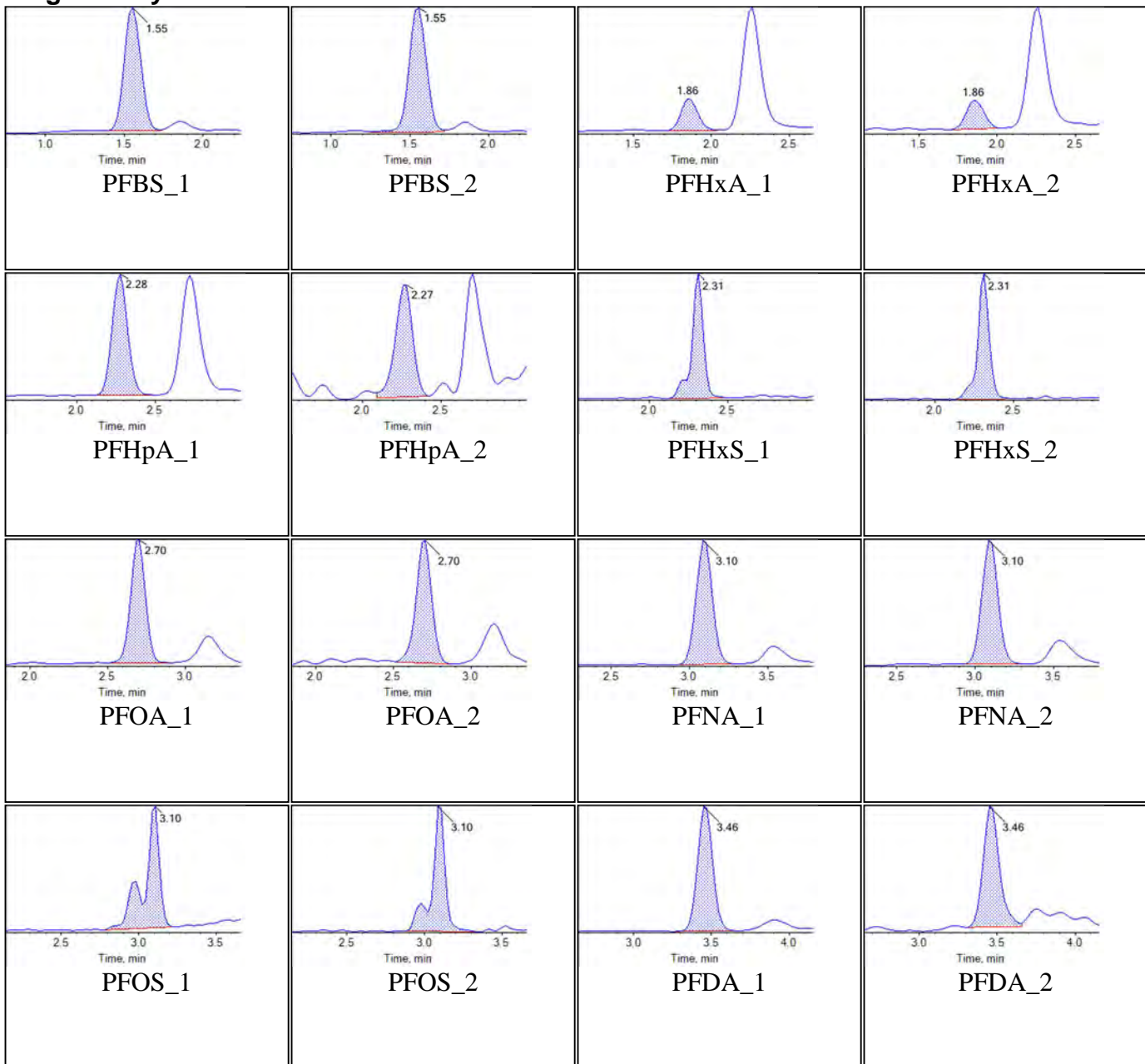
Created with Analyst Reporter
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Sample Name	KC67	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:41:38	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

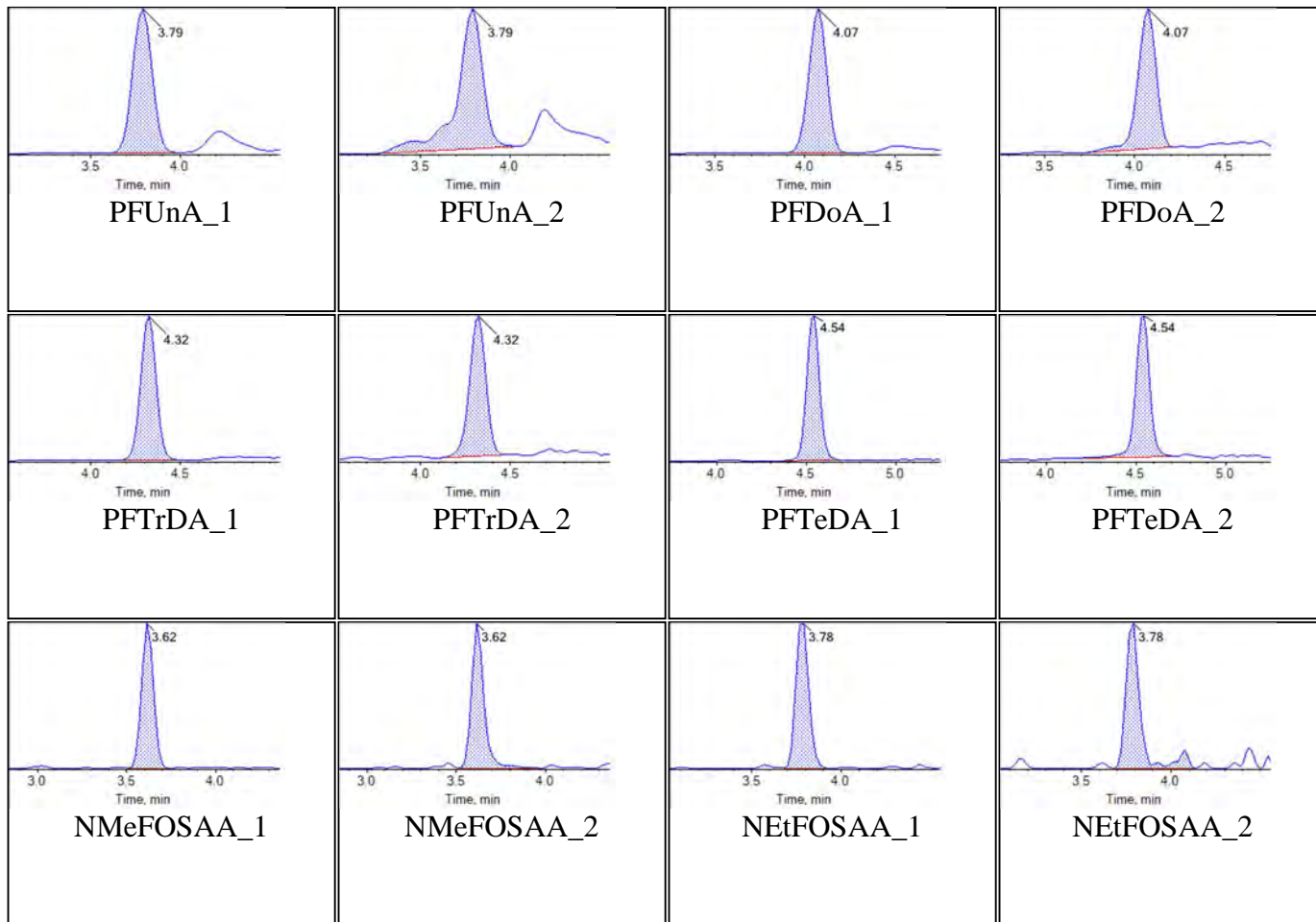
Target Analytes:



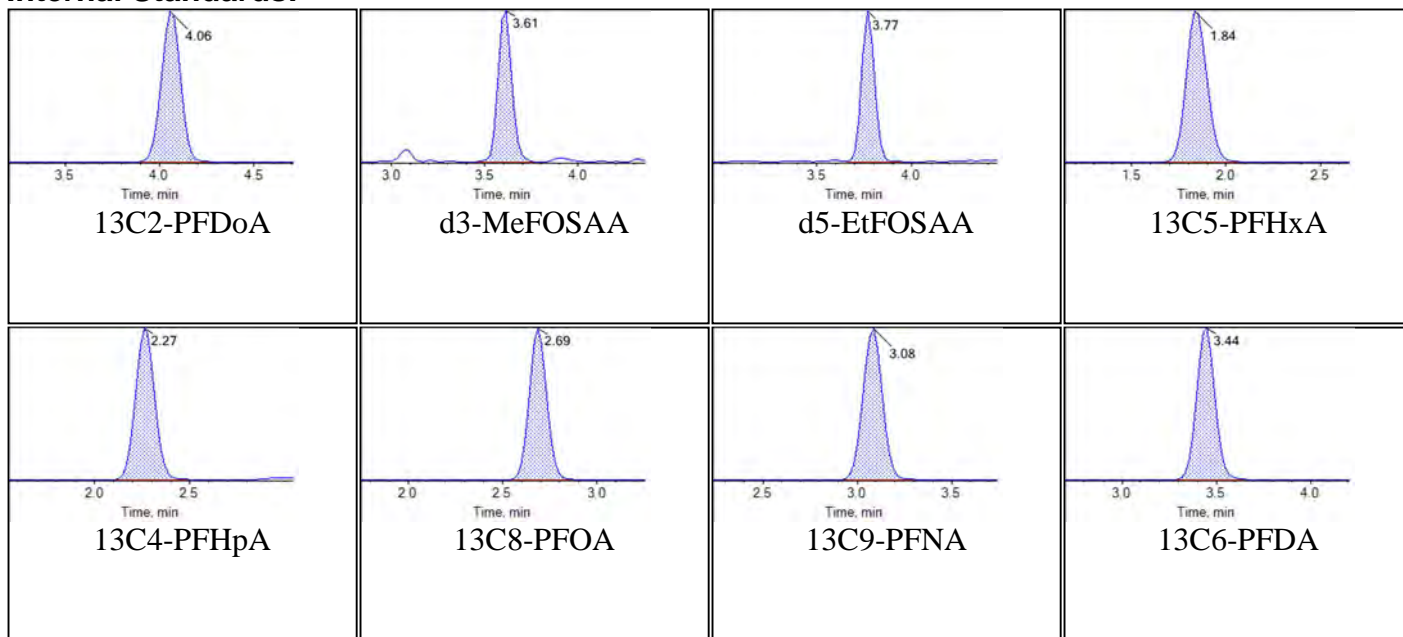


Chromatogram Report

Created with Analyst Reporter
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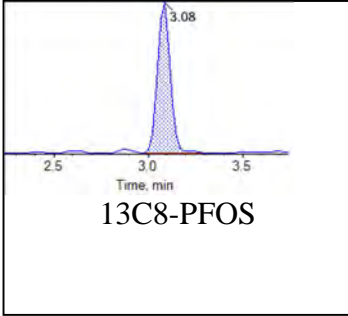
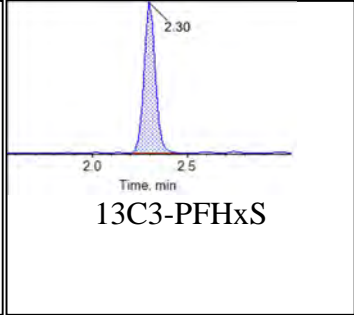
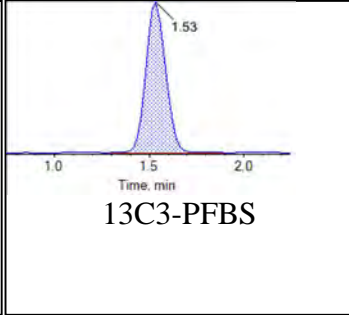
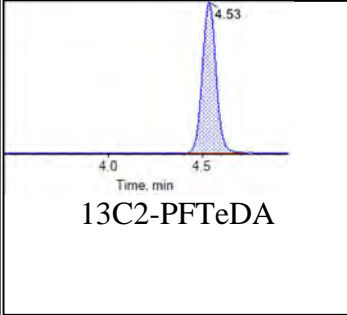
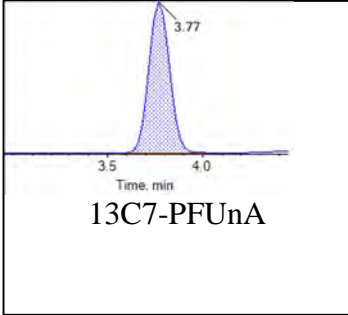
Internal Standards:





Chromatogram Report

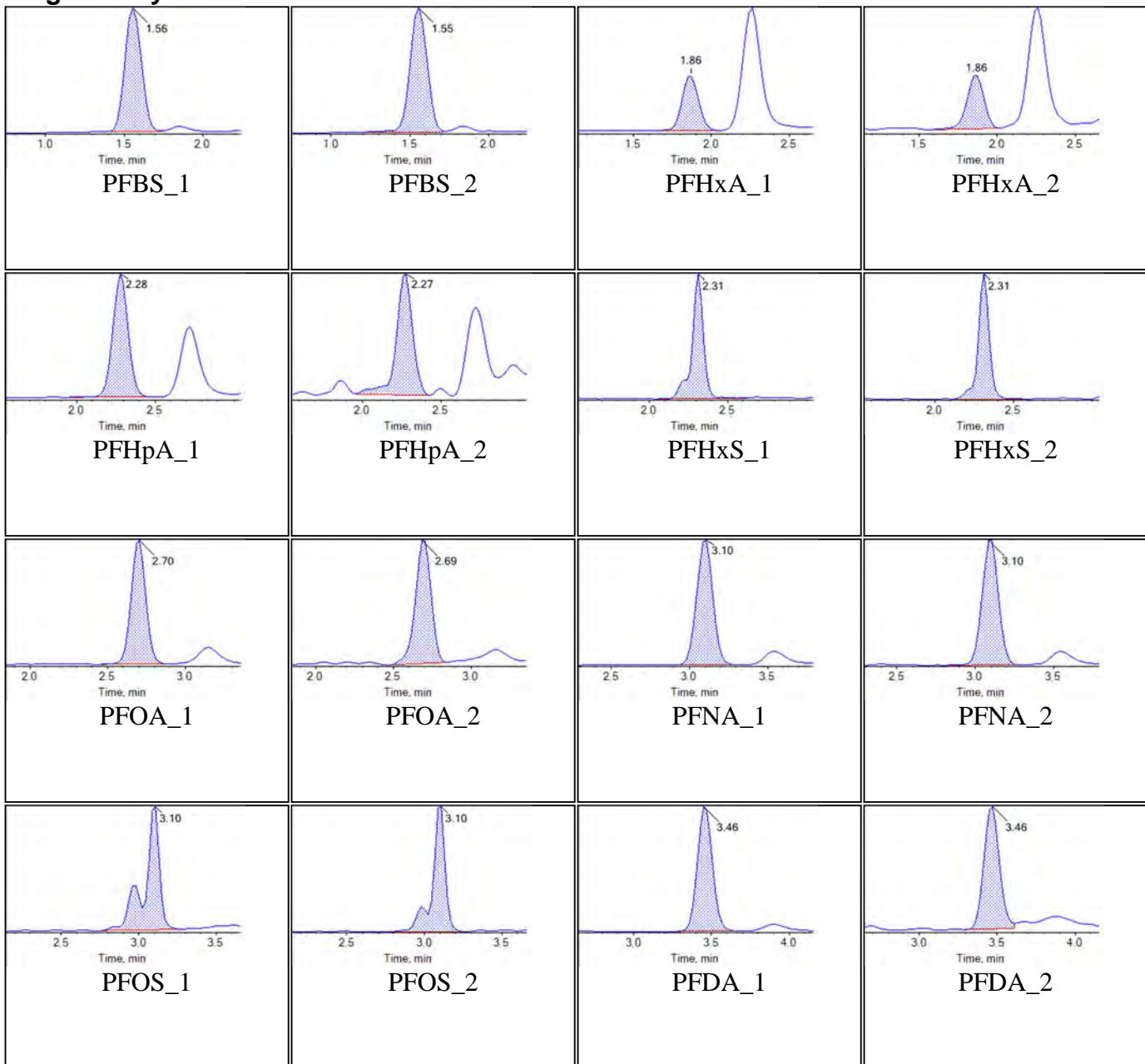
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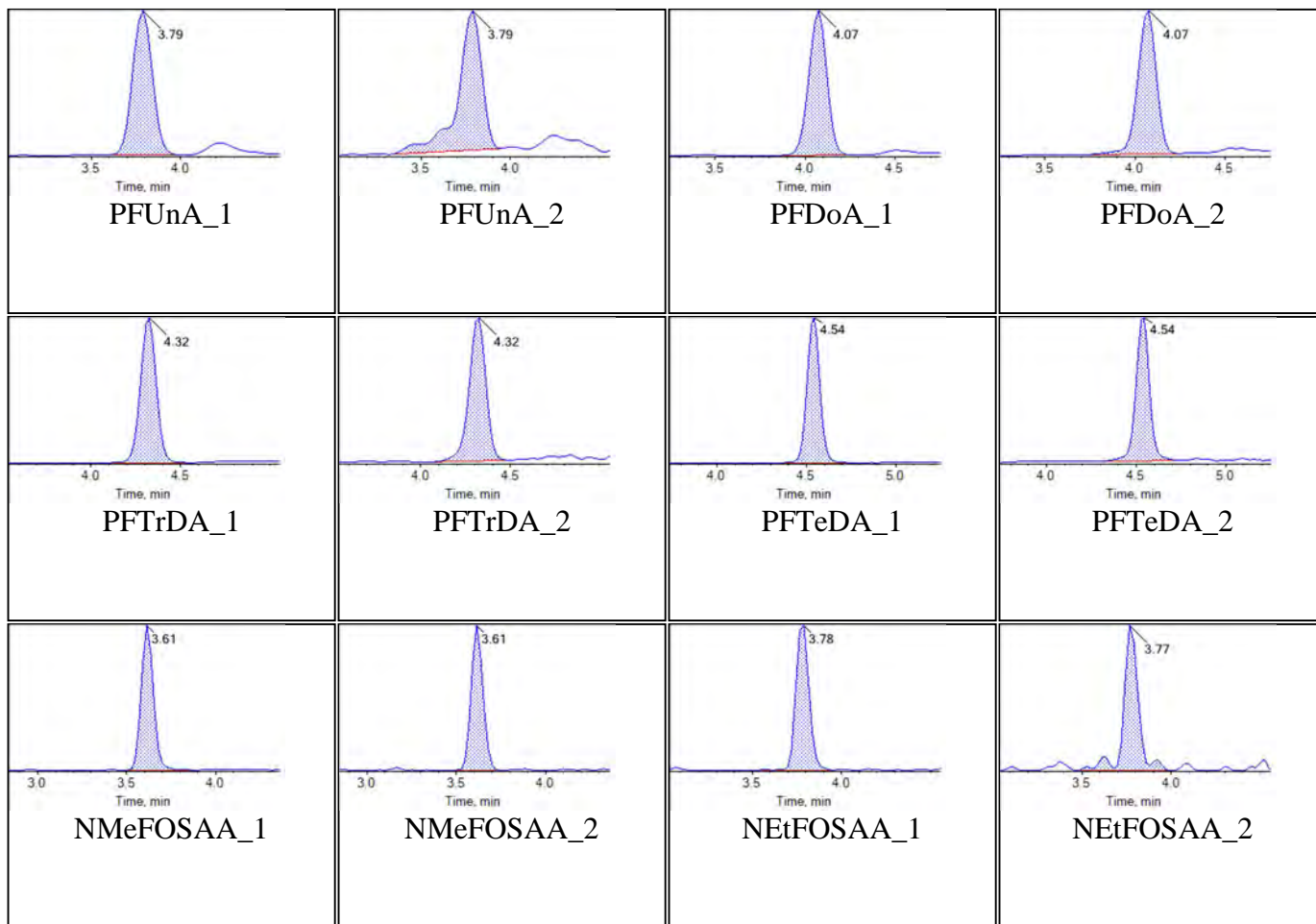
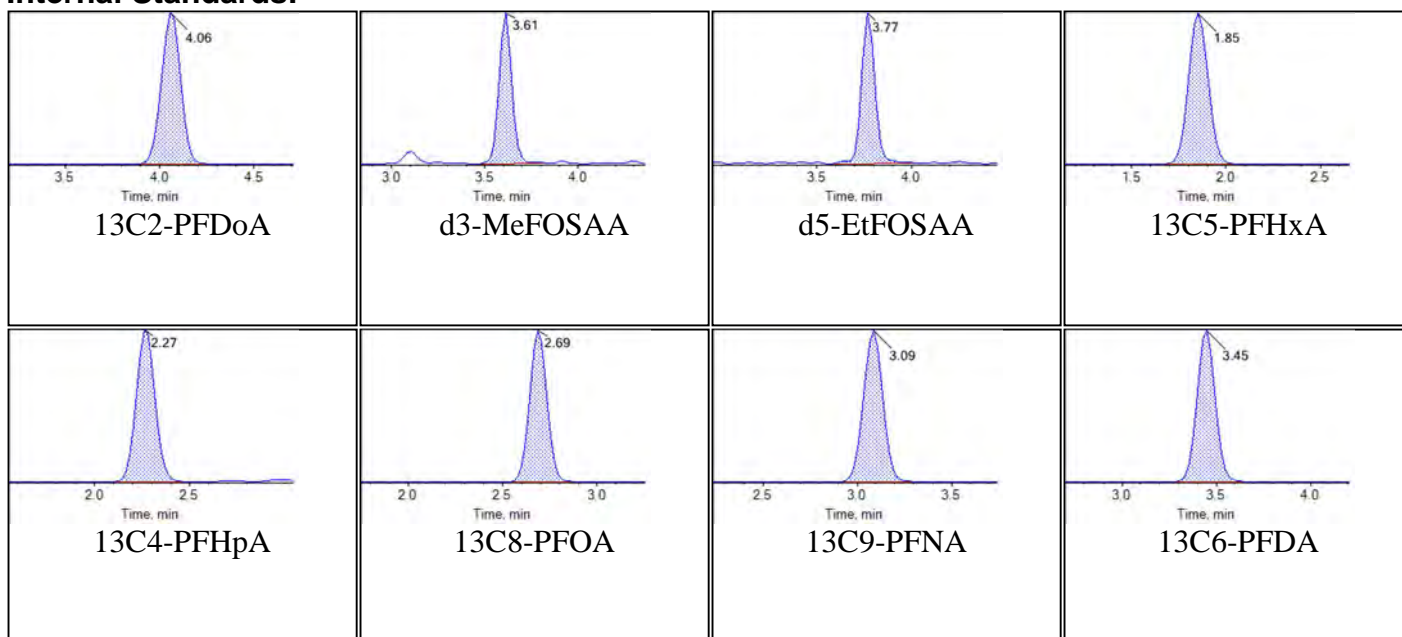


Sample Name	KC68	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:52:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

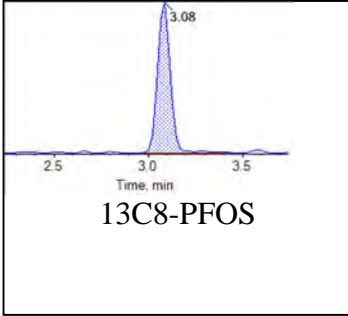
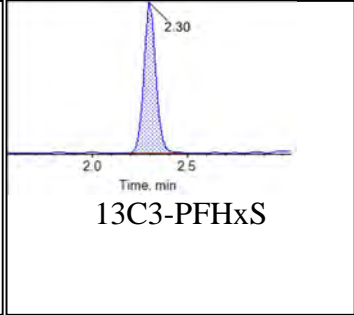
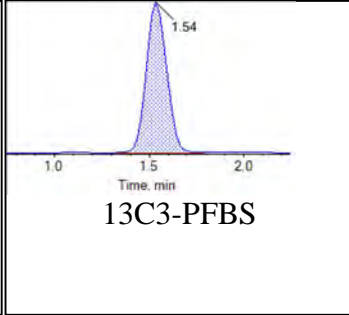
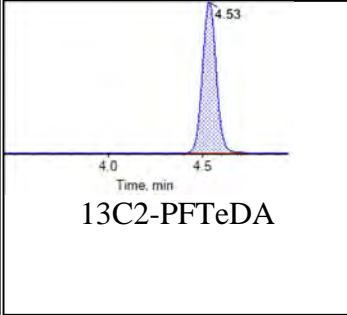
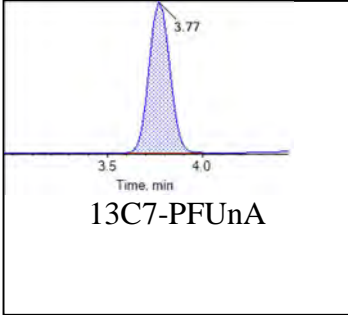
Target Analytes:



**Internal Standards:**

Chromatogram Report

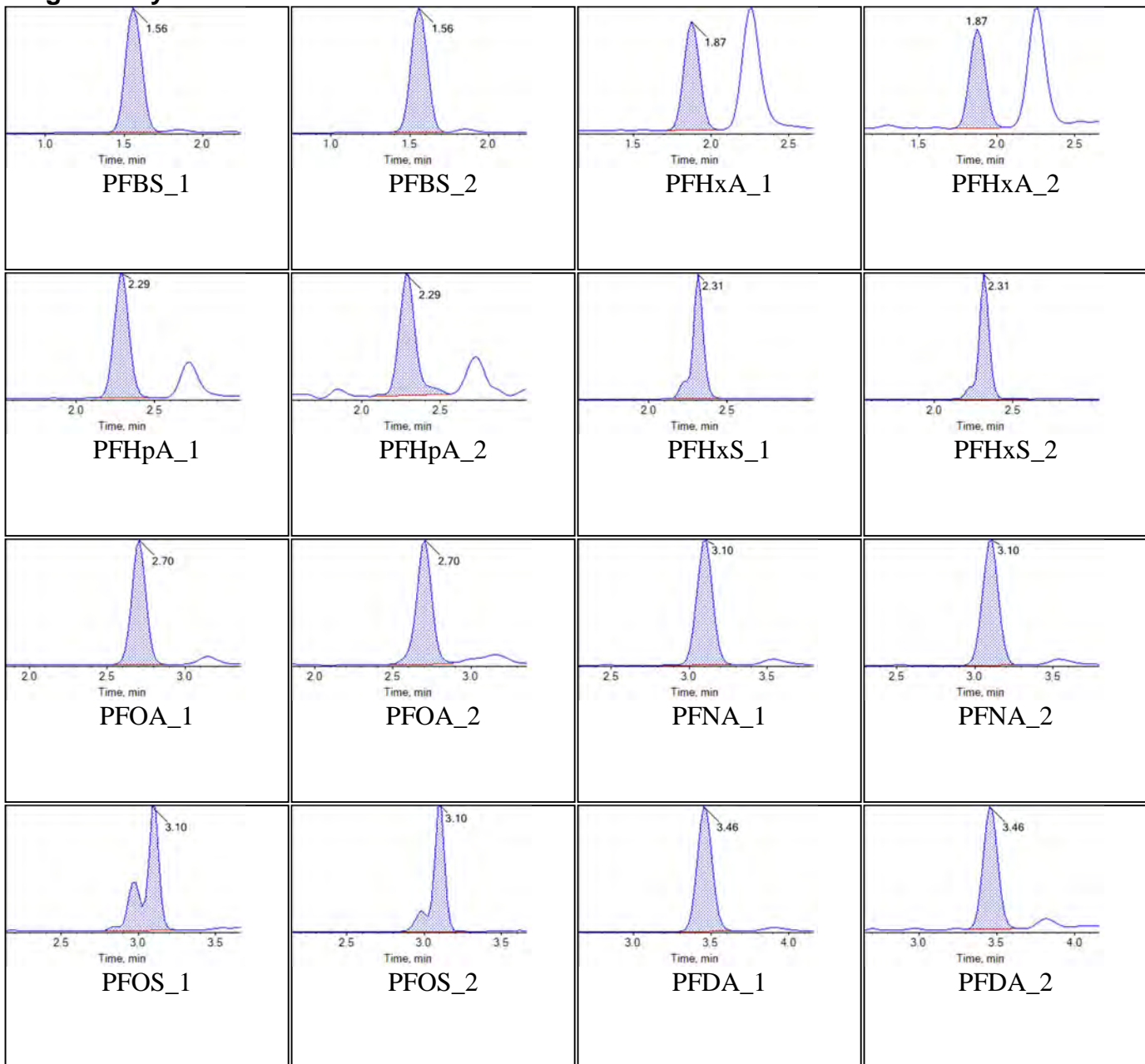
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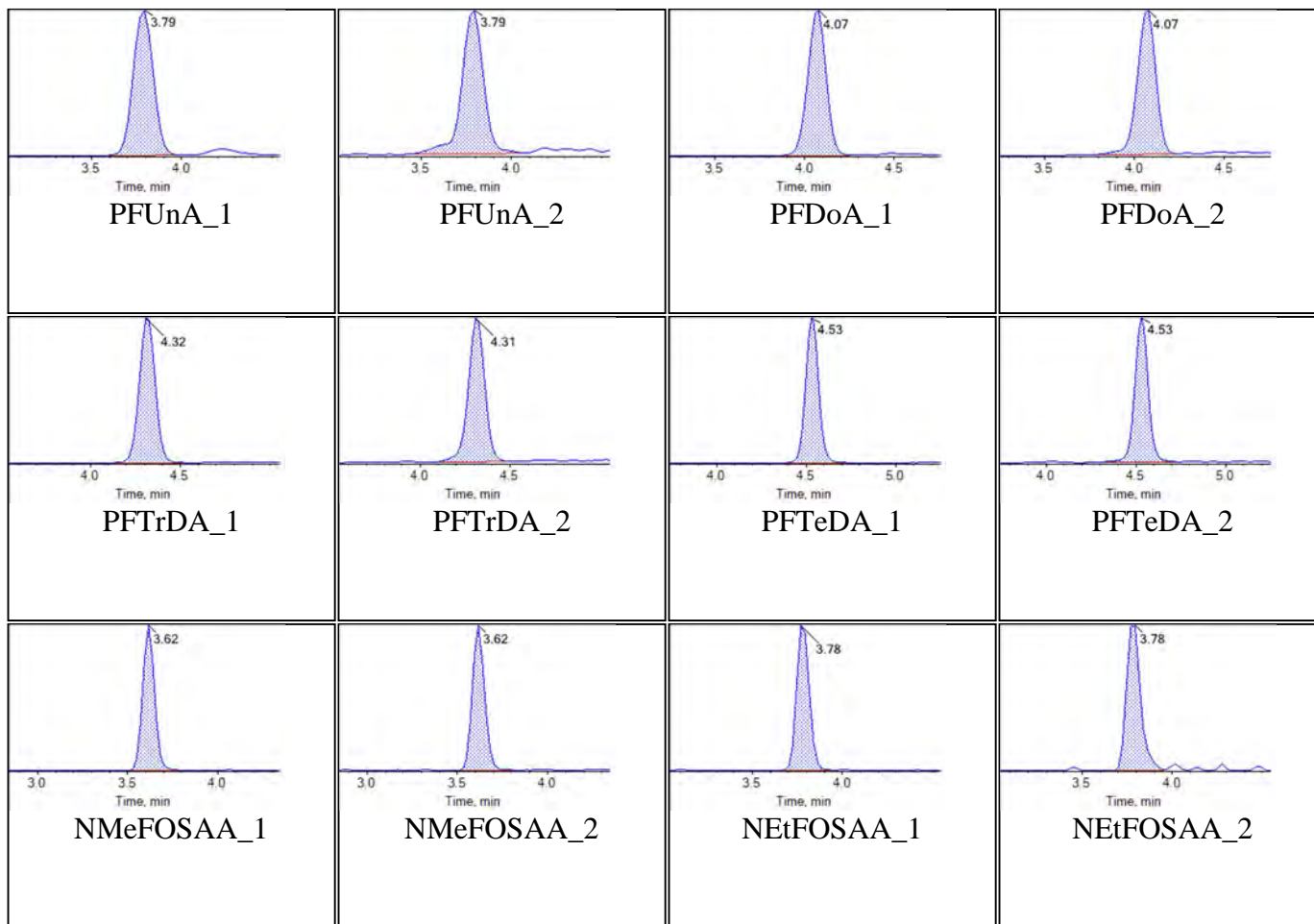
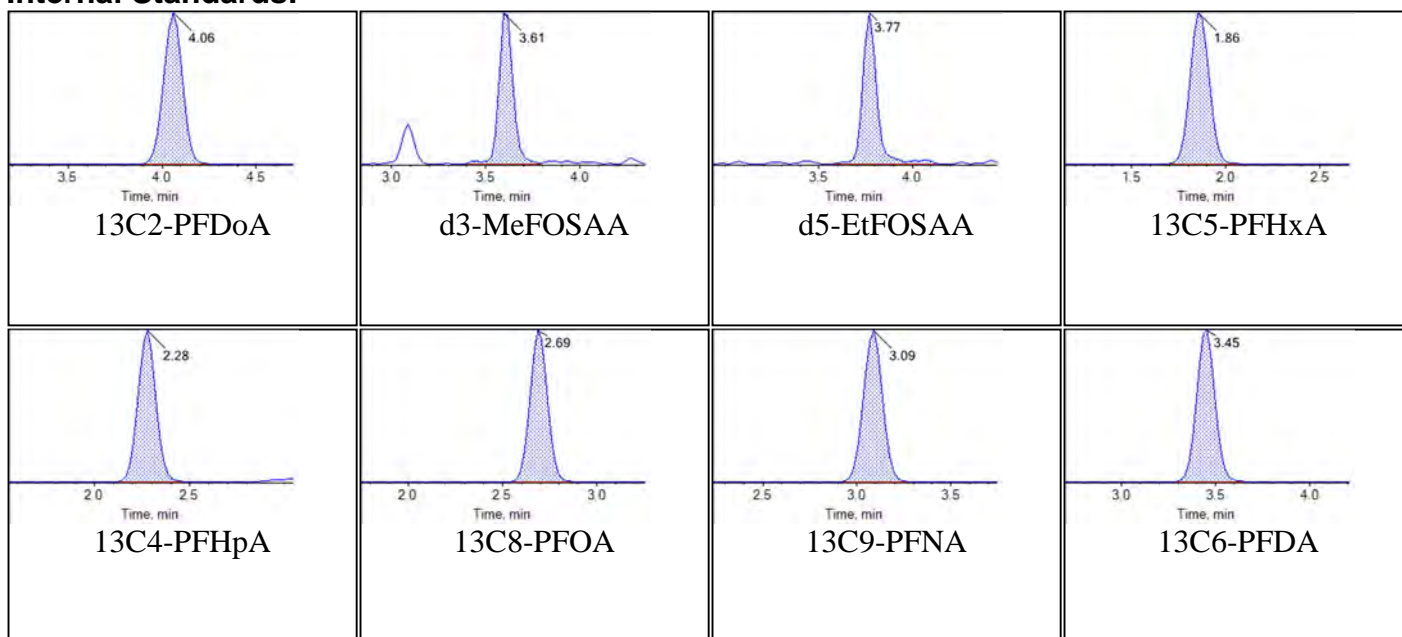


Sample Name	KC69	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:03:23	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

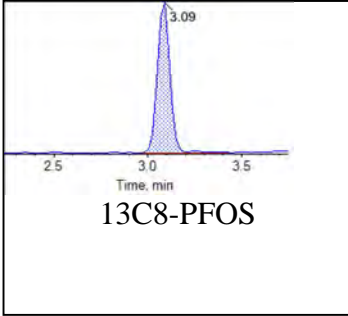
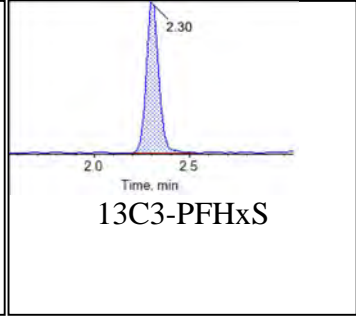
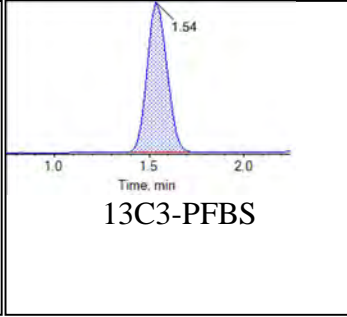
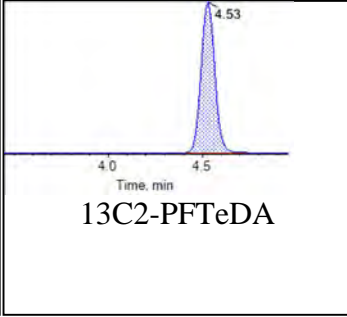
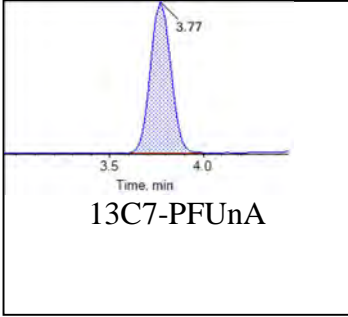
Target Analytes:



**Internal Standards:**

Chromatogram Report

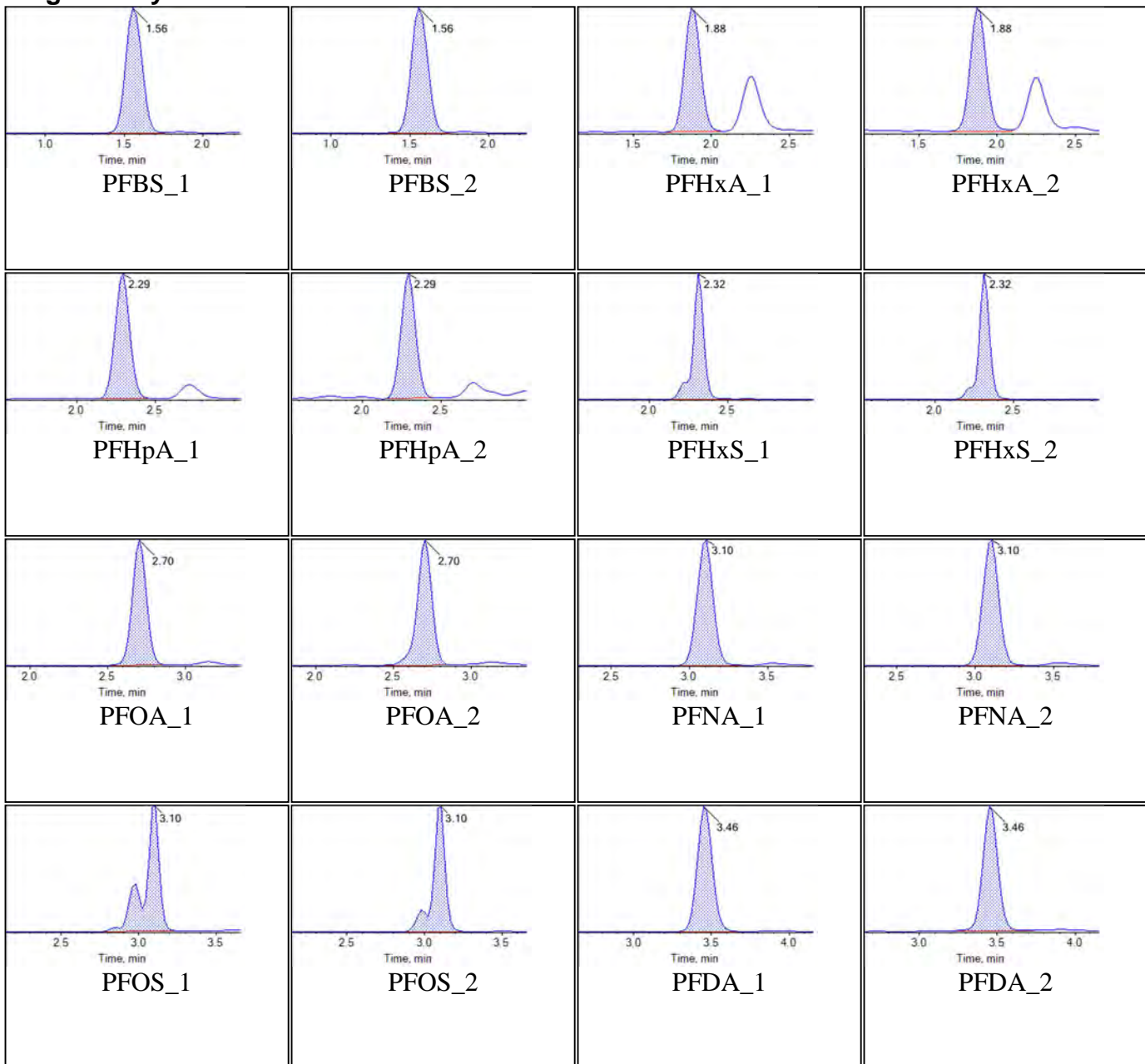
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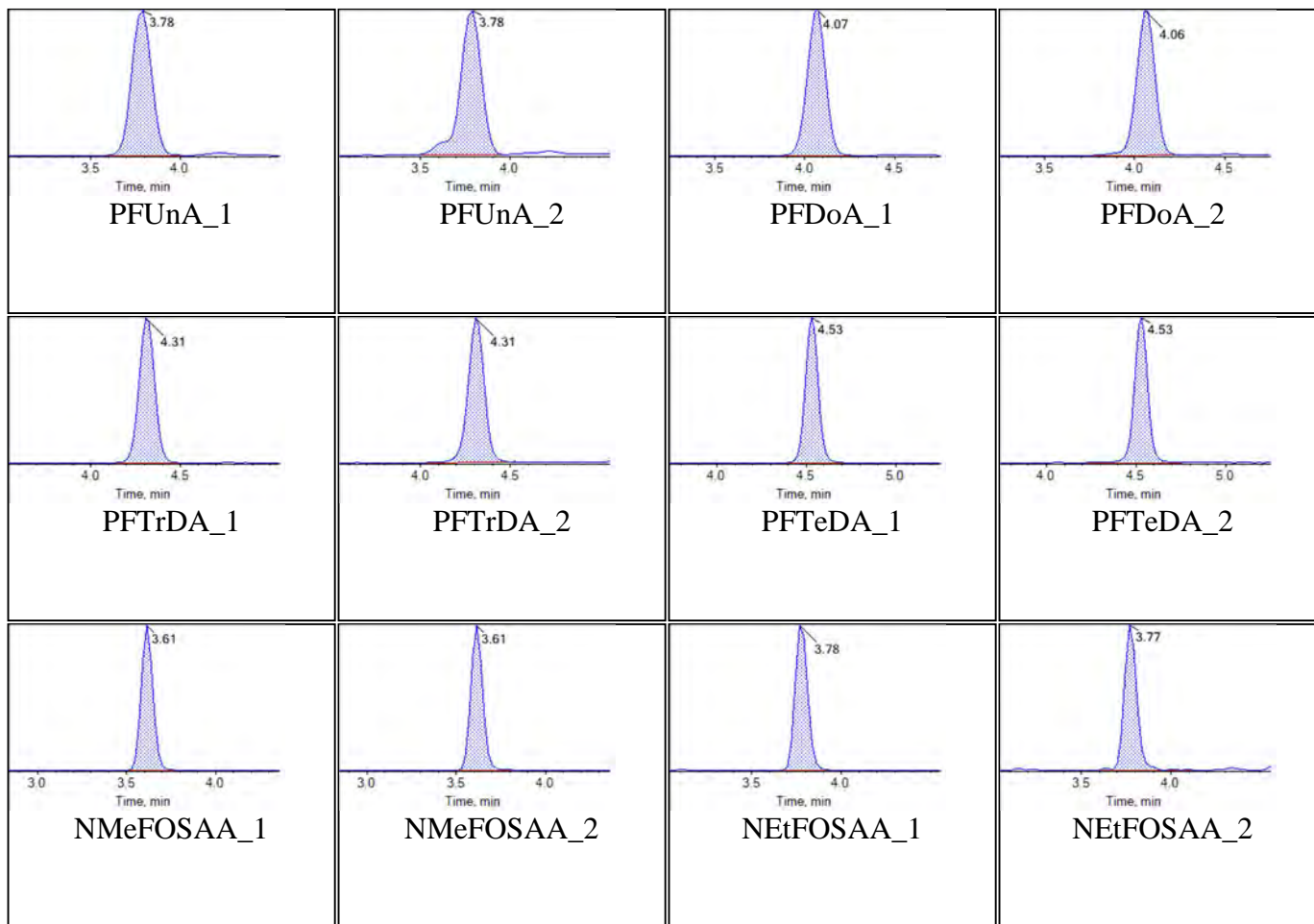
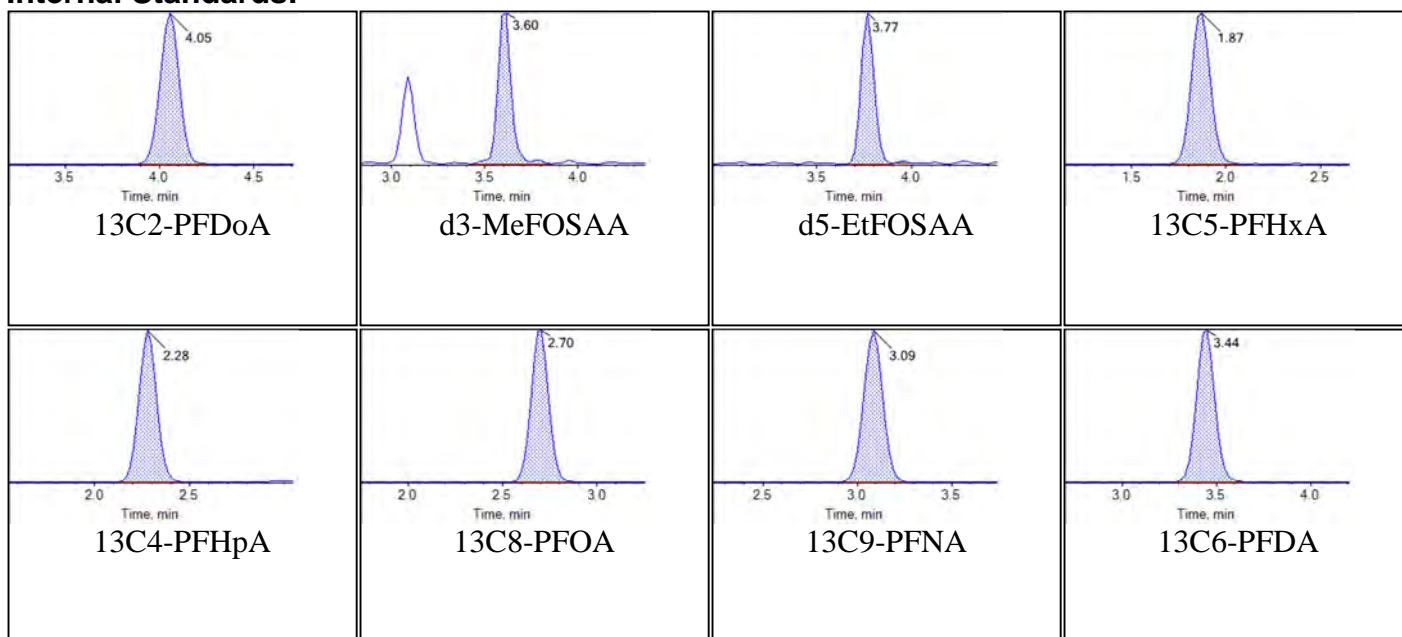


Sample Name	KC70	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:14:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

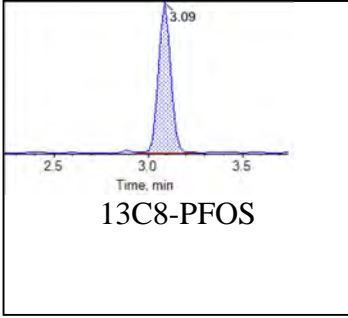
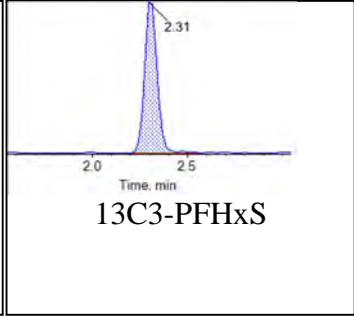
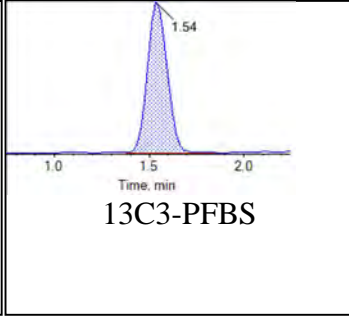
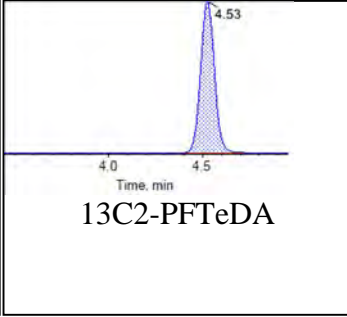
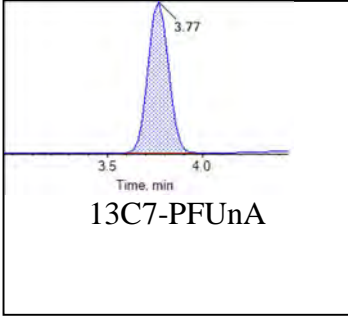
Target Analytes:



**Internal Standards:**

Chromatogram Report

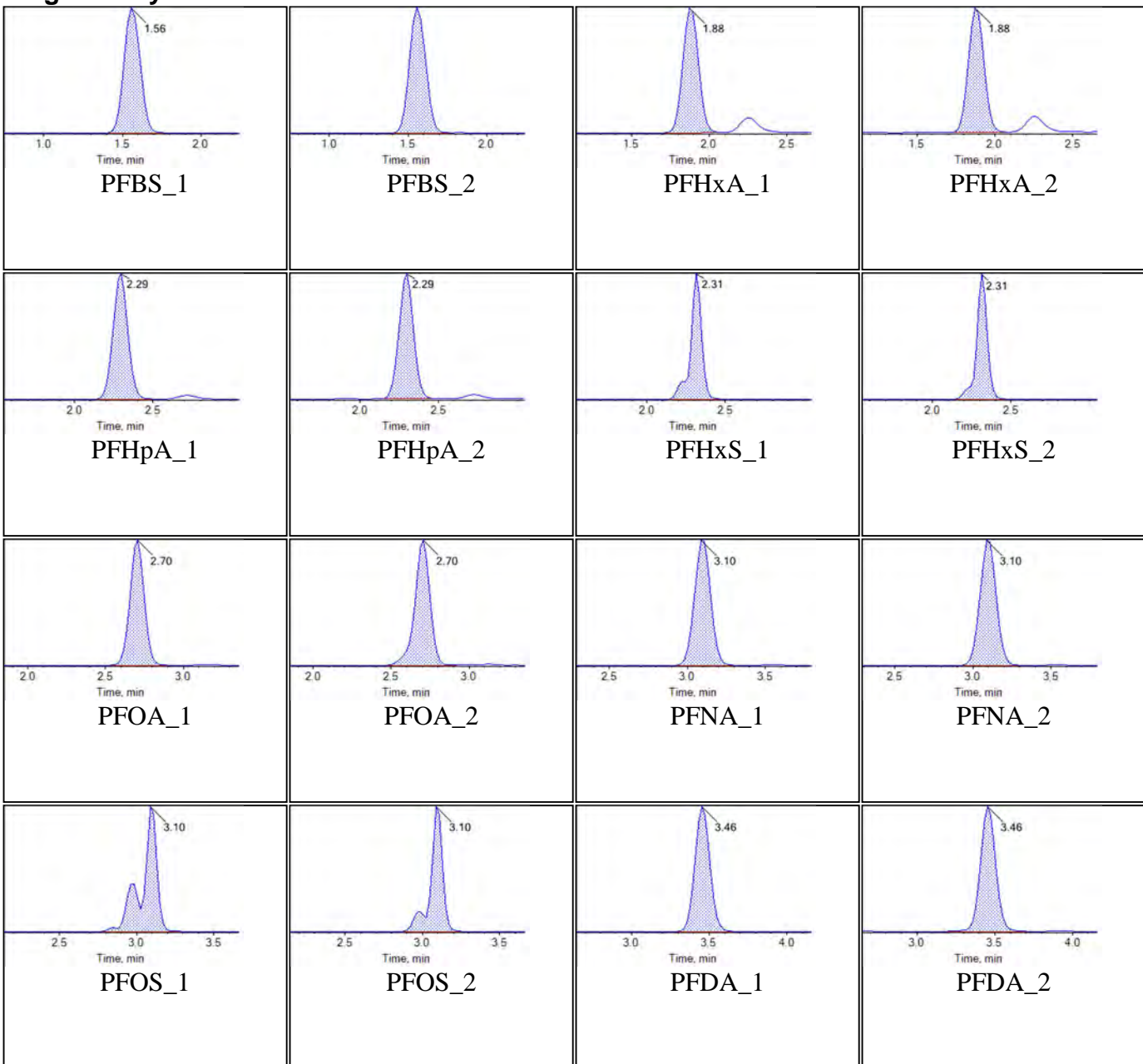
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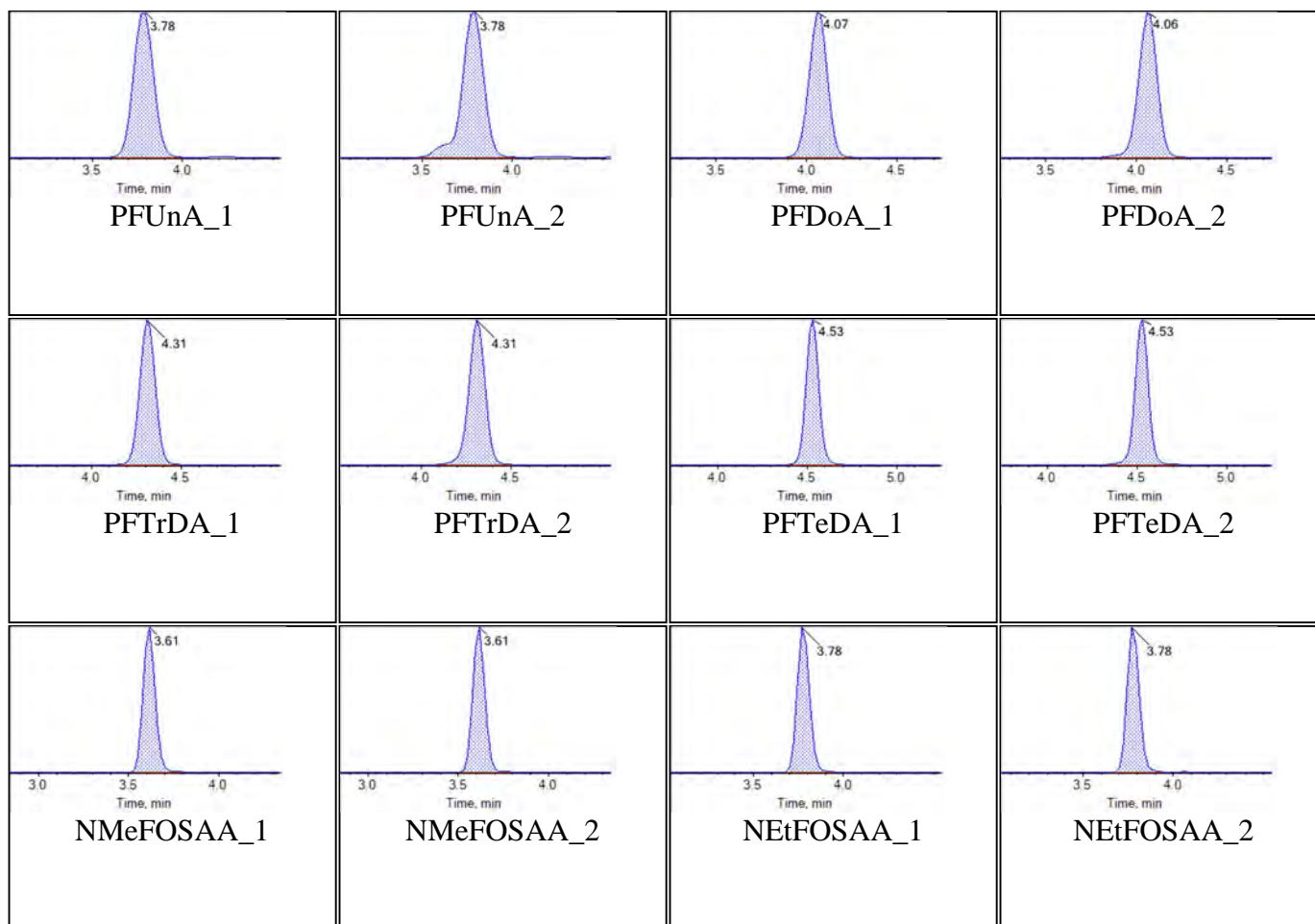
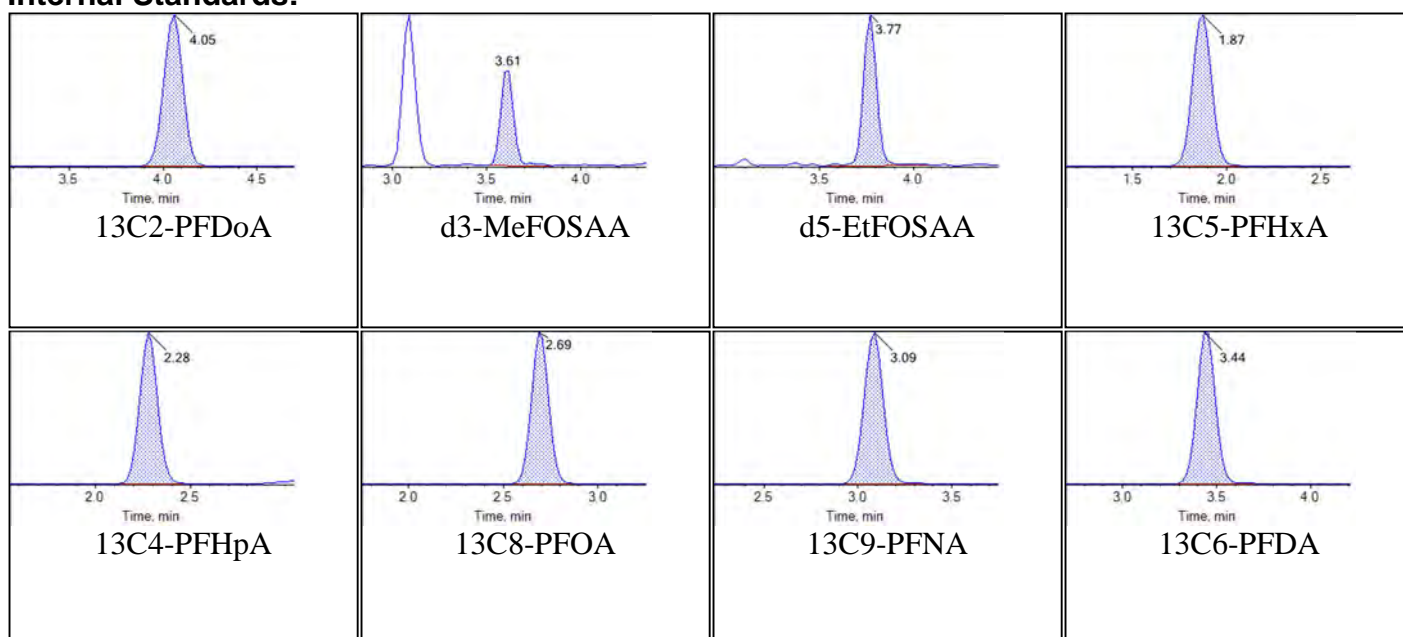


Sample Name	KC71	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:25:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

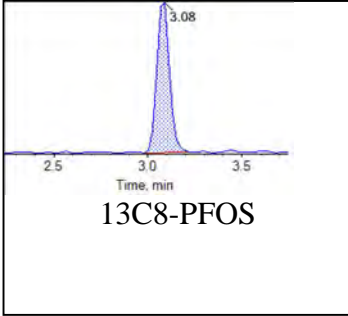
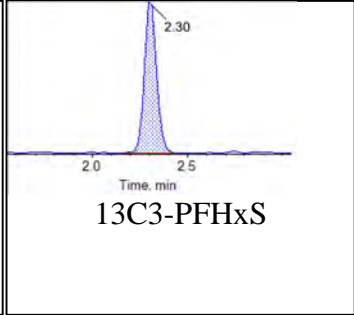
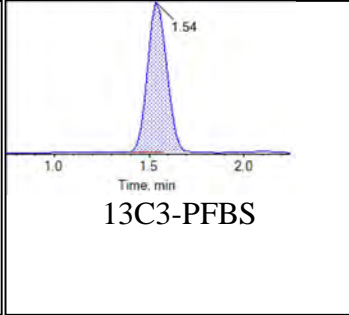
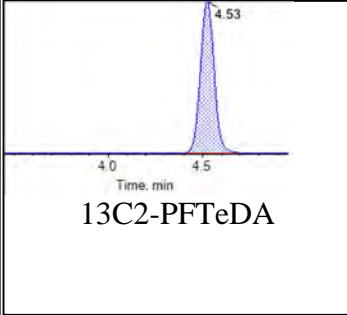
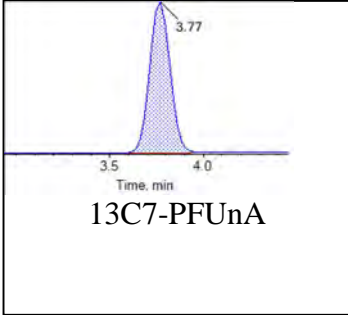
Target Analytes:



**Internal Standards:**

Chromatogram Report

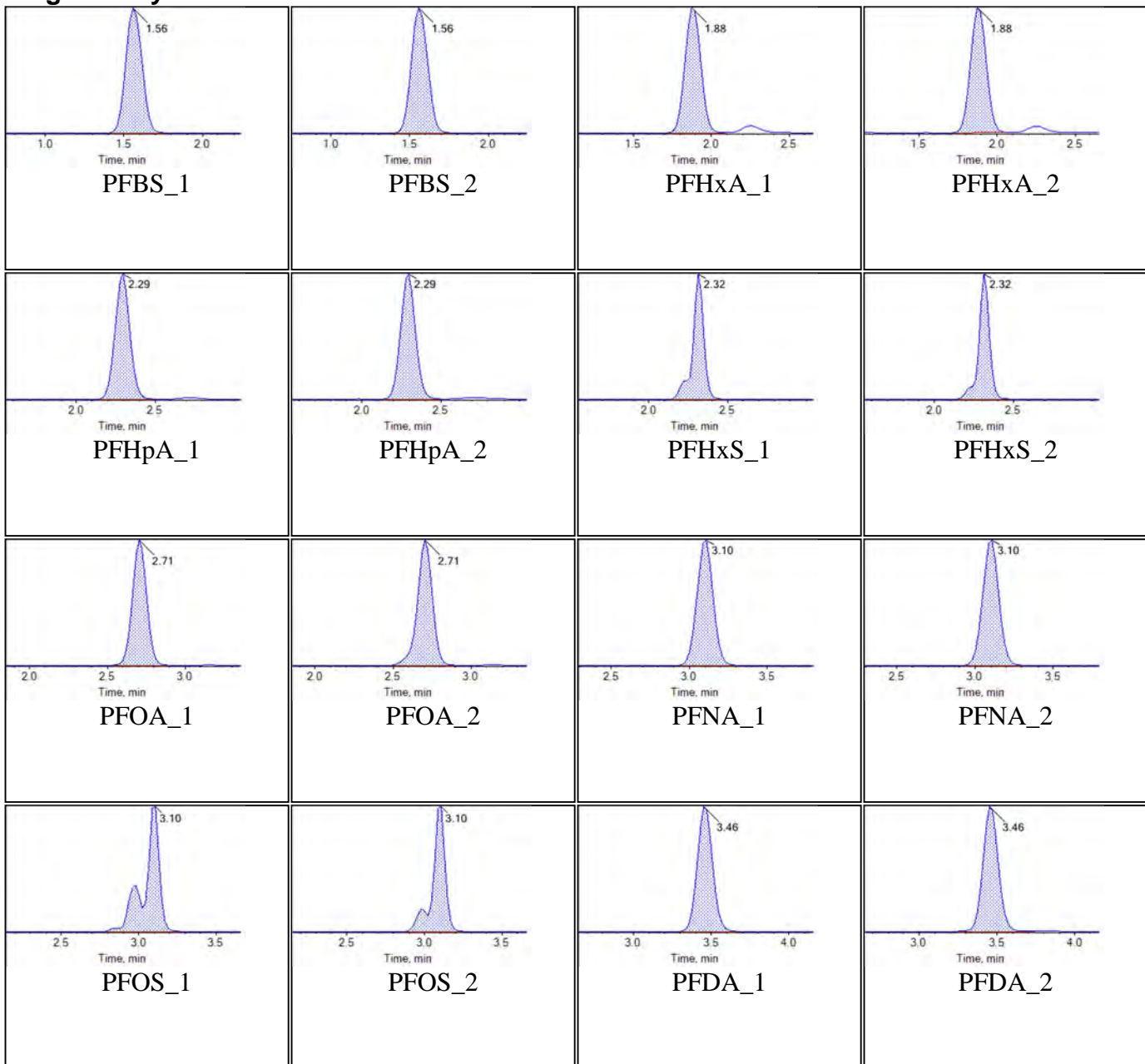
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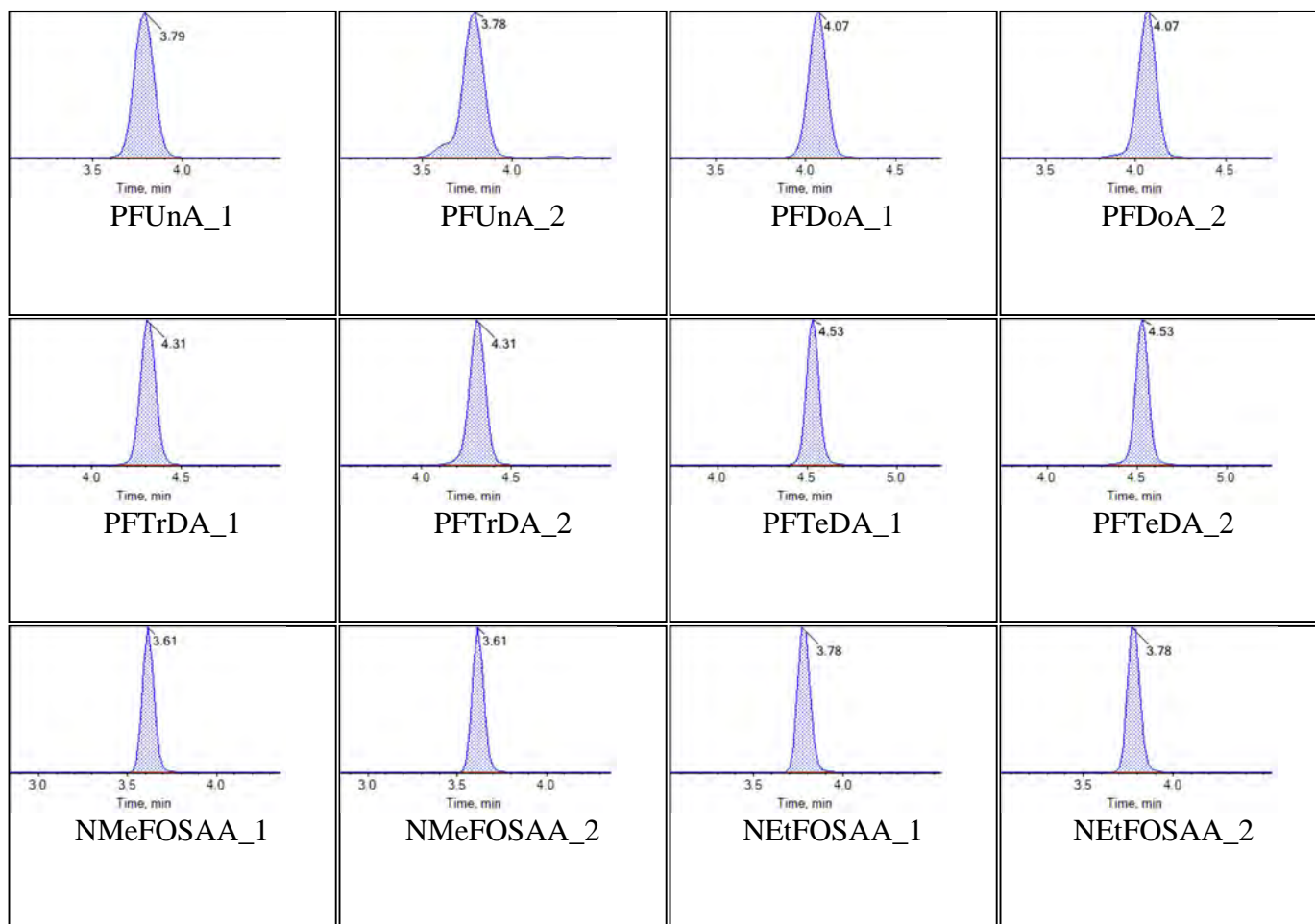
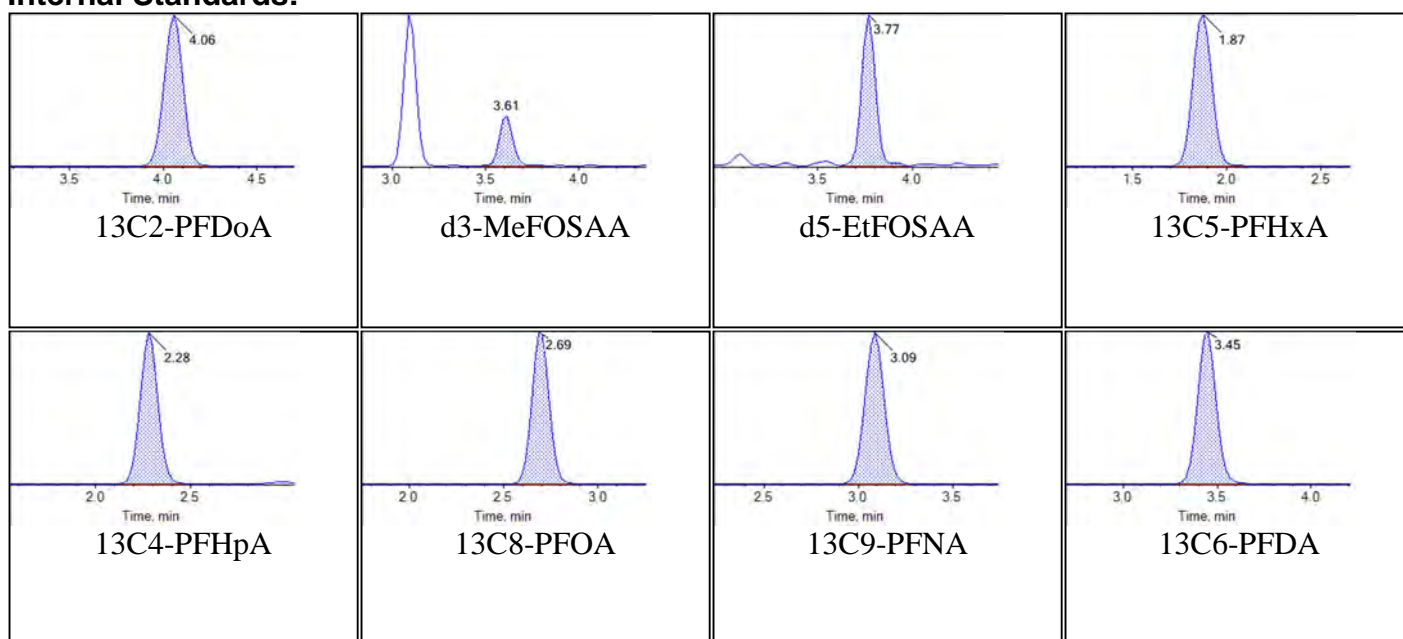


Sample Name	KC72	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:35:58	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

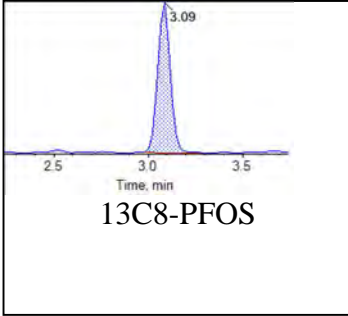
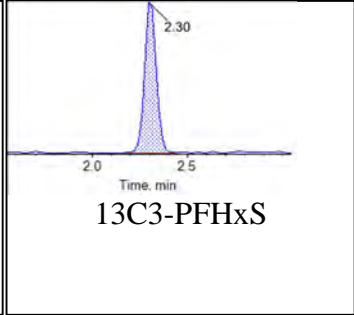
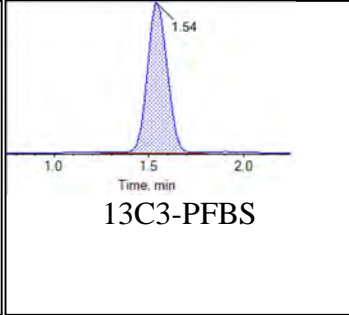
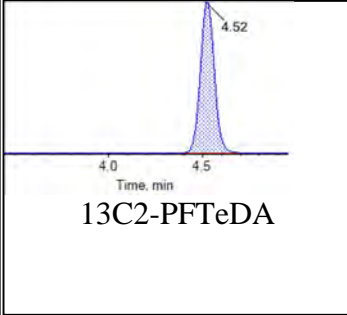
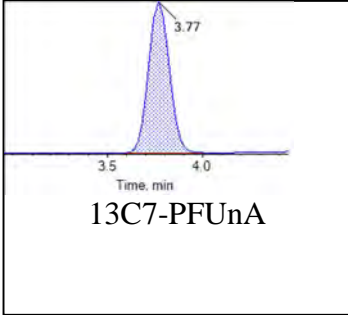
Target Analytes:



**Internal Standards:**

Chromatogram Report

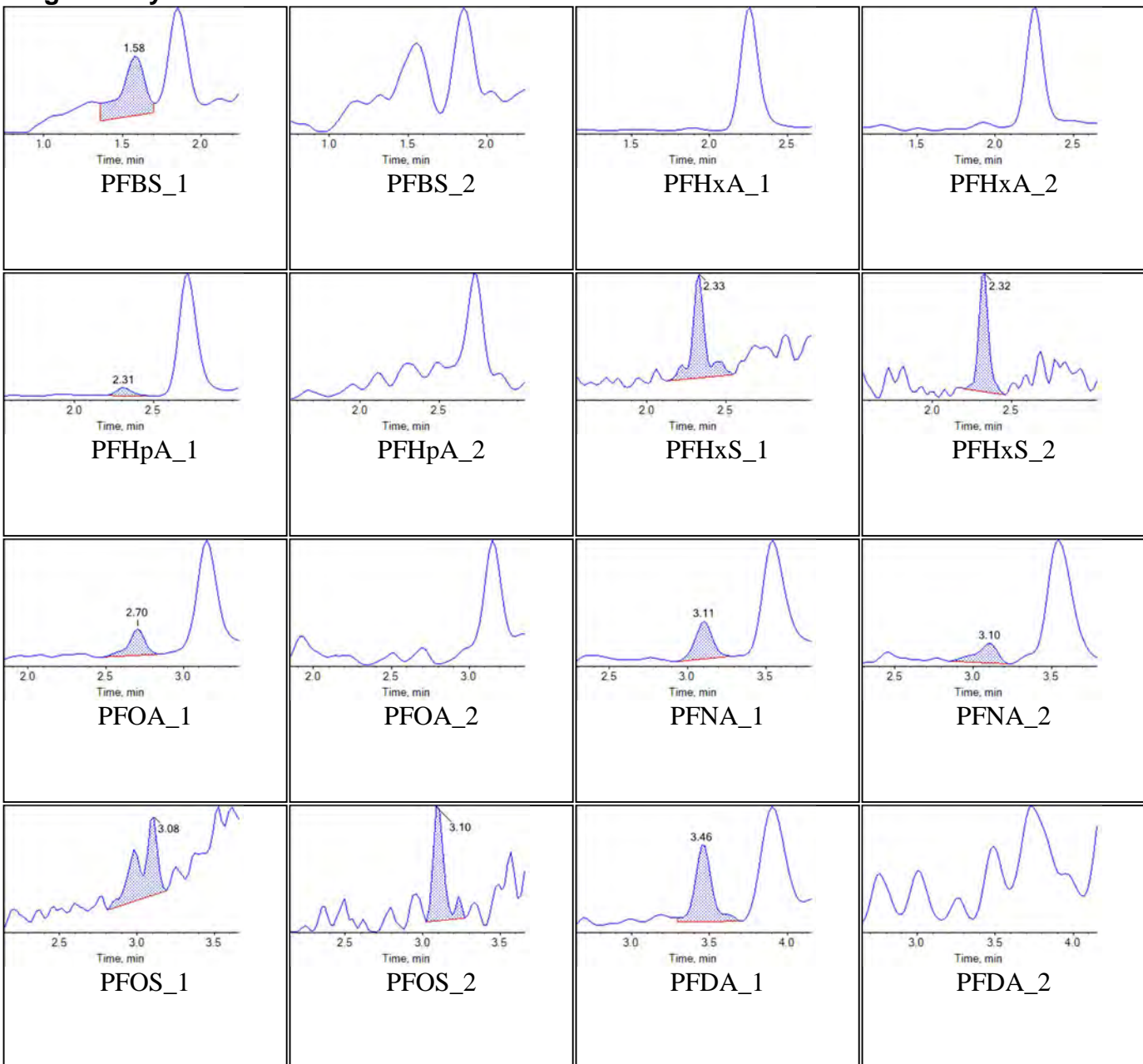
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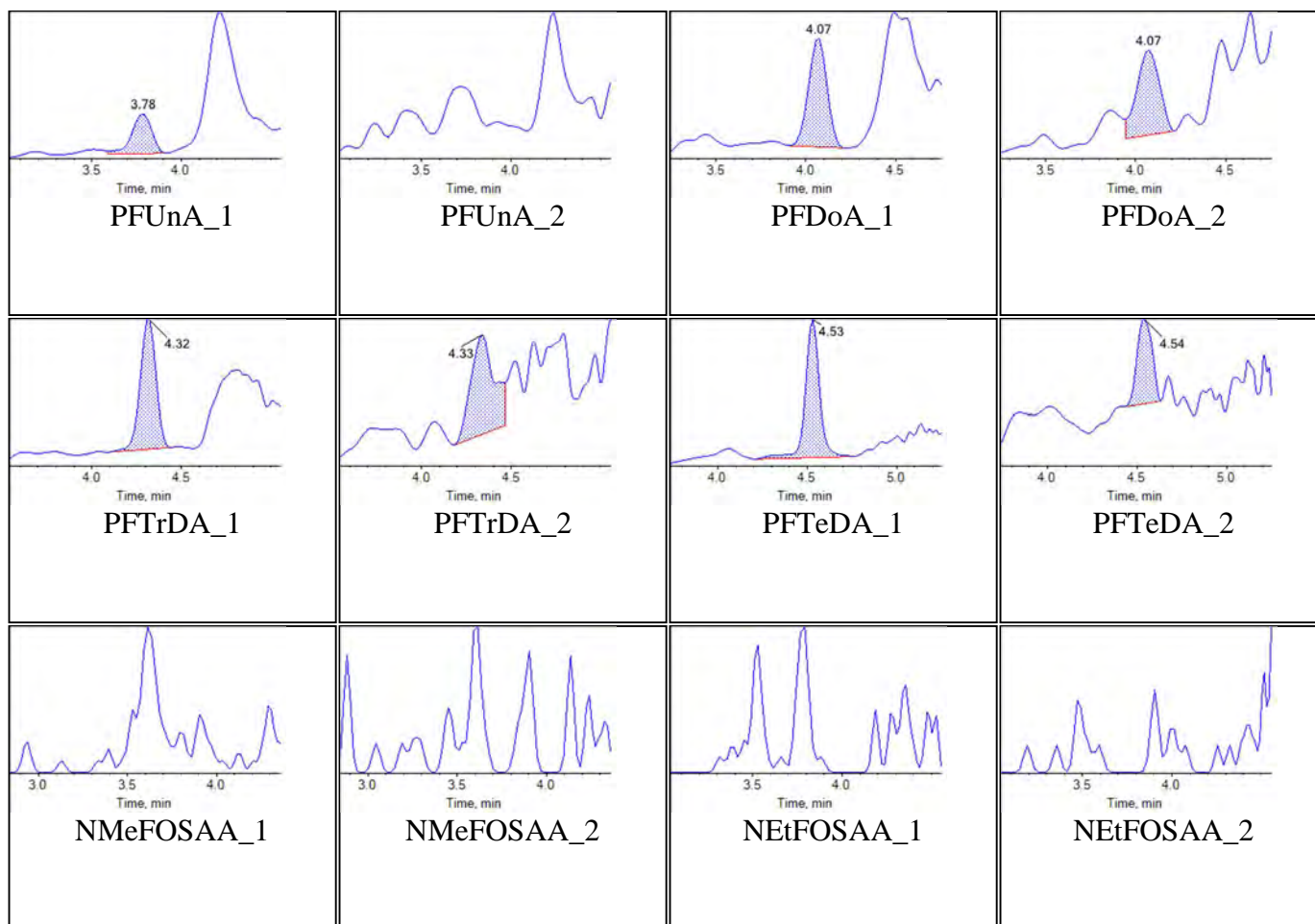
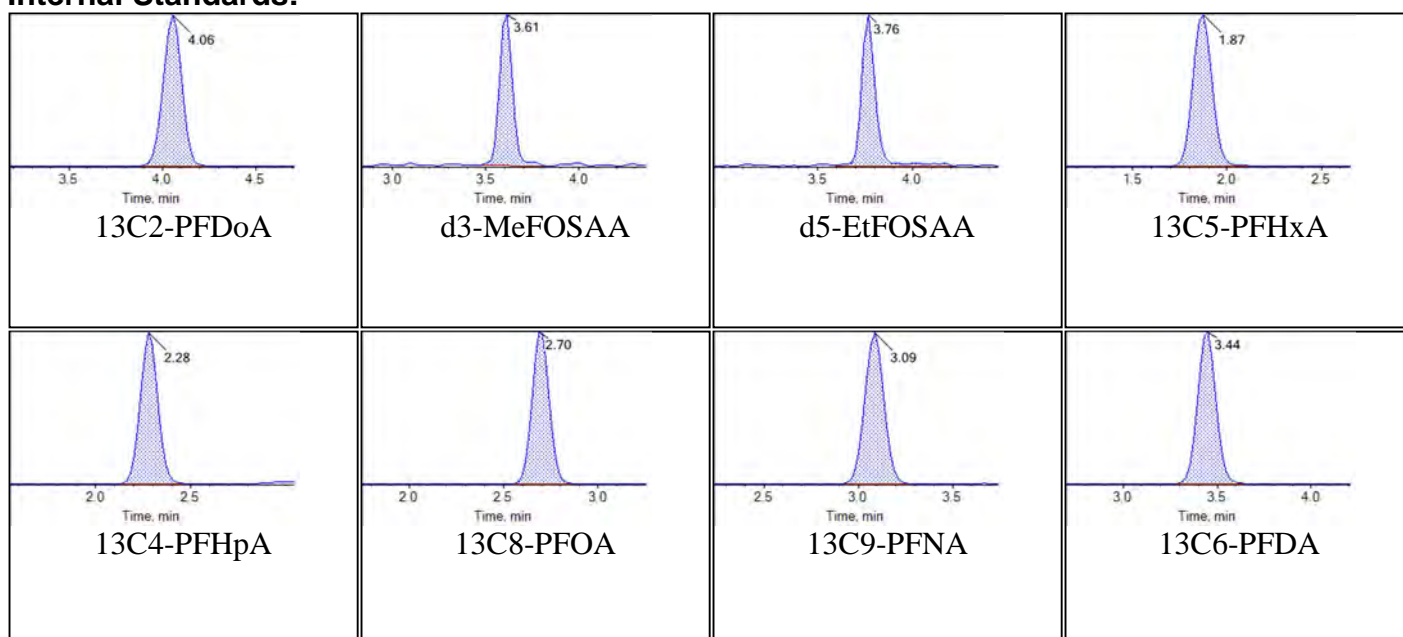


Sample Name	KC73 IB	Injection Vial	9
Sample ID	Instrument blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:46:49	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

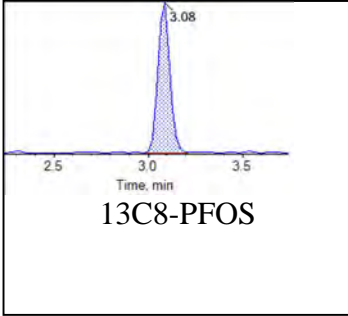
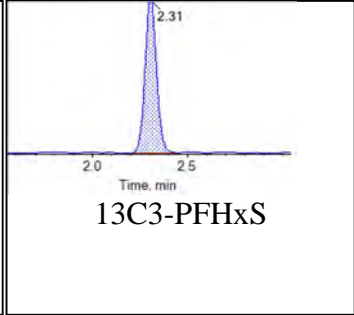
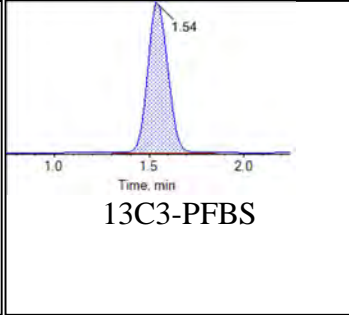
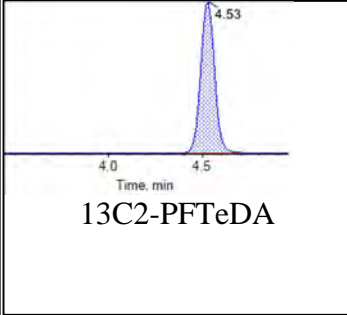
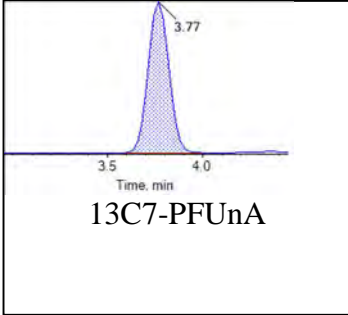
Target Analytes:



**Internal Standards:**

Chromatogram Report

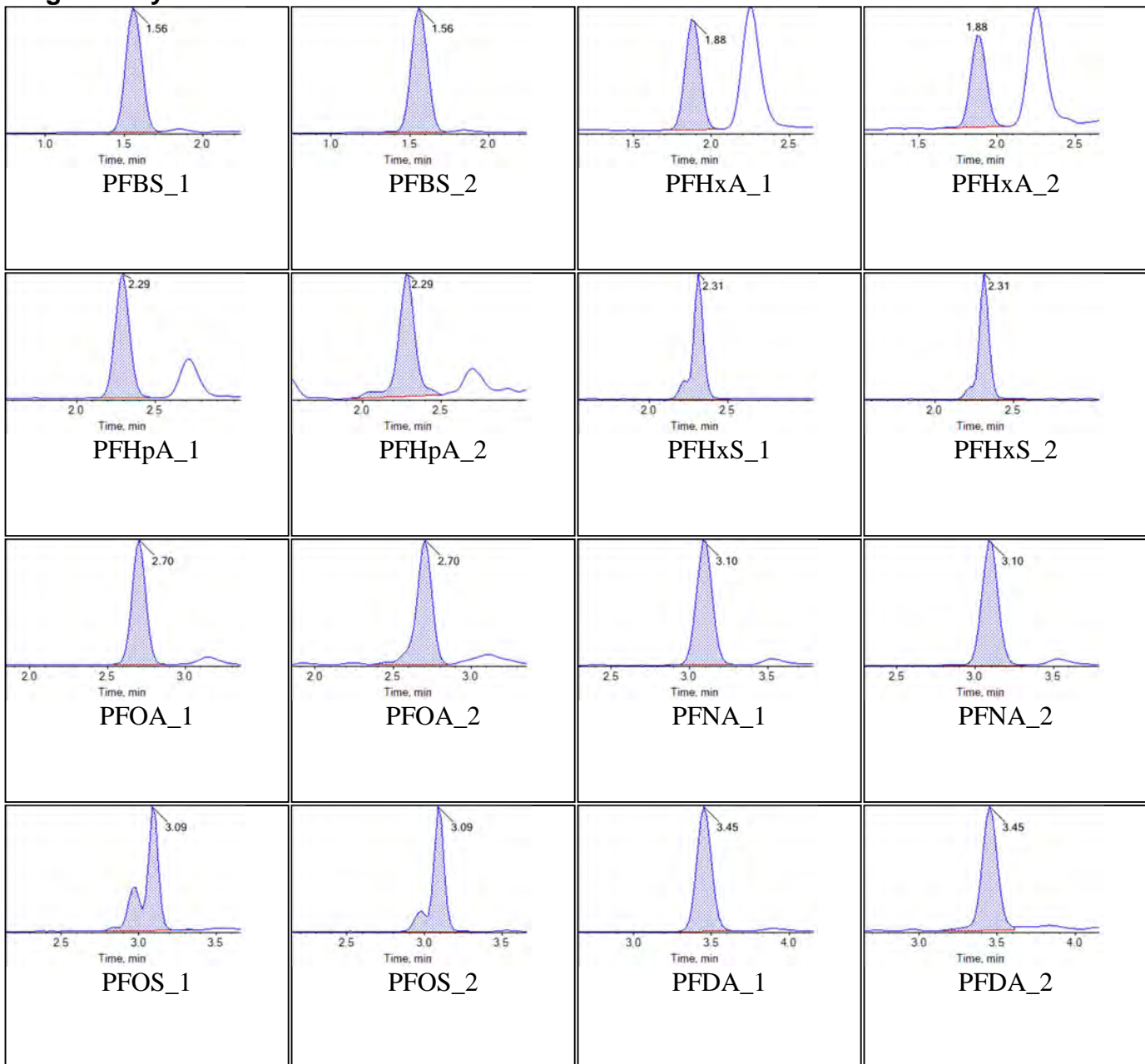
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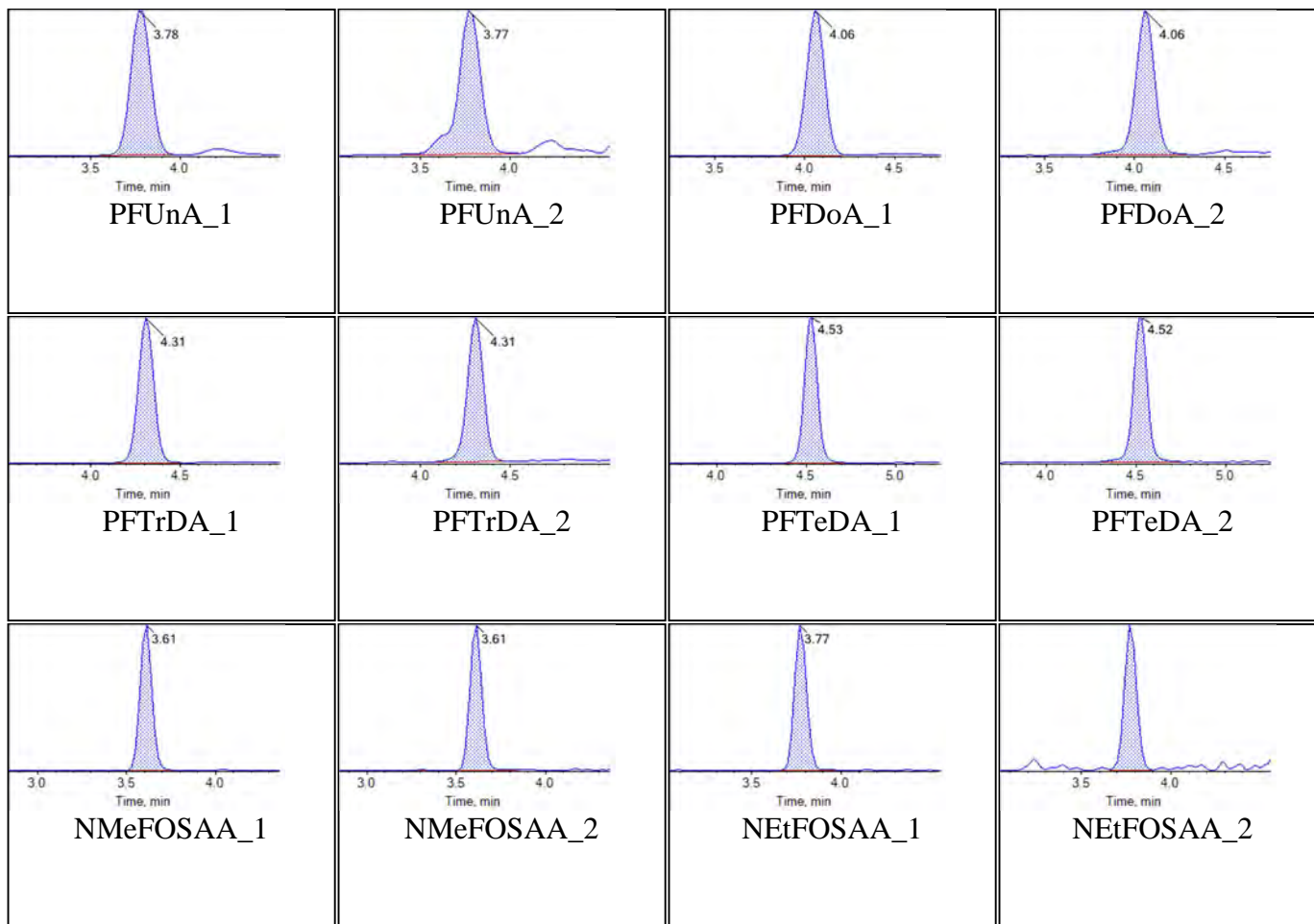
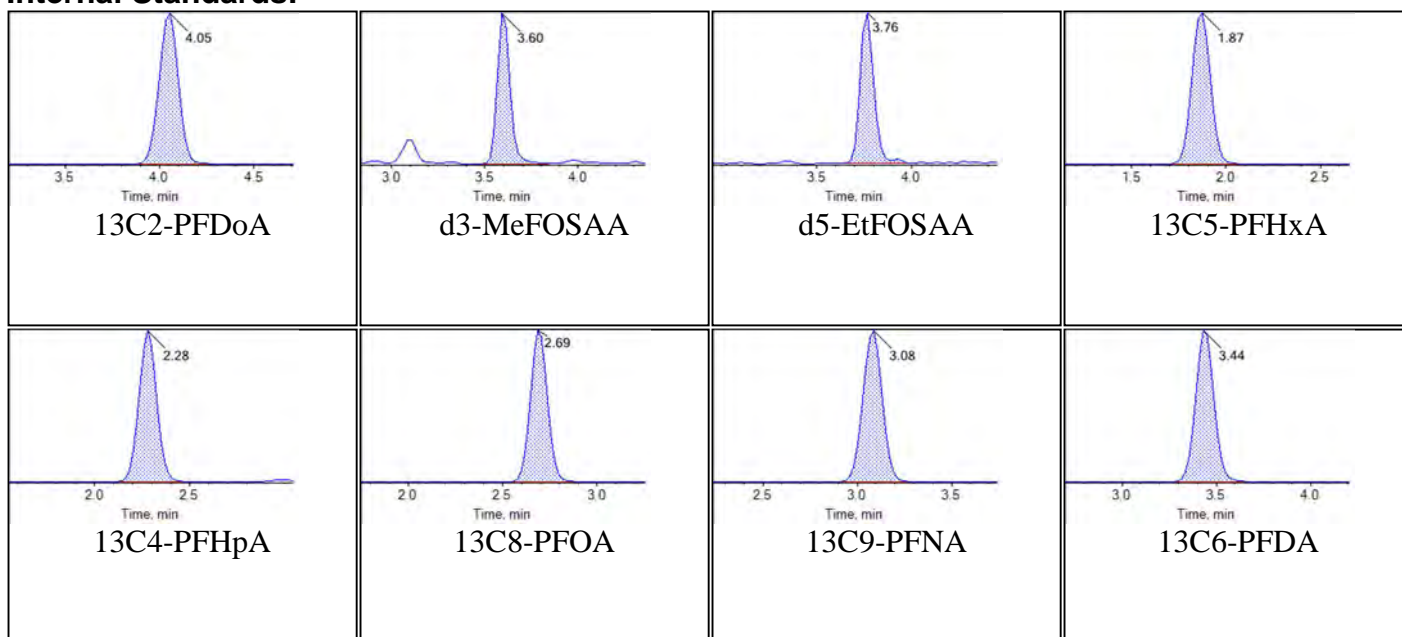


Sample Name	KC74 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:57:42	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

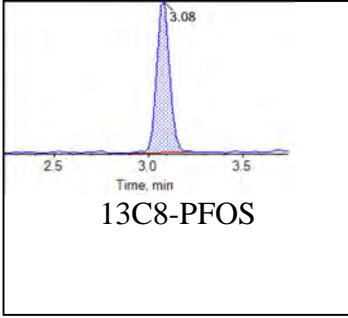
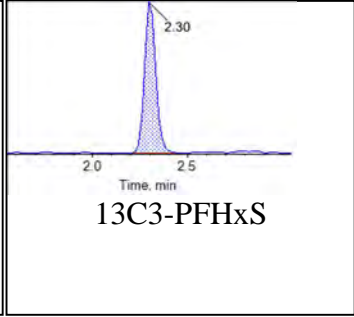
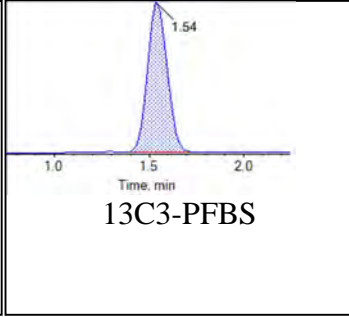
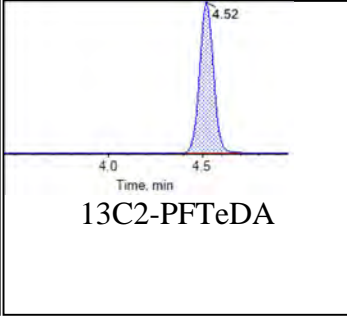
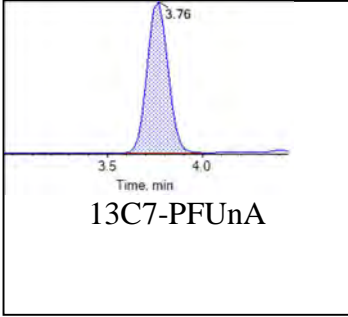


**Internal Standards:**



Chromatogram Report

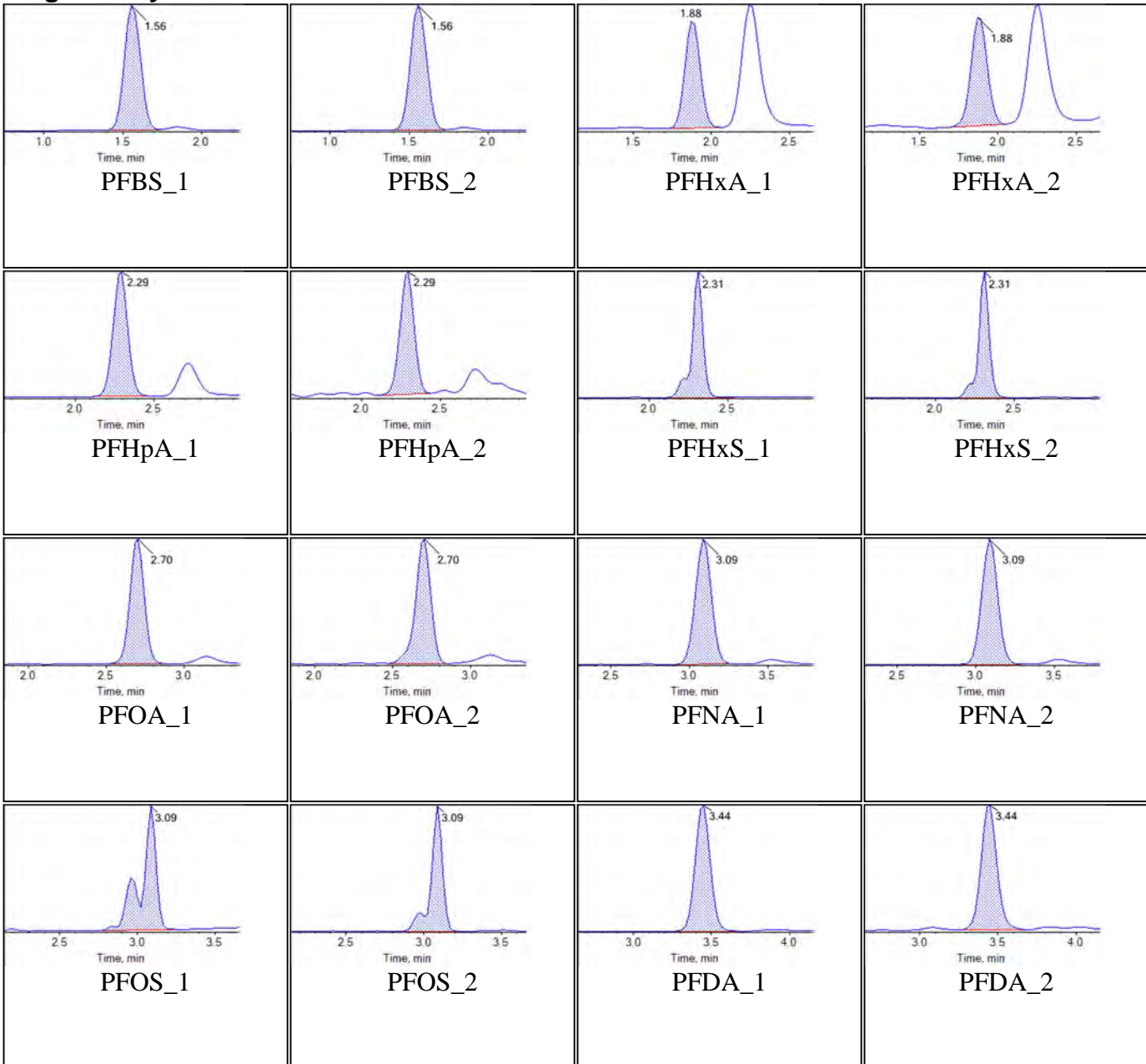
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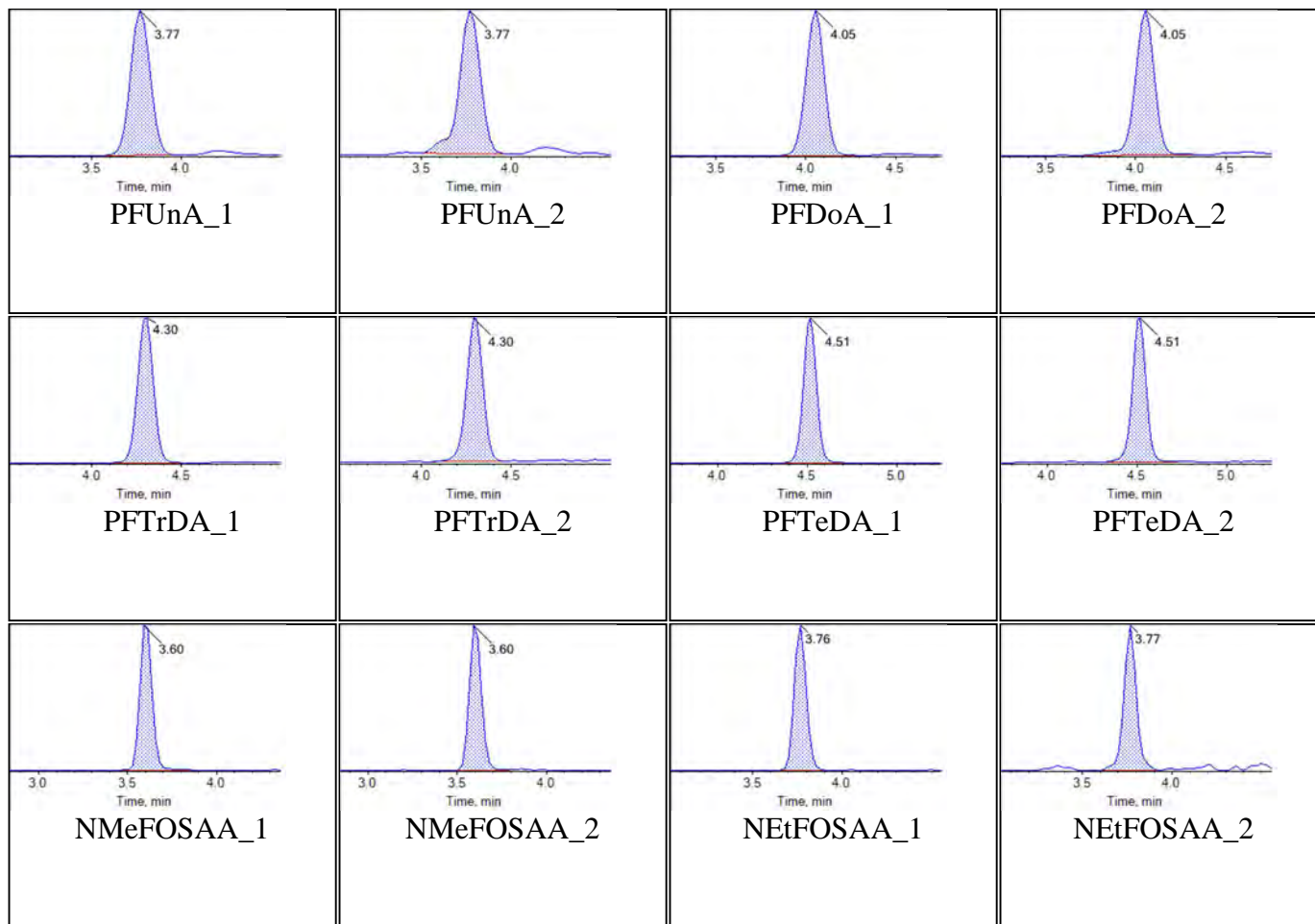
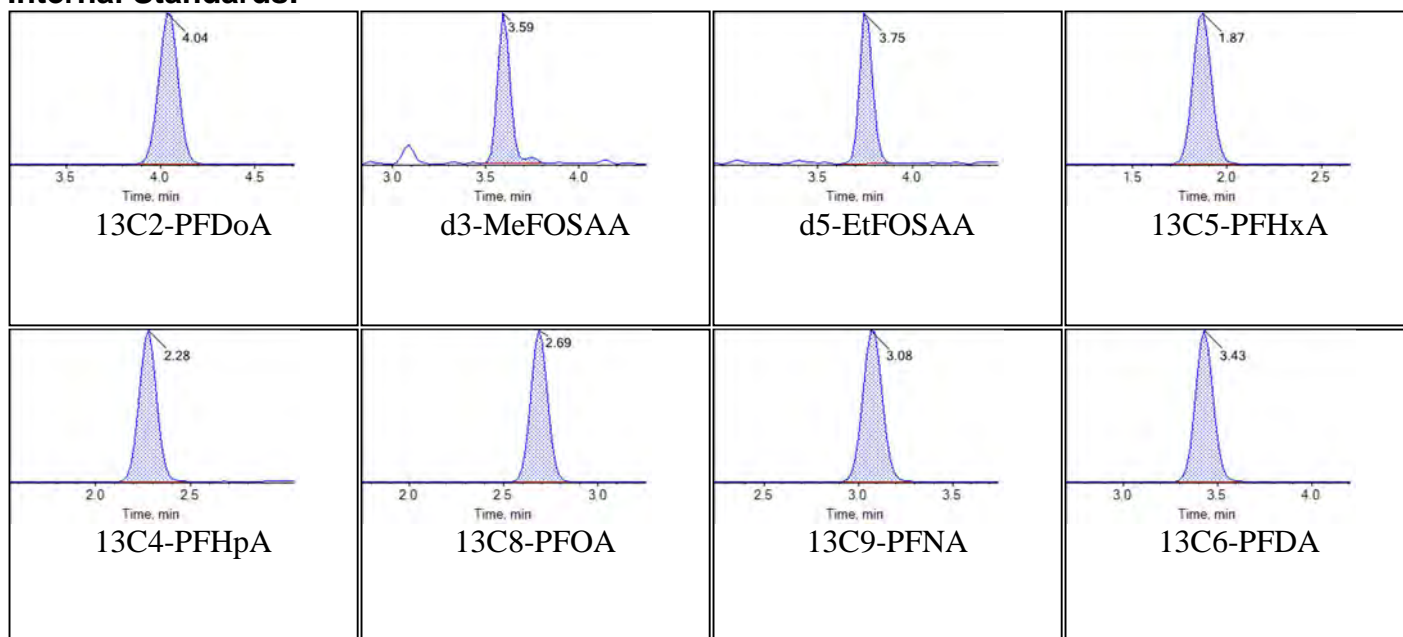


Sample Name	KC69 CCV	Injection Vial	26
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T21:51:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

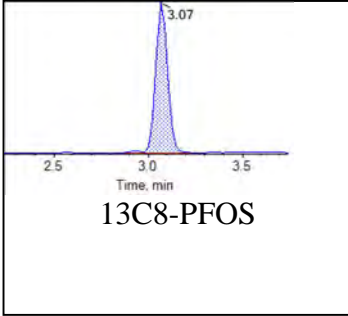
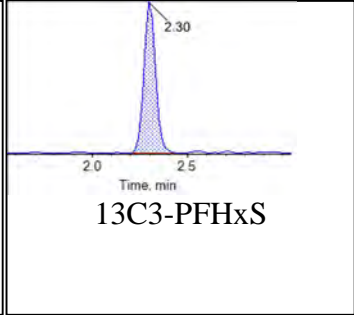
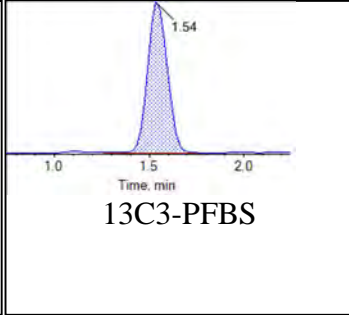
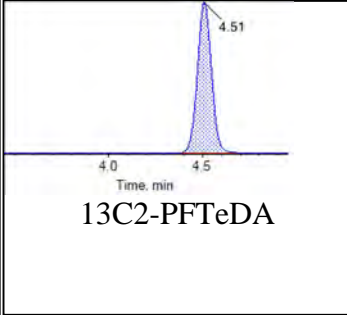
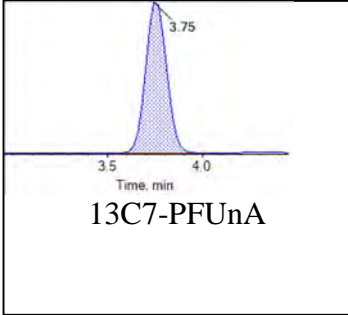


**Internal Standards:**



Chromatogram Report

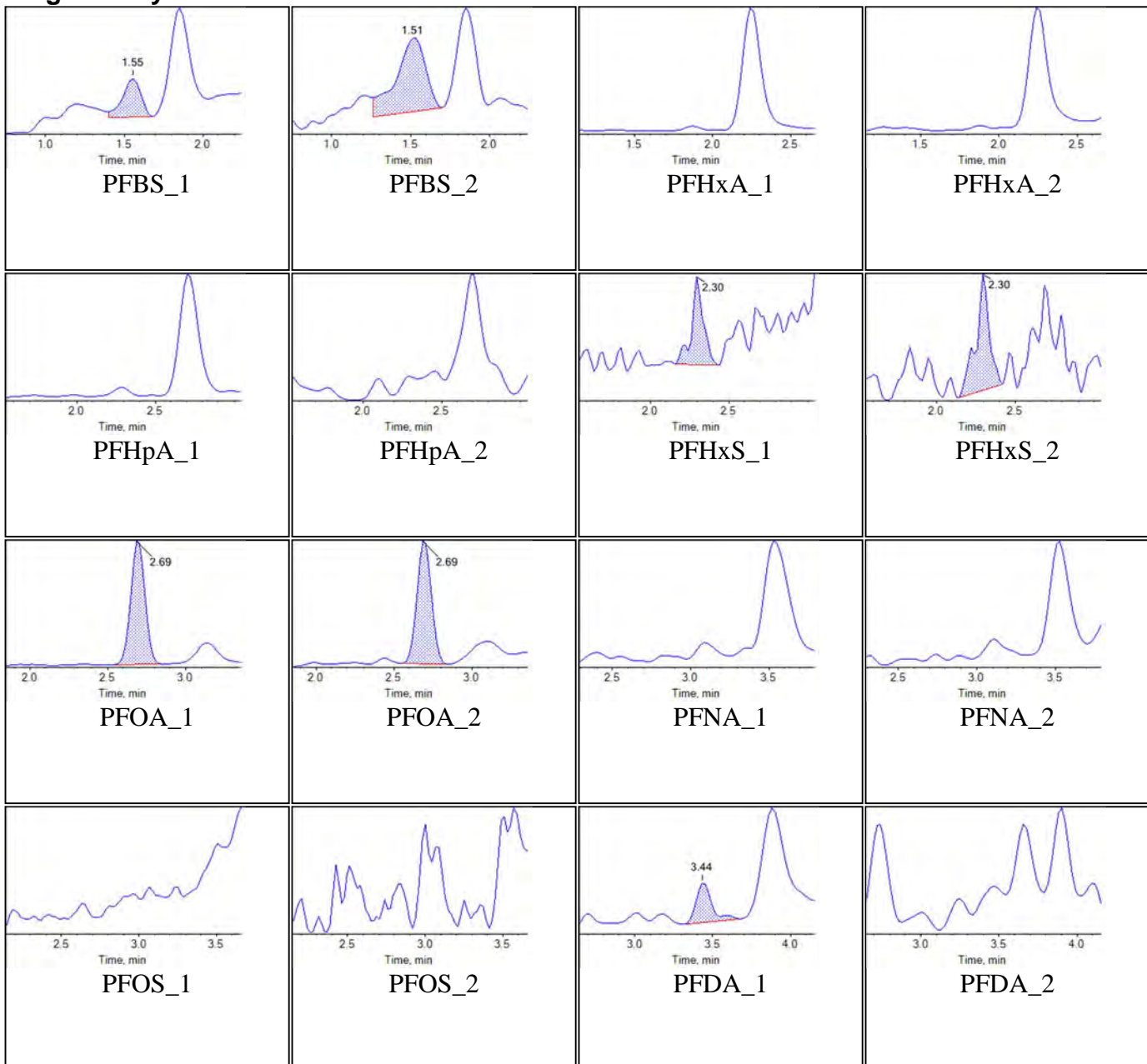
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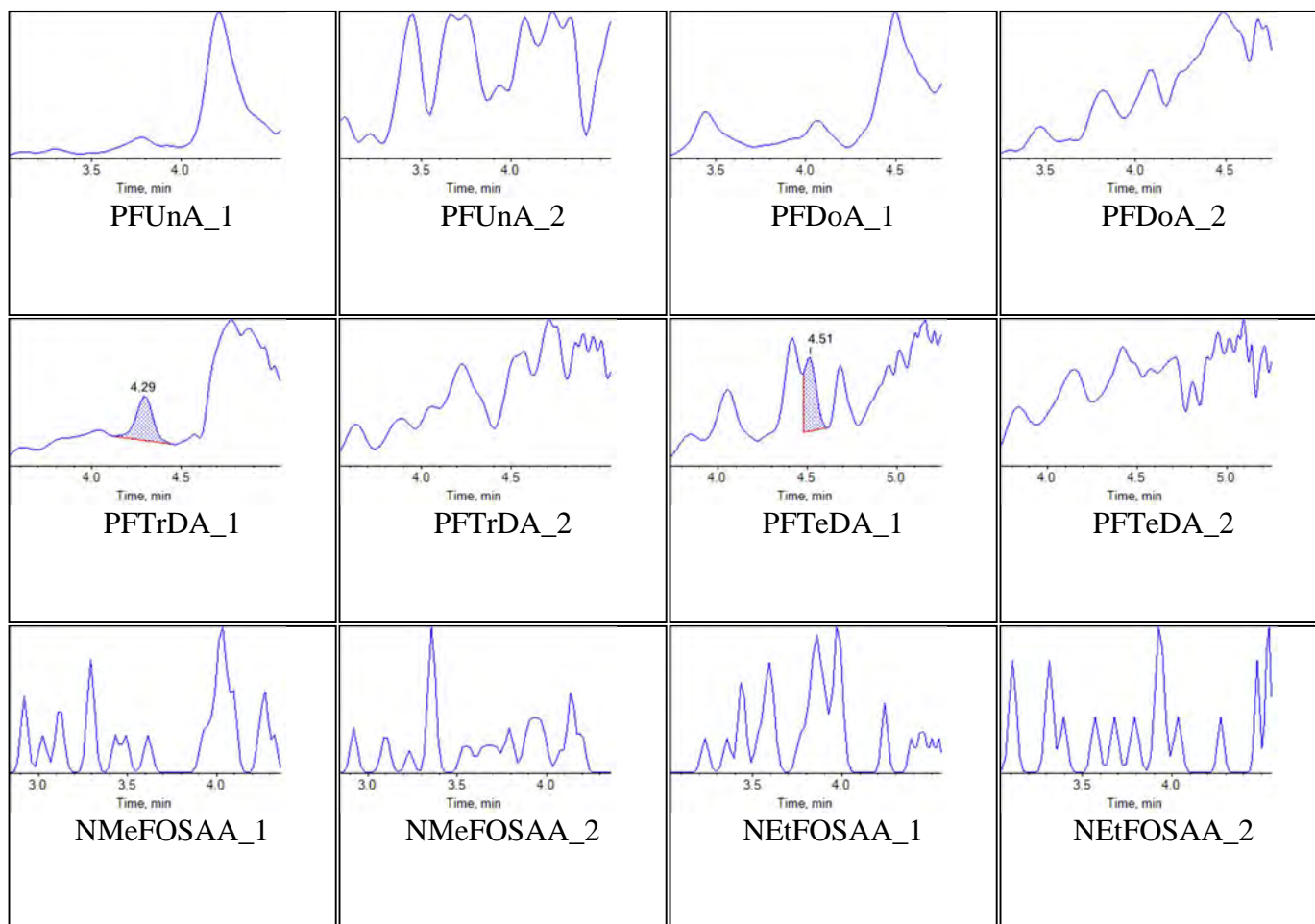
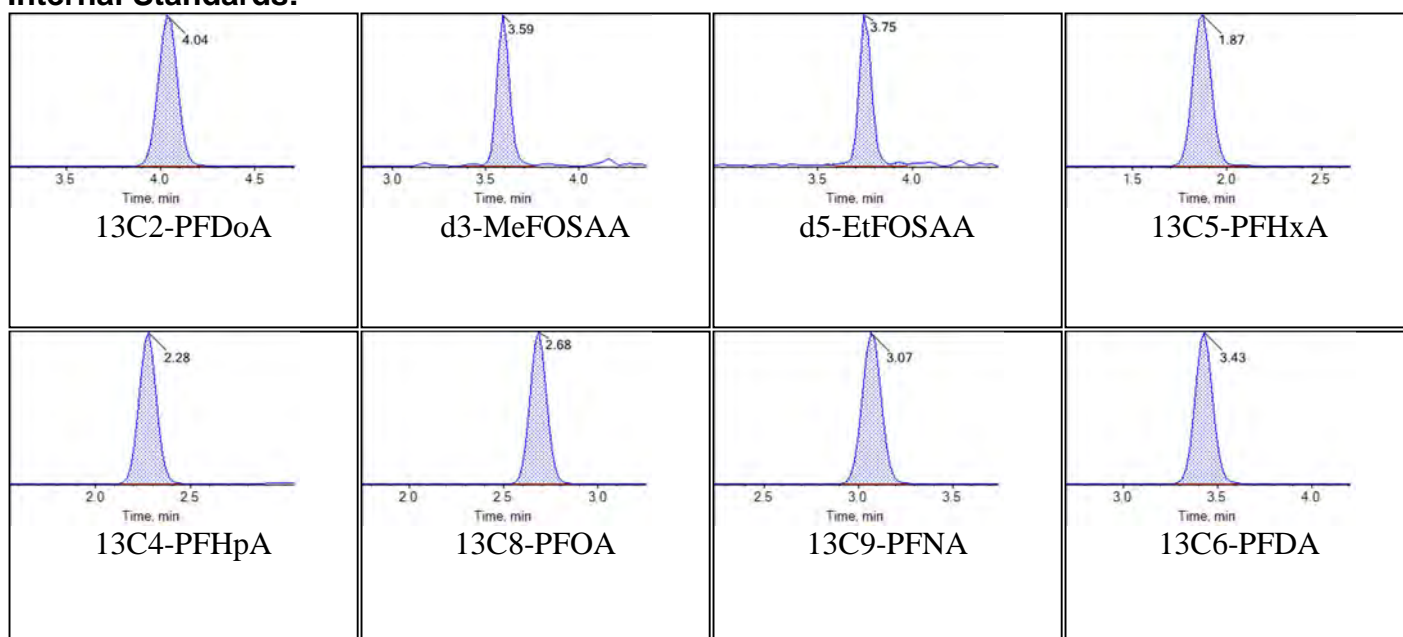


Sample Name	CS243PB-FS(0)	Injection Vial	28
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:13:14	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

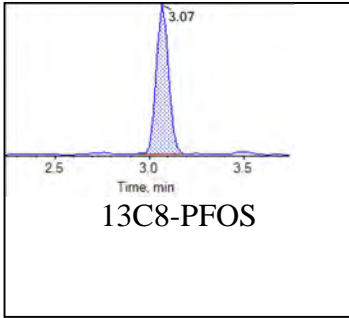
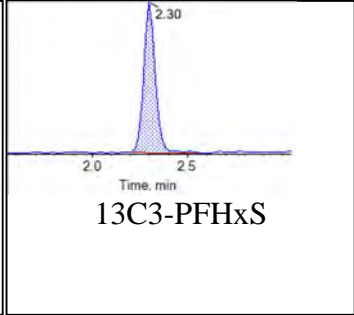
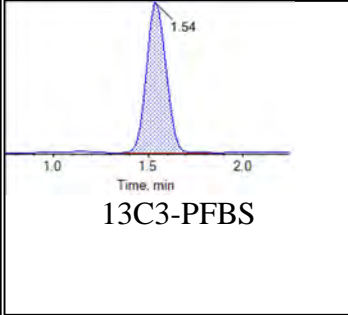
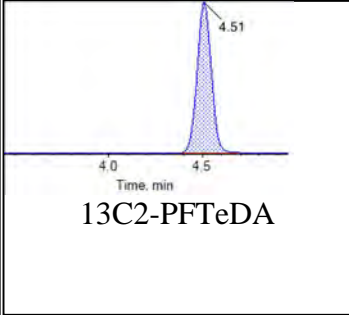
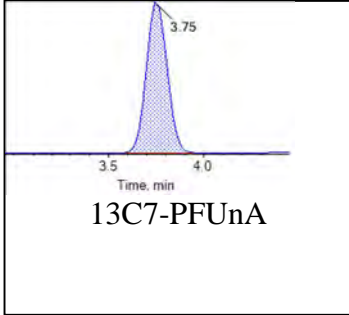
Target Analytes:



**Internal Standards:**

Chromatogram Report

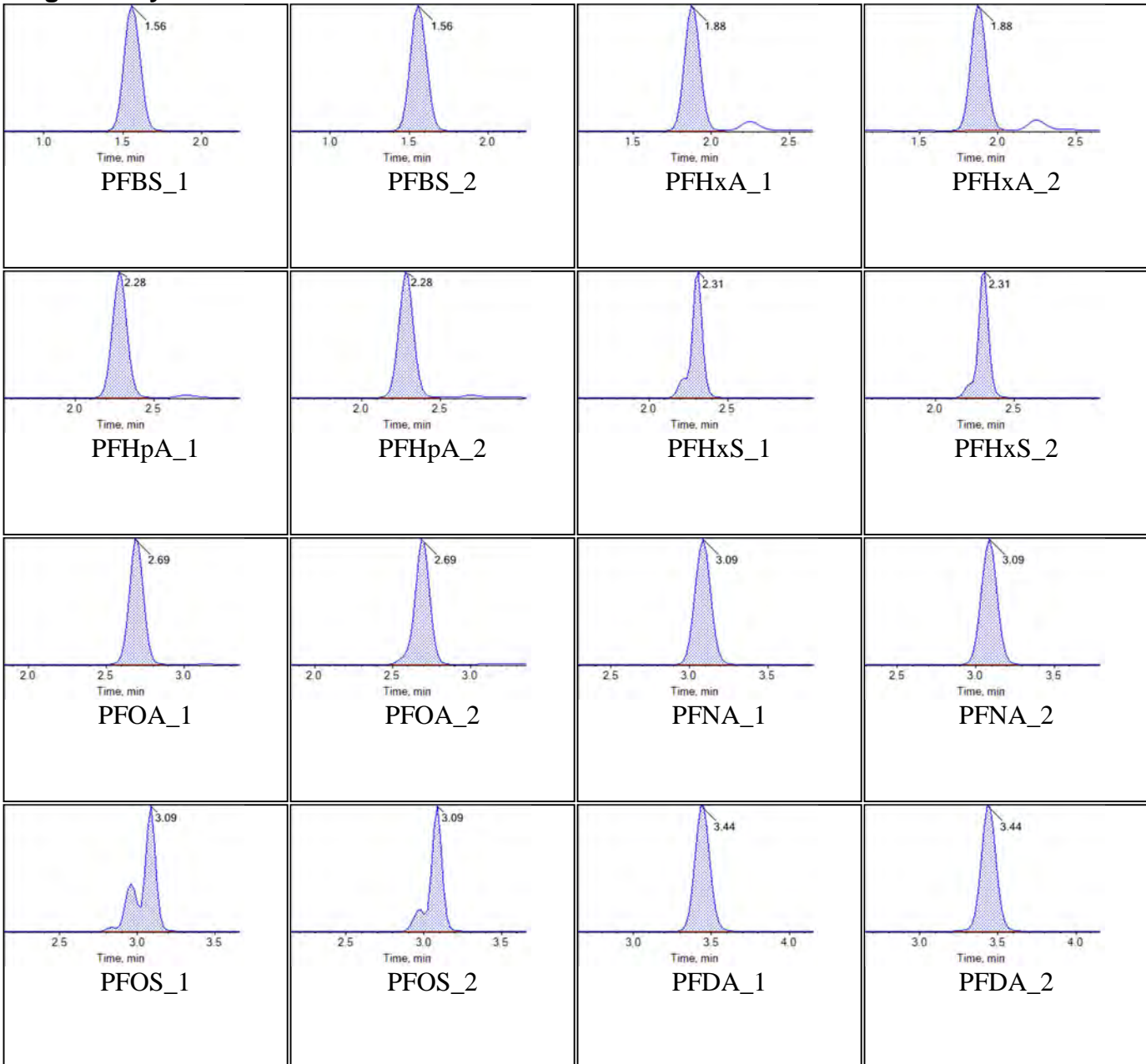
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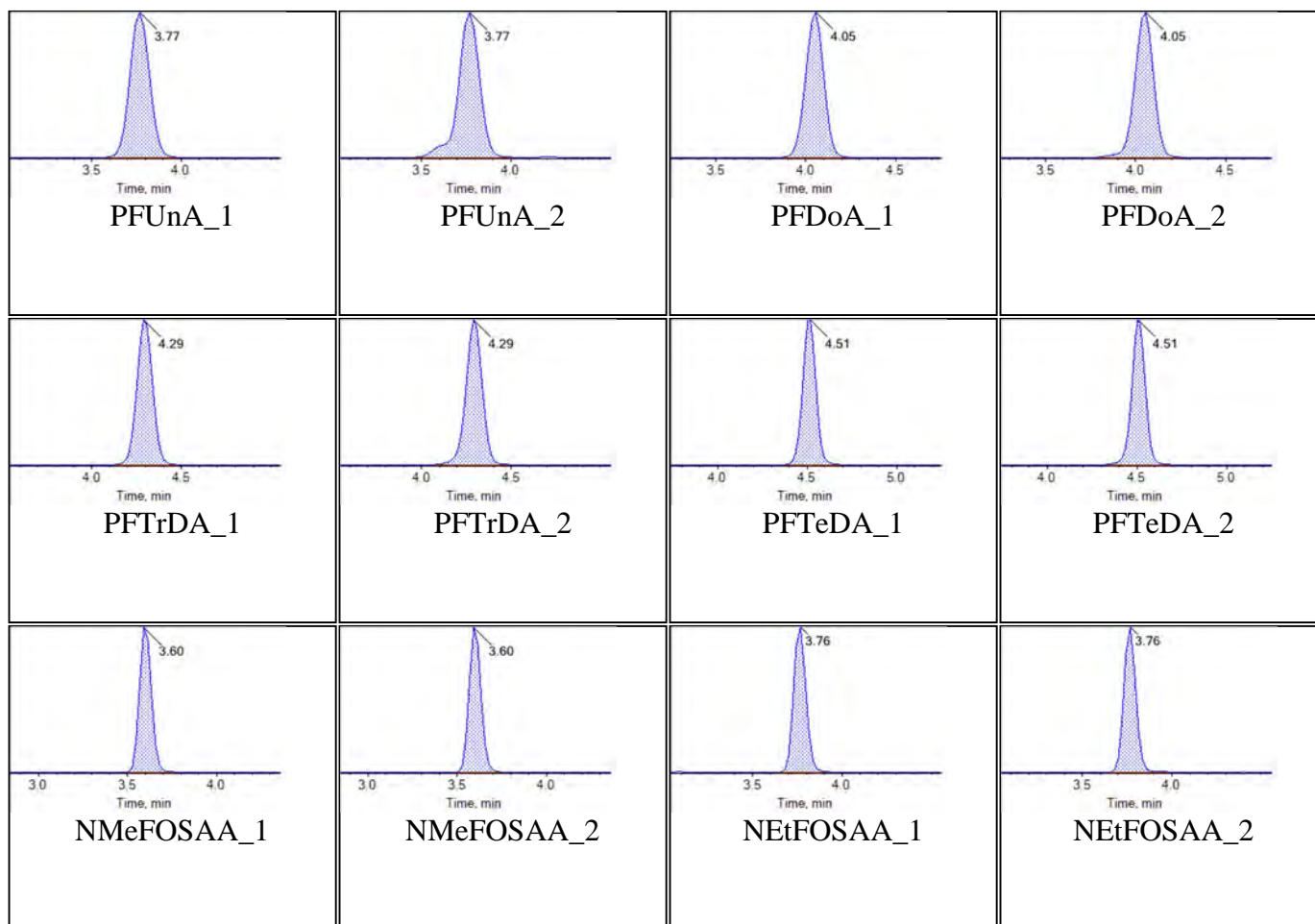
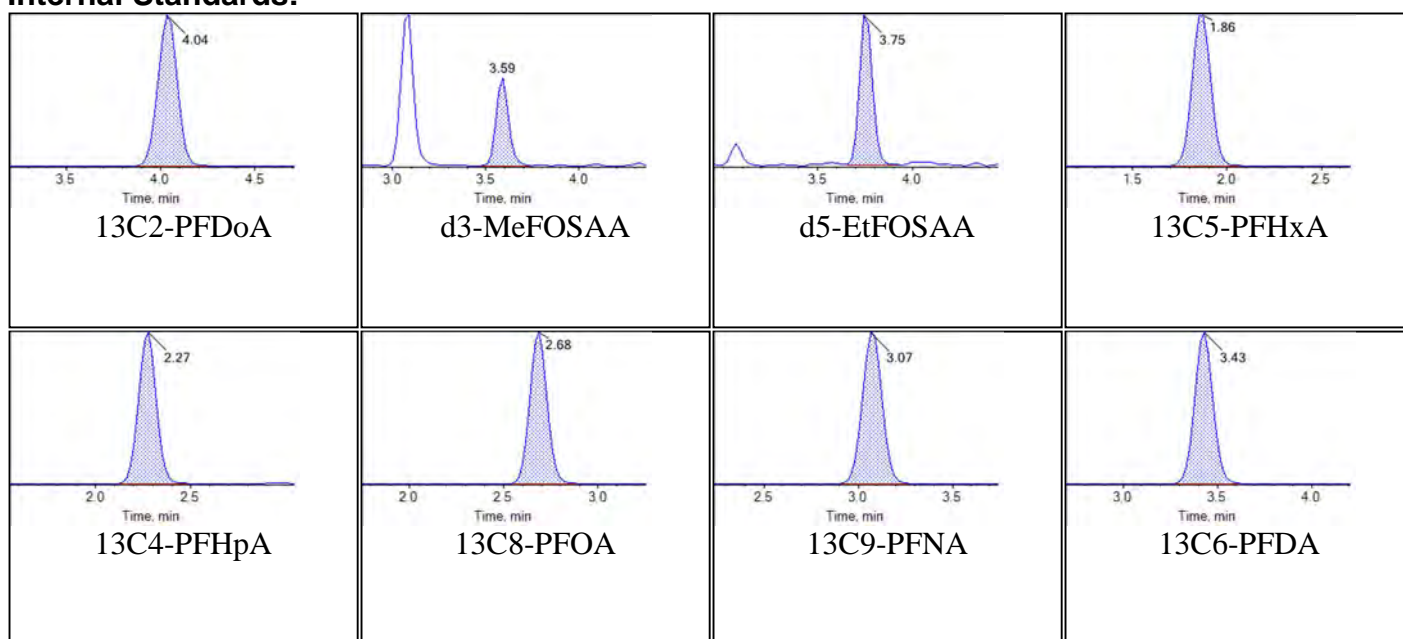


Sample Name	CS244LCS-FS(0)	Injection Vial	29
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:24:08	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

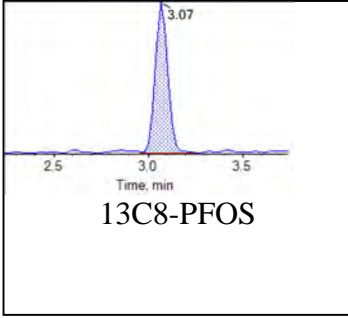
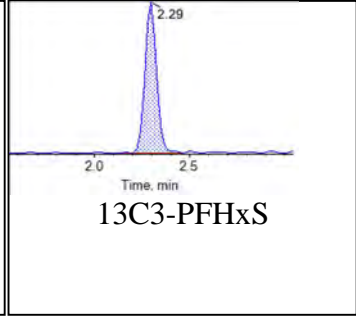
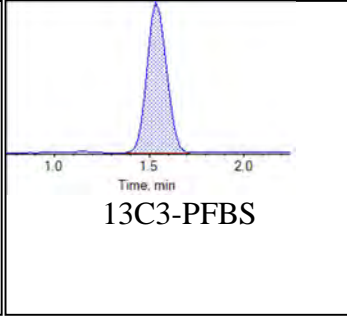
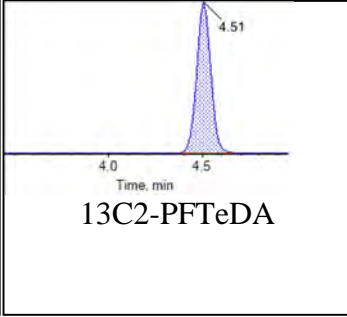
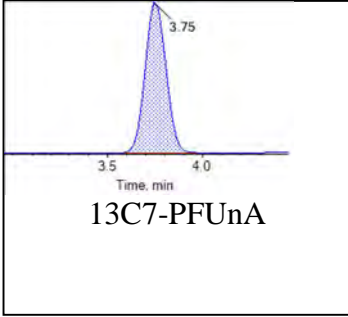
Target Analytes:



**Internal Standards:**

Chromatogram Report

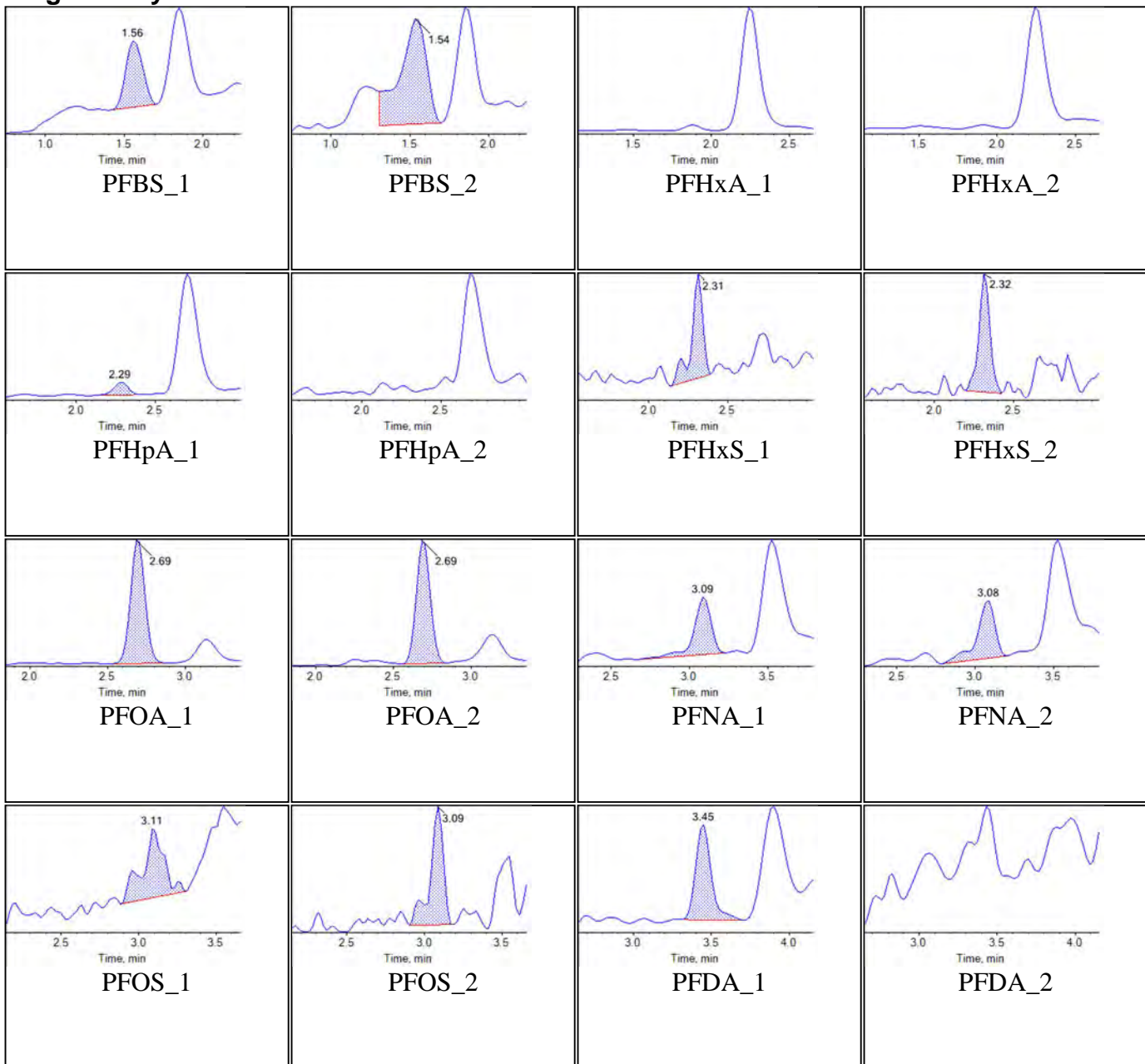
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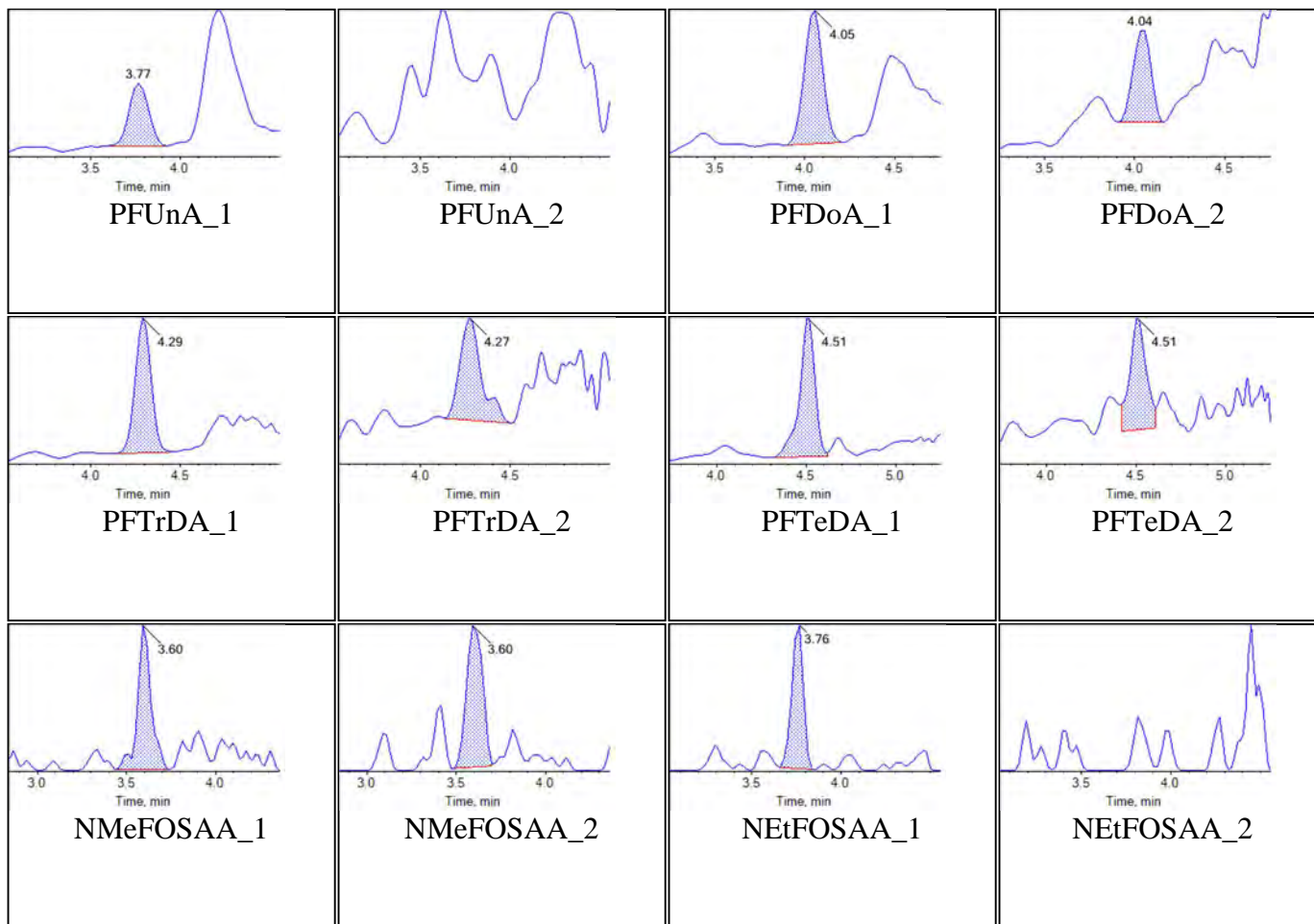
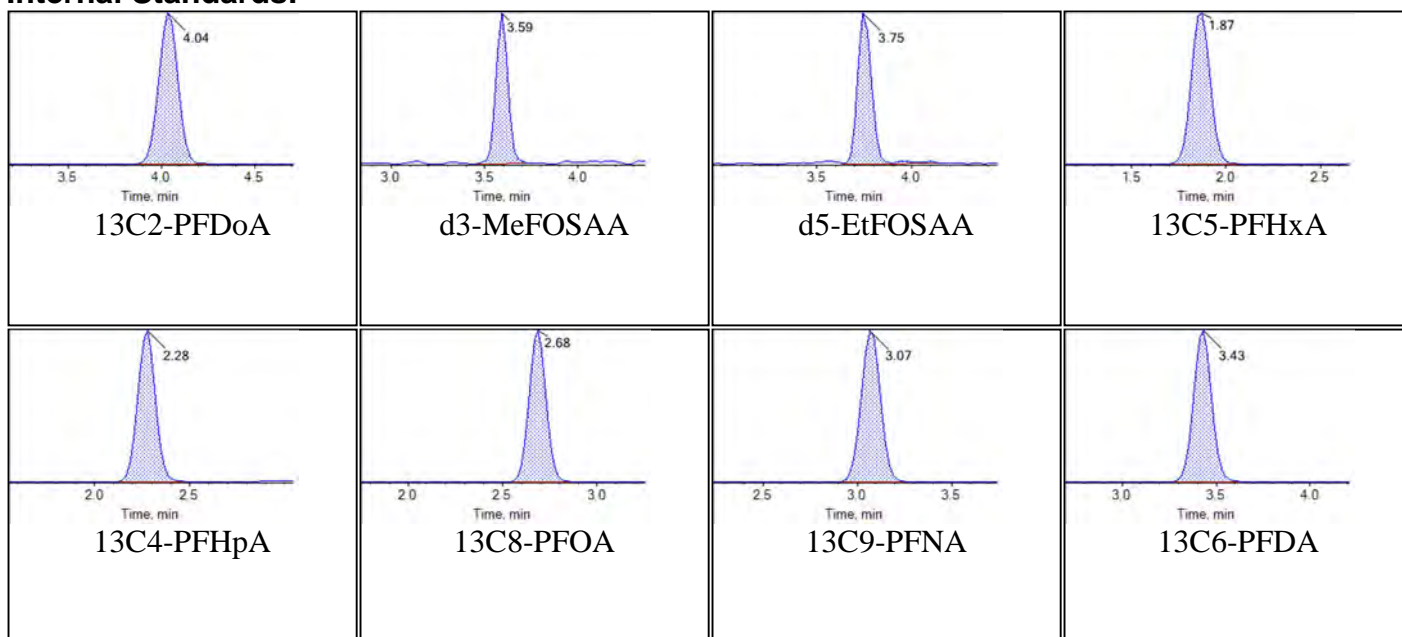


Sample Name	J9420-FS(0)	Injection Vial	30
Sample ID	AS4141-FB-111618	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:35:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

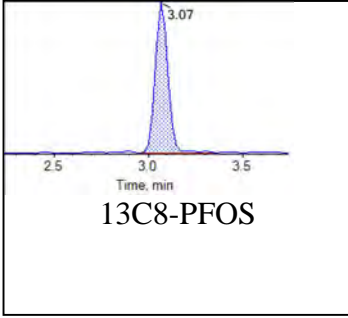
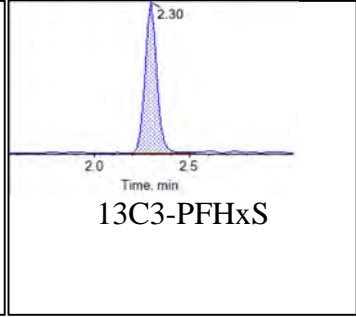
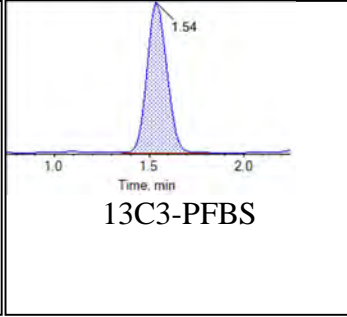
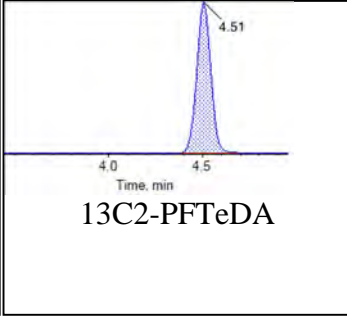
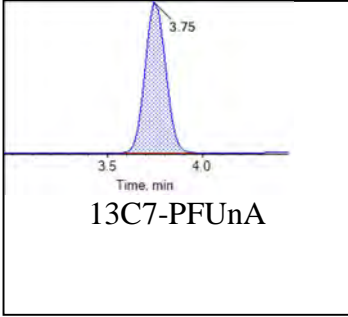
Target Analytes:



**Internal Standards:**

Chromatogram Report

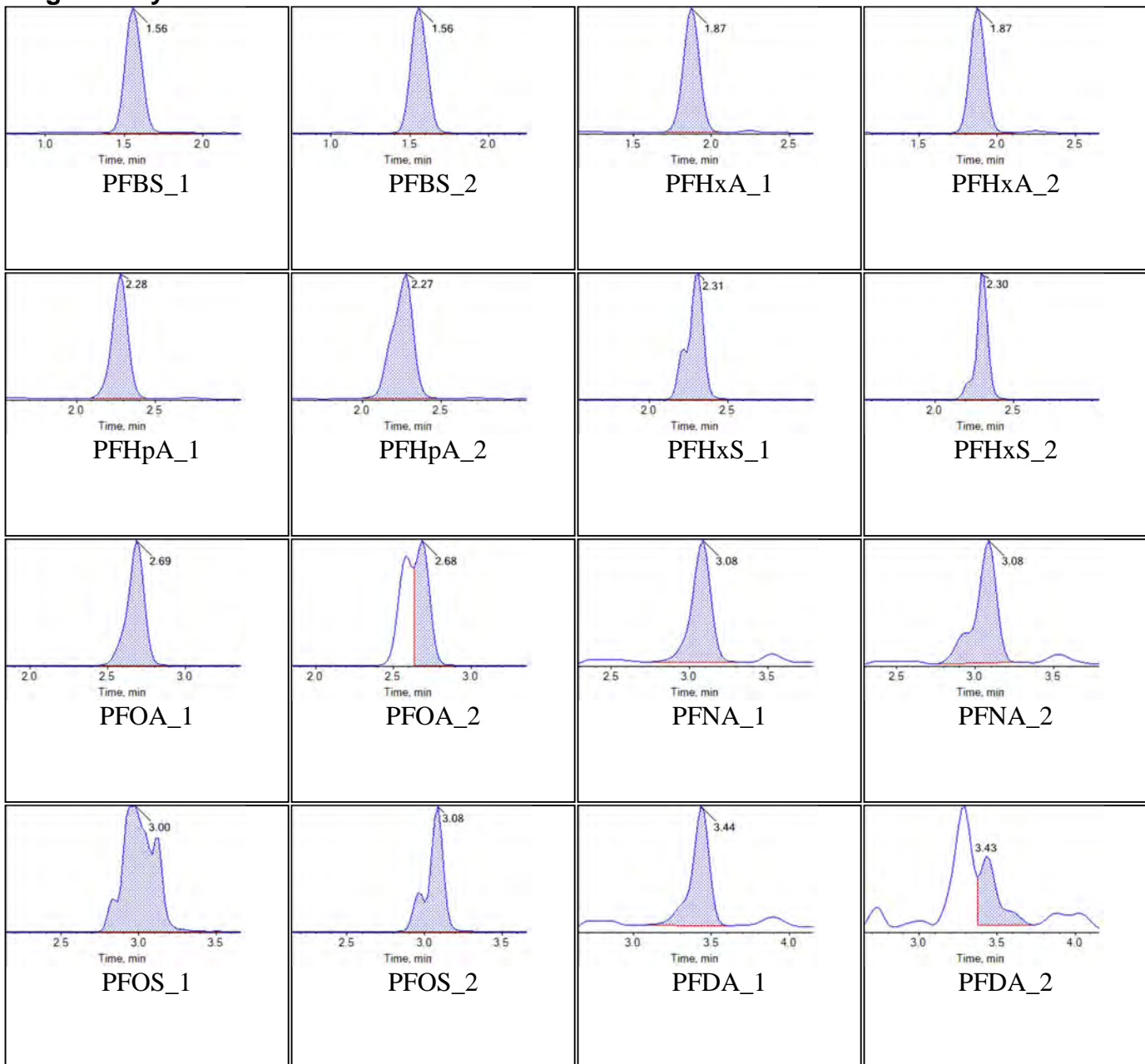
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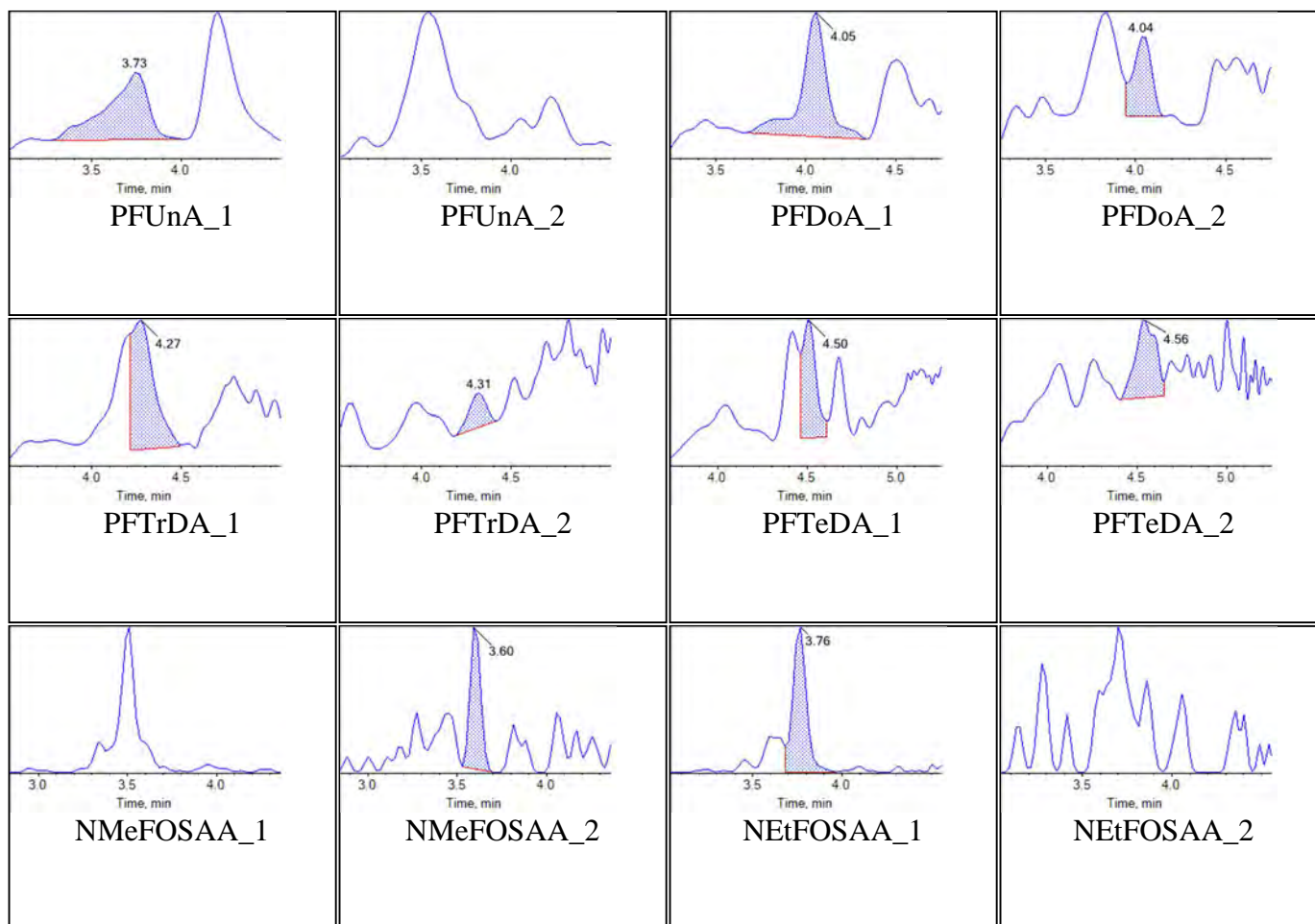
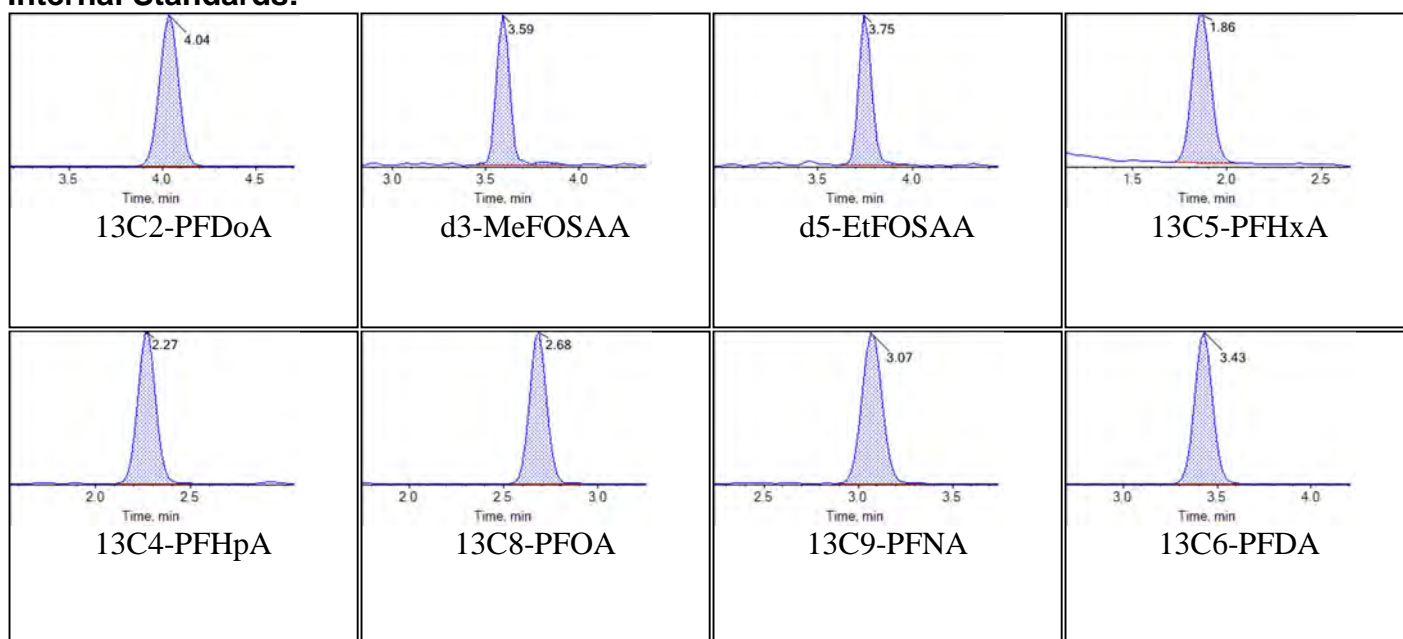


Sample Name	J9414-FS(0)	Injection Vial	31
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:45:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

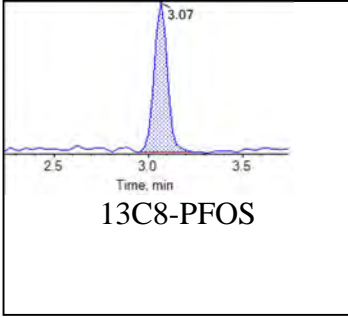
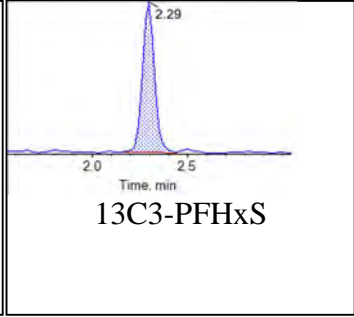
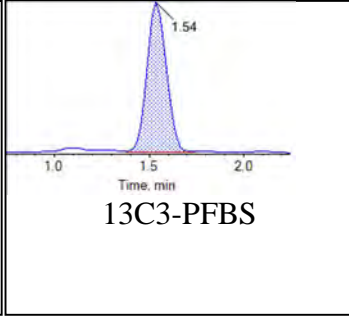
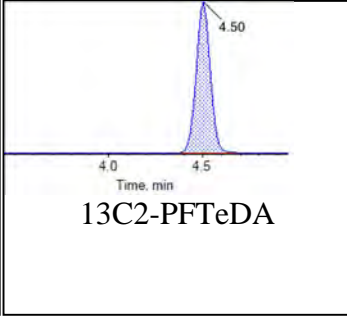
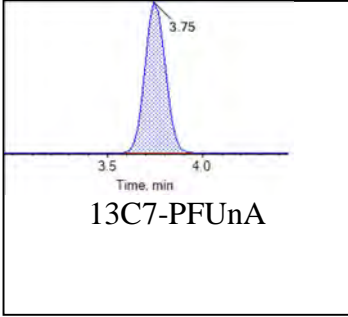


**Internal Standards:**



Chromatogram Report

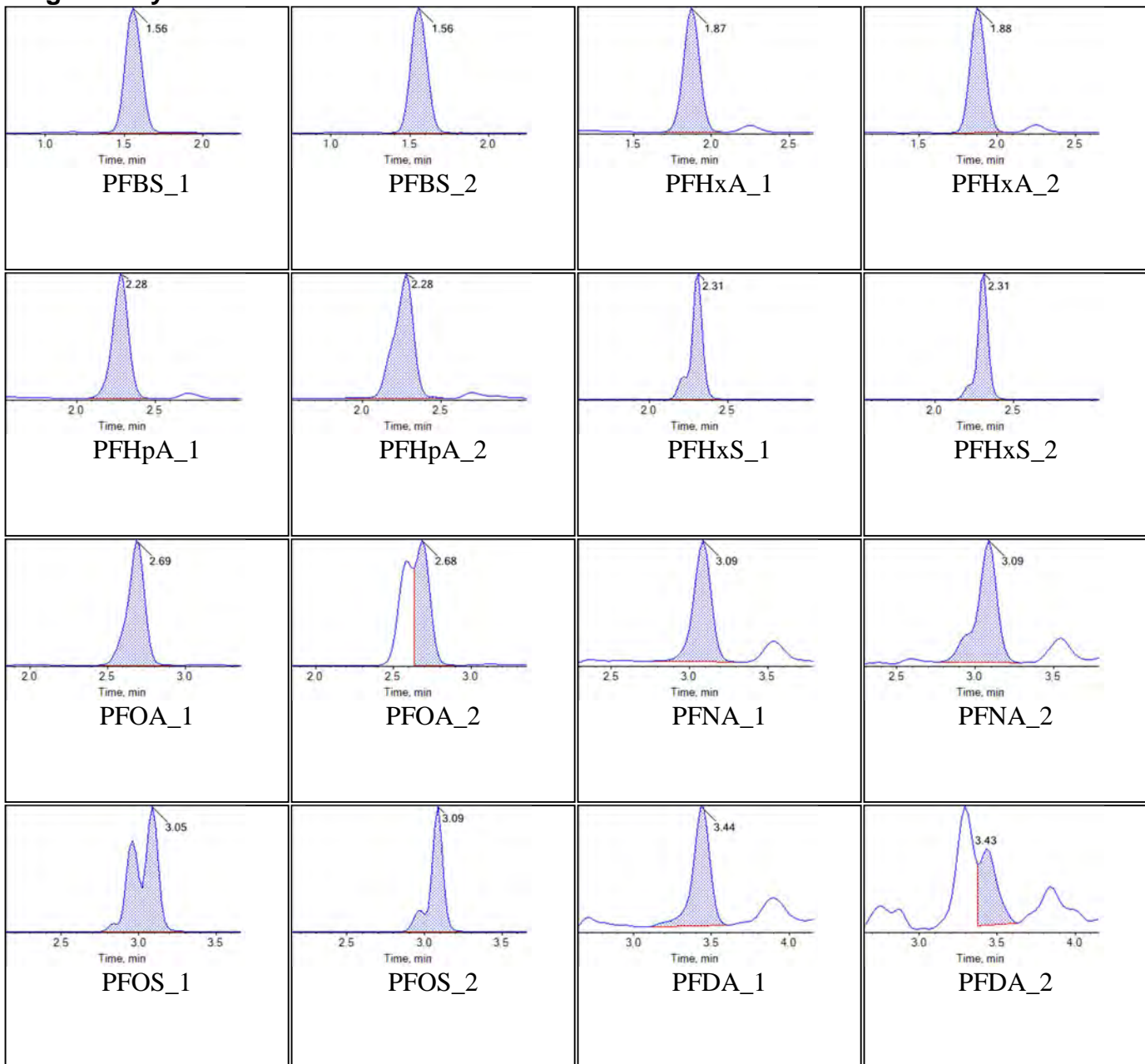
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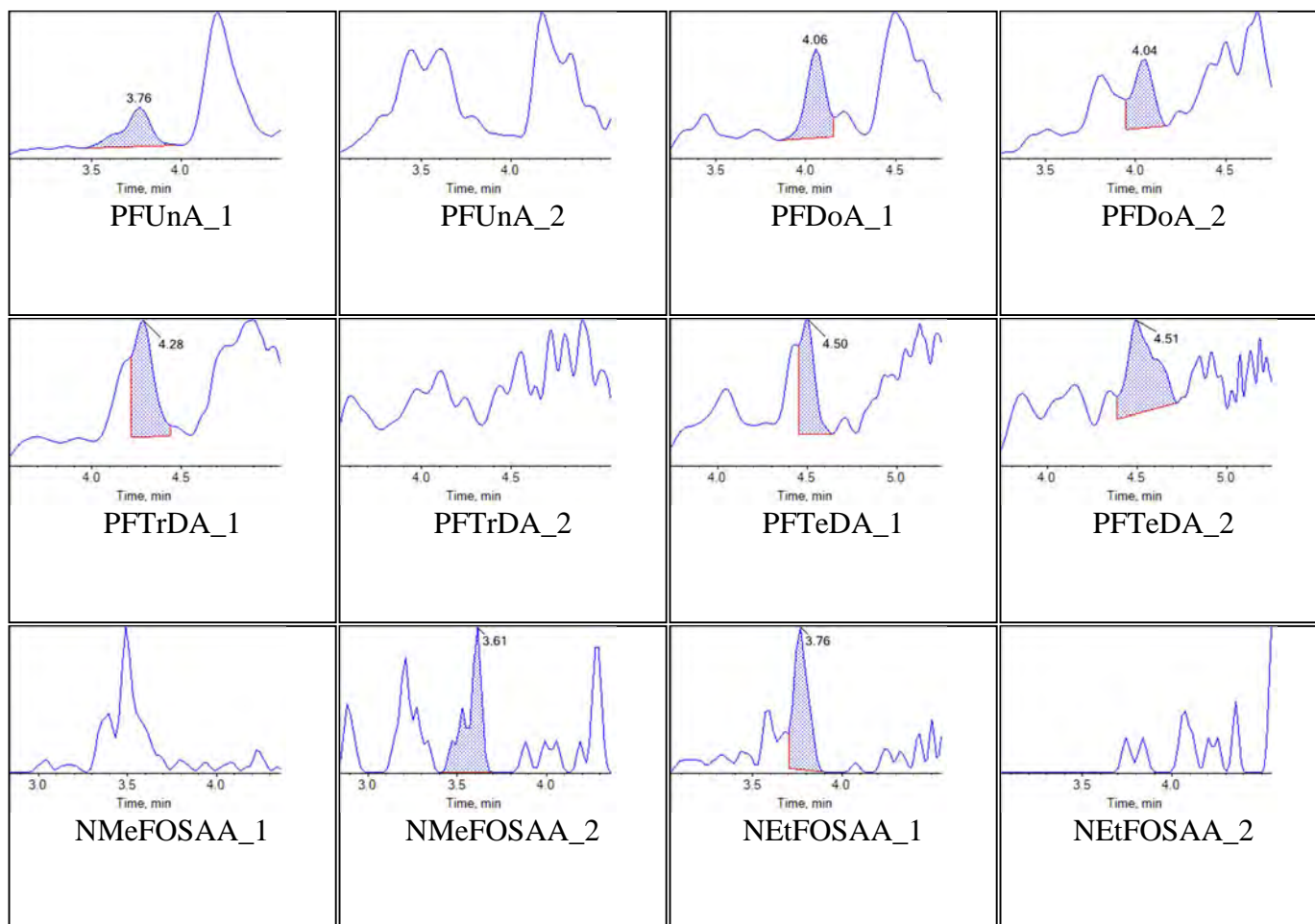
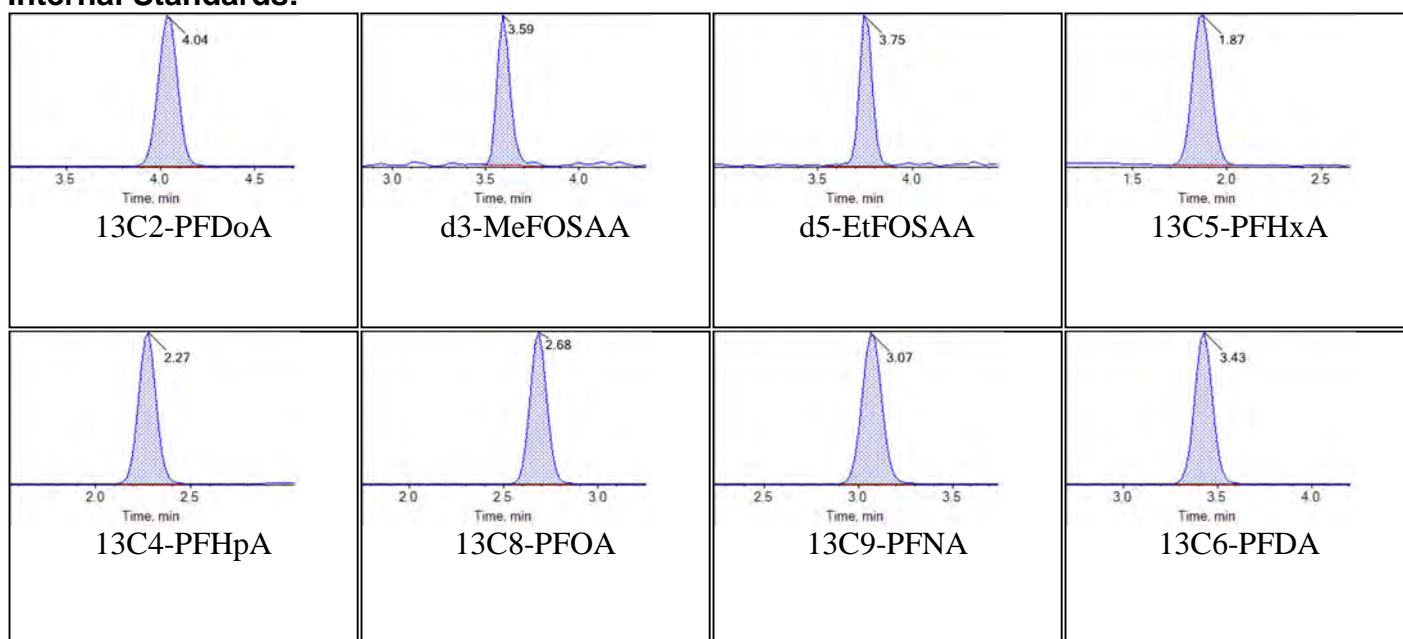


Sample Name	J9414-FS-D(3)	Injection Vial	32
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:56:43	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

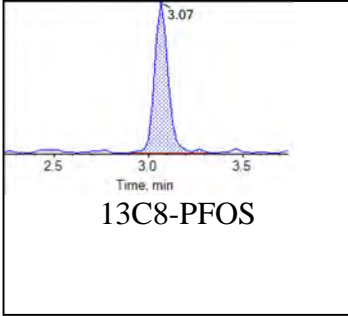
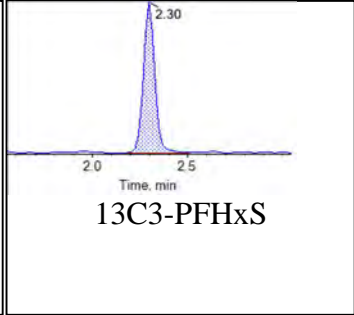
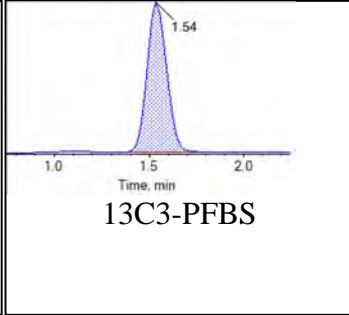
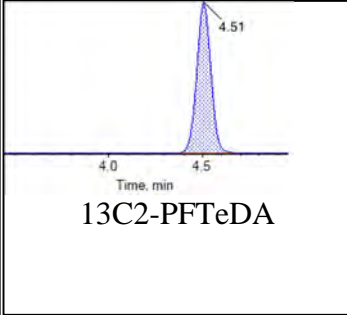
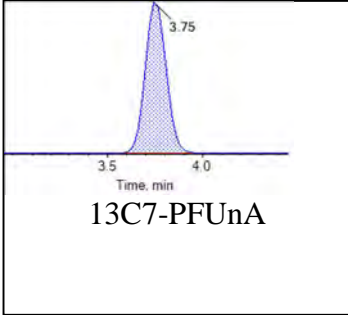


**Internal Standards:**



Chromatogram Report

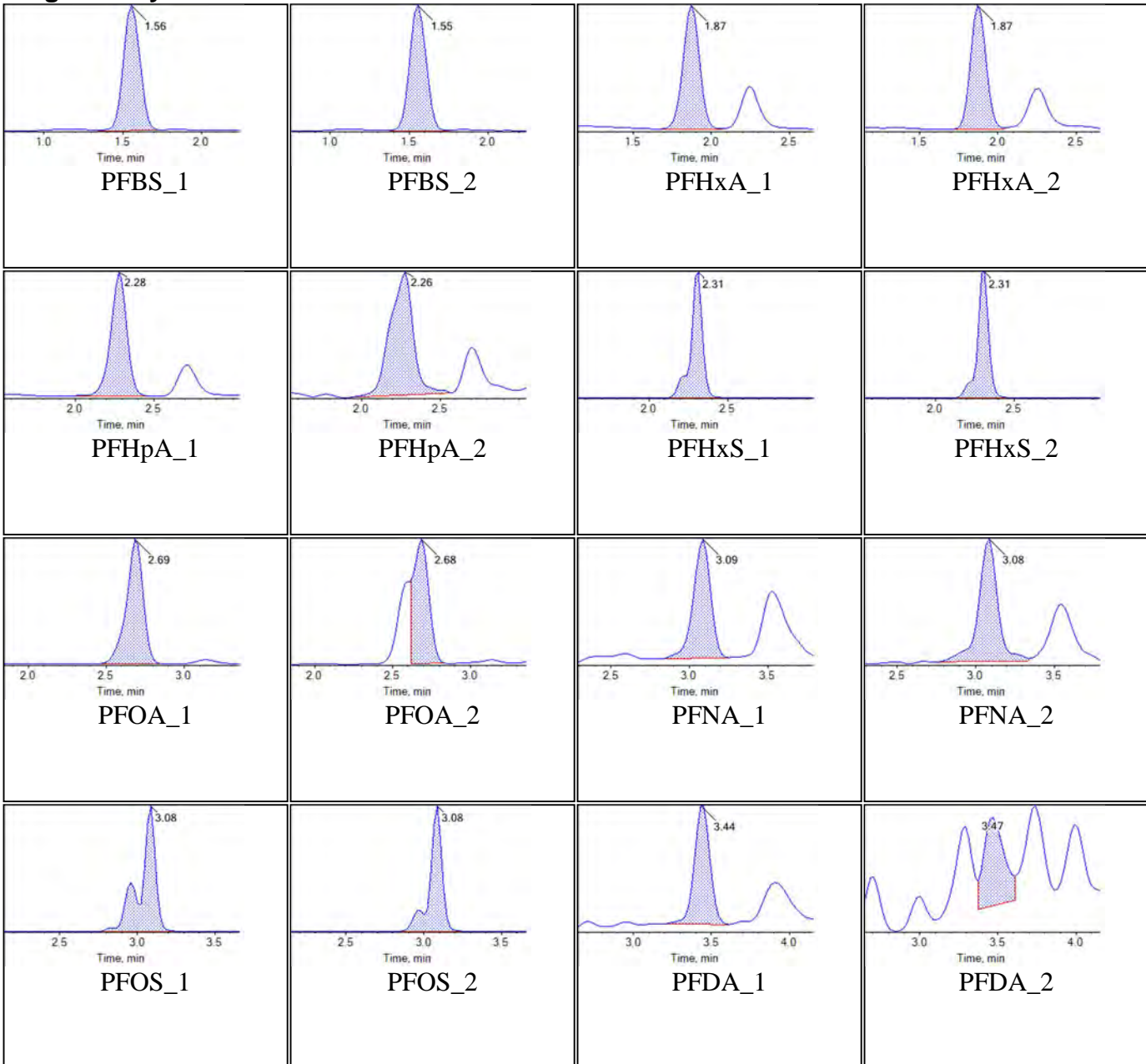
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Sample Name	J9414-FS-D(5)	Injection Vial	33
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:07:35	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

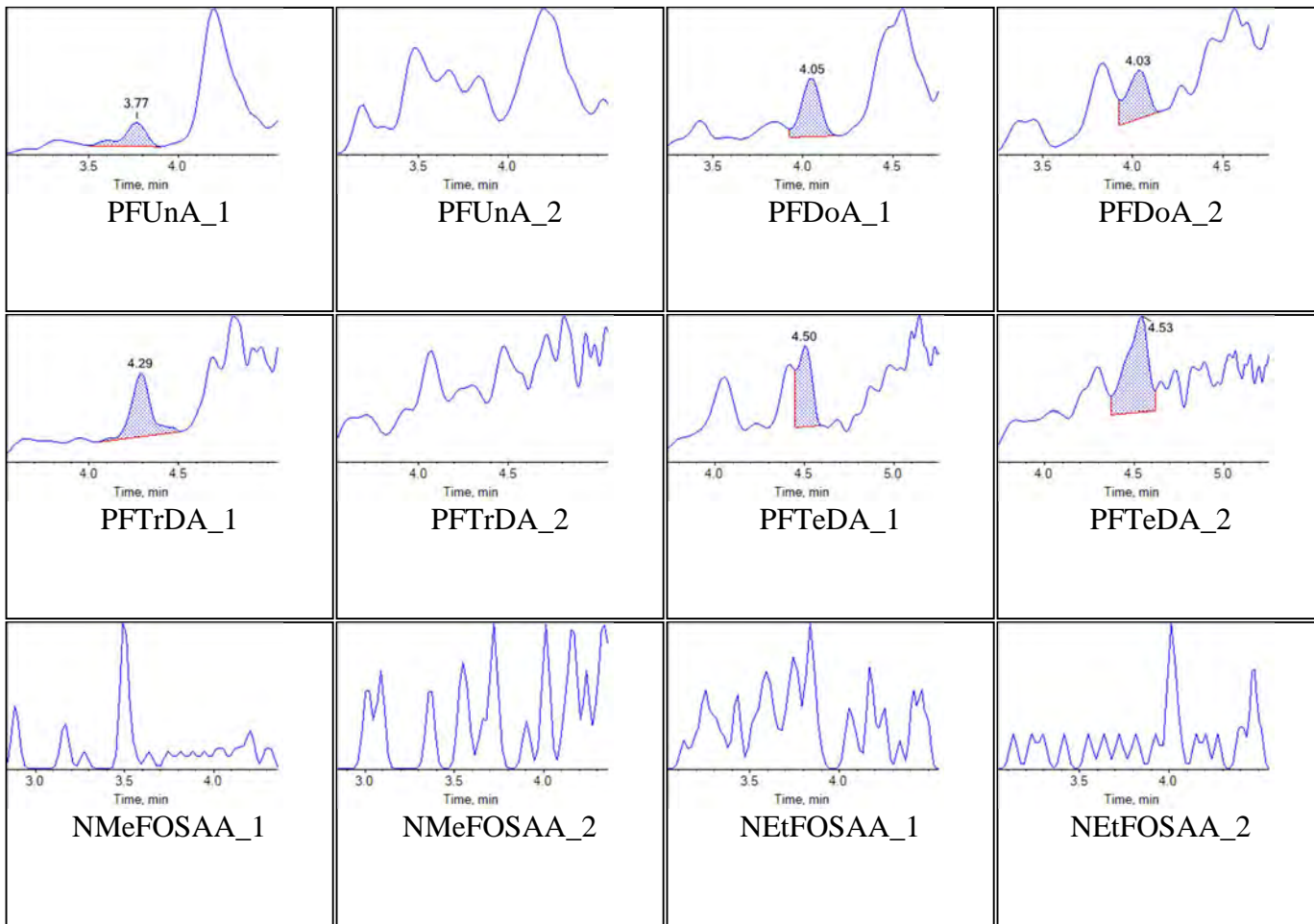
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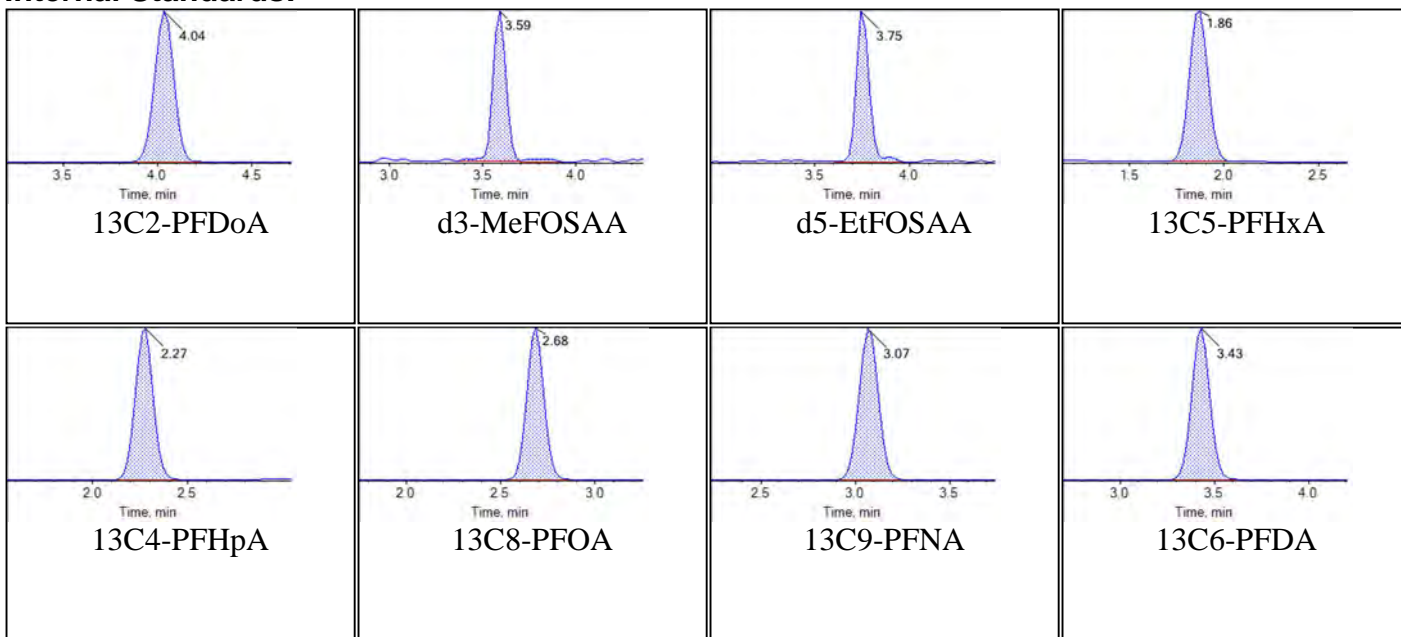


Chromatogram Report

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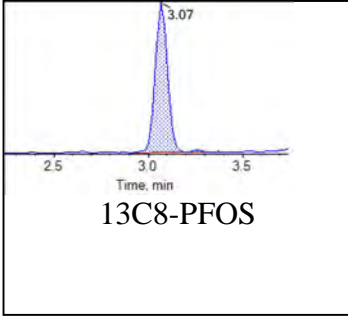
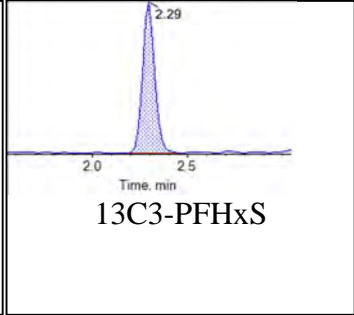
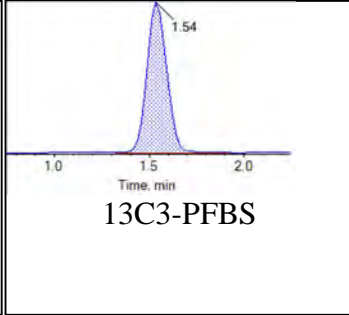
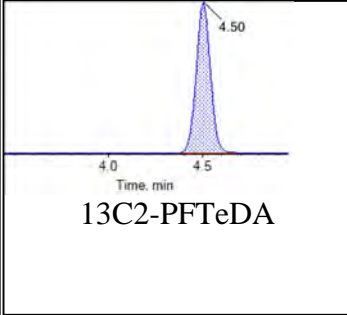
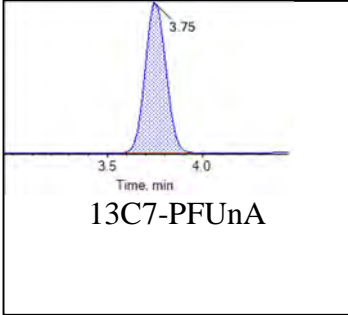
Internal Standards:





Chromatogram Report

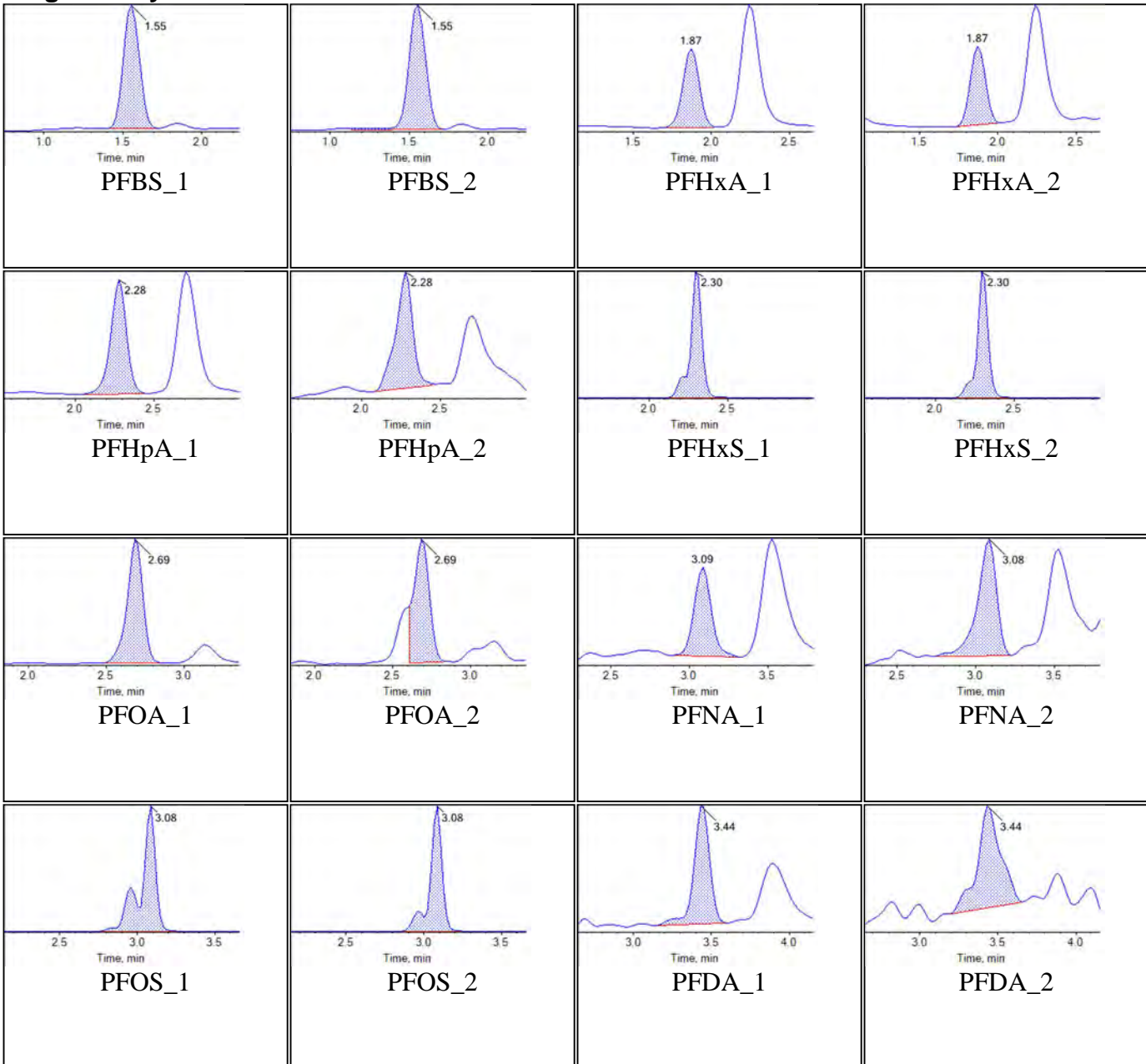
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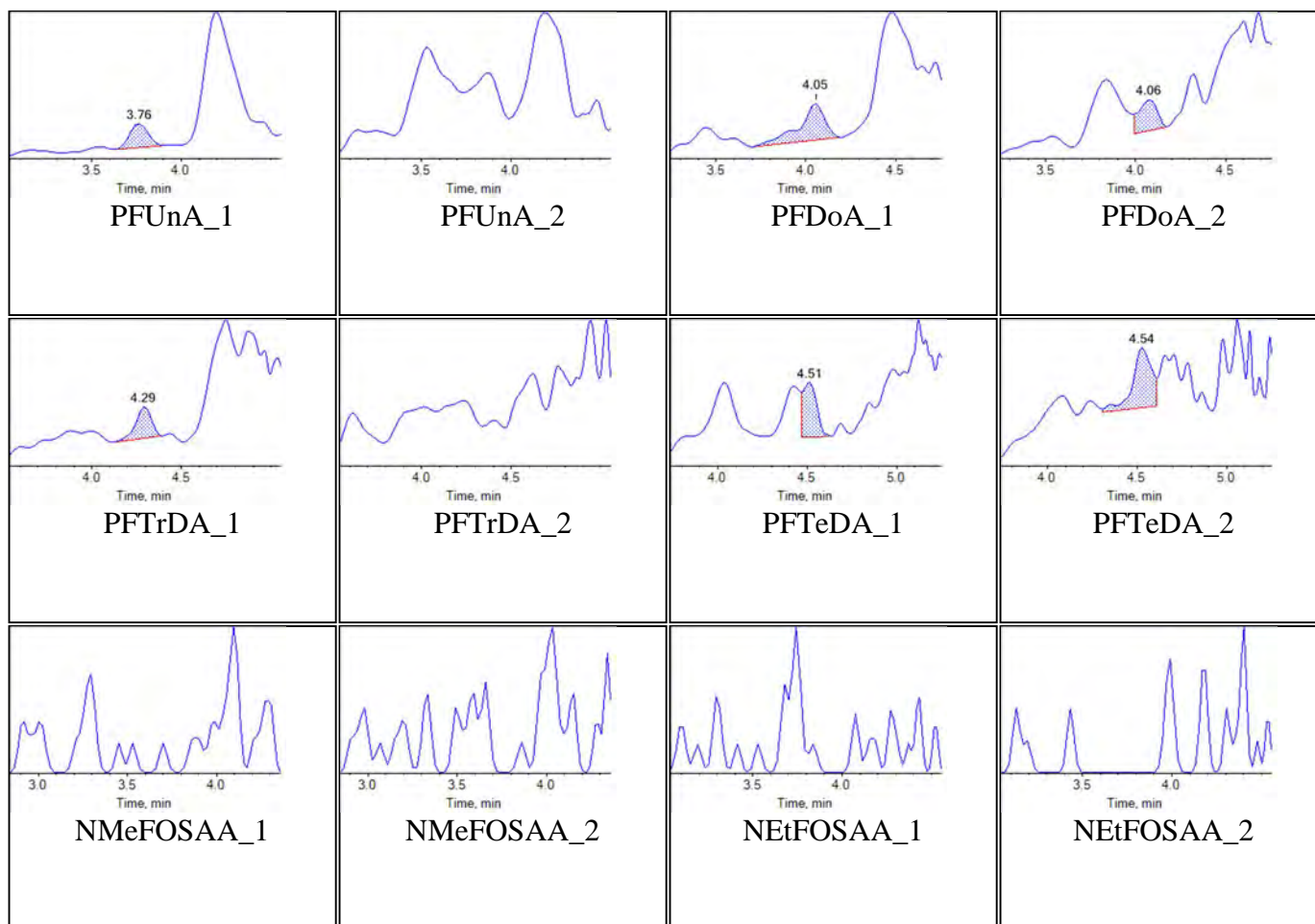
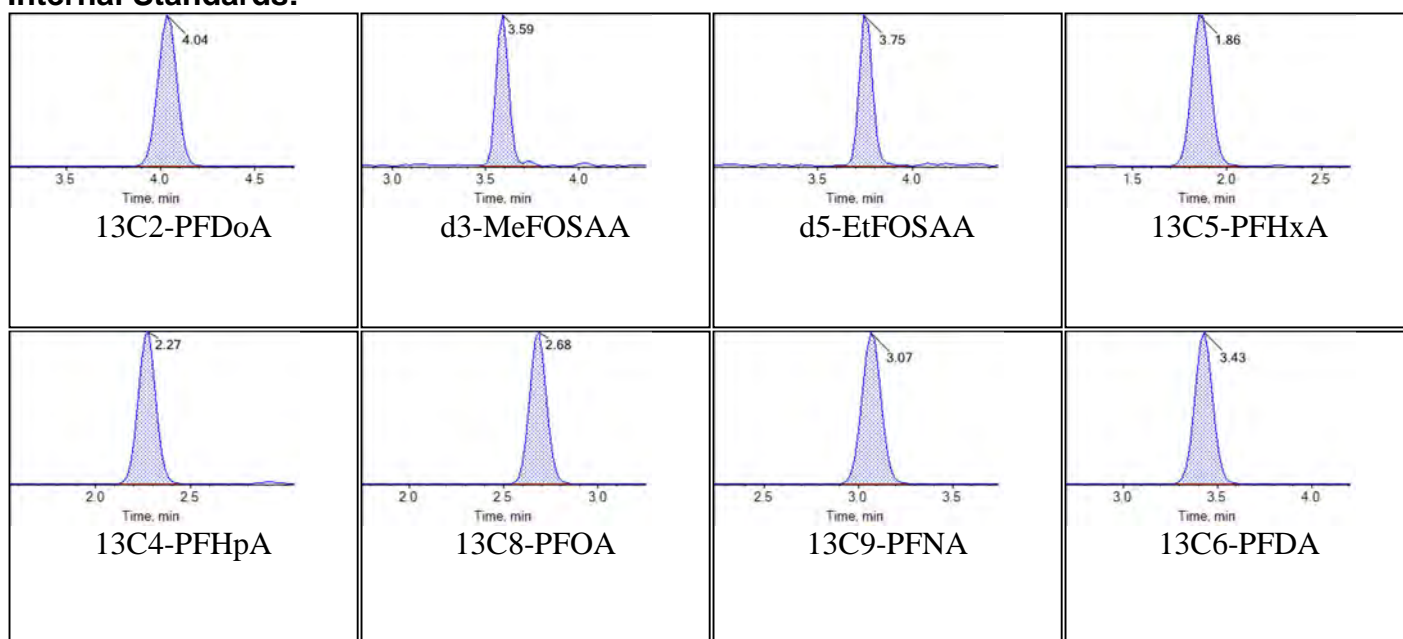


Sample Name	J9414-FS-D(7)	Injection Vial	34
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:18:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

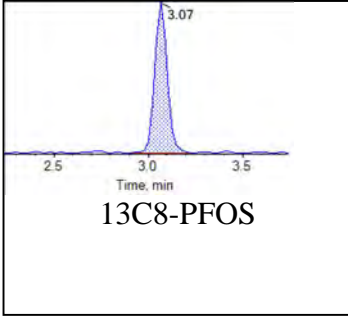
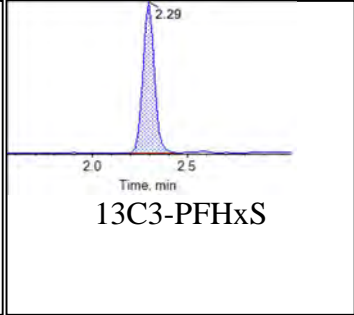
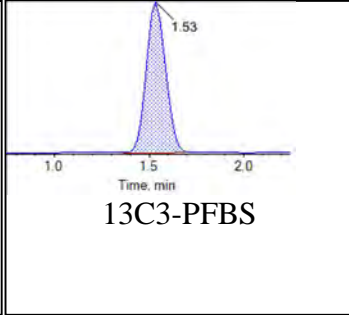
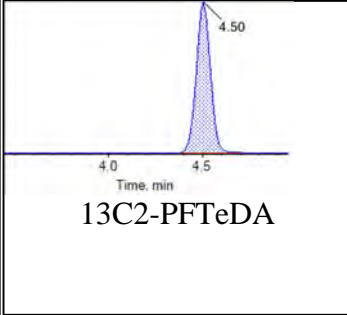
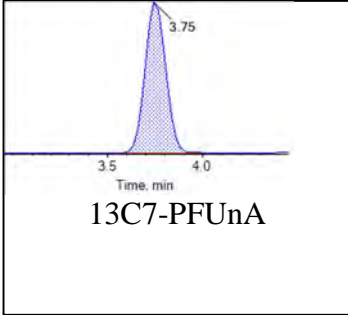


**Internal Standards:**



Chromatogram Report

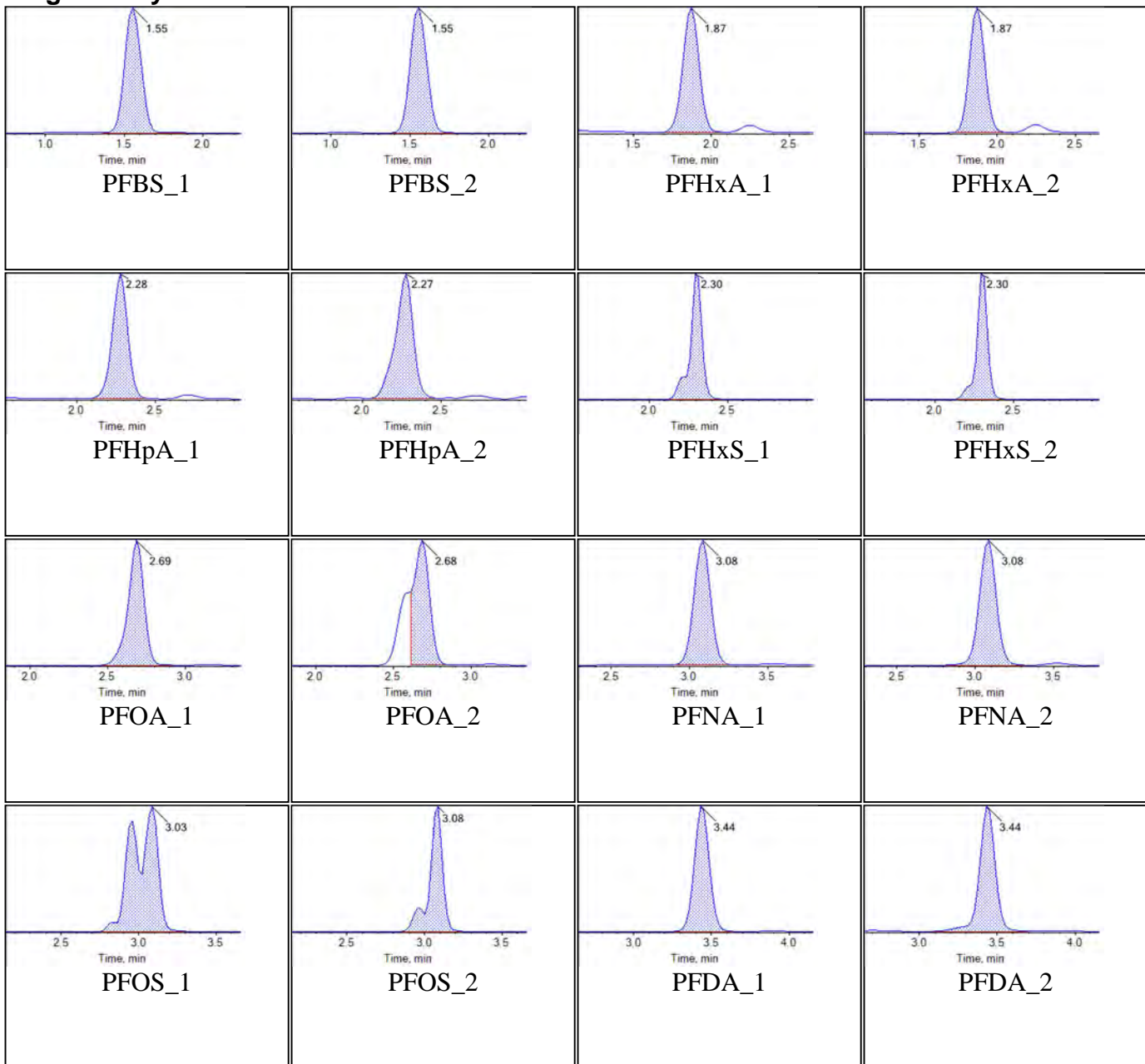
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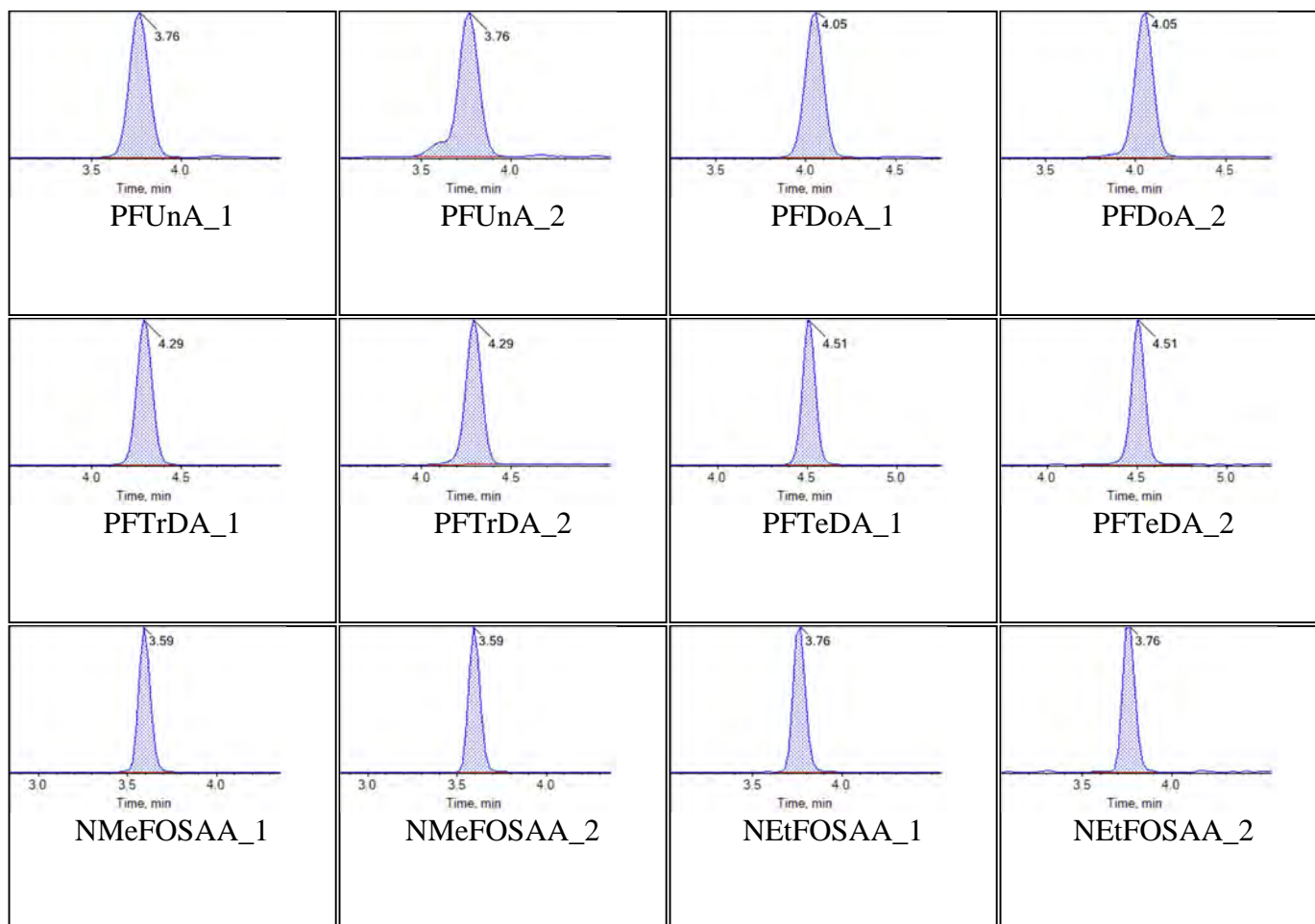
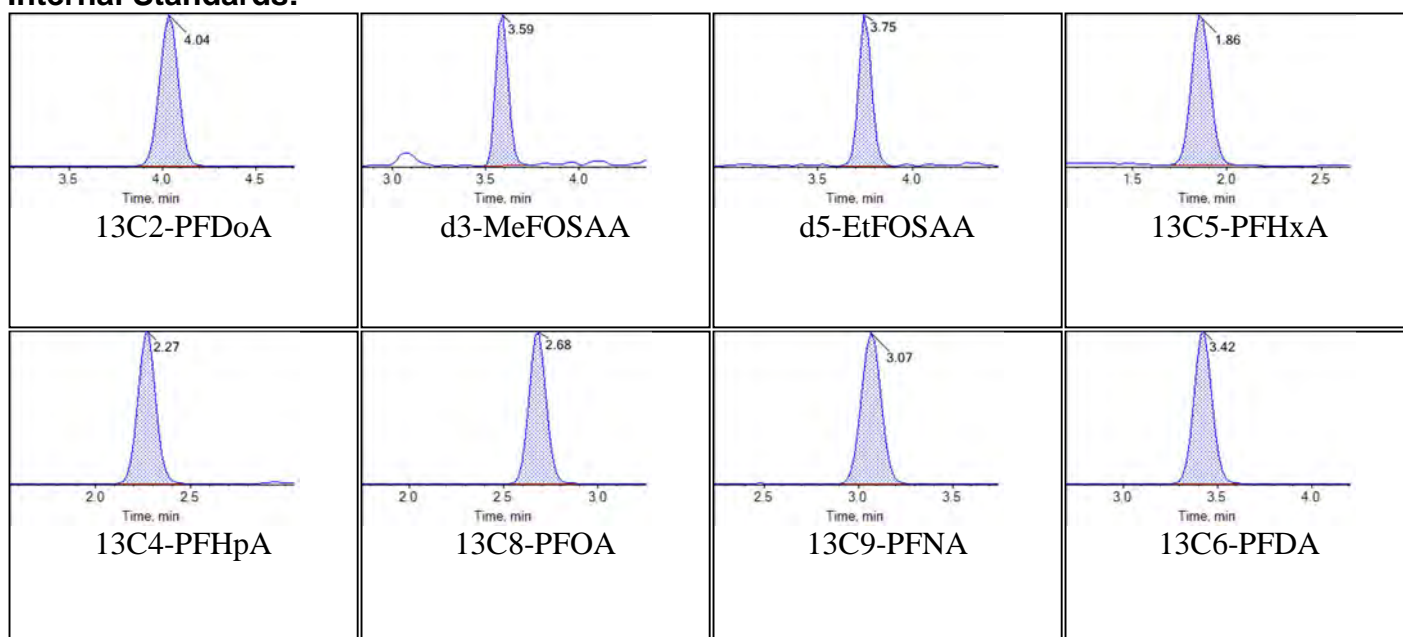


Sample Name	J9415MS-FS-D(3)	Injection Vial	36
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:40:09	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

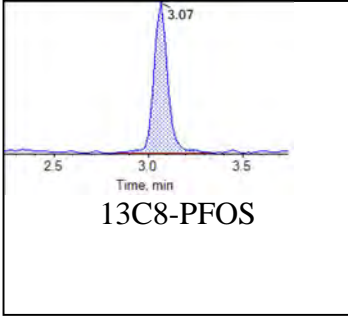
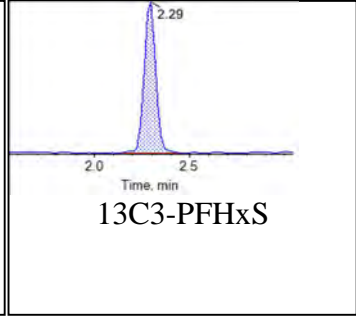
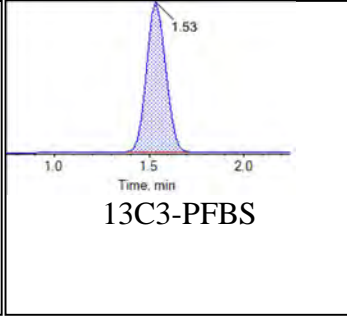
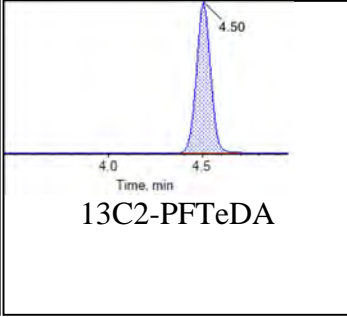
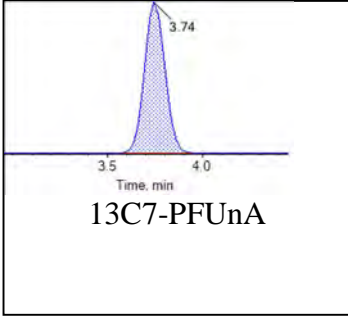
Target Analytes:



**Internal Standards:**

Chromatogram Report

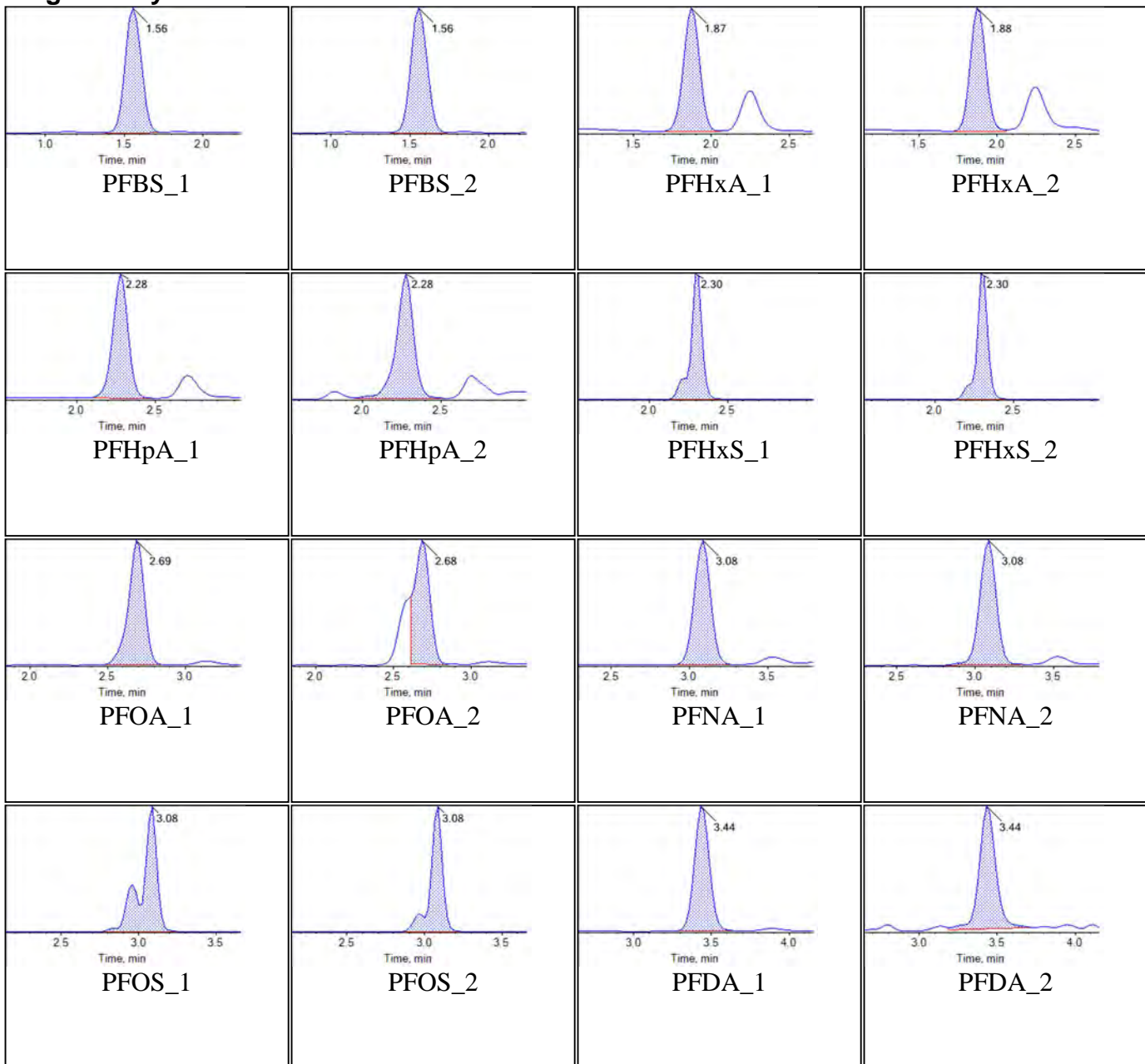
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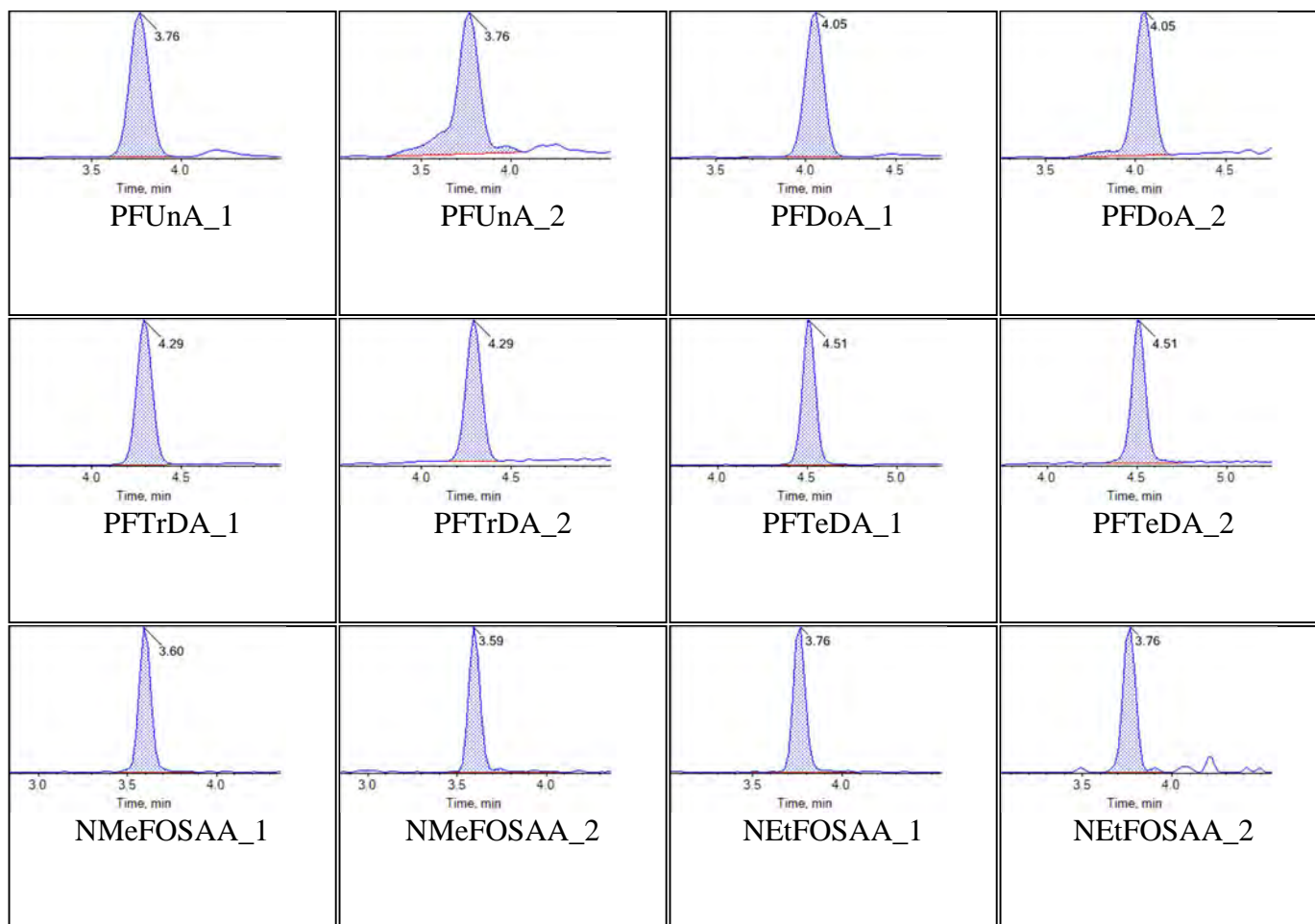
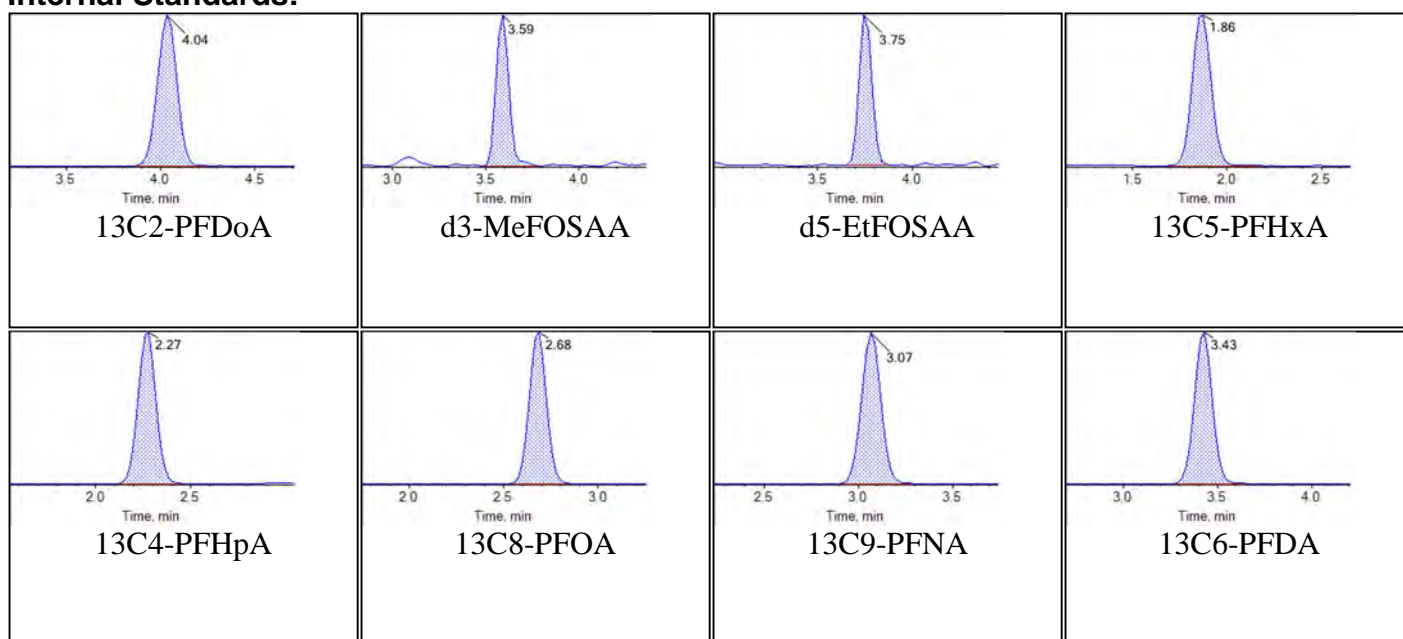


Sample Name	J9415MS-FS-D(5)	Injection Vial	37
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:51:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

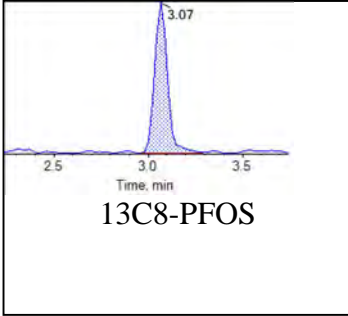
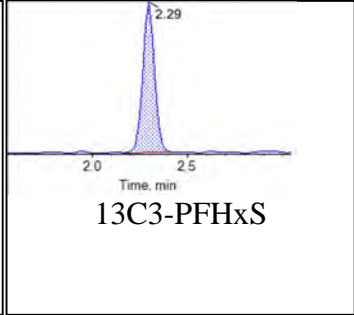
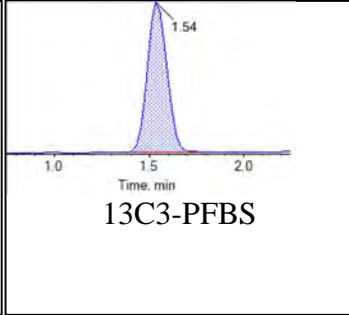
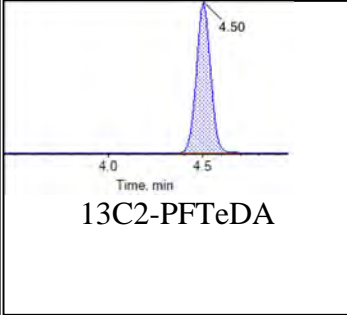
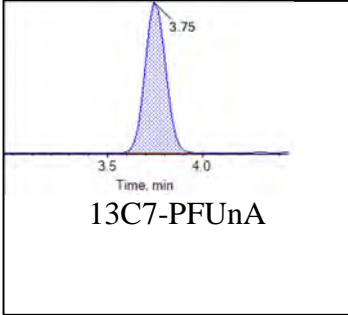


**Internal Standards:**



Chromatogram Report

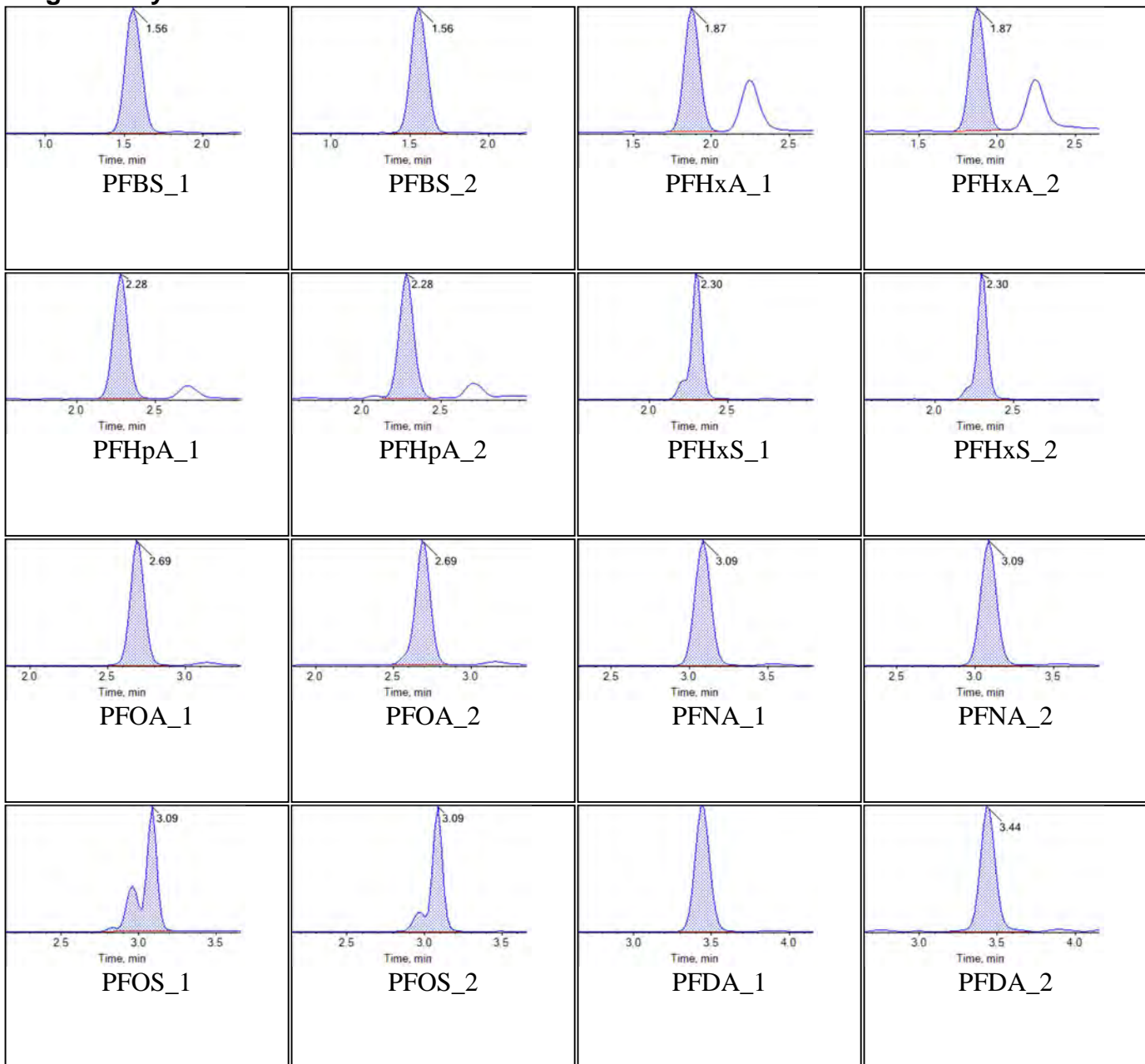
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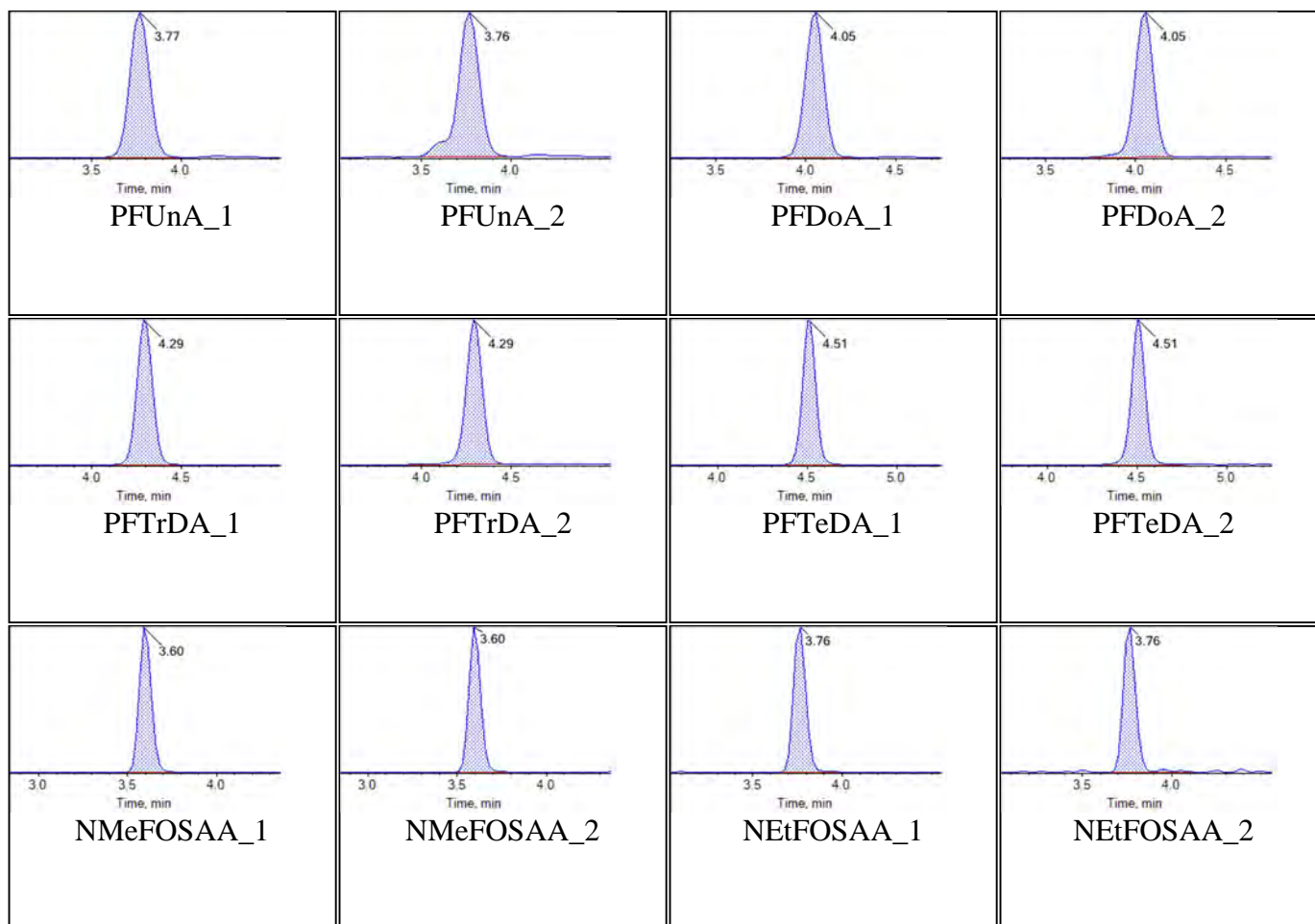
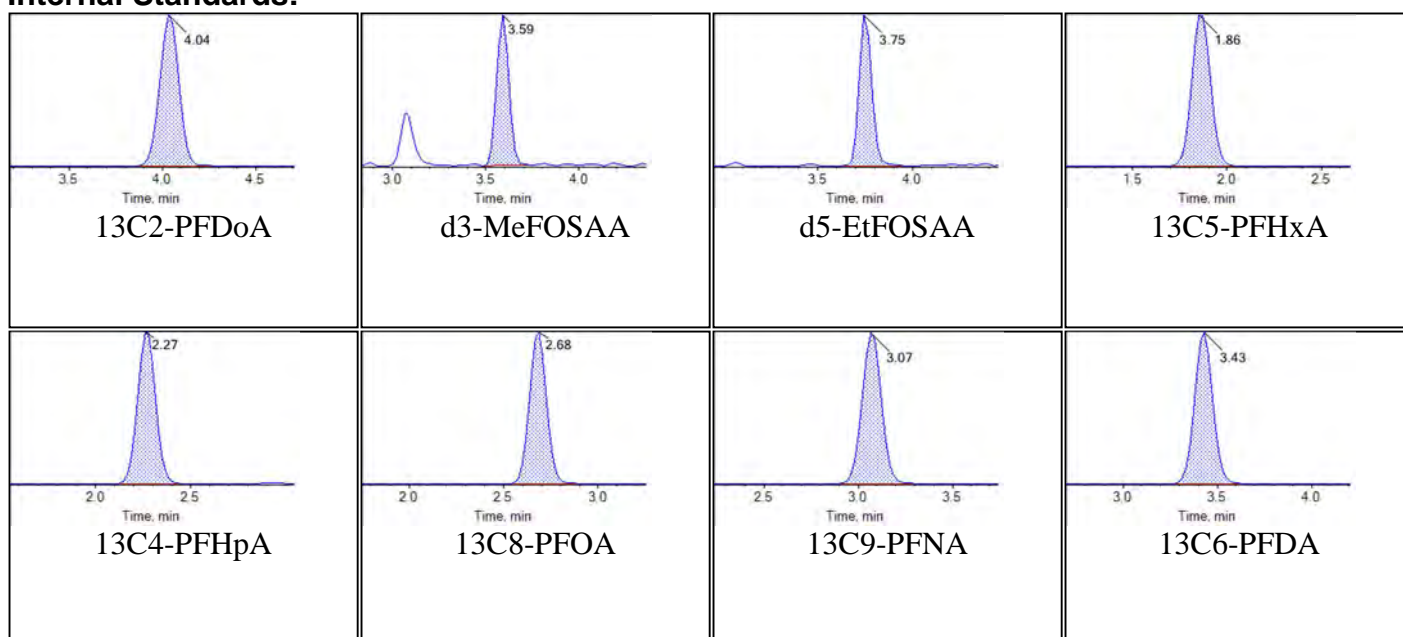


Sample Name	KC70 CCV	Injection Vial	38
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:01:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

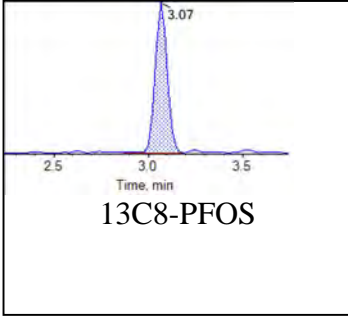
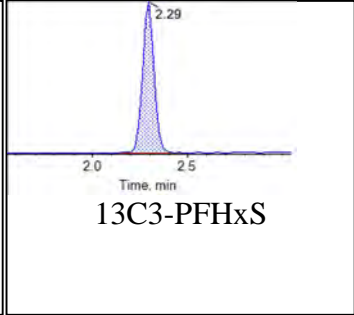
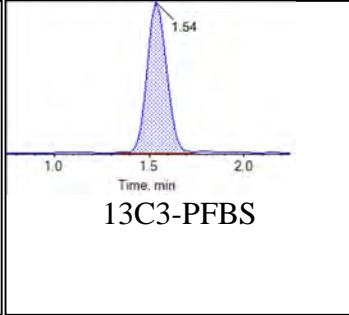
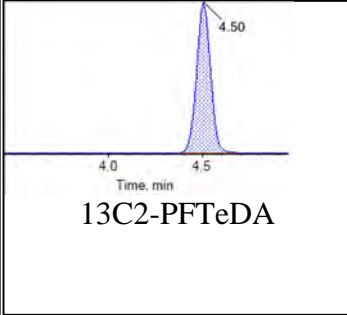
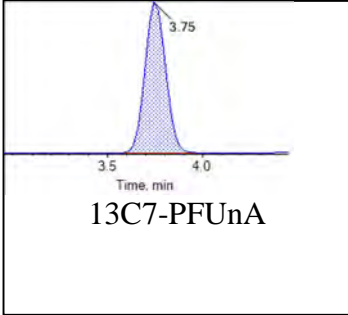
Target Analytes:



**Internal Standards:**

Chromatogram Report

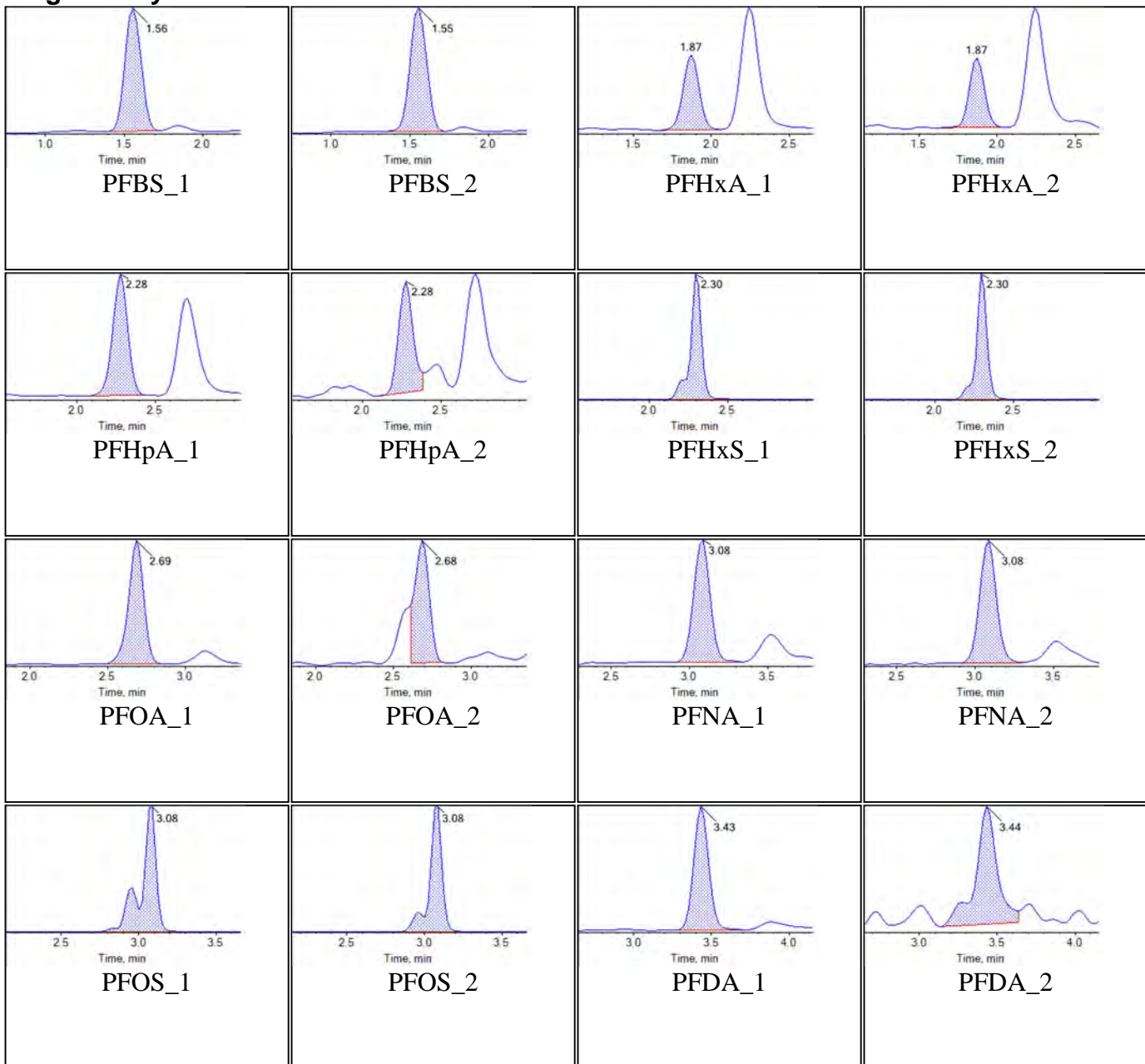
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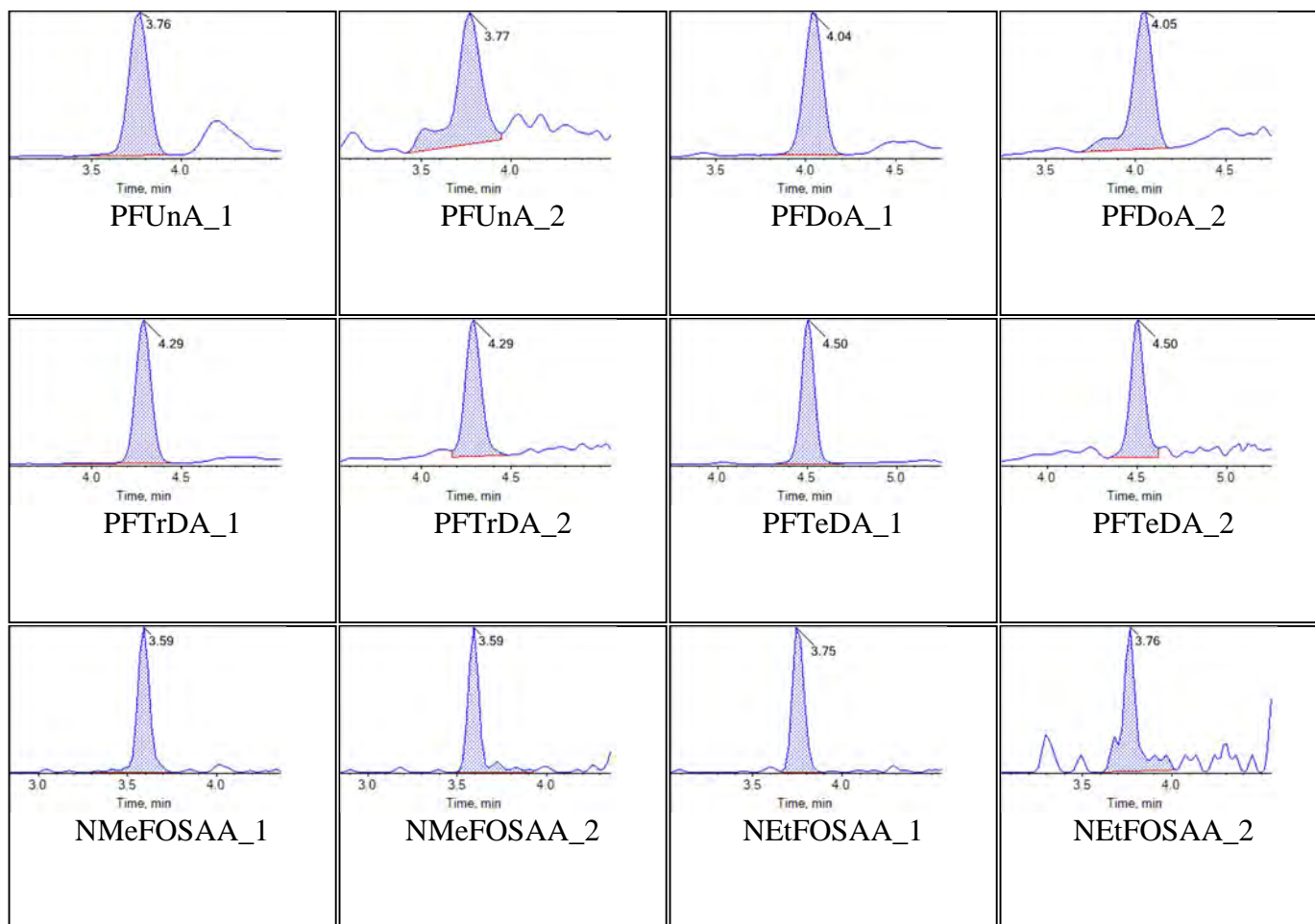
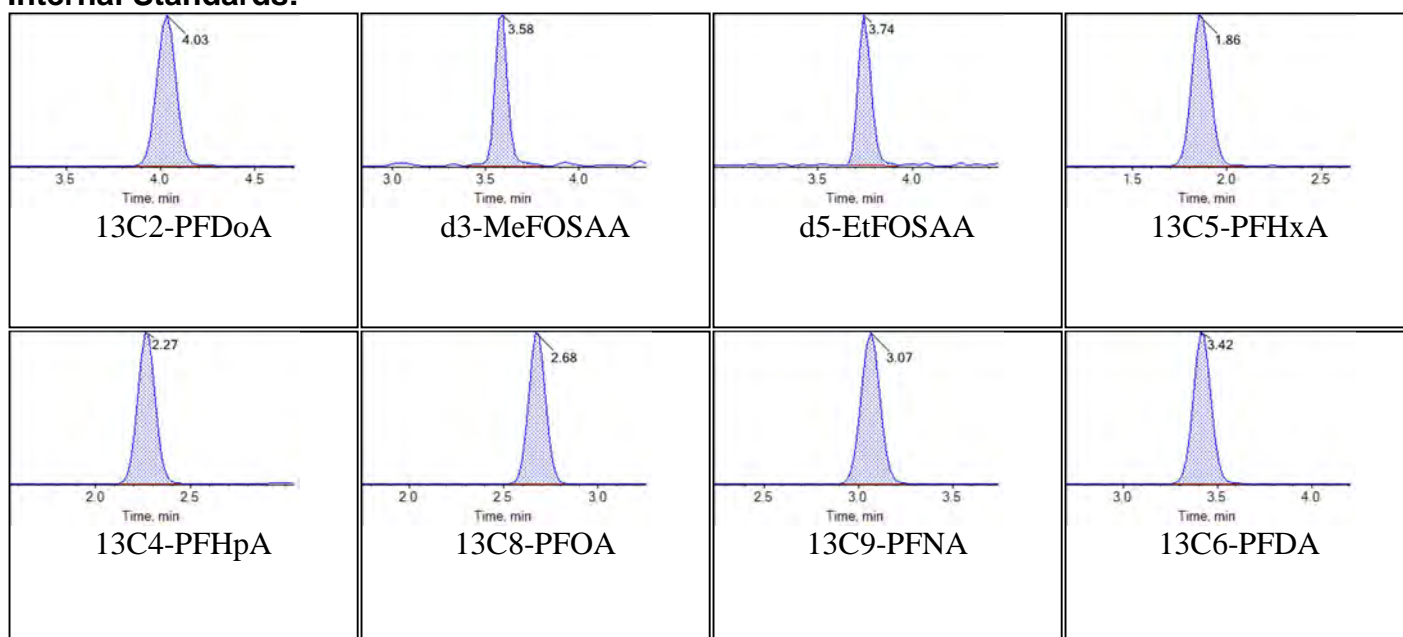


Sample Name	J9415MS-FS-D(7)	Injection Vial	40
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:23:39	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

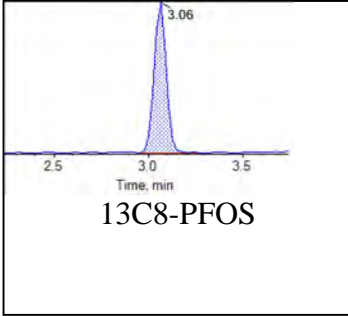
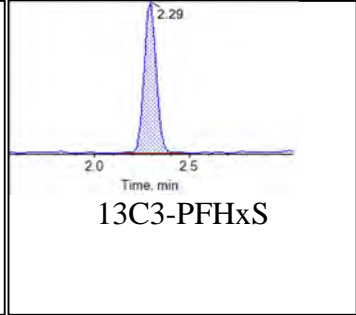
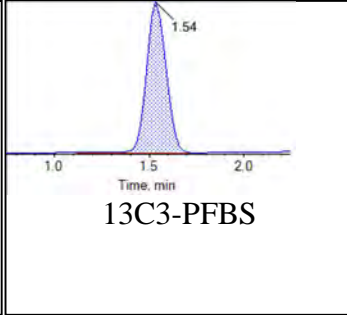
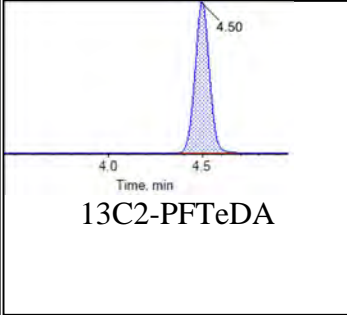
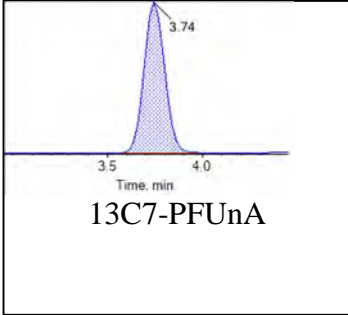
Target Analytes:



**Internal Standards:**

Chromatogram Report

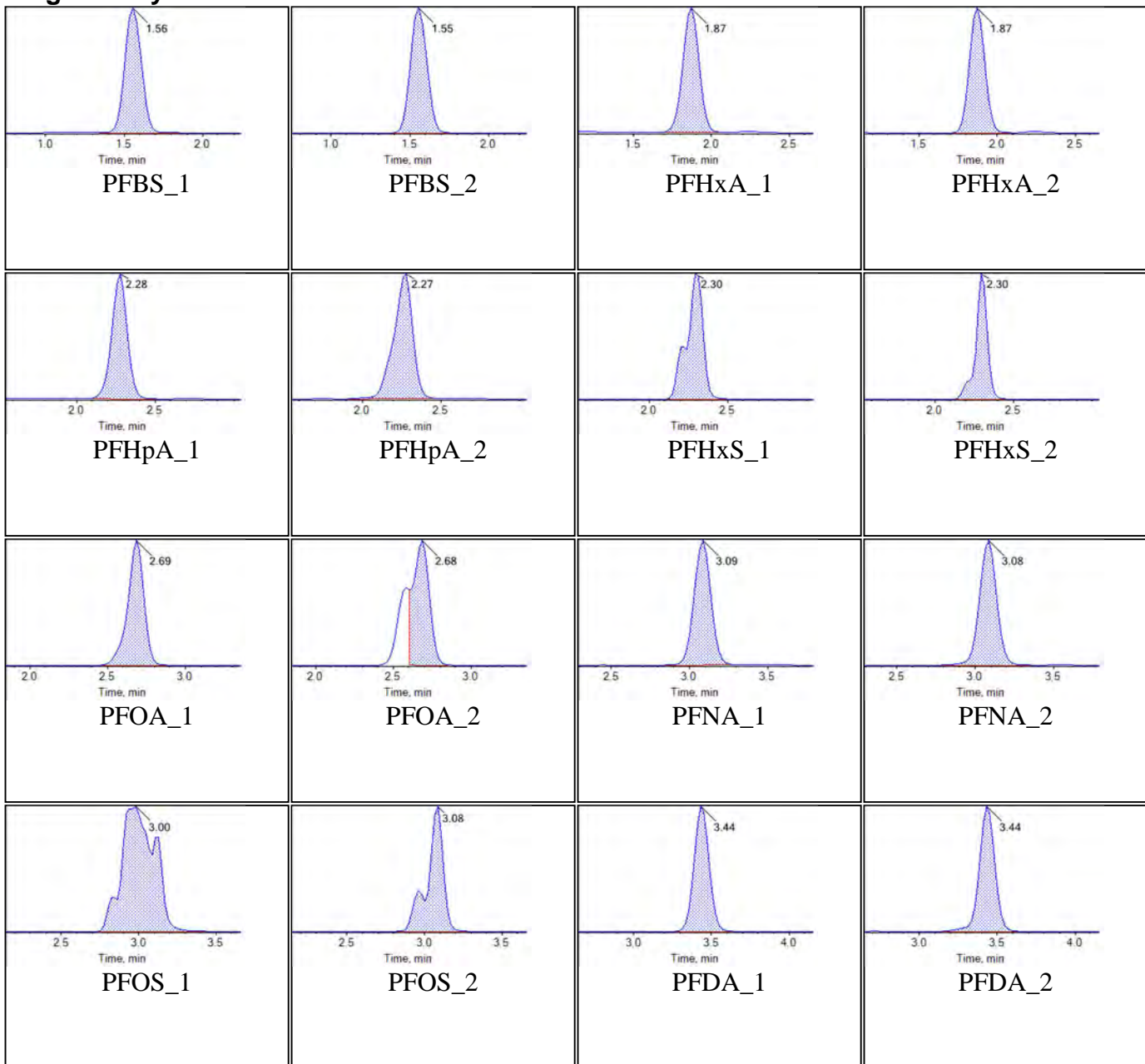
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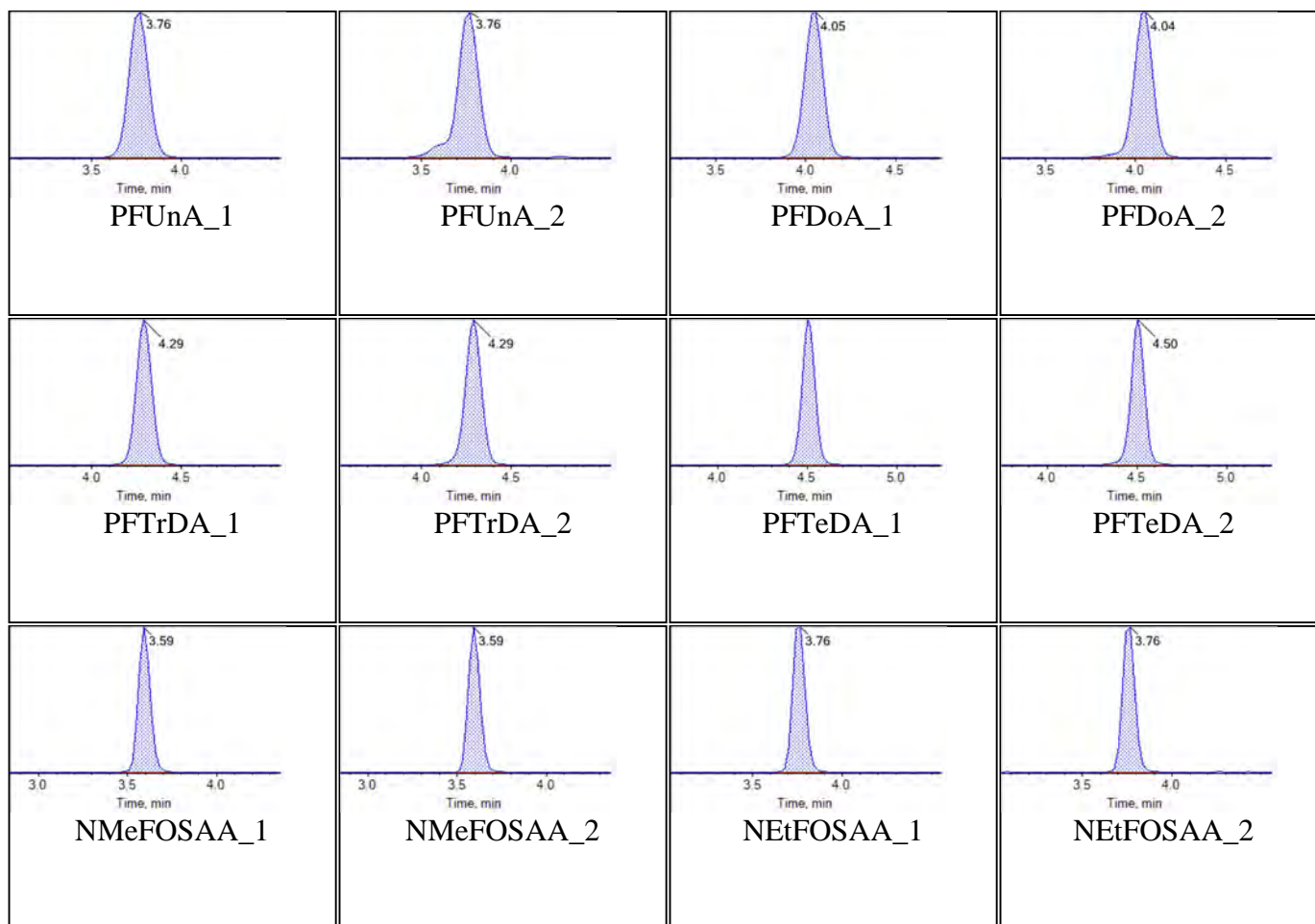
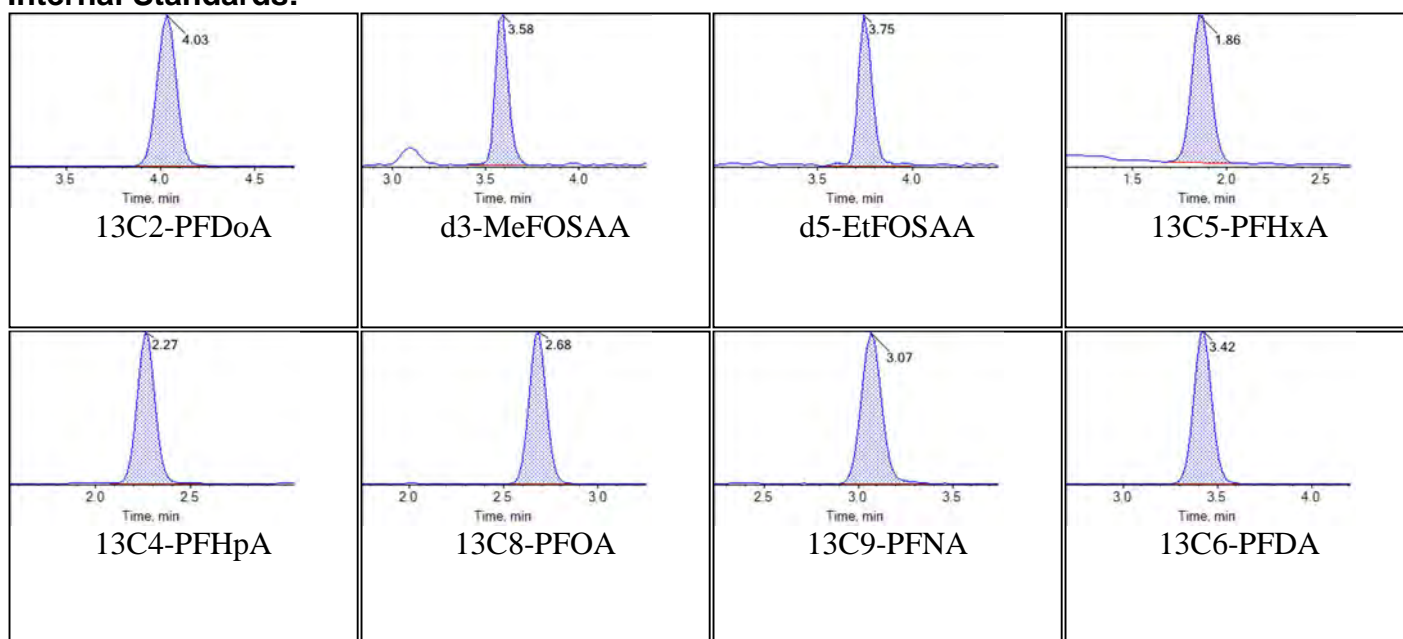


Sample Name	J9416MSD-FS(0)	Injection Vial	41
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:34:31	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

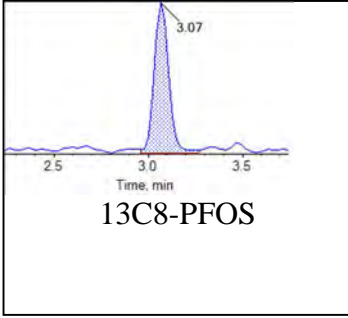
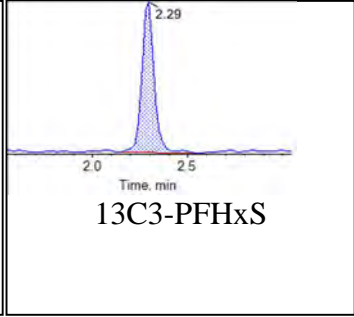
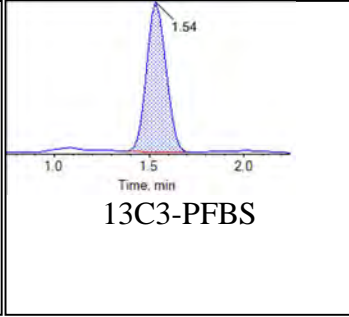
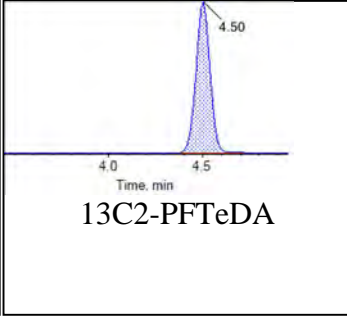
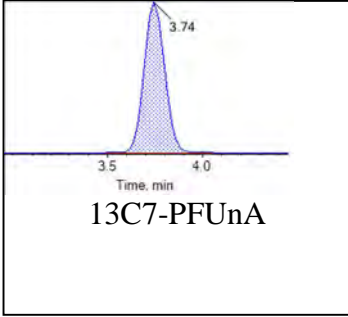


**Internal Standards:**



Chromatogram Report

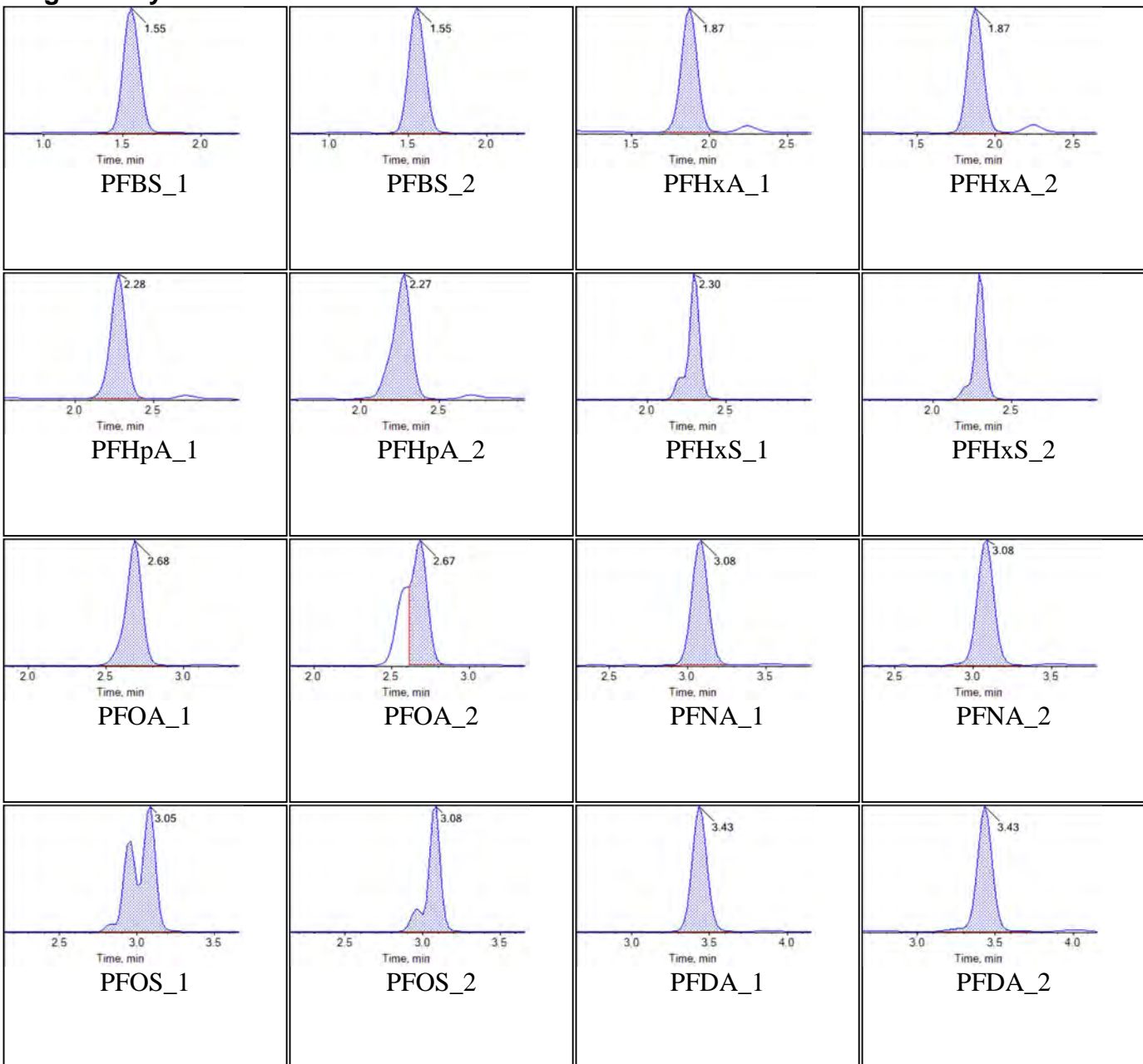
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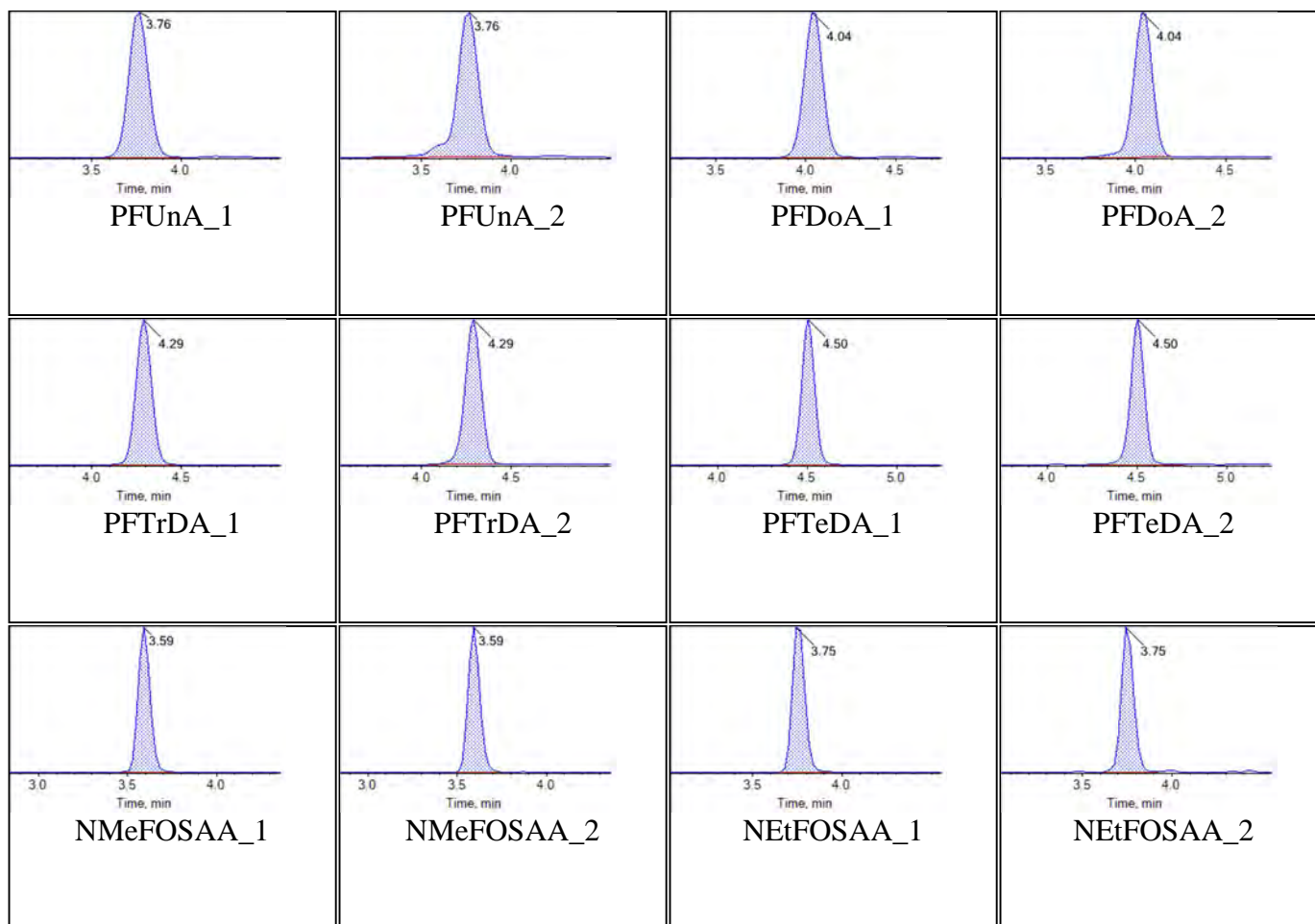
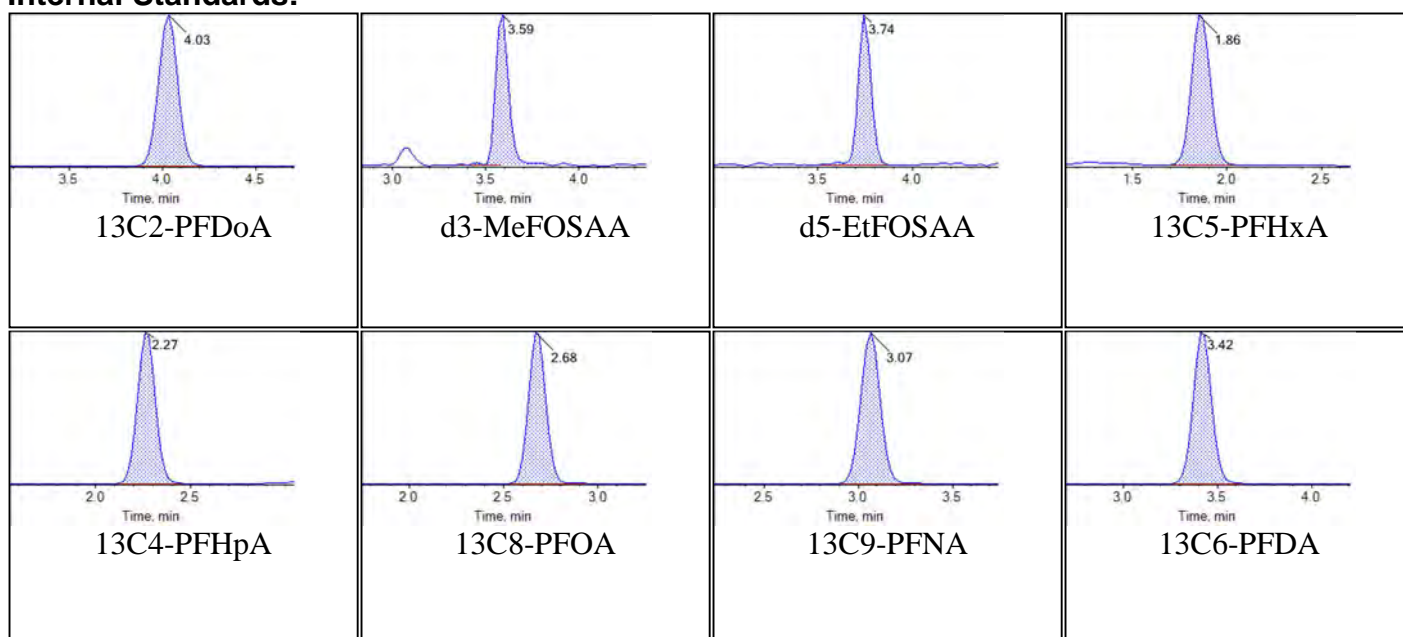


Sample Name	J9416MSD-FS-D(3)	Injection Vial	42
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:45:22	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

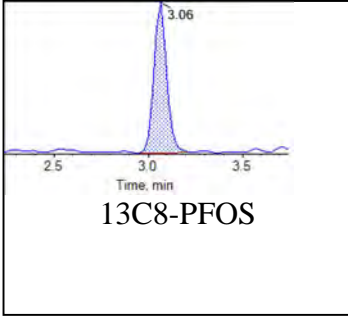
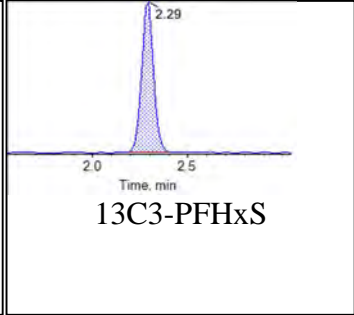
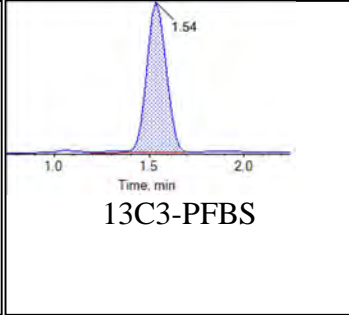
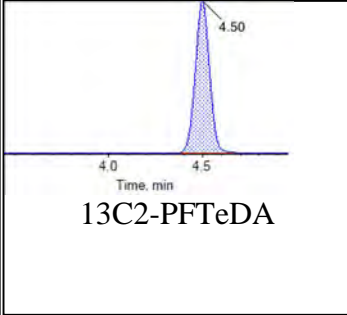
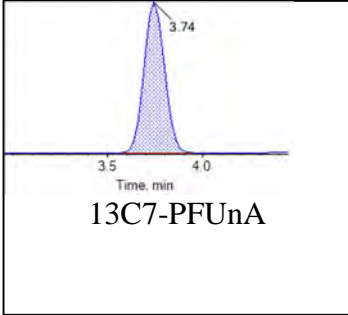
Target Analytes:



**Internal Standards:**

Chromatogram Report

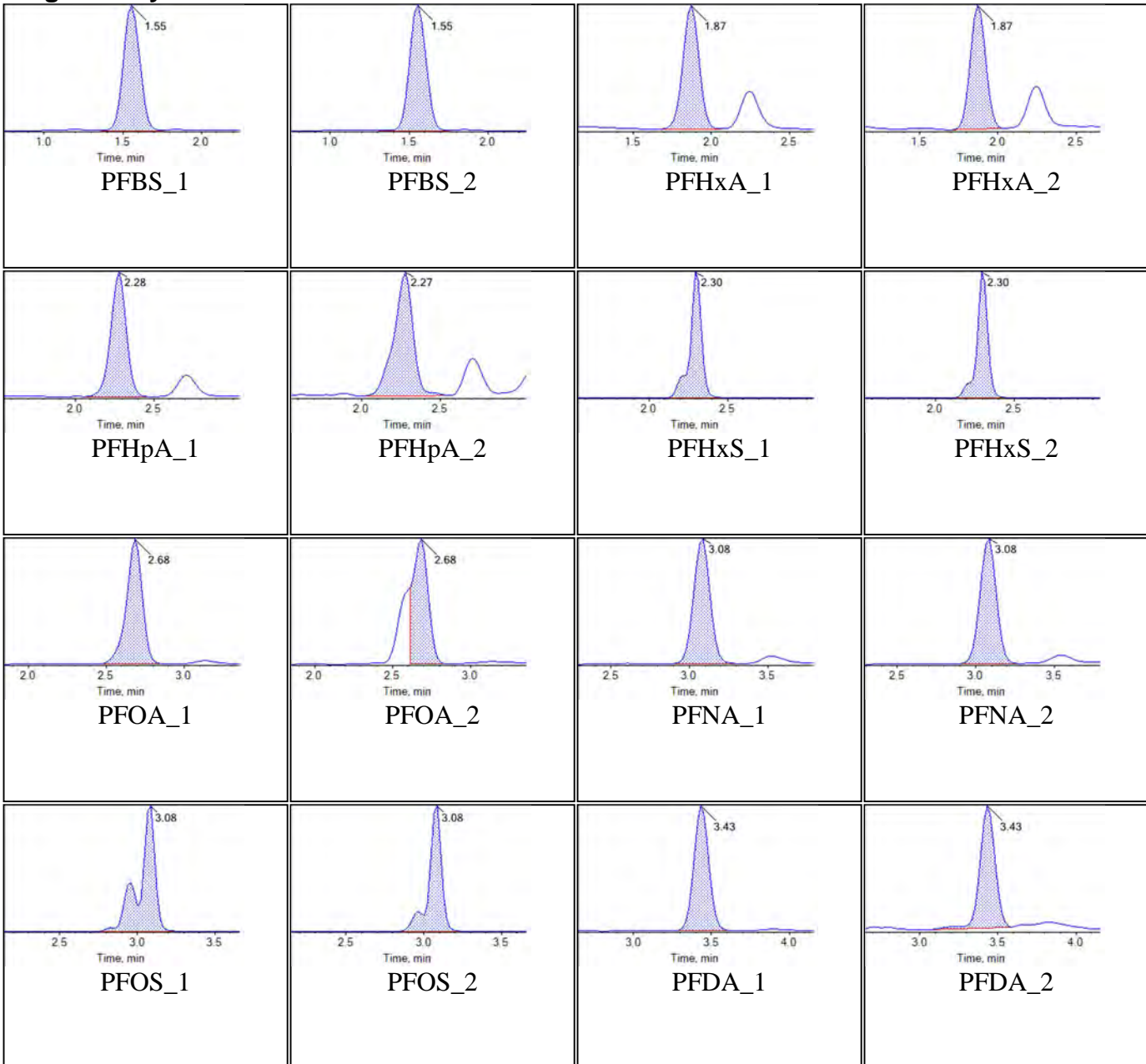
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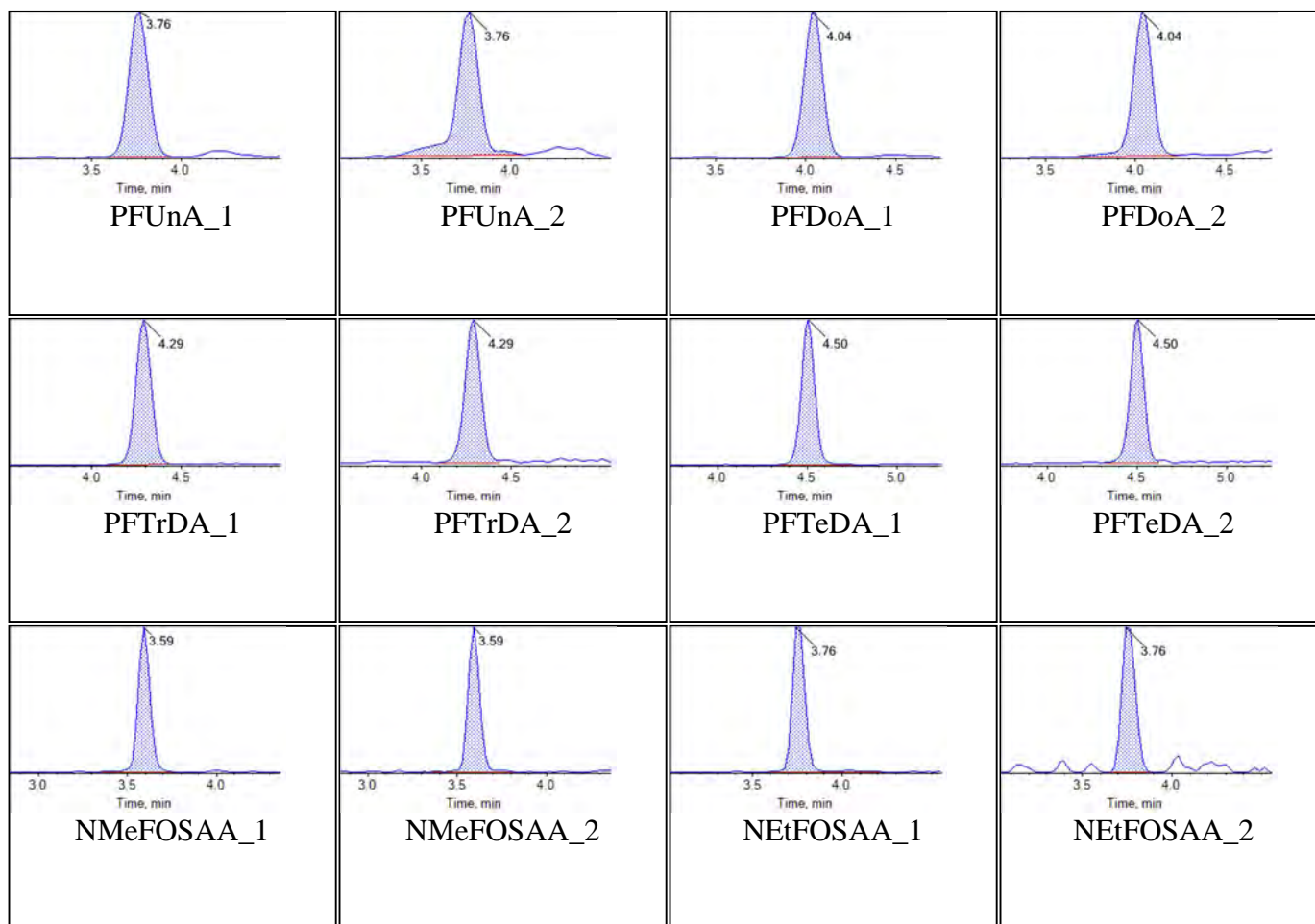
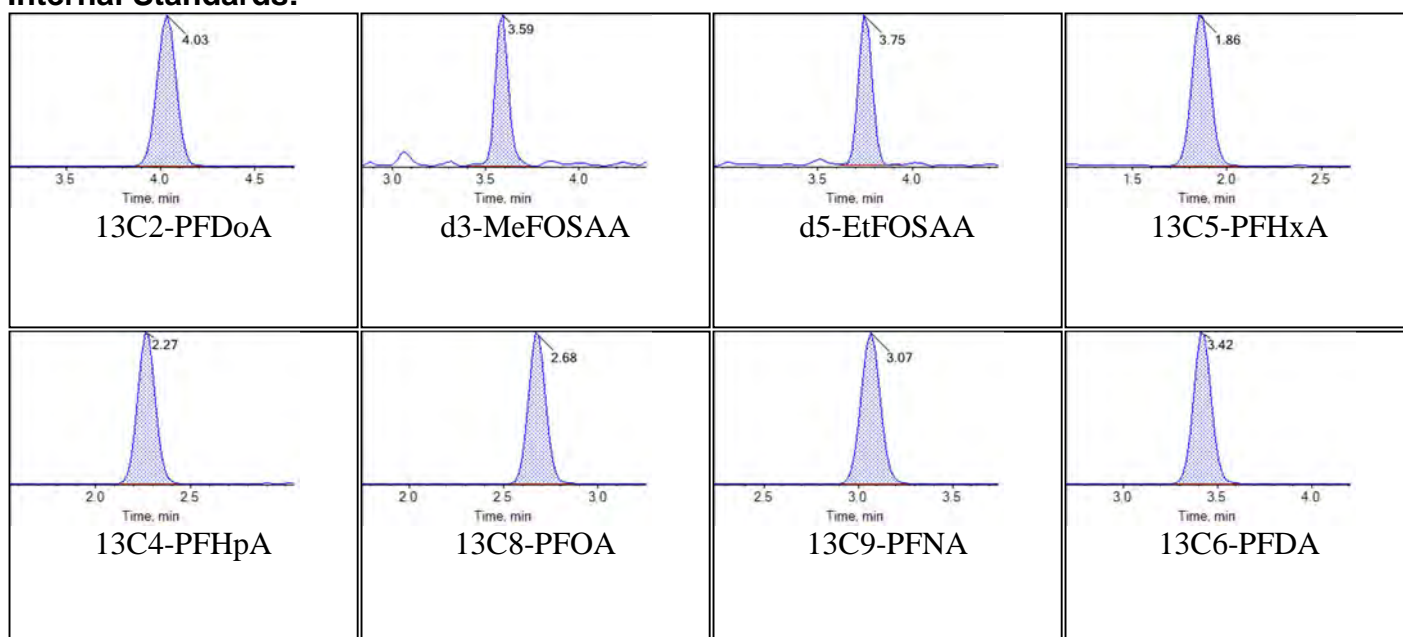


Sample Name	J9416MSD-FS-D(5)	Injection Vial	43
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:56:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

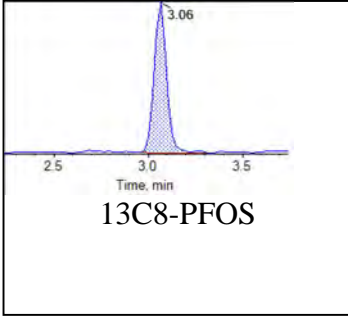
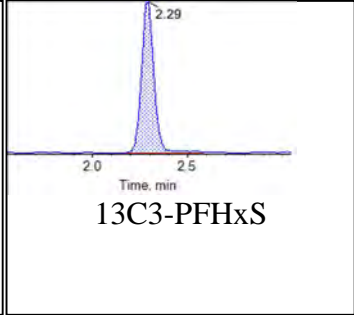
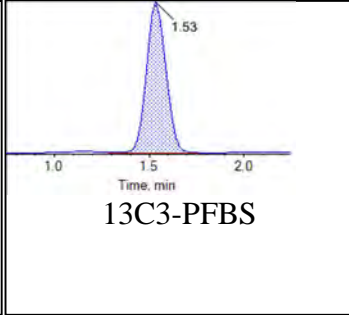
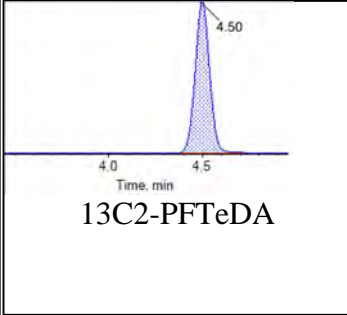
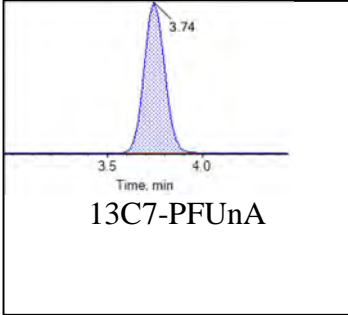
Target Analytes:



**Internal Standards:**

Chromatogram Report

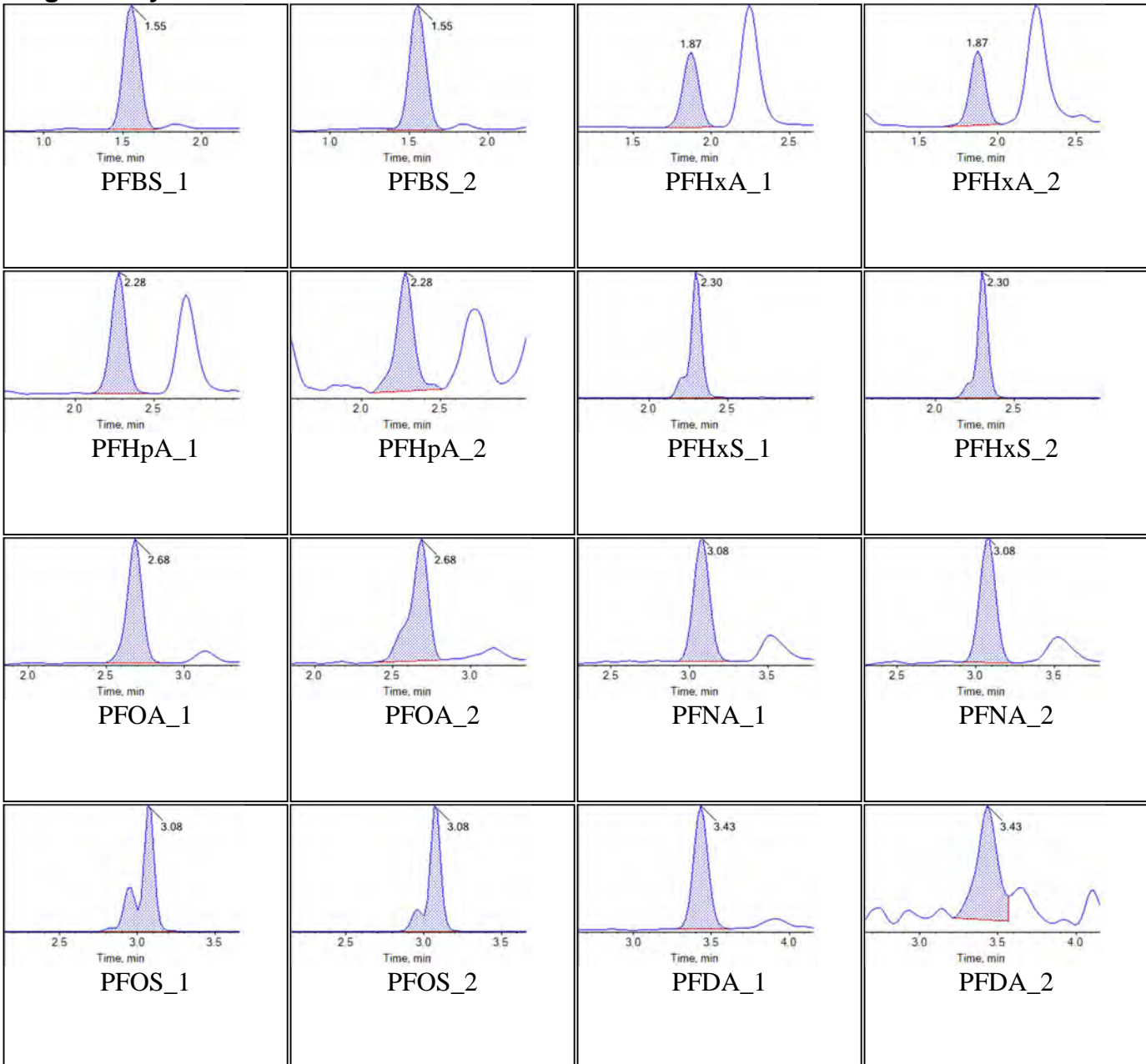
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Sample Name	J9416MSD-FS-D(7)	Injection Vial	44
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:07:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

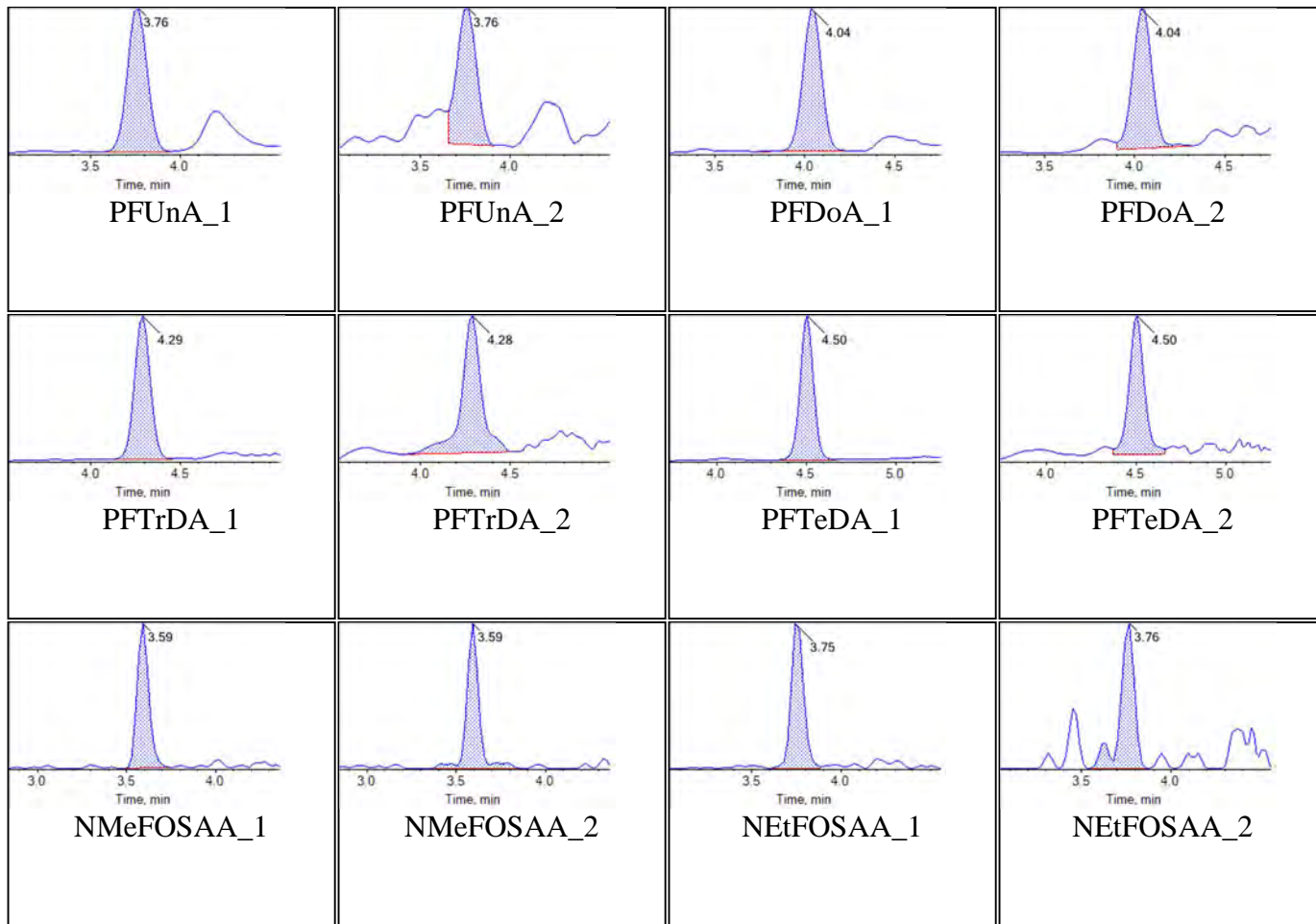
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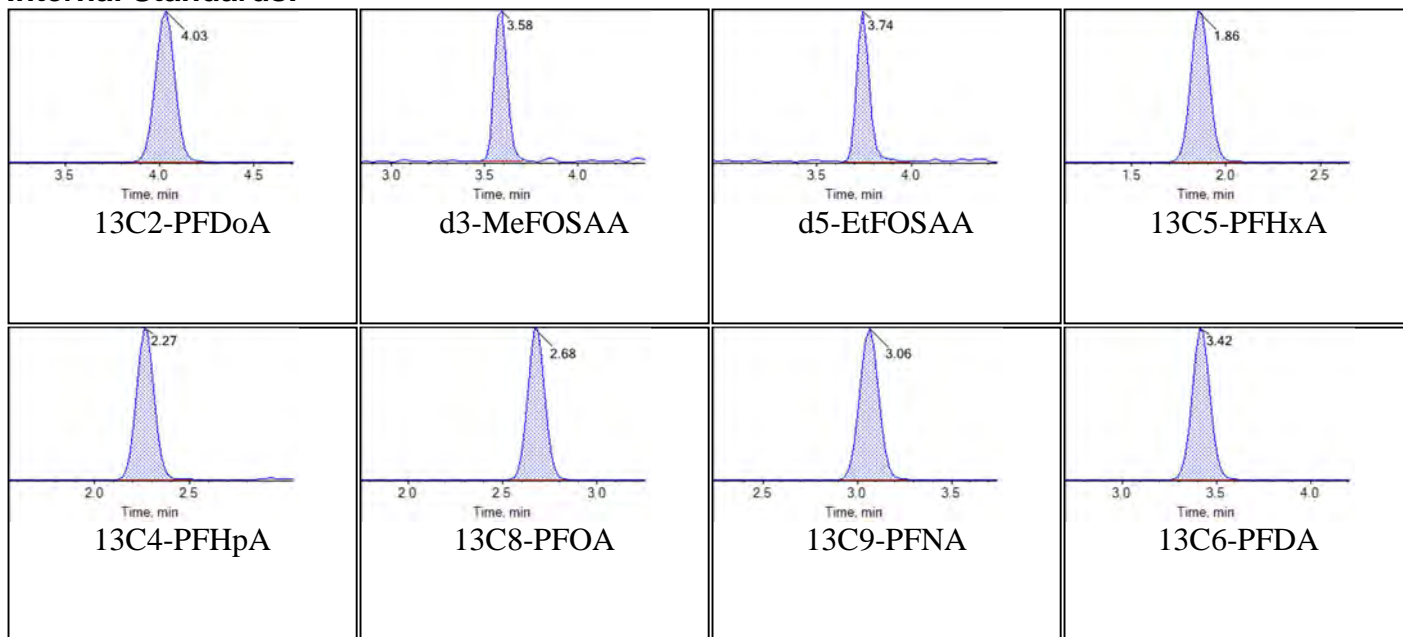


Chromatogram Report

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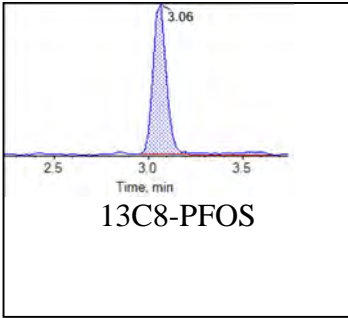
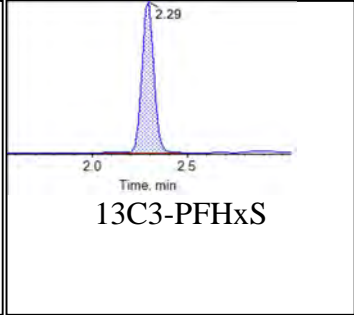
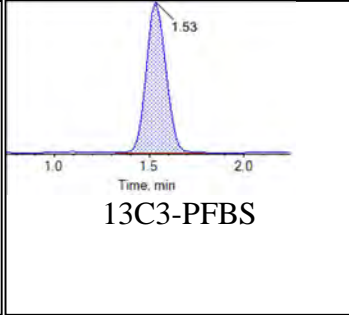
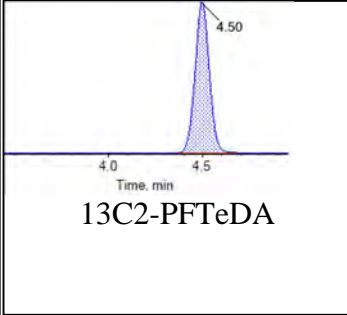
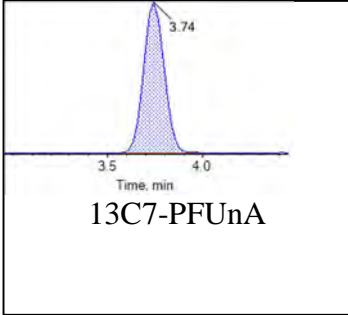


Internal Standards:



Chromatogram Report

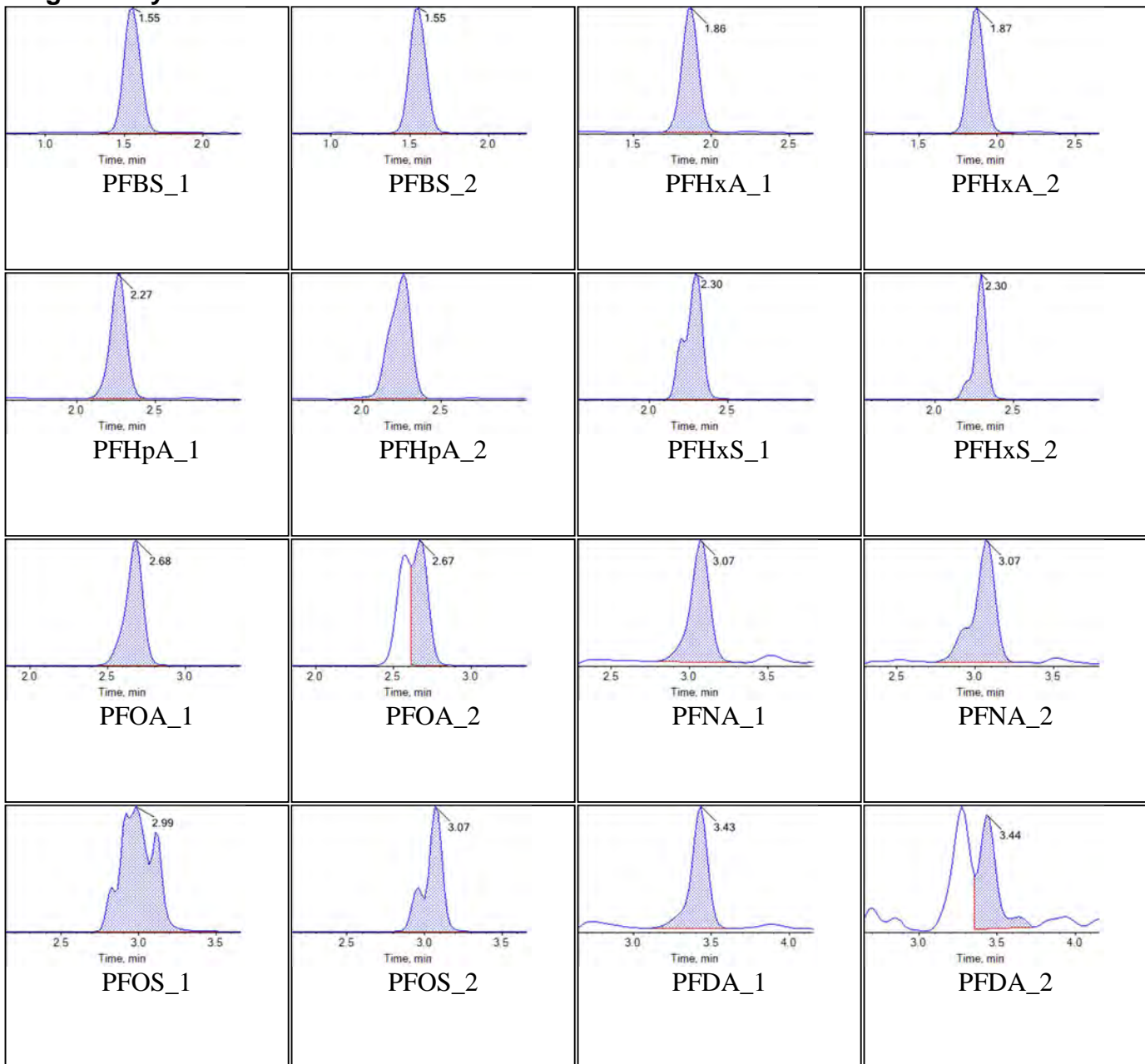
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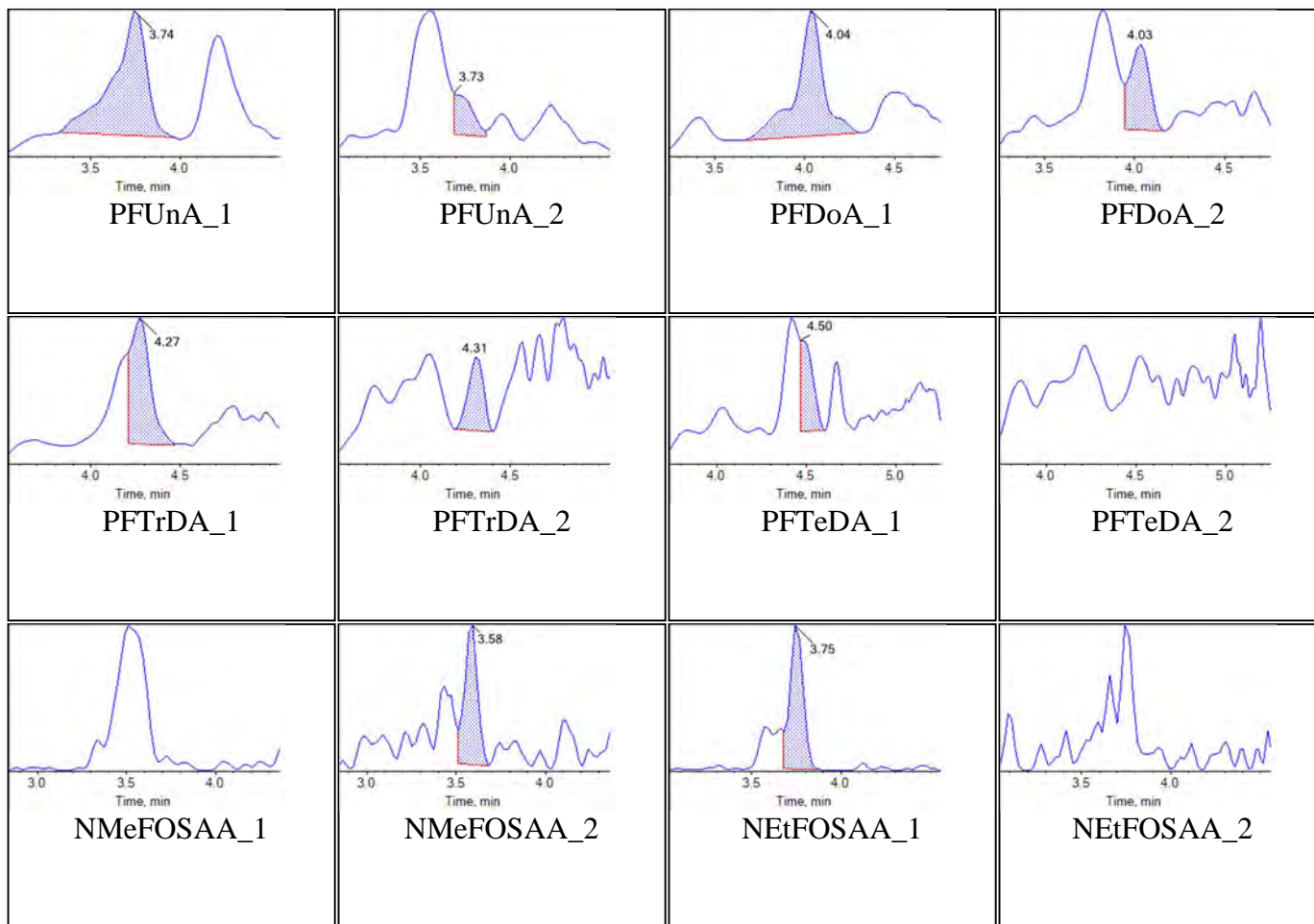
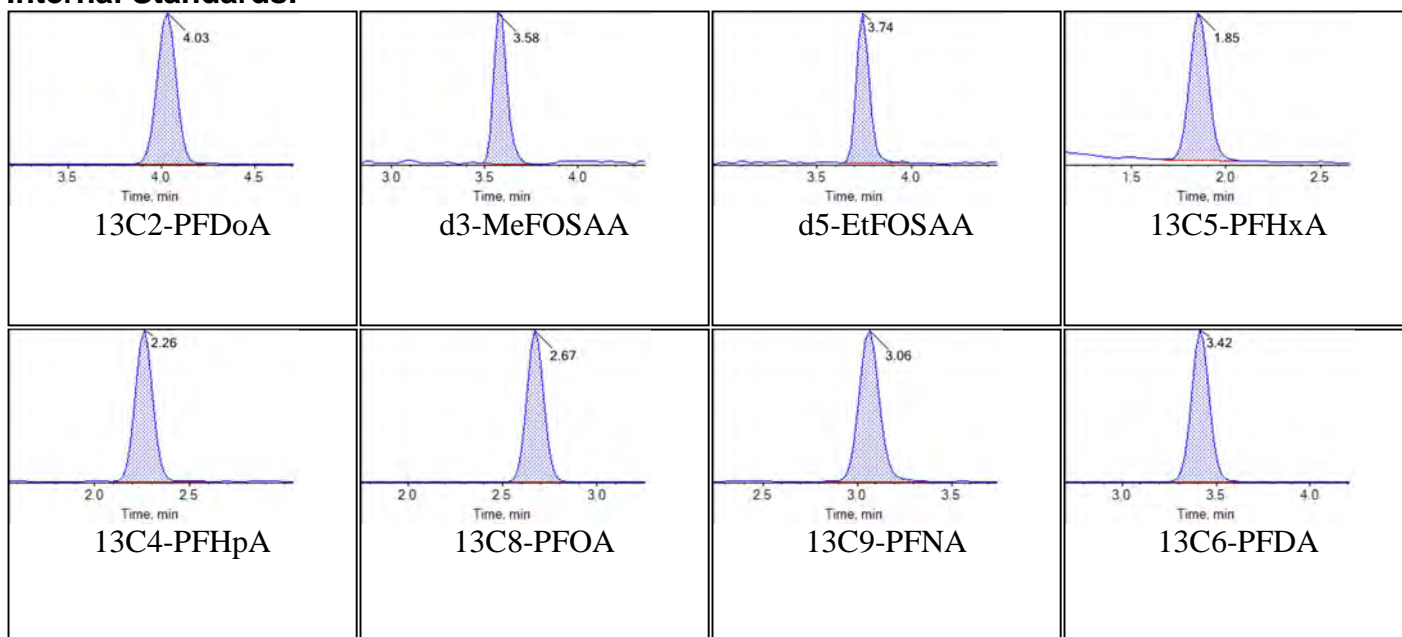


Sample Name	J9417-FS(0)	Injection Vial	45
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:17:59	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

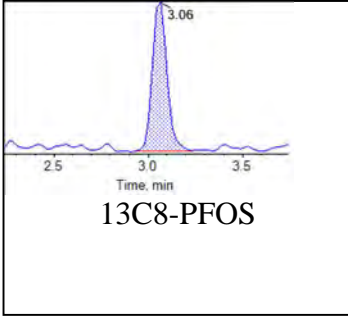
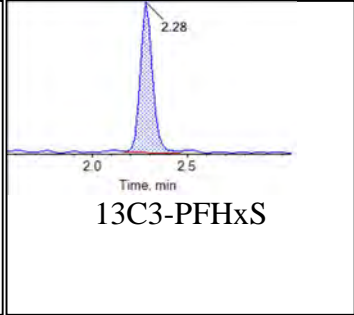
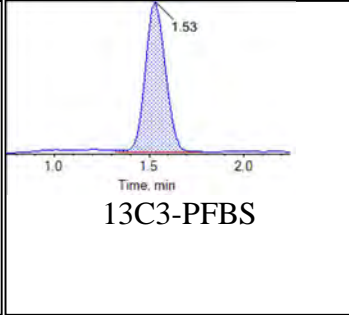
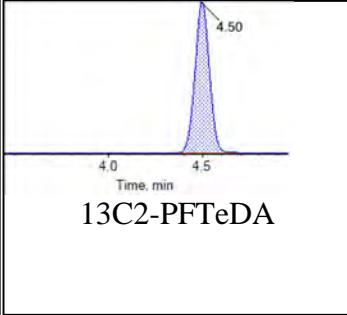
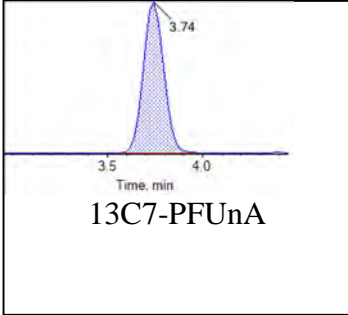


**Internal Standards:**



Chromatogram Report

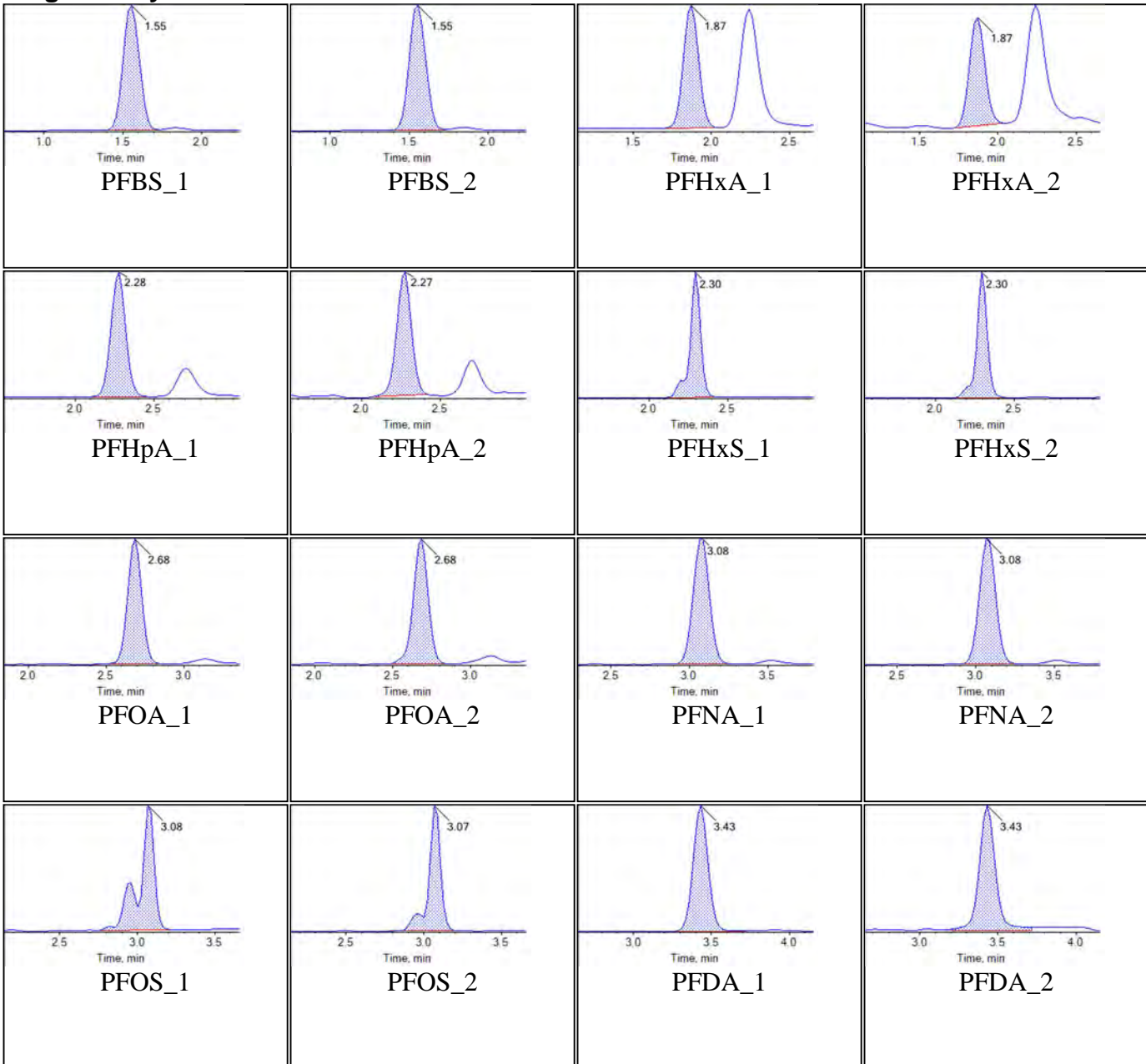
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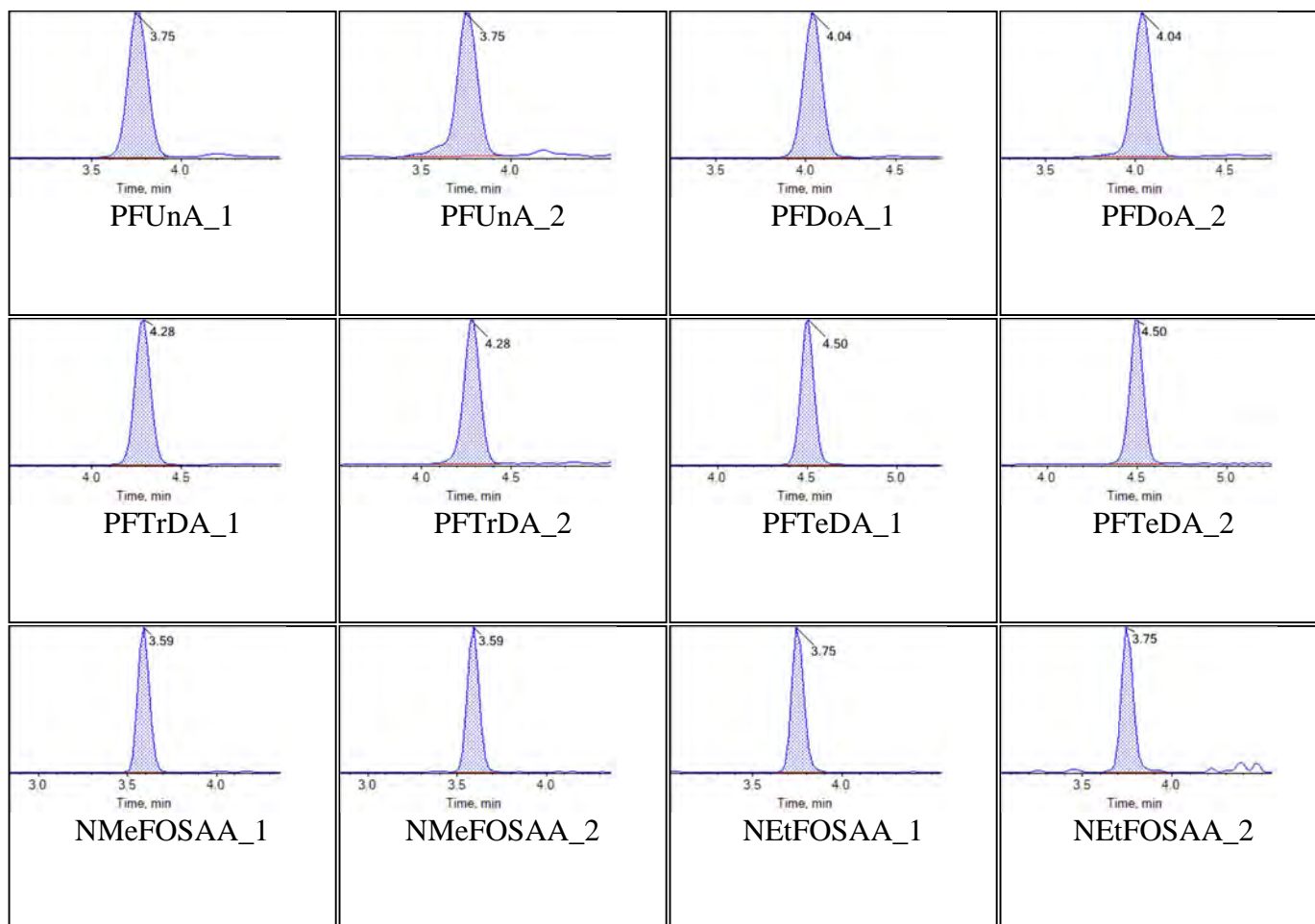
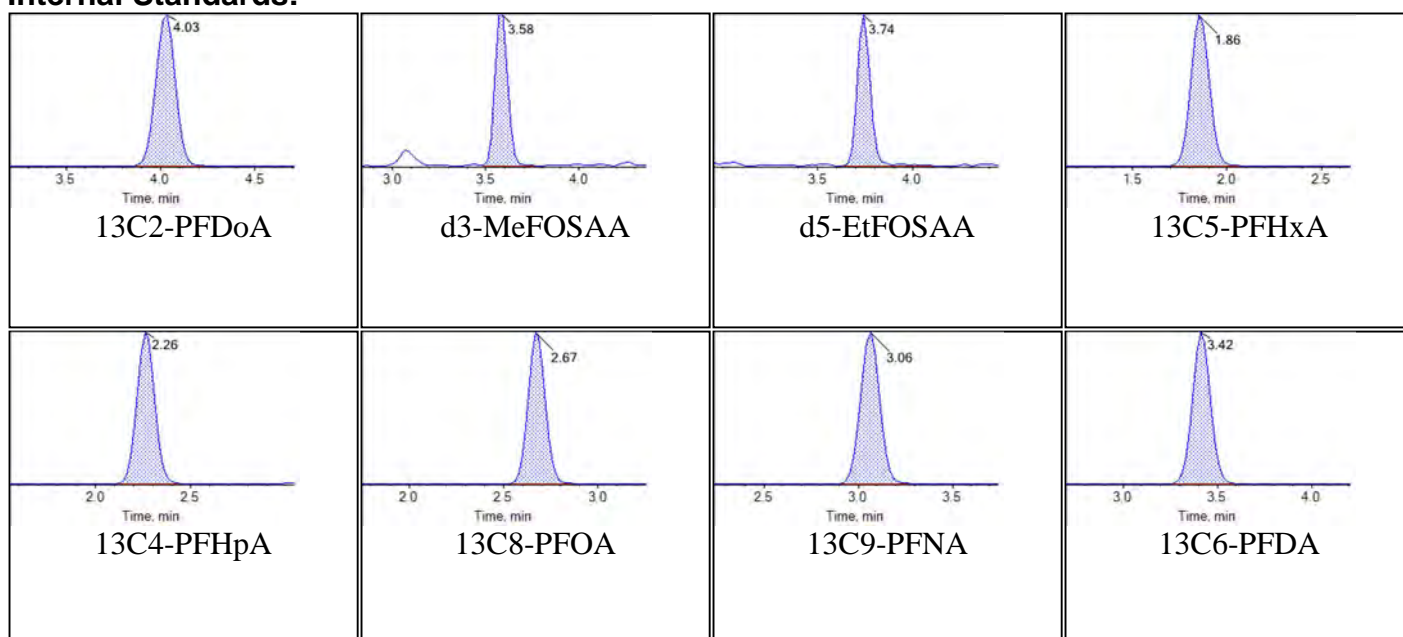


Sample Name	KC69 CCV	Injection Vial	49
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T02:01:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

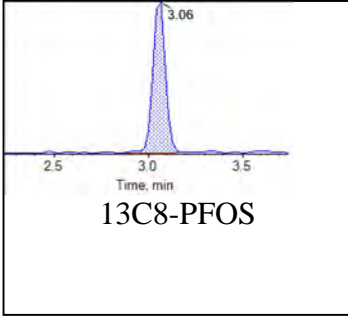
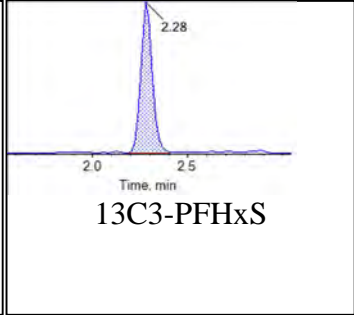
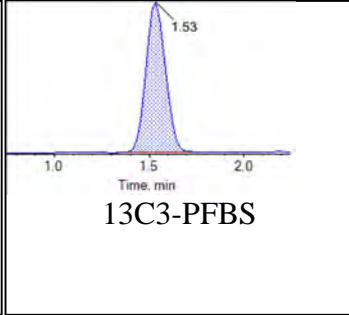
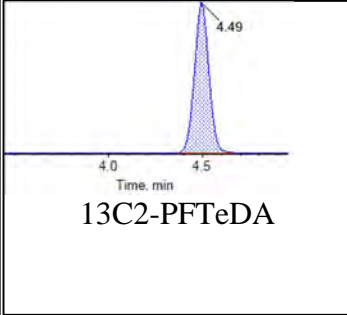
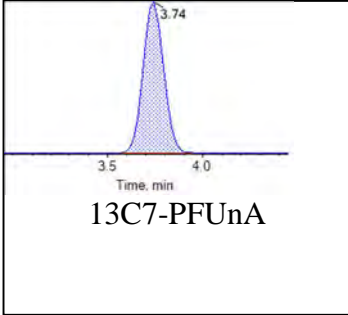


**Internal Standards:**



Chromatogram Report

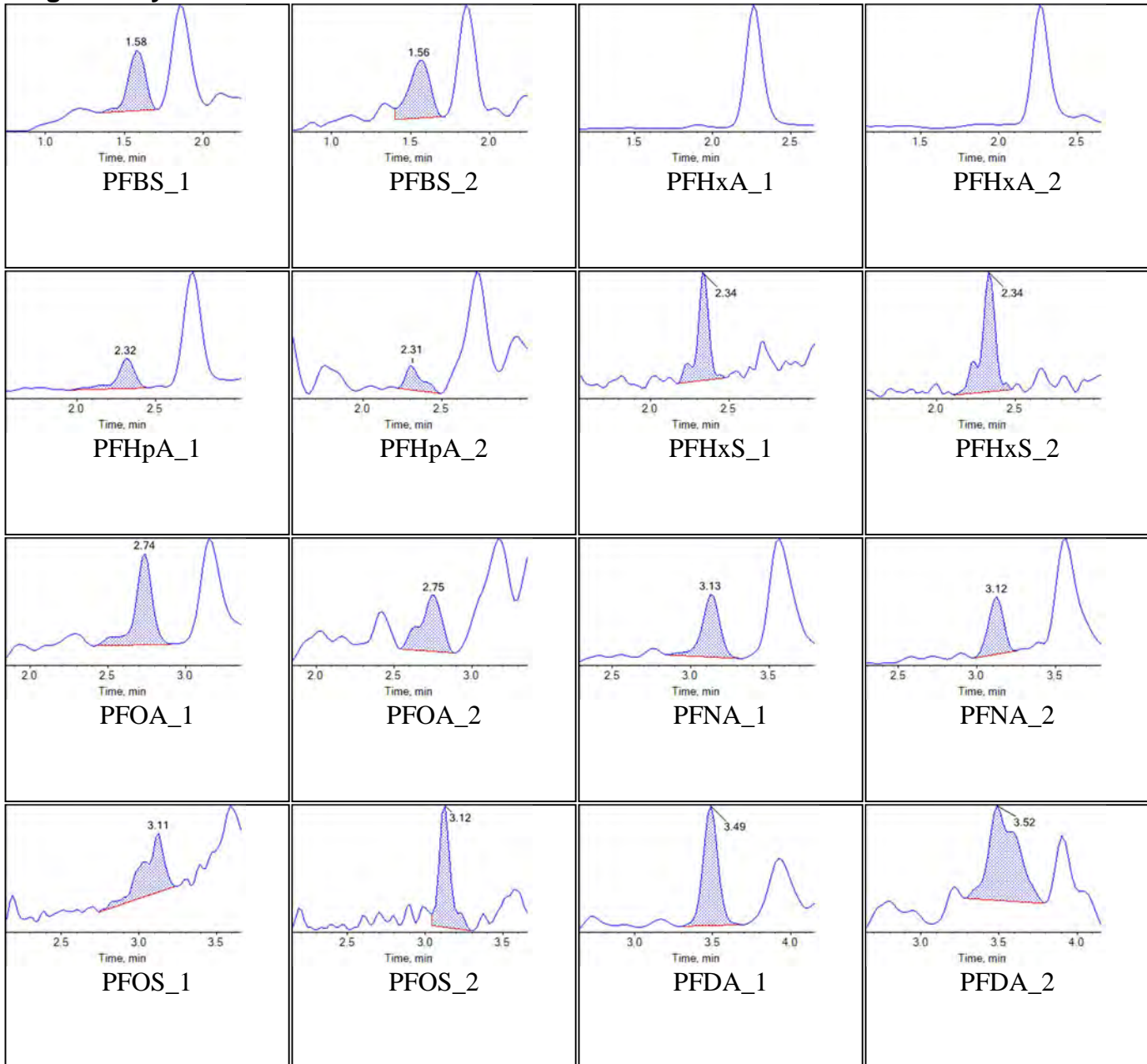
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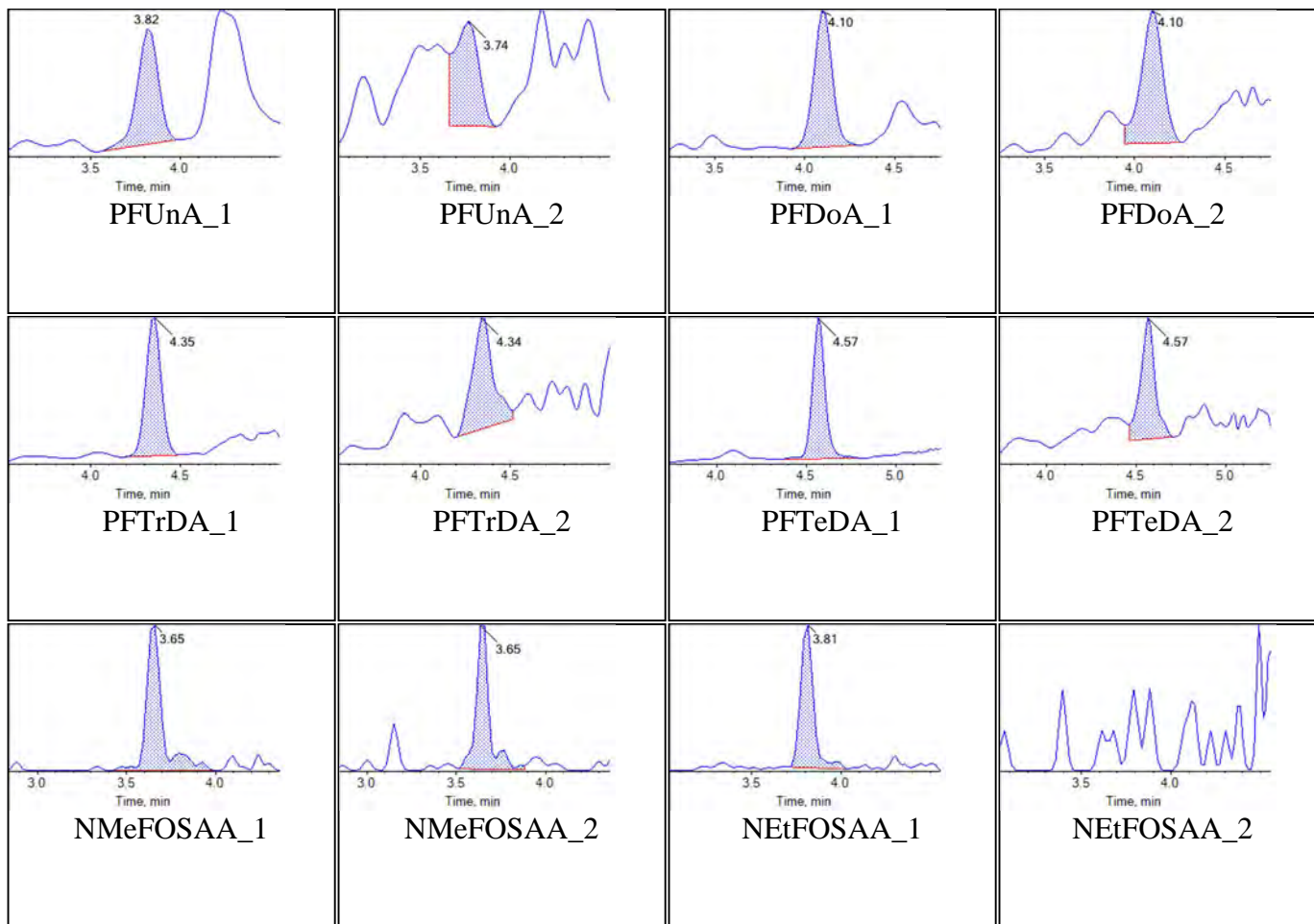
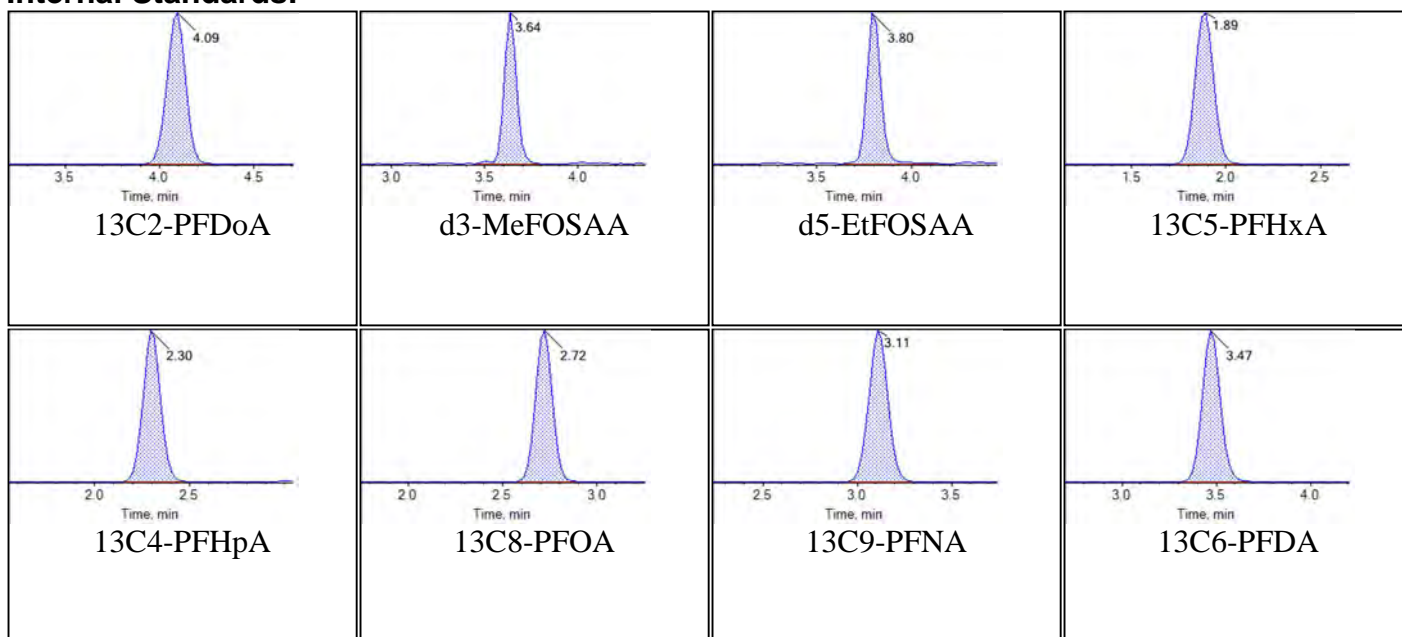


Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:47:20	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

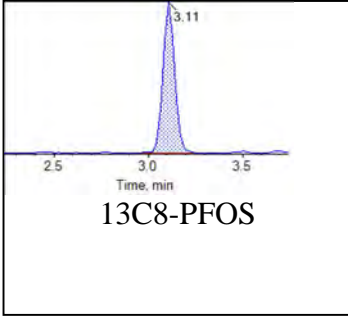
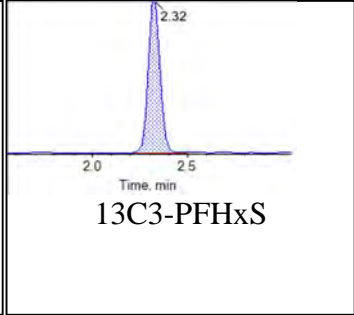
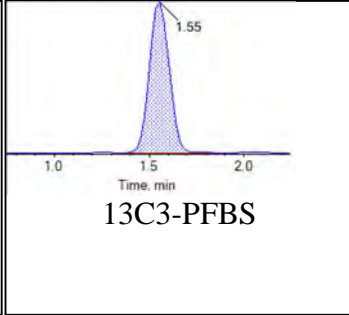
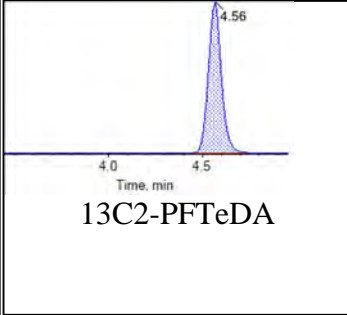
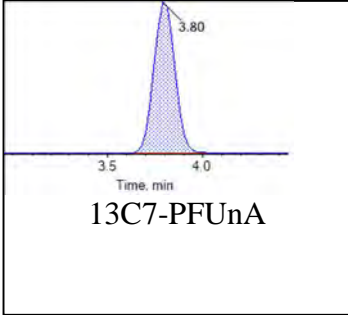
Target Analytes:



**Internal Standards:**

Chromatogram Report

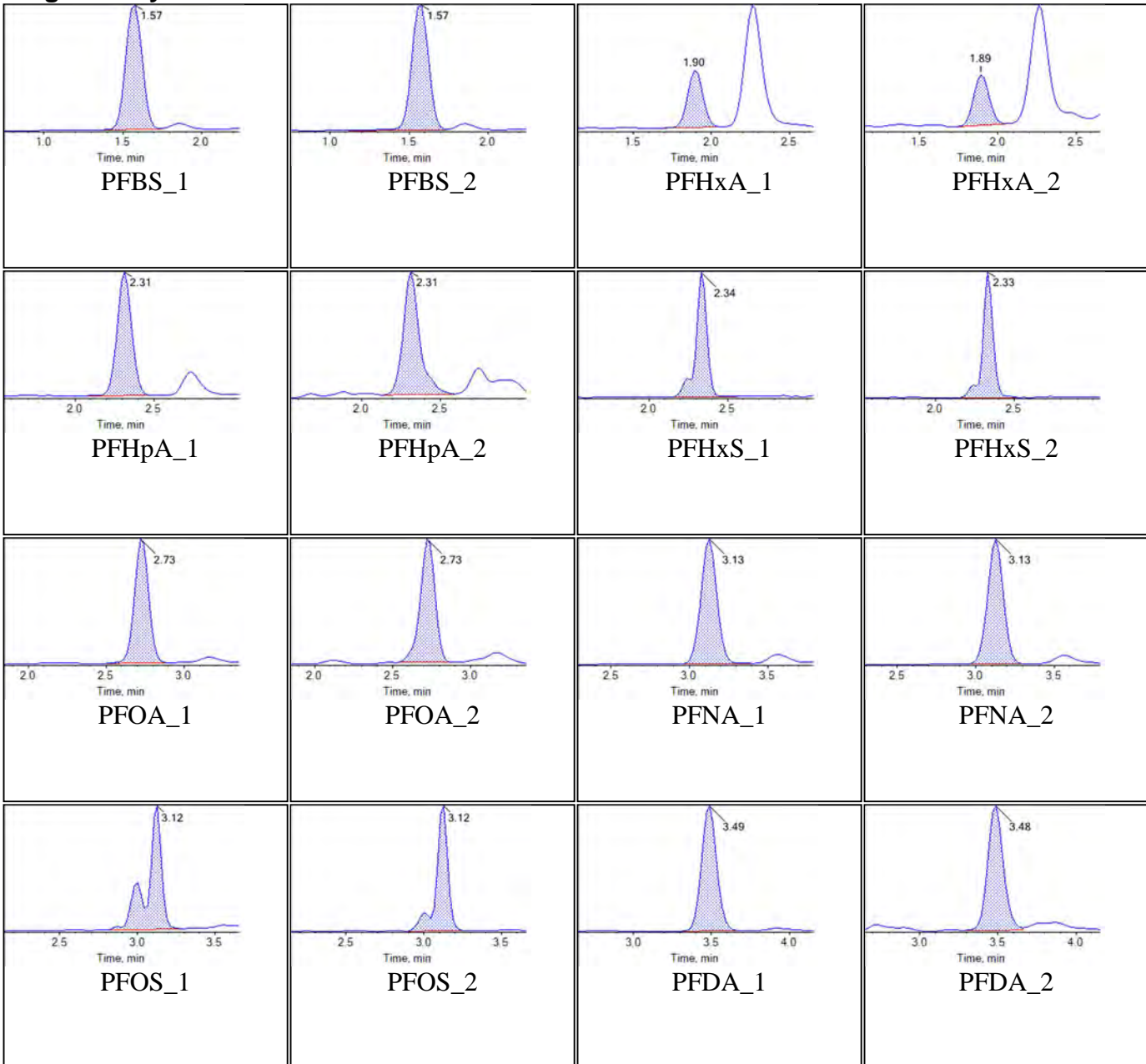
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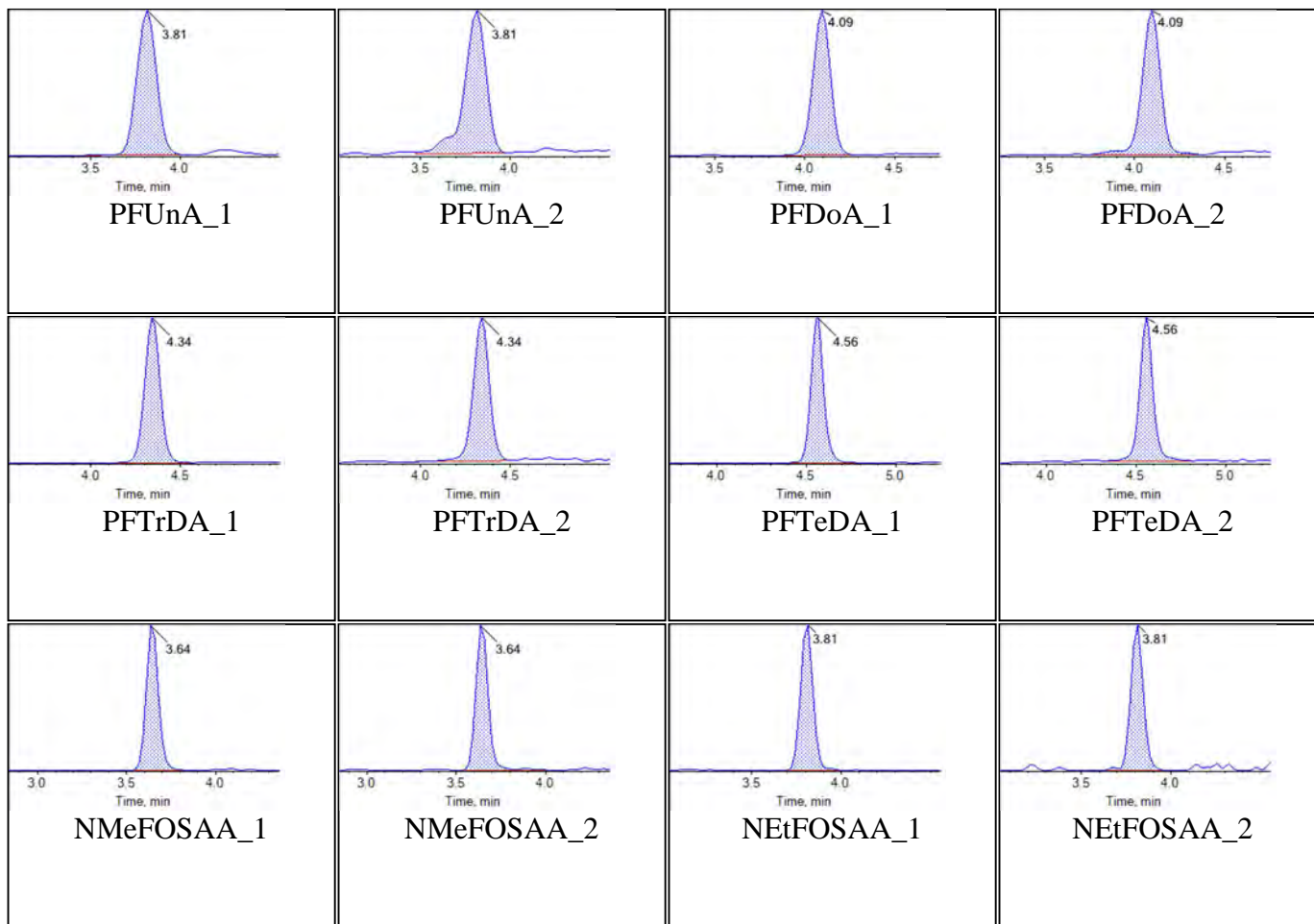
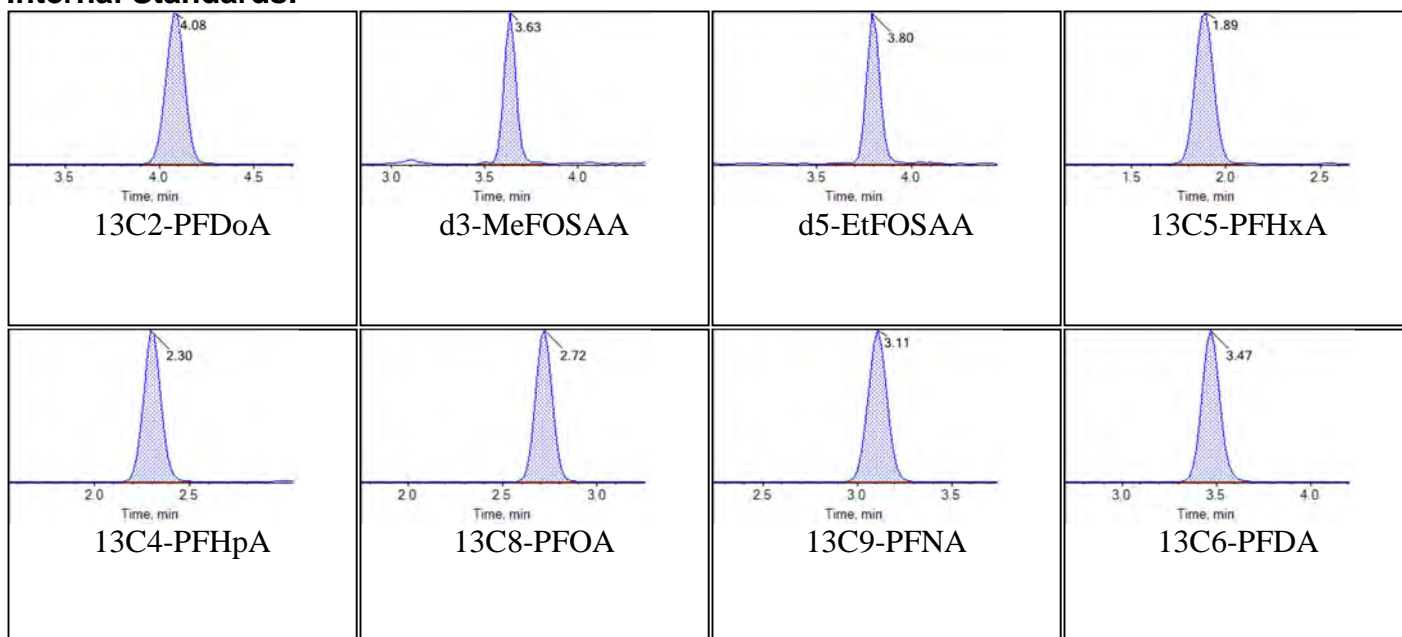


Sample Name	KC68 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:58:13	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

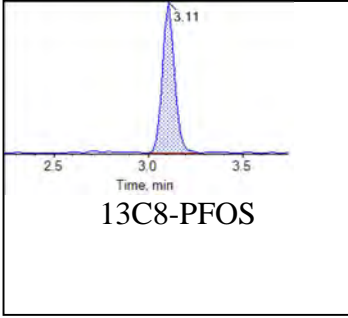
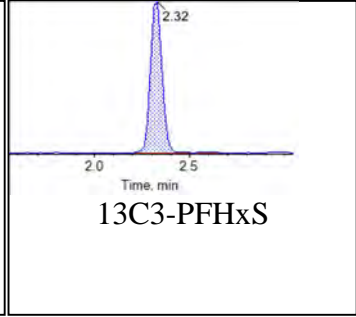
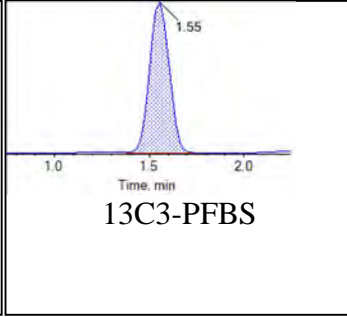
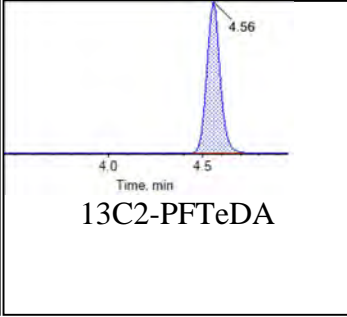
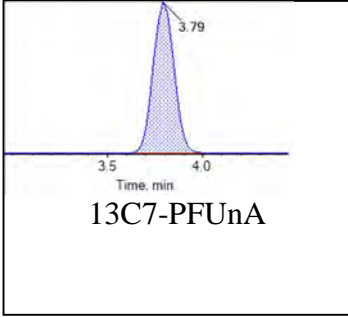
Target Analytes:



**Internal Standards:**

Chromatogram Report

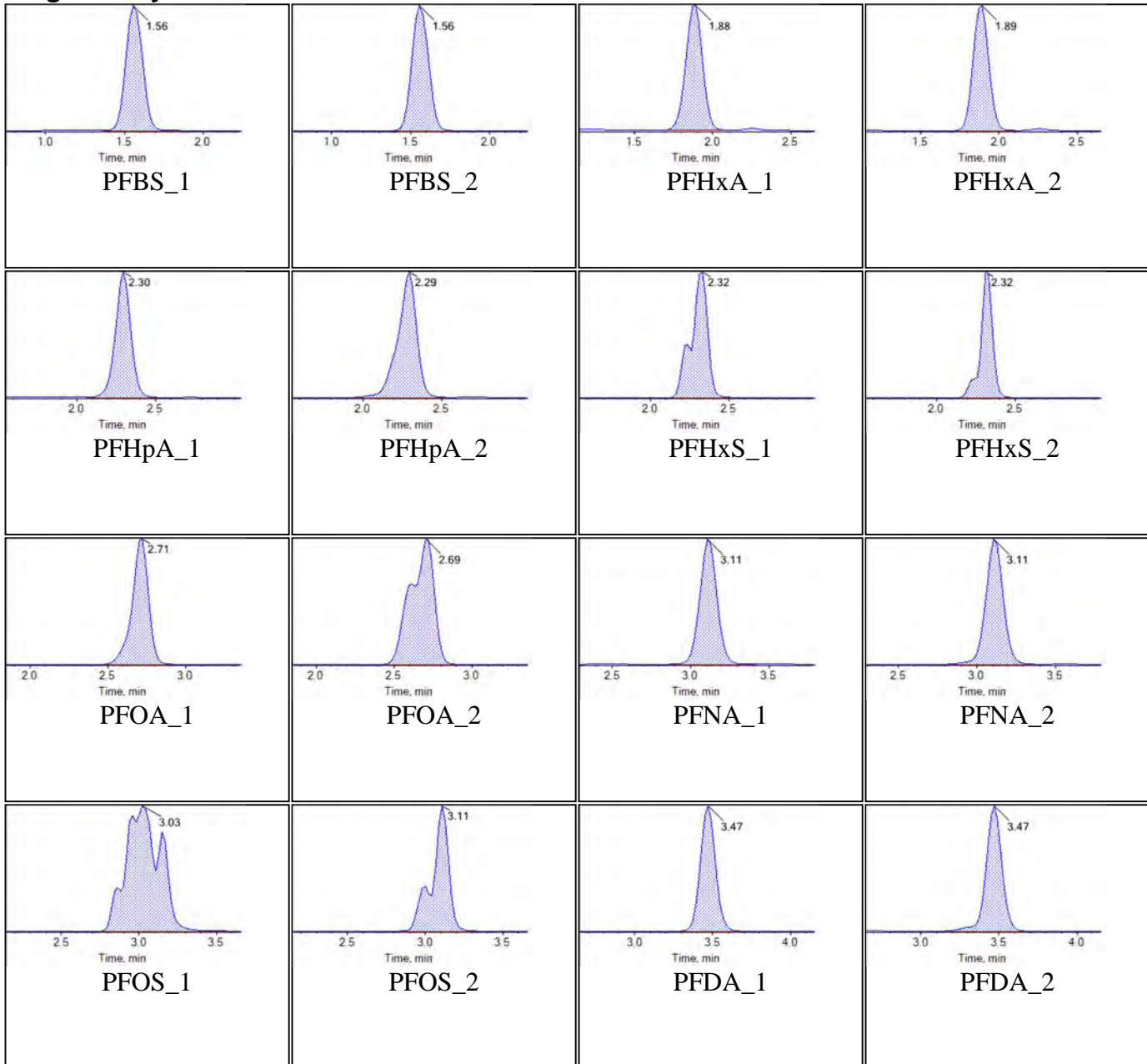
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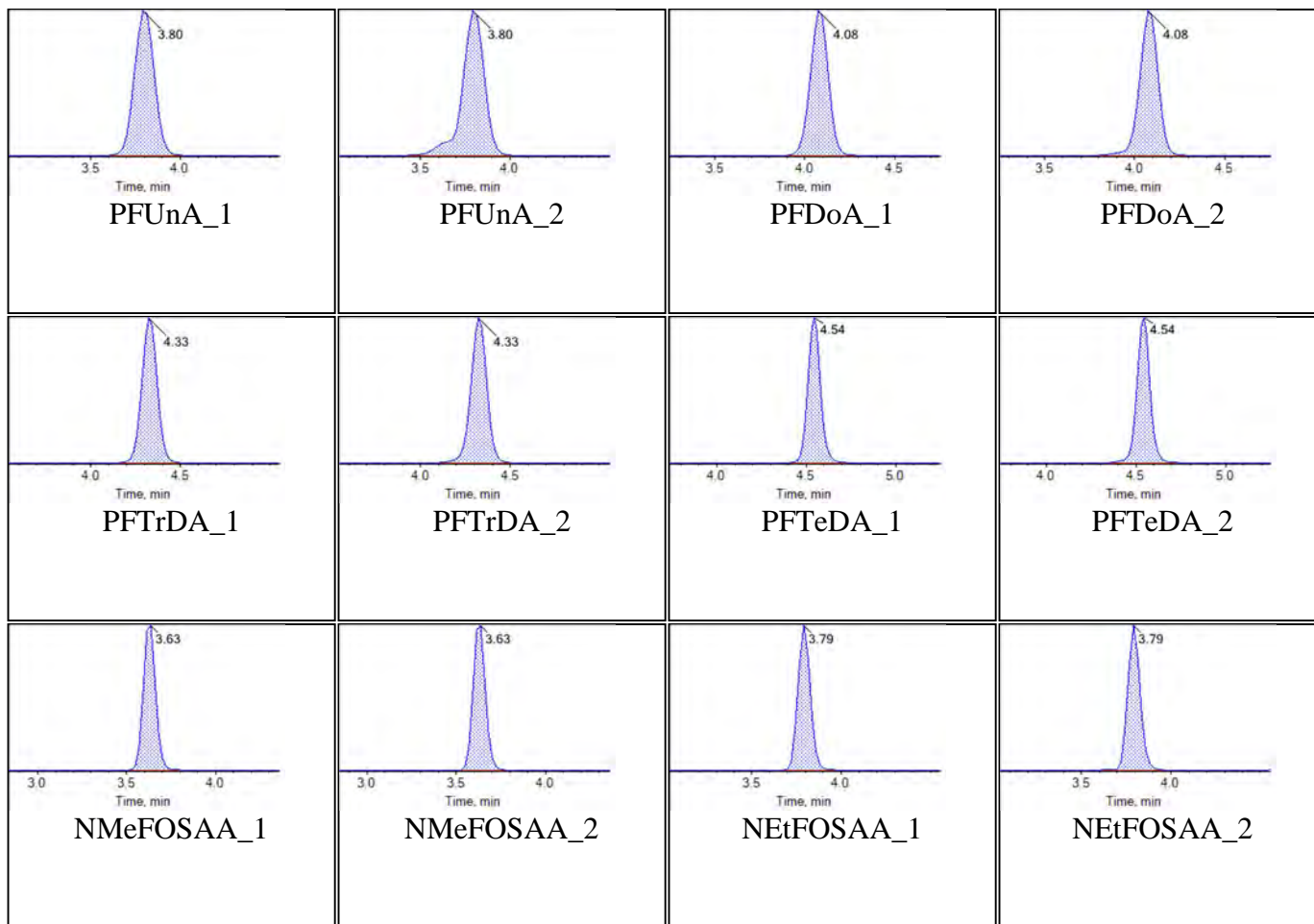
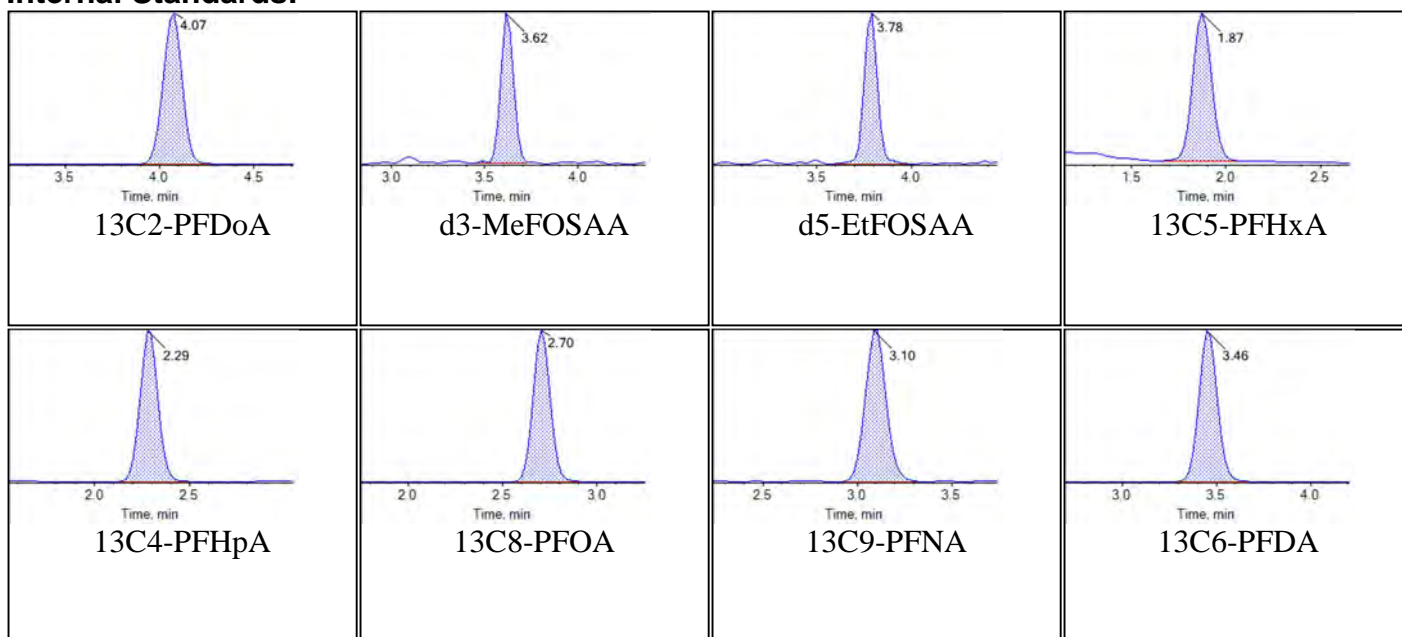


Sample Name	J9415MS-FS(0)	Injection Vial	9
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T11:52:28	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

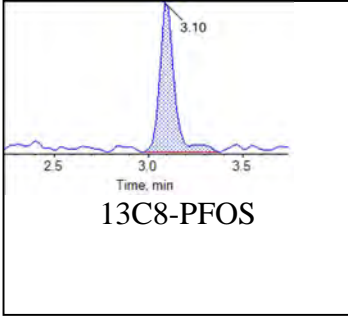
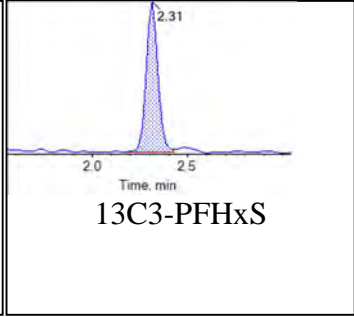
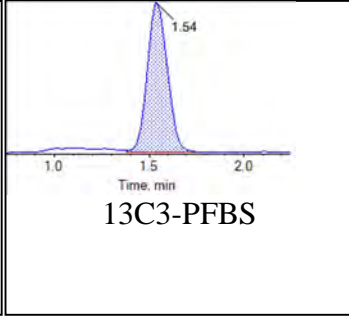
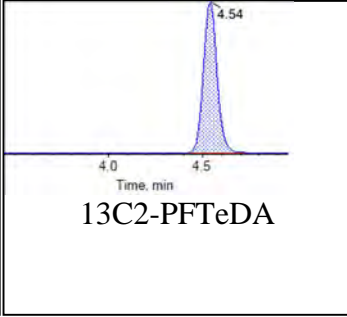
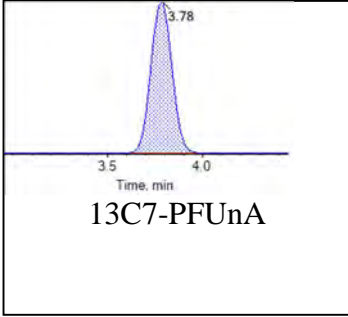


**Internal Standards:**



Chromatogram Report

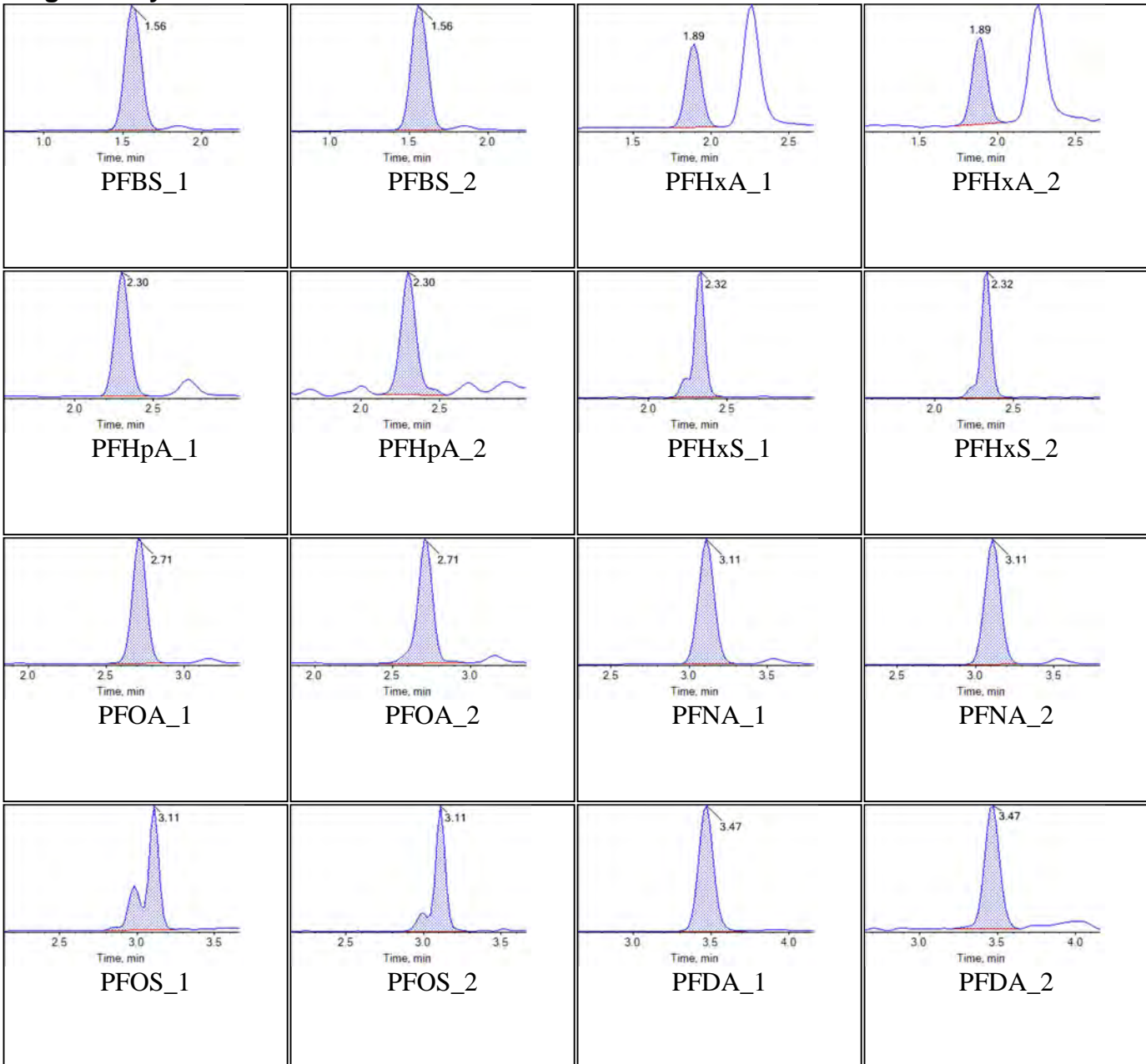
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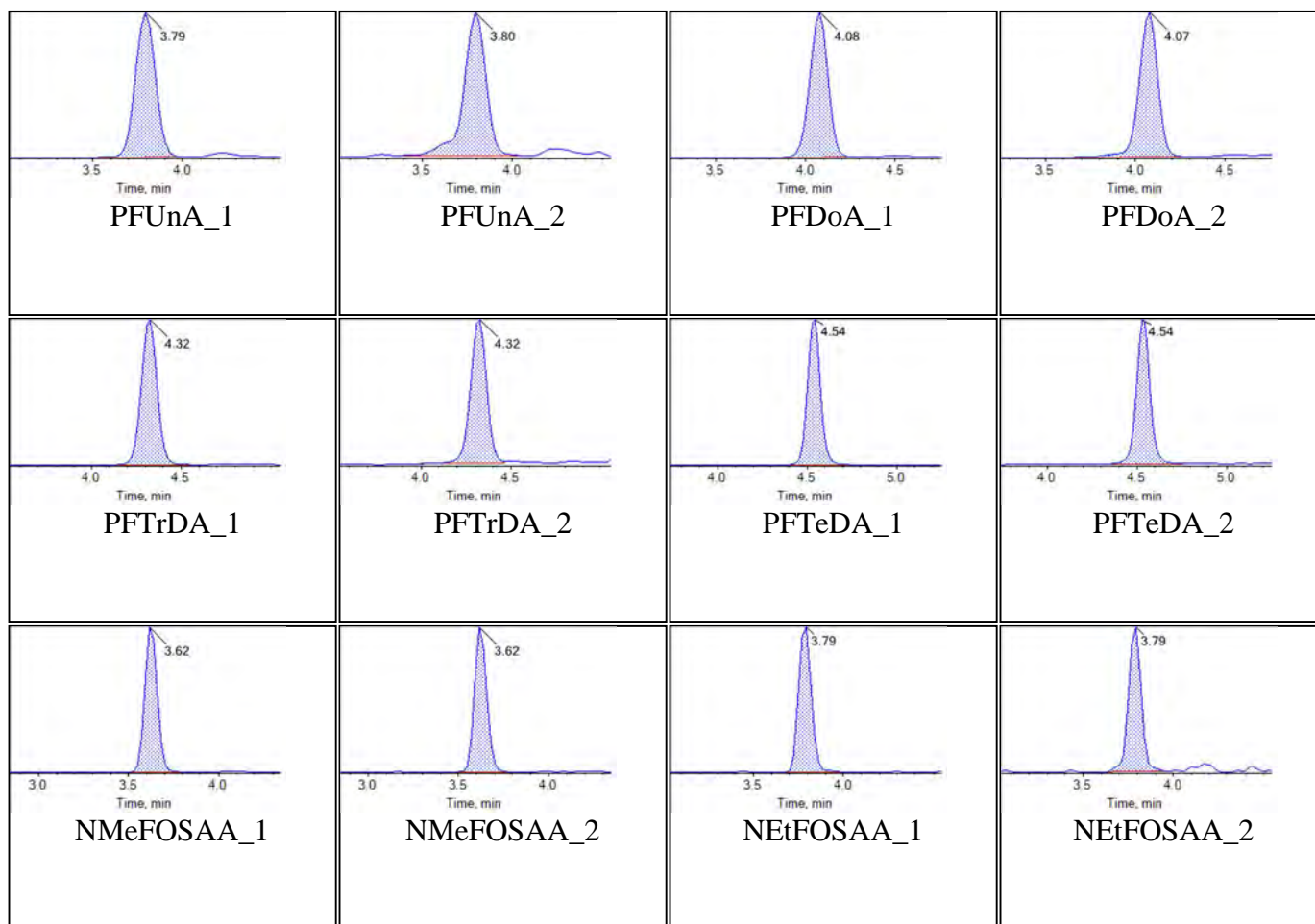
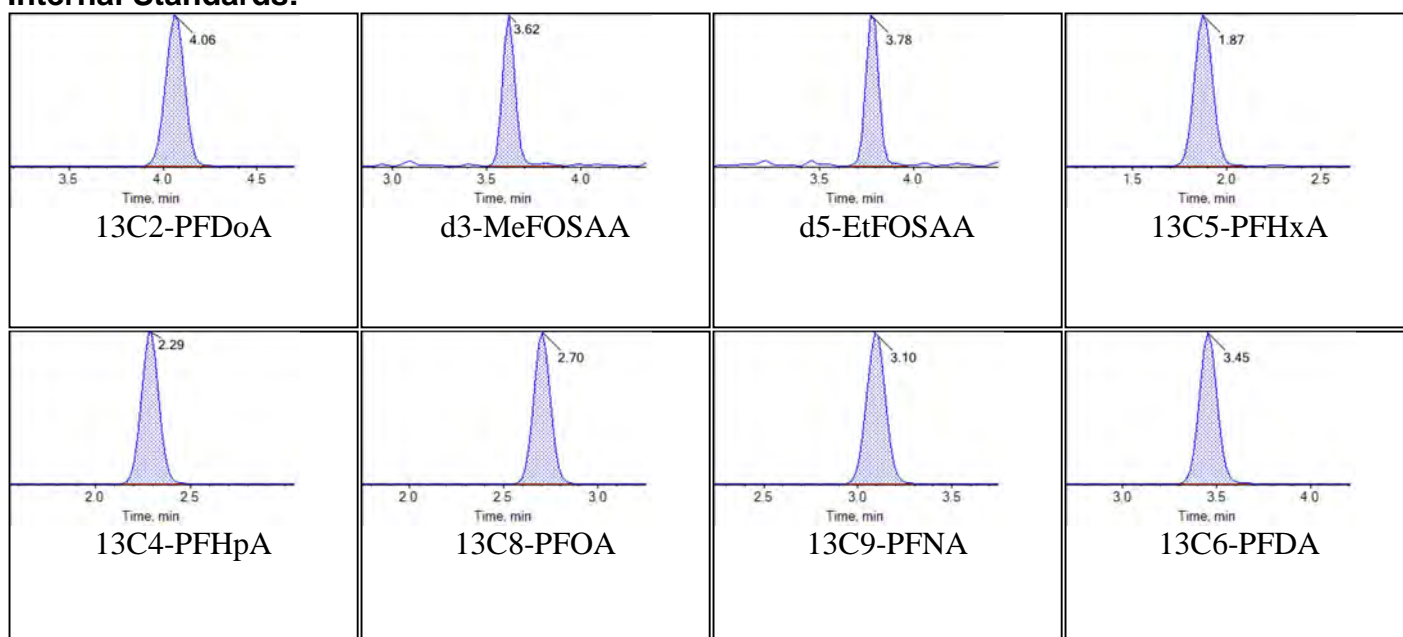


Sample Name	KC69	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T12:14:12	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

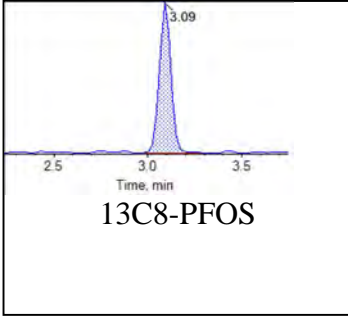
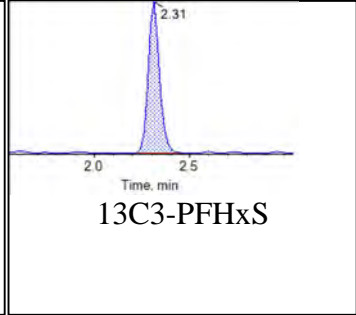
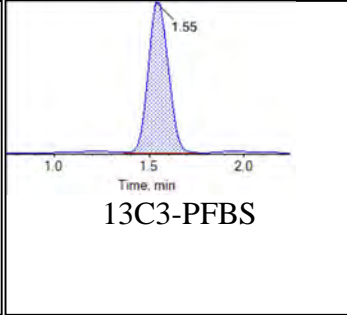
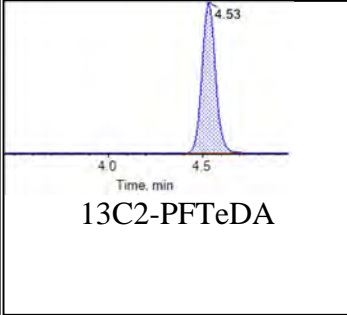
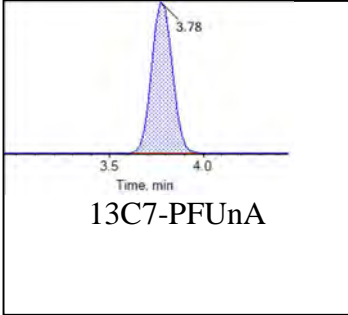
Target Analytes:



**Internal Standards:**

Chromatogram Report

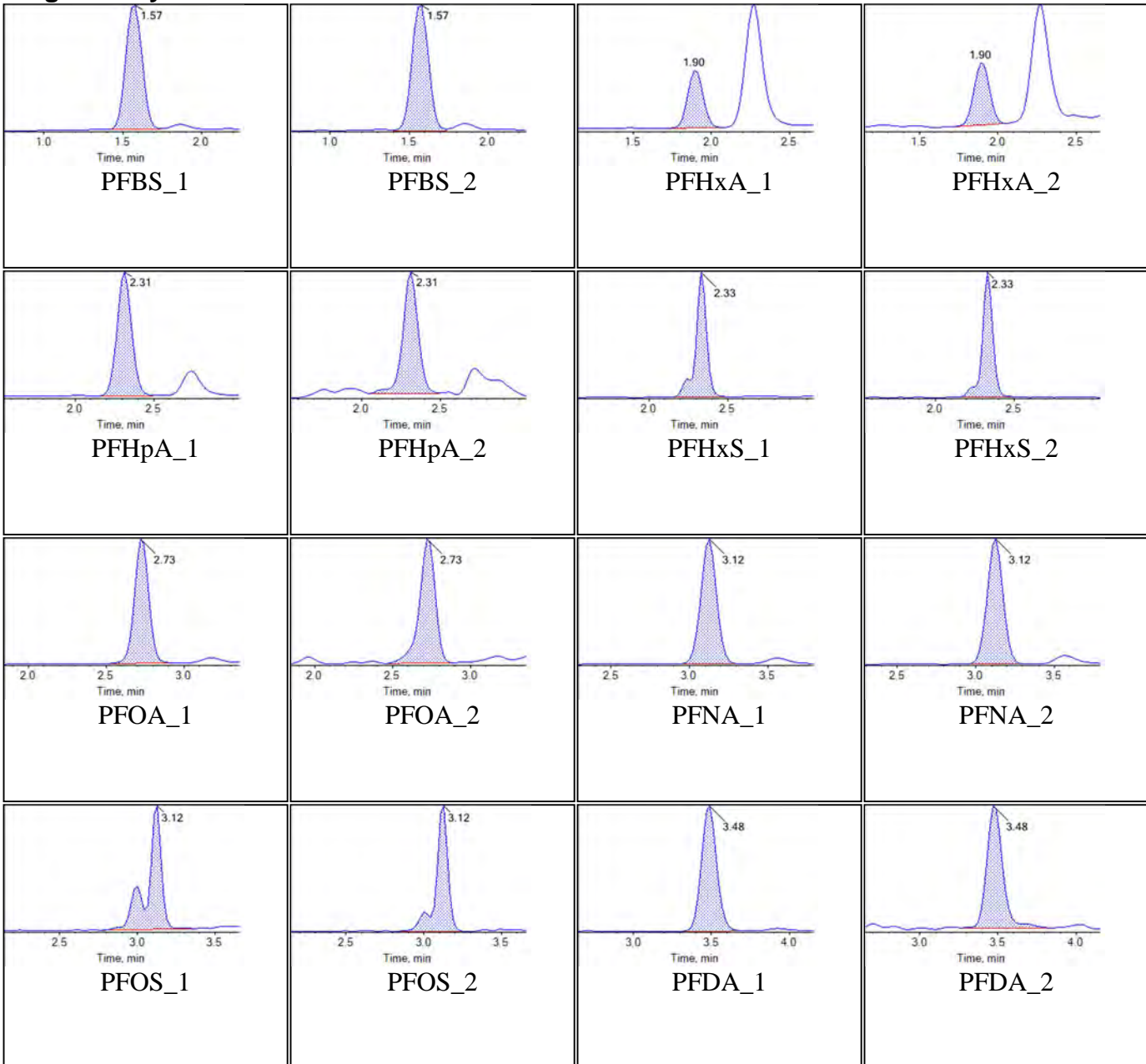
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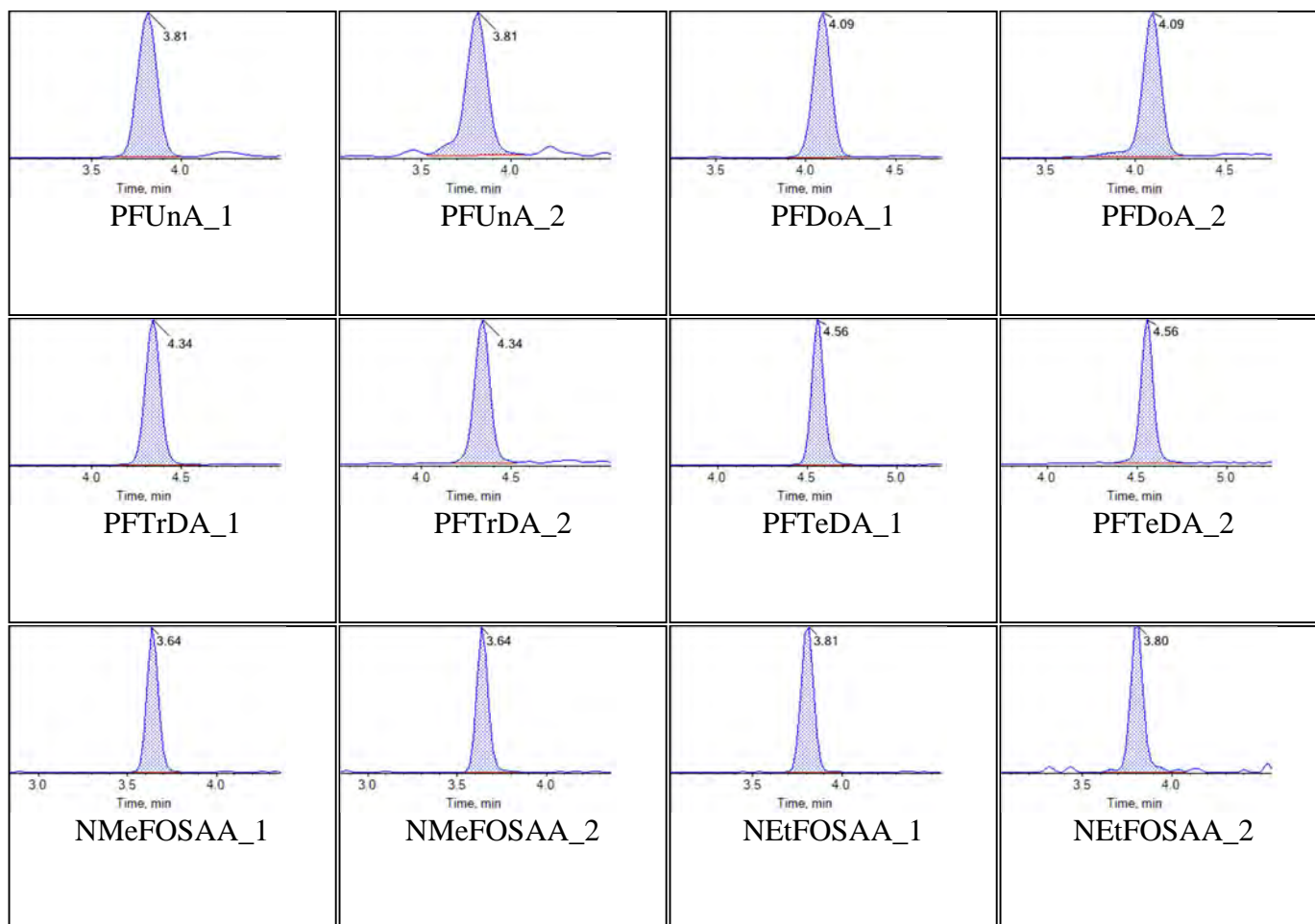
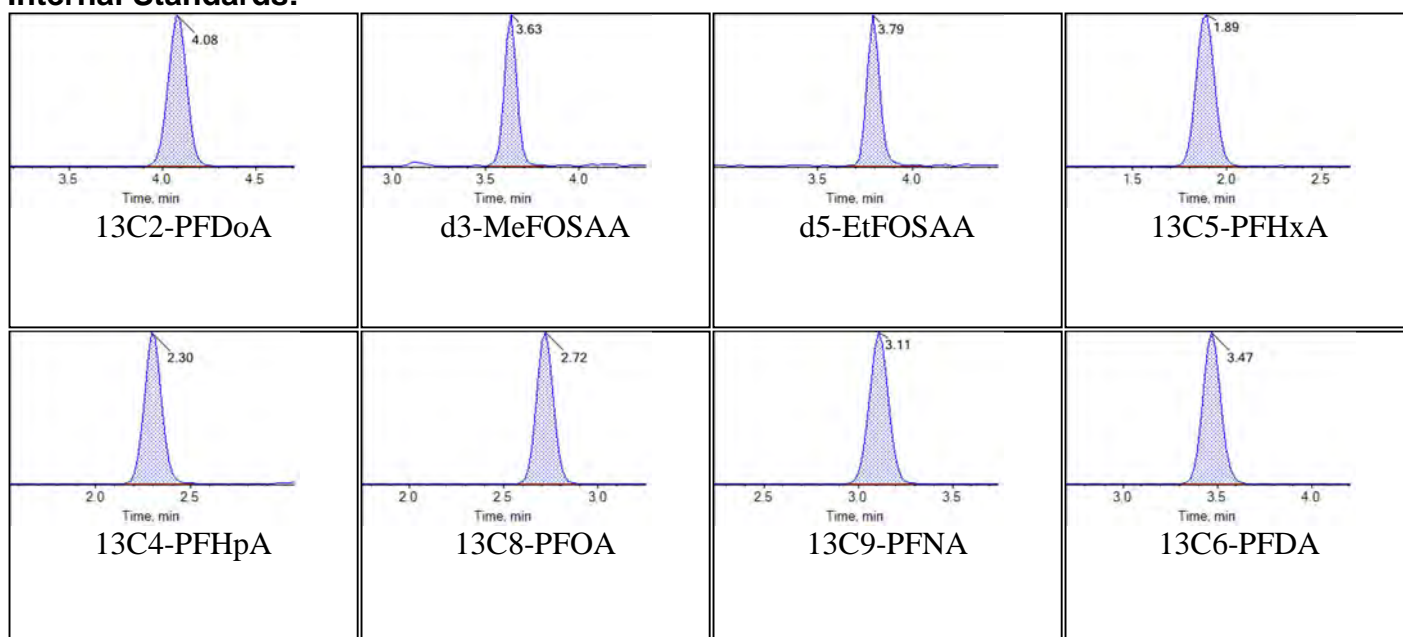


Sample Name	KC68	Injection Vial	4
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T14:11:09	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

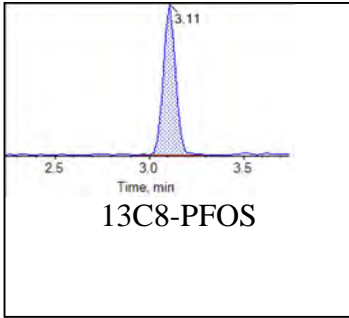
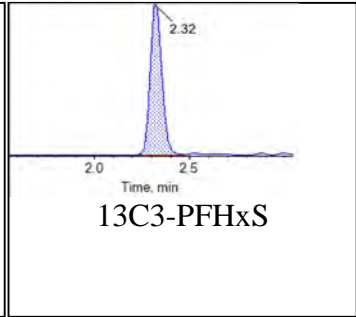
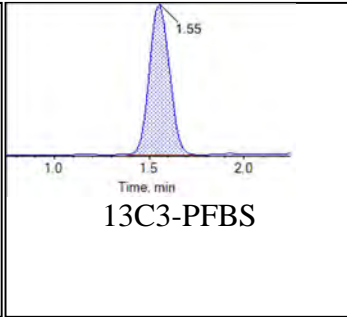
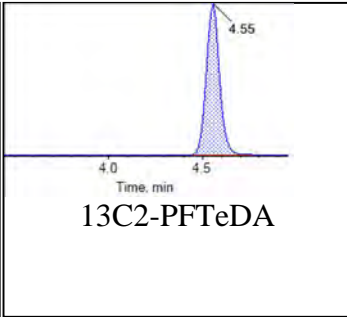
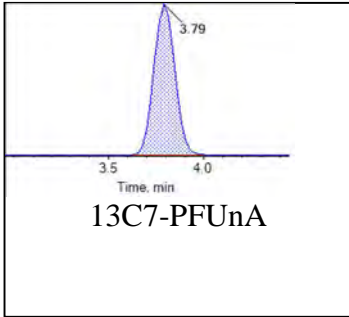
Target Analytes:



**Internal Standards:**

Chromatogram Report

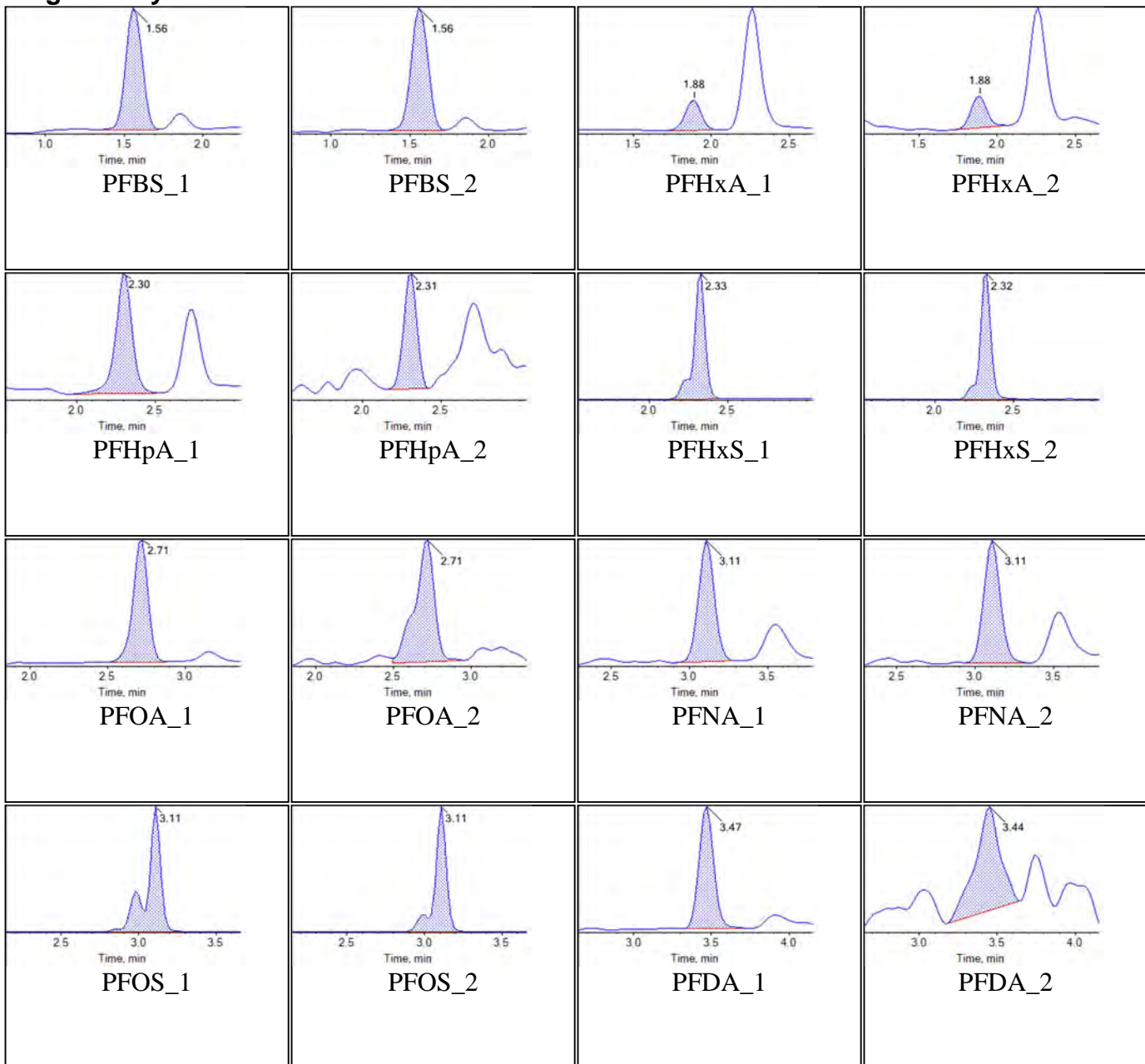
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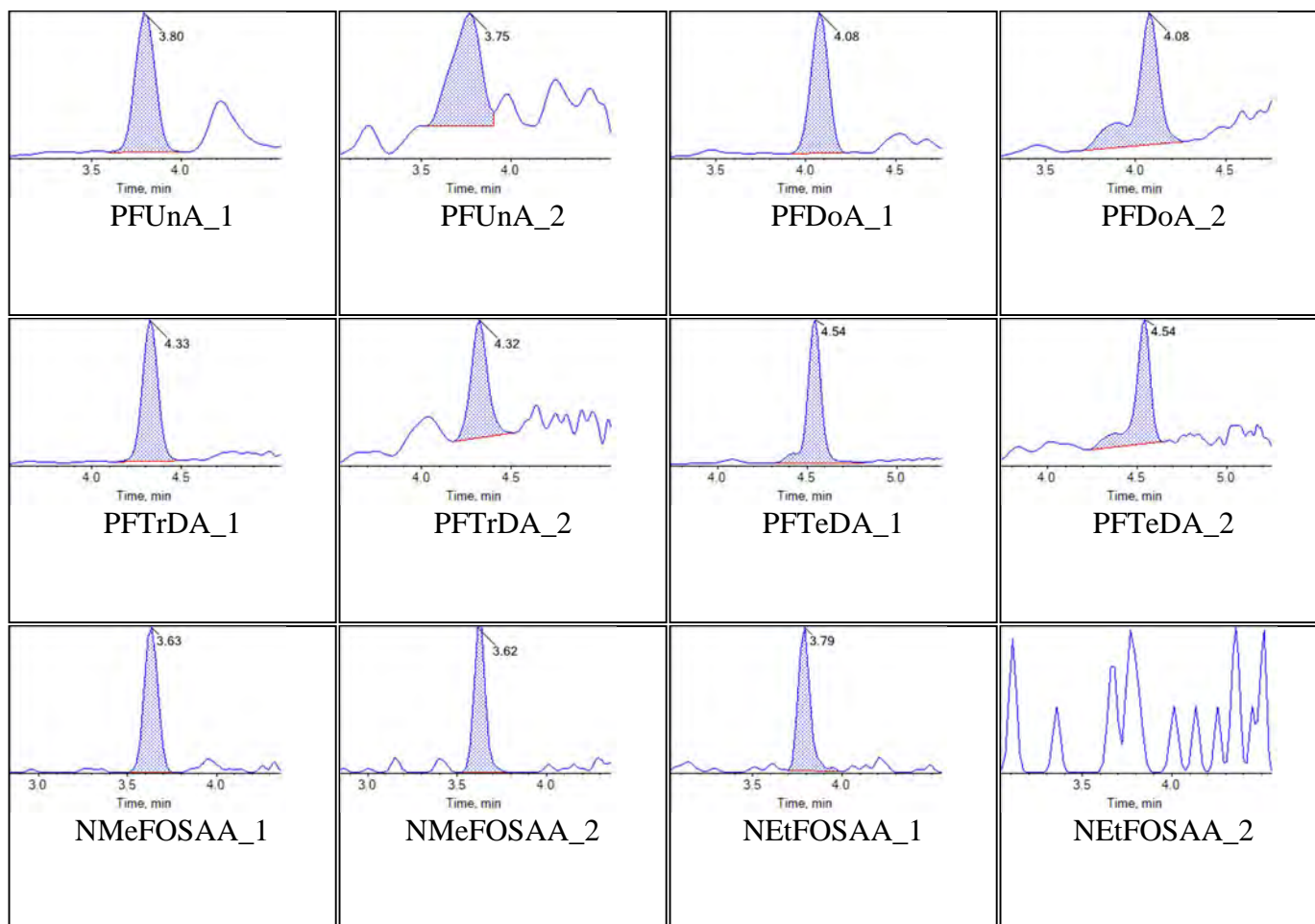
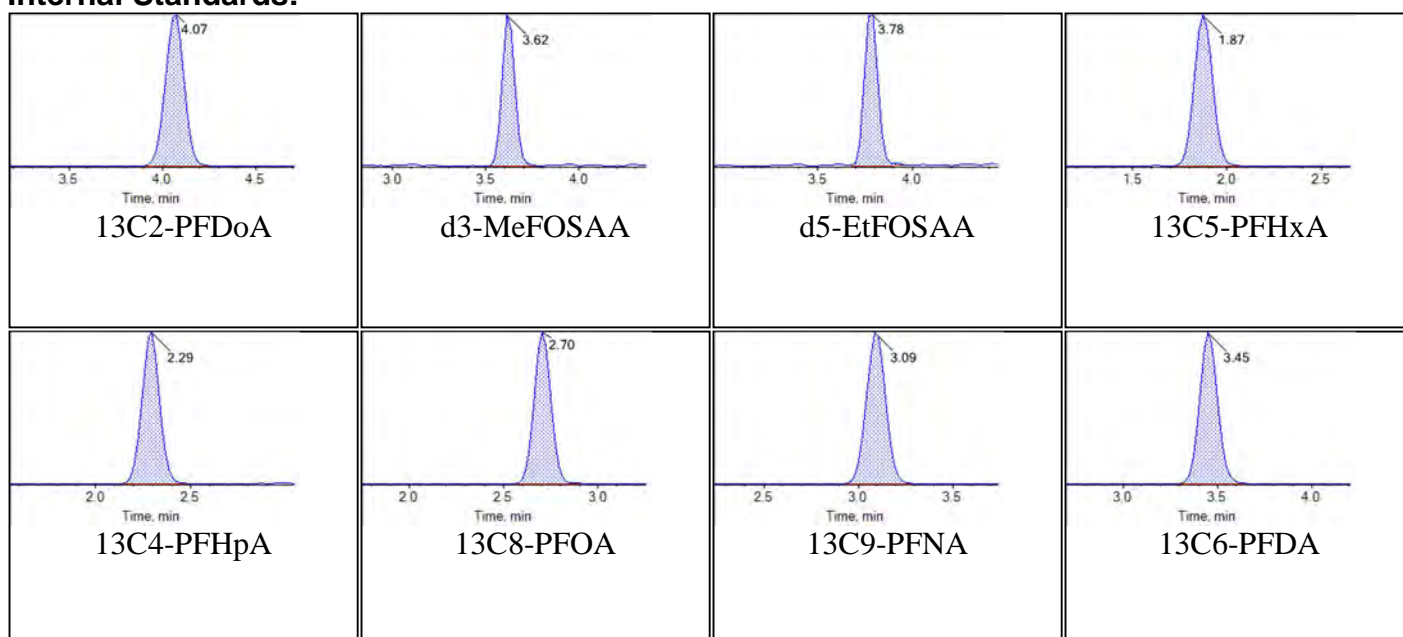


Sample Name	J9415MS-FS-D(9)	Injection Vial	15
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T15:50:29	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

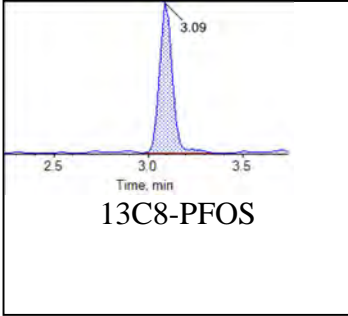
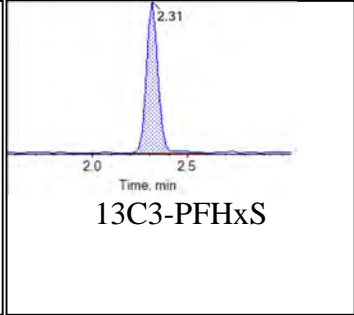
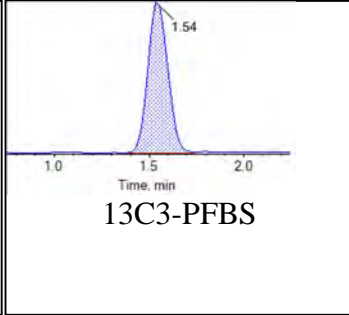
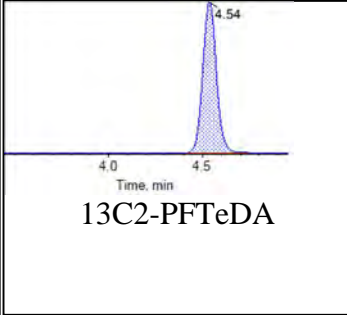
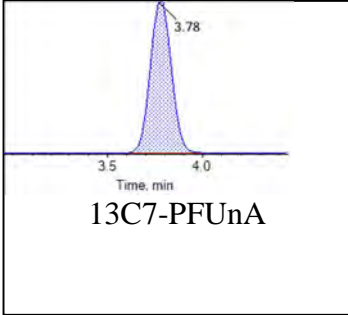


**Internal Standards:**



Chromatogram Report

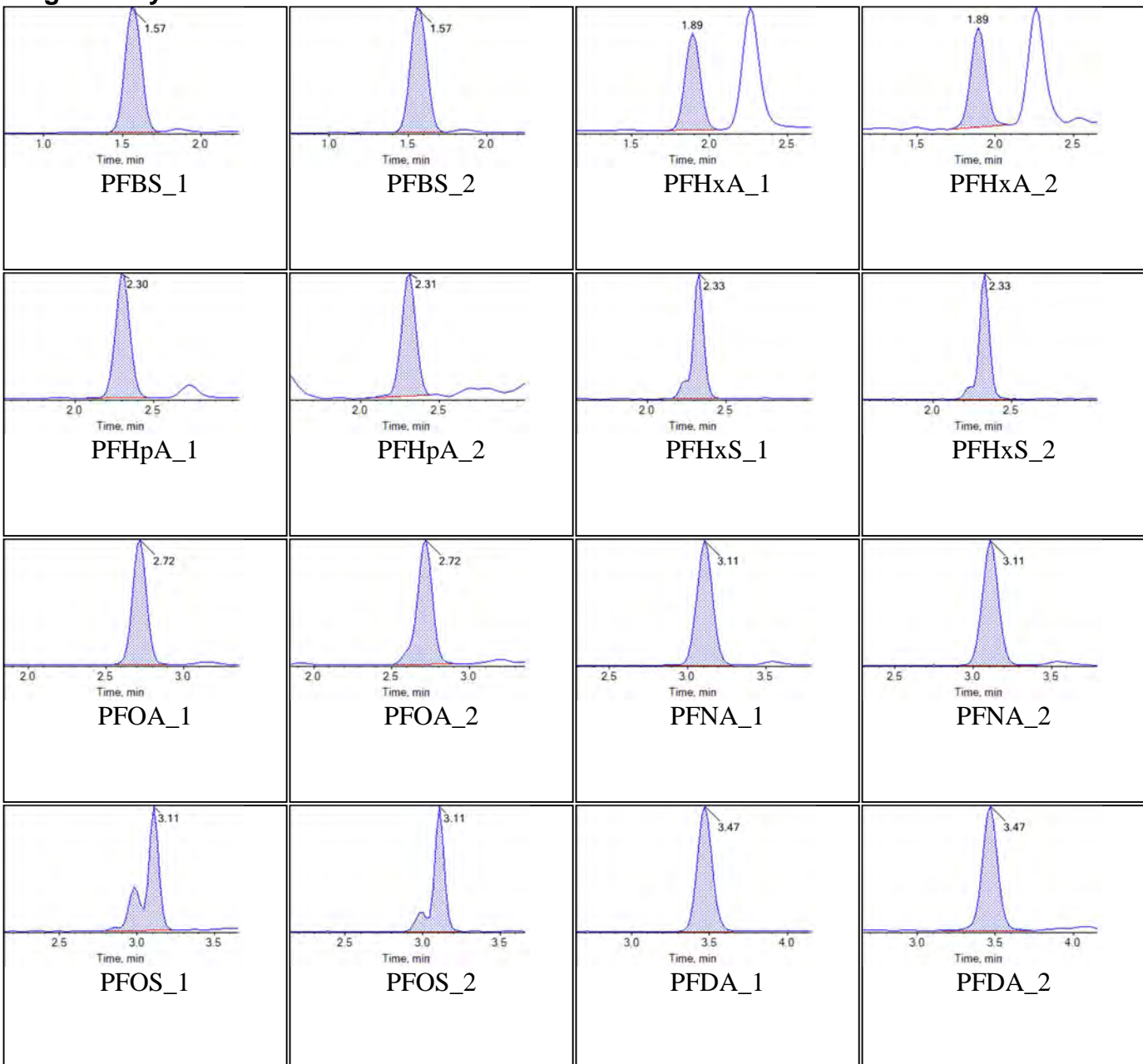
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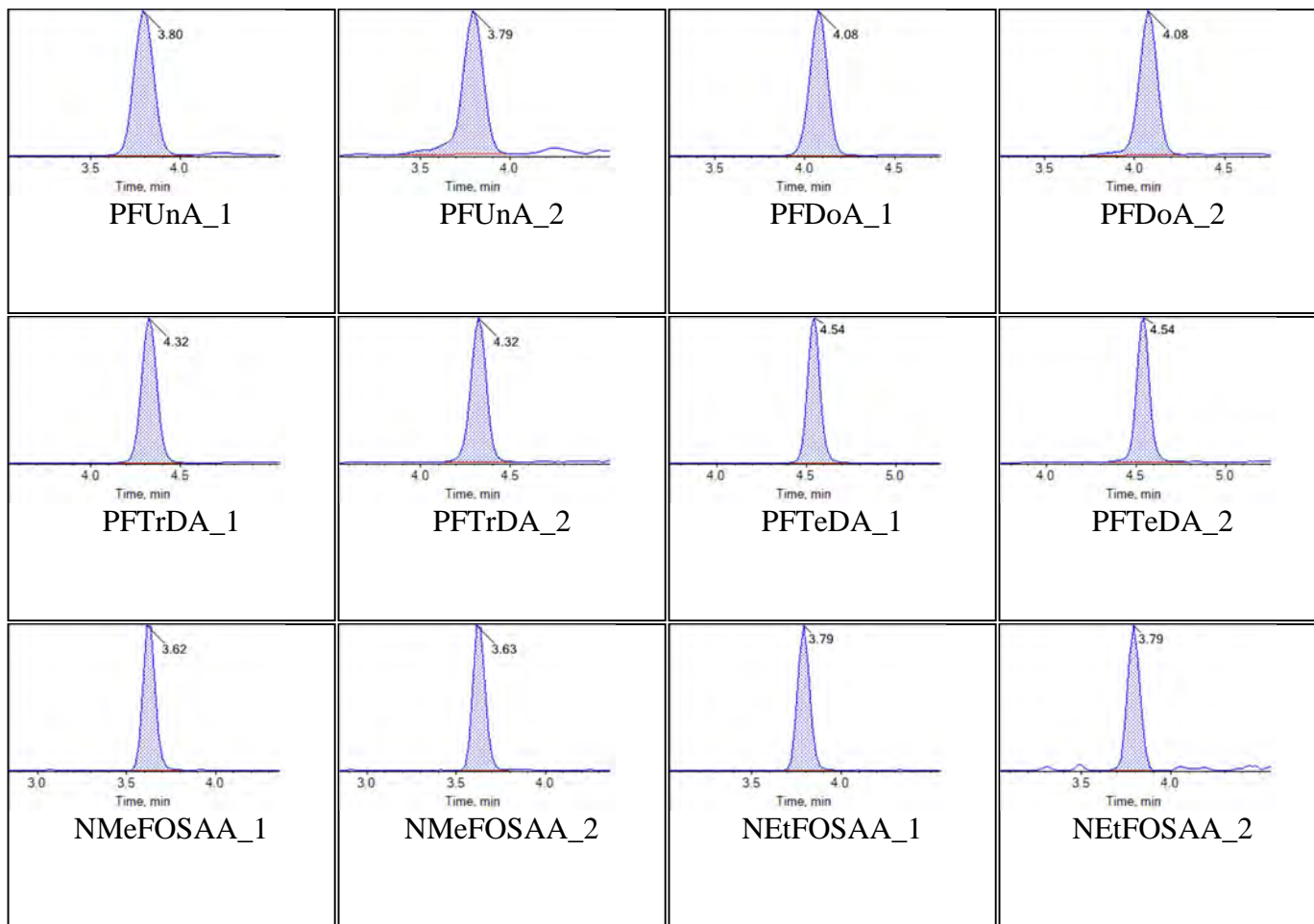
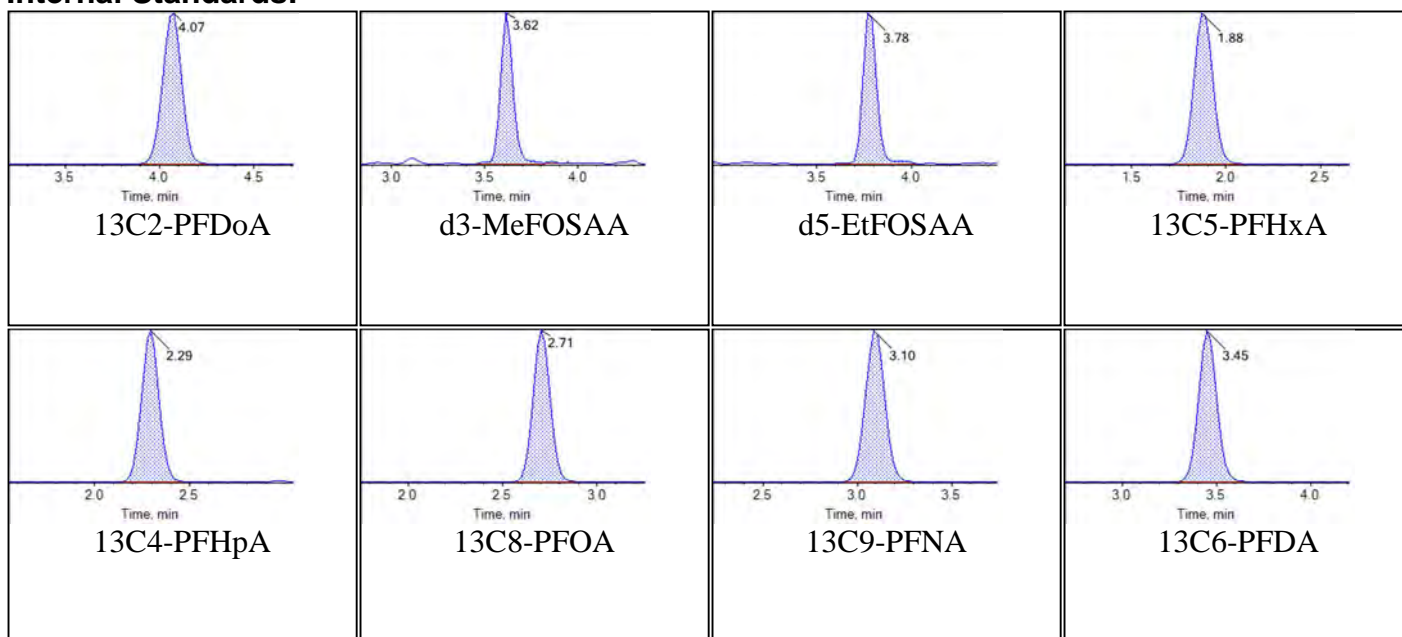


Sample Name	KC69	Injection Vial	16
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T16:01:22	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

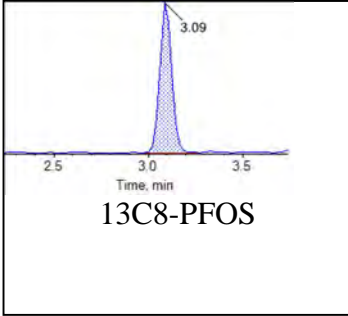
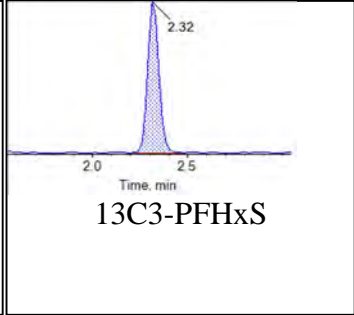
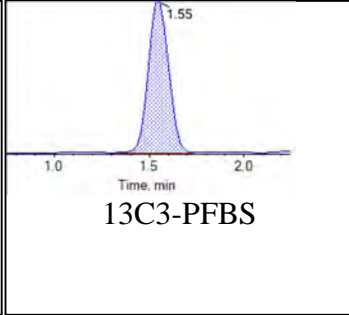
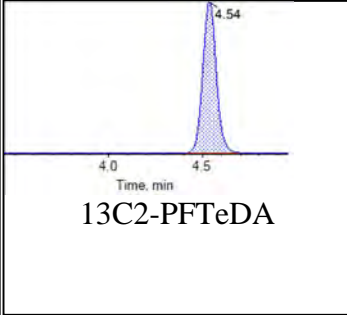
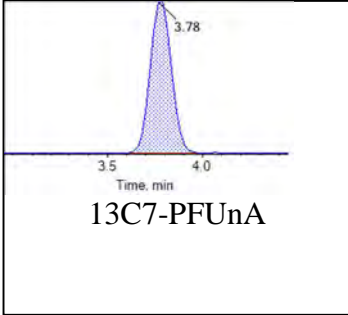


**Internal Standards:**



Chromatogram Report

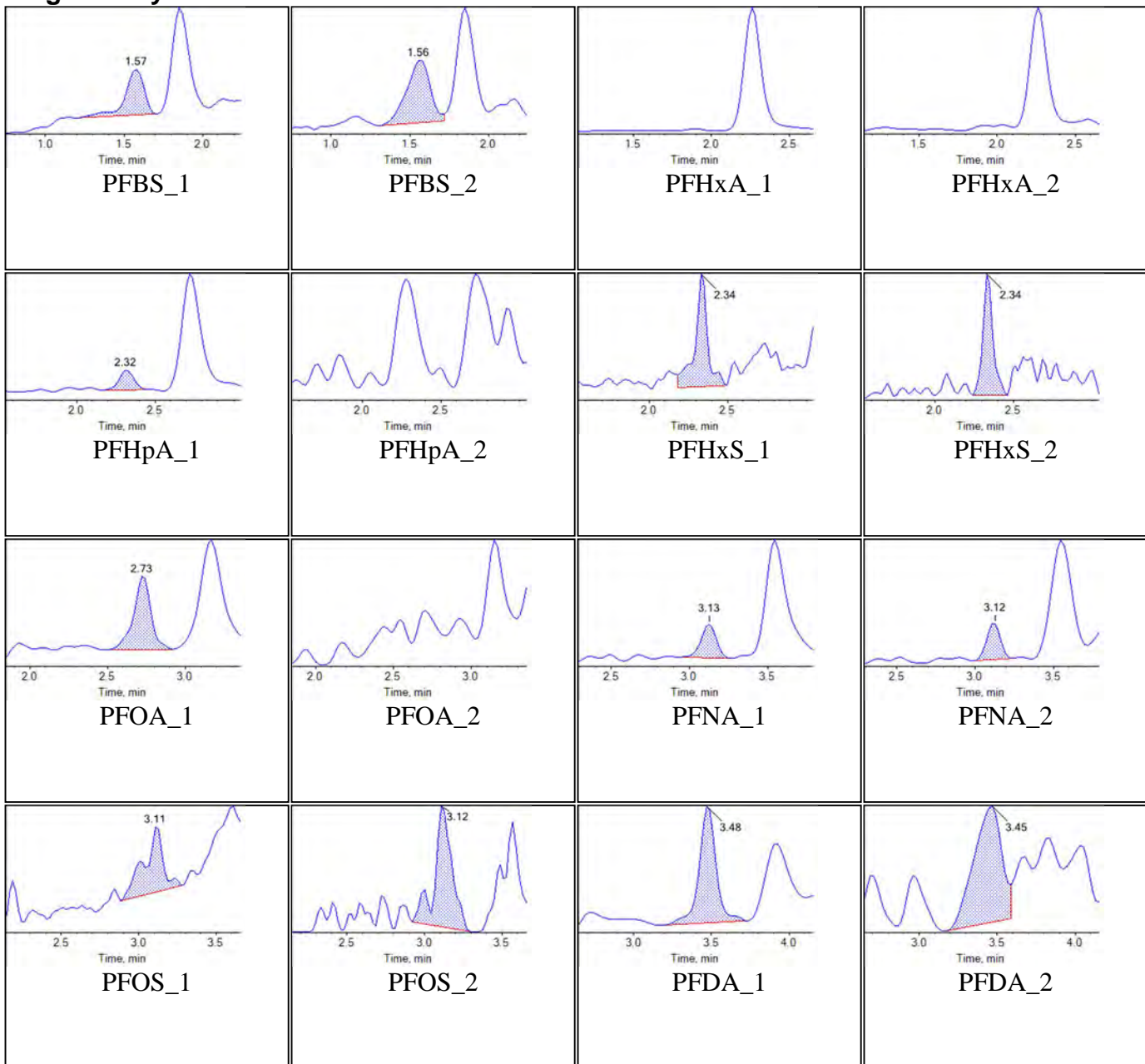
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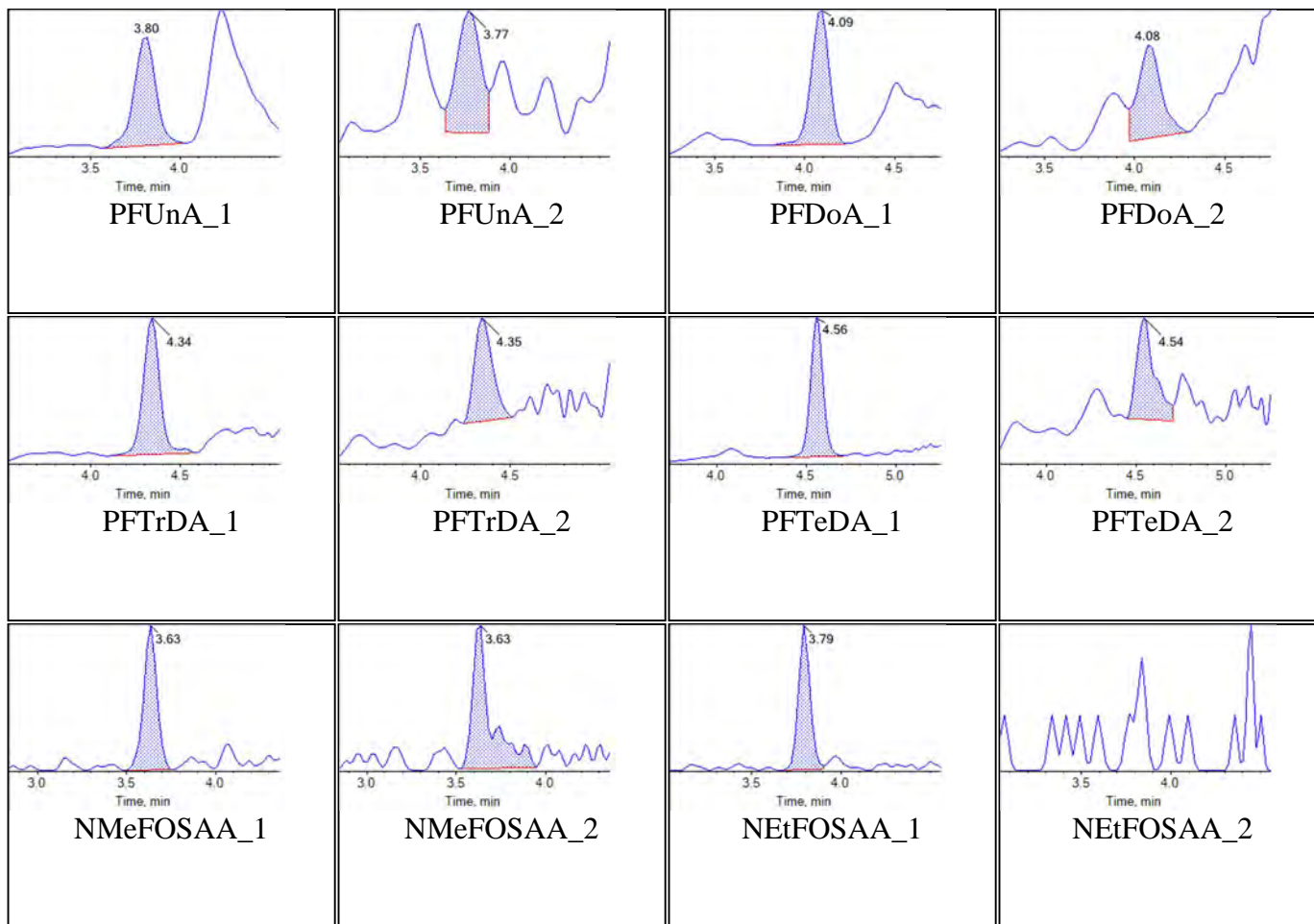
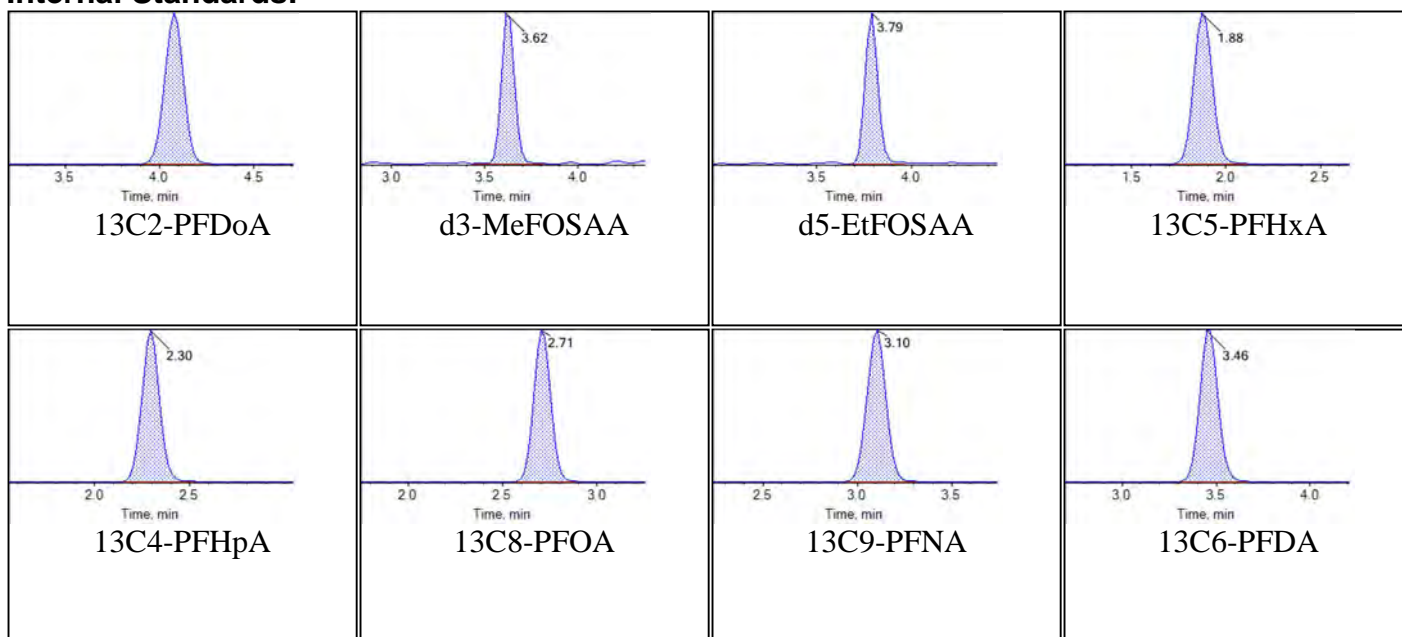


Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:04:50	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

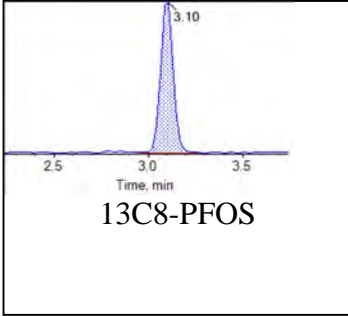
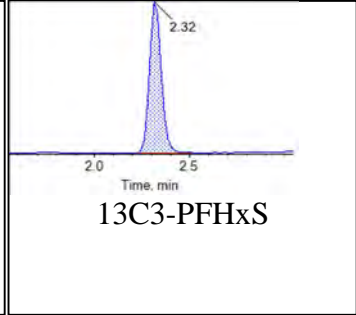
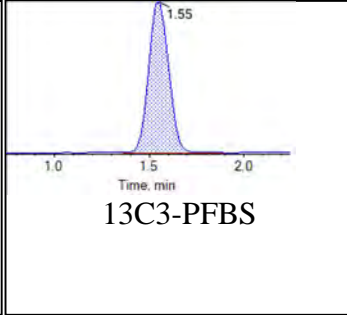
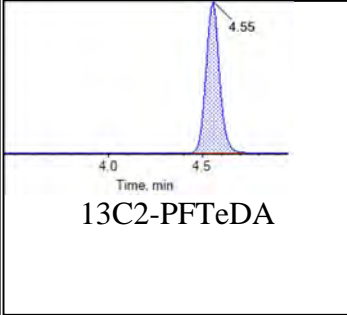
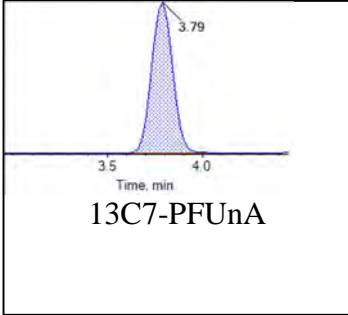
Target Analytes:



**Internal Standards:**

Chromatogram Report

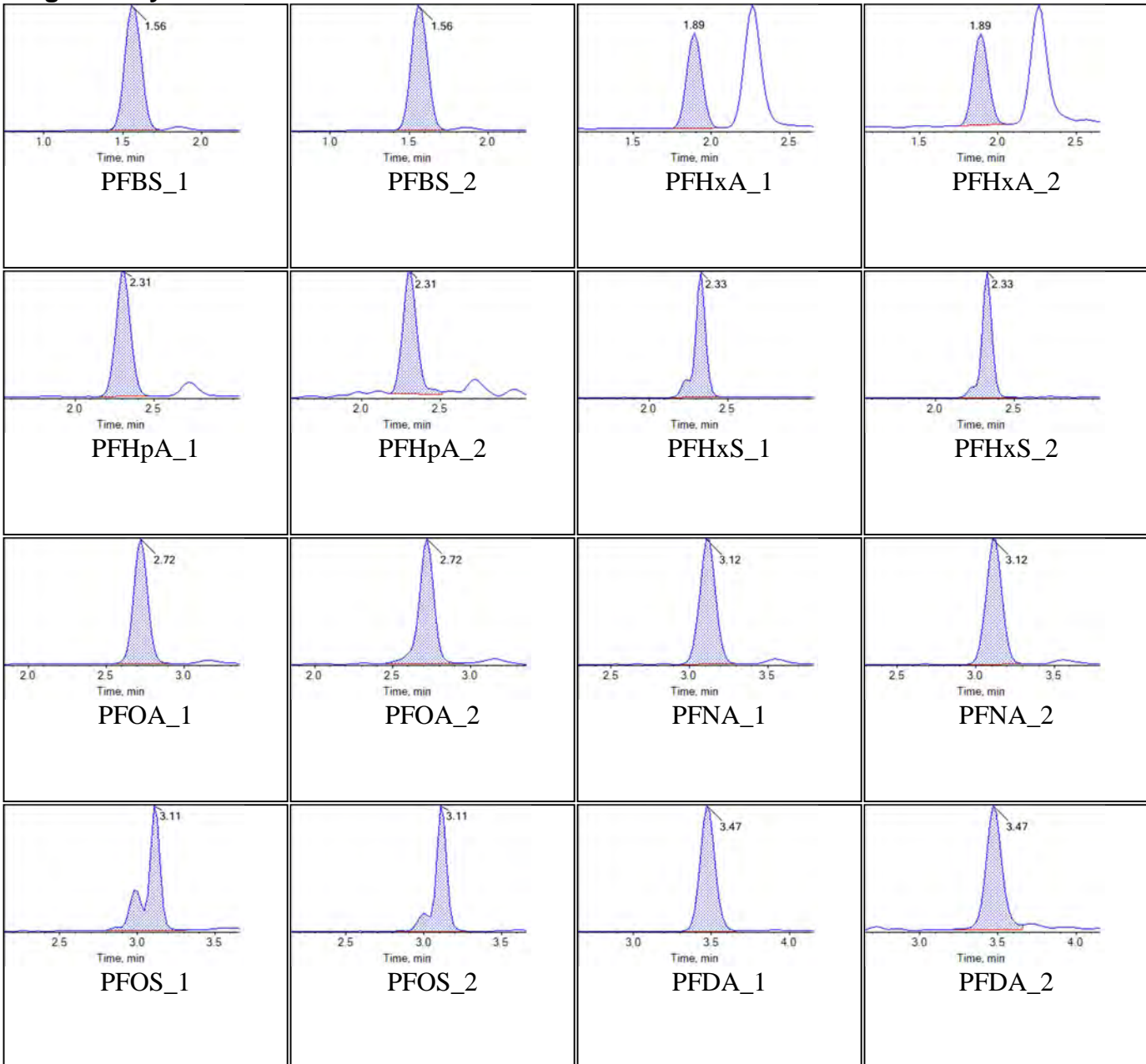
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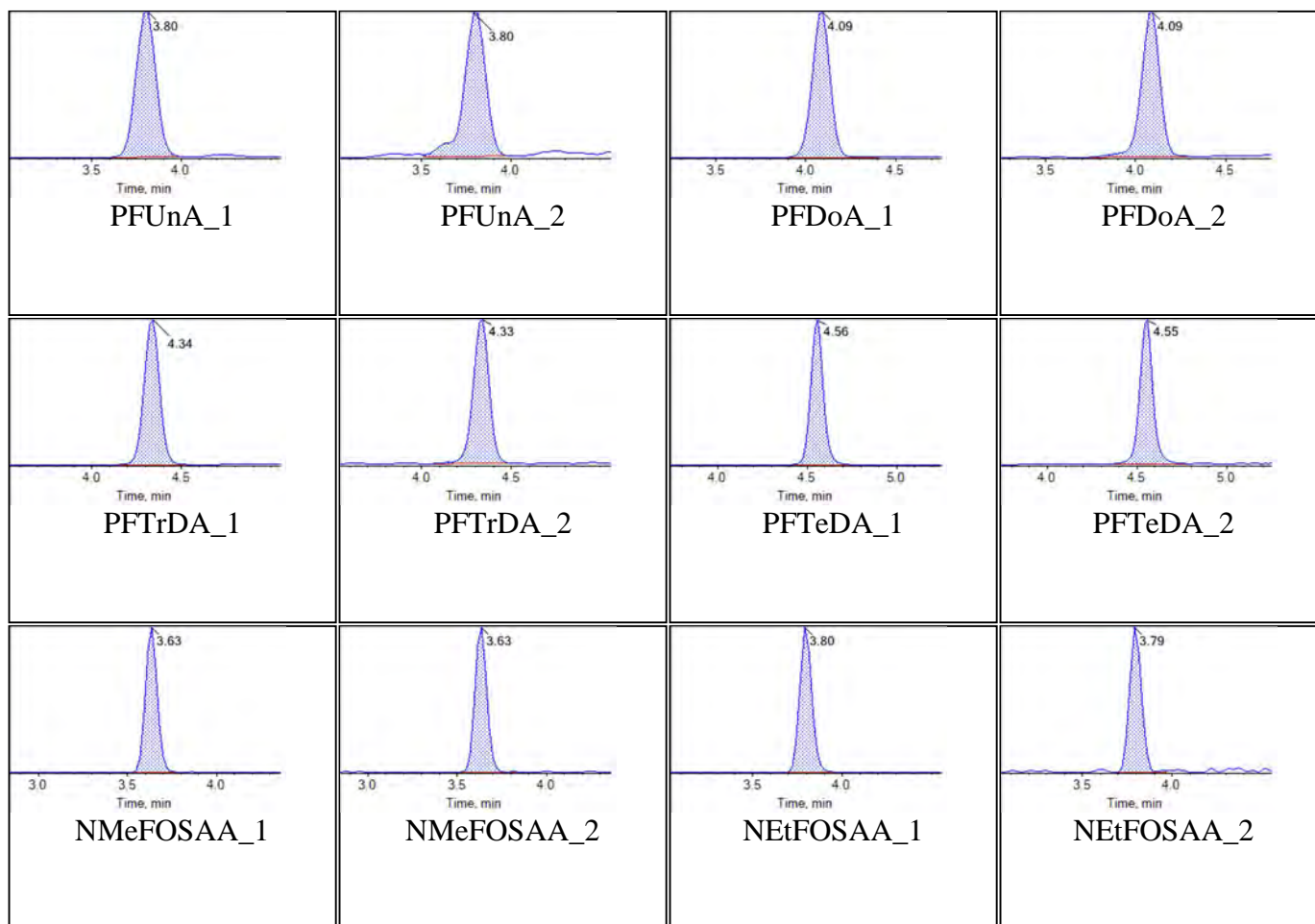
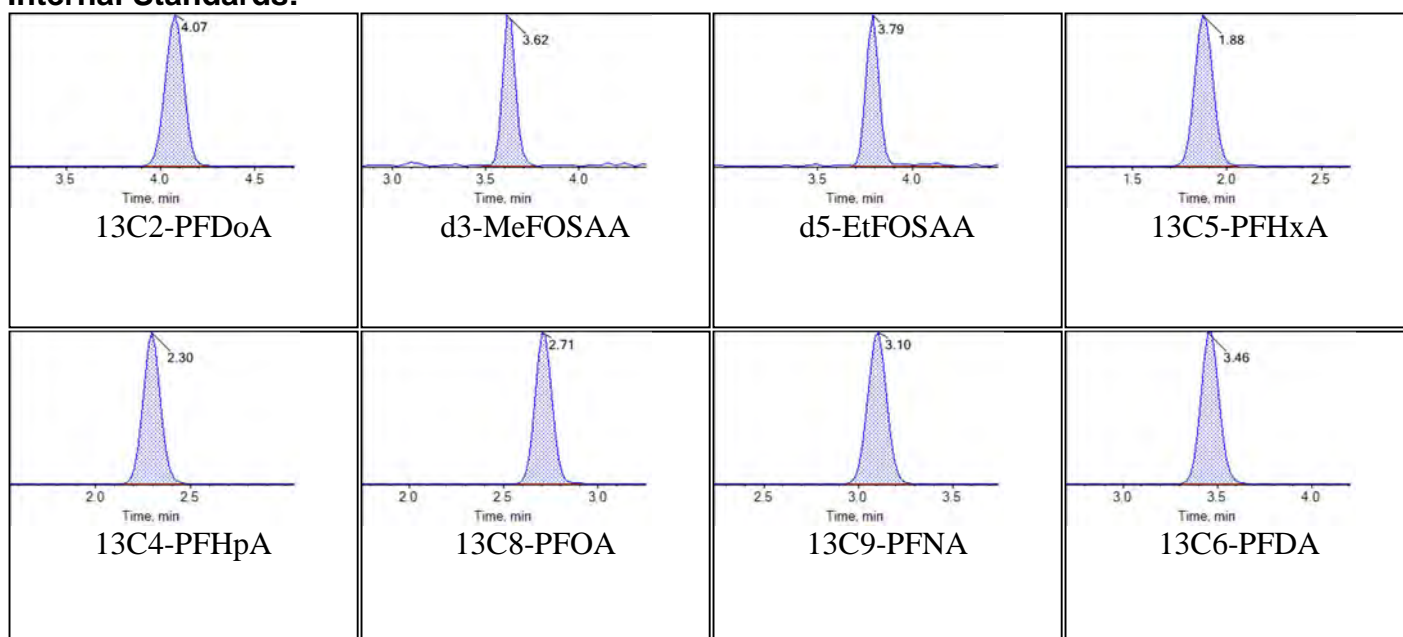


Sample Name	KC69 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:15:42	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

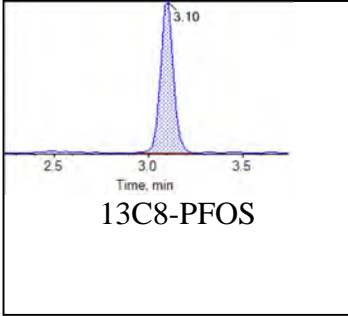
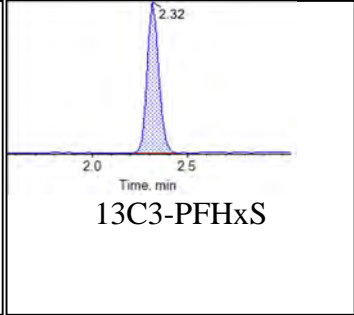
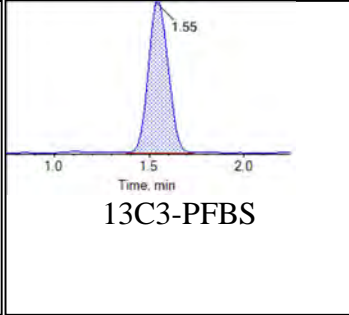
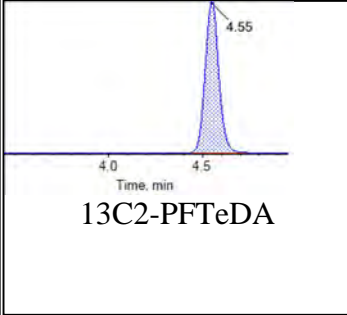
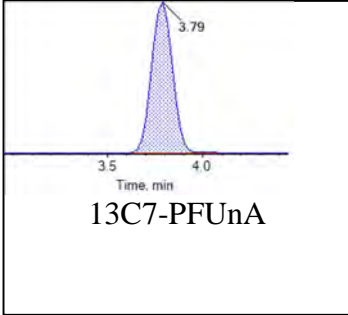
Target Analytes:



**Internal Standards:**

Chromatogram Report

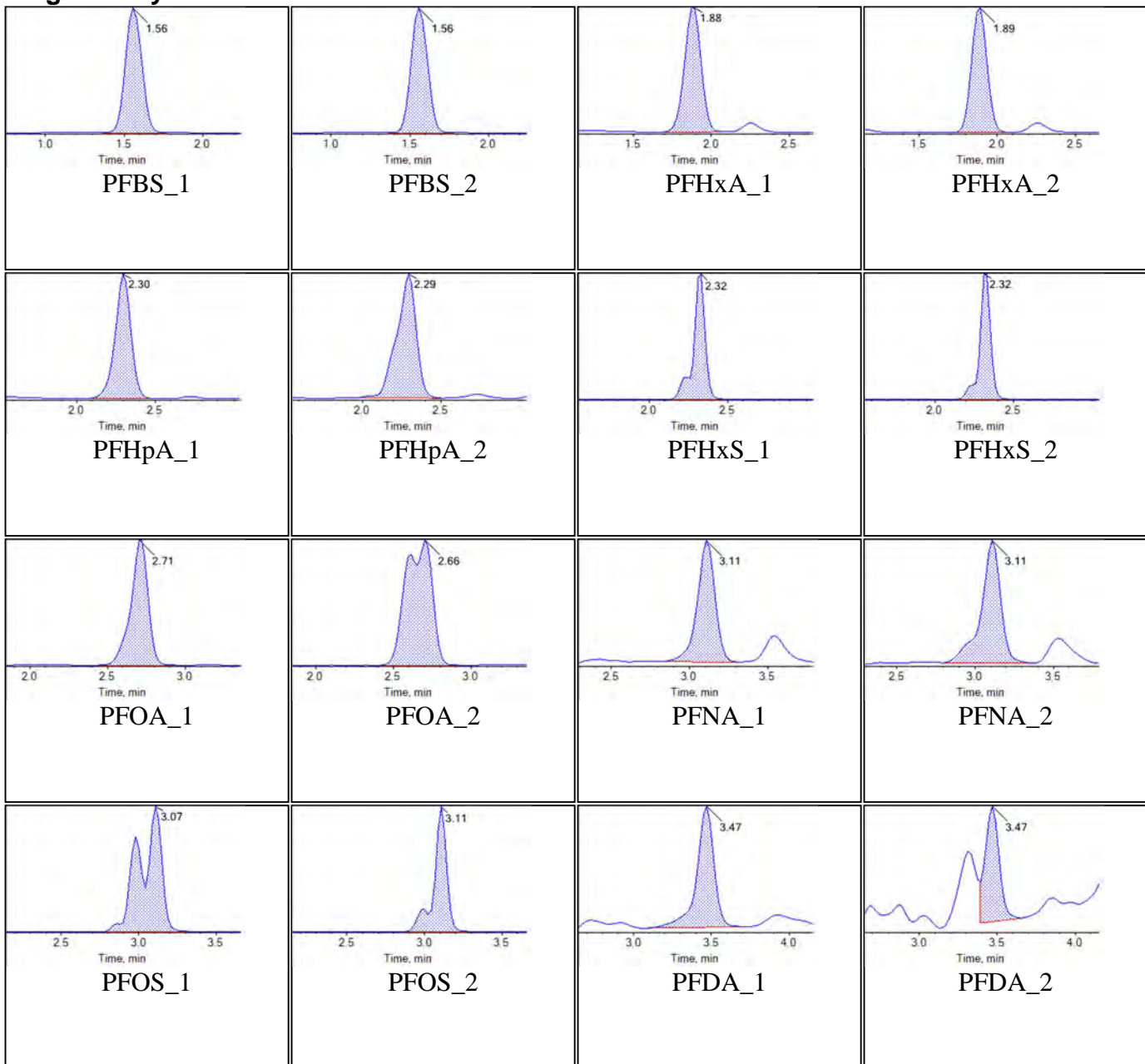
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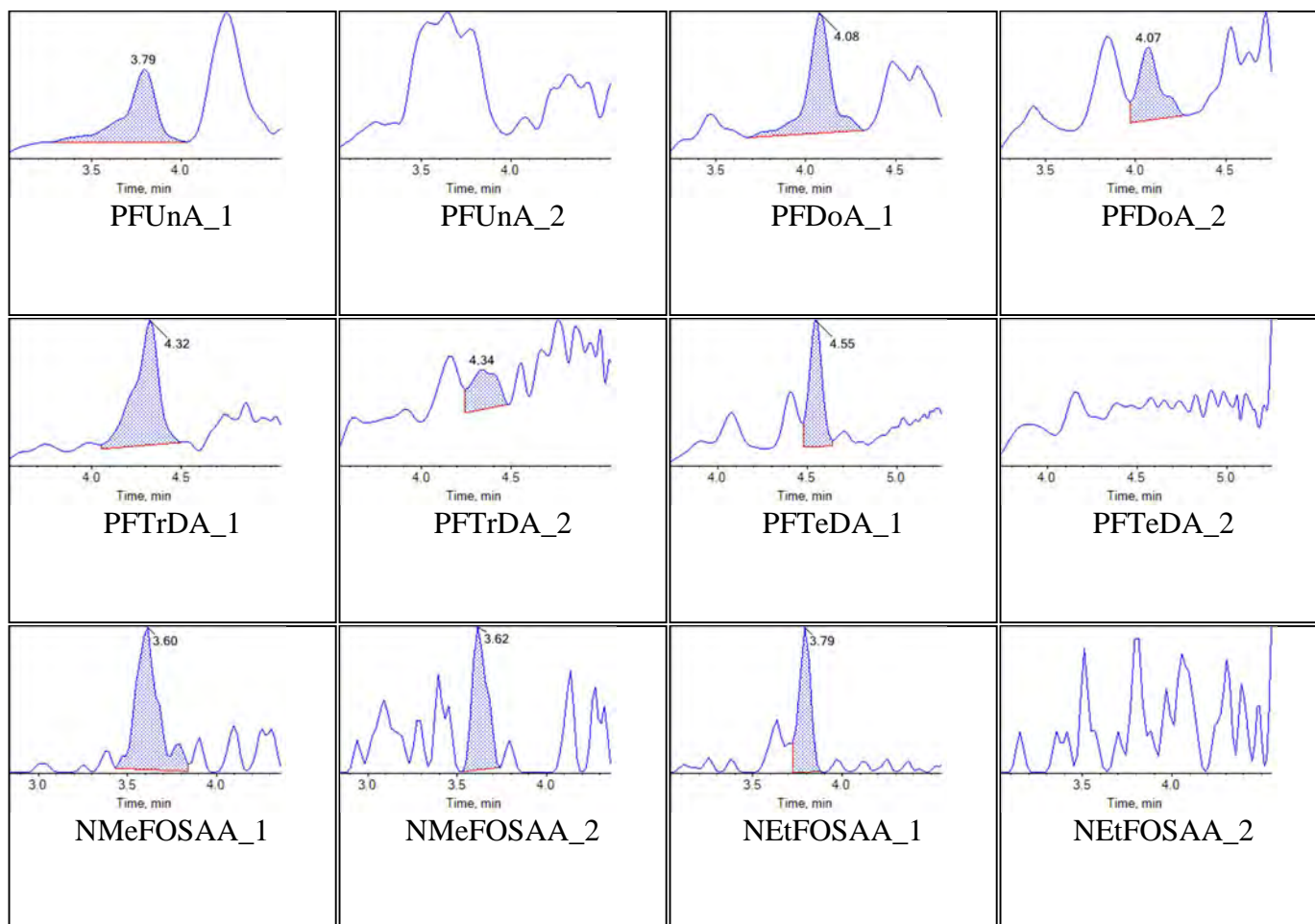
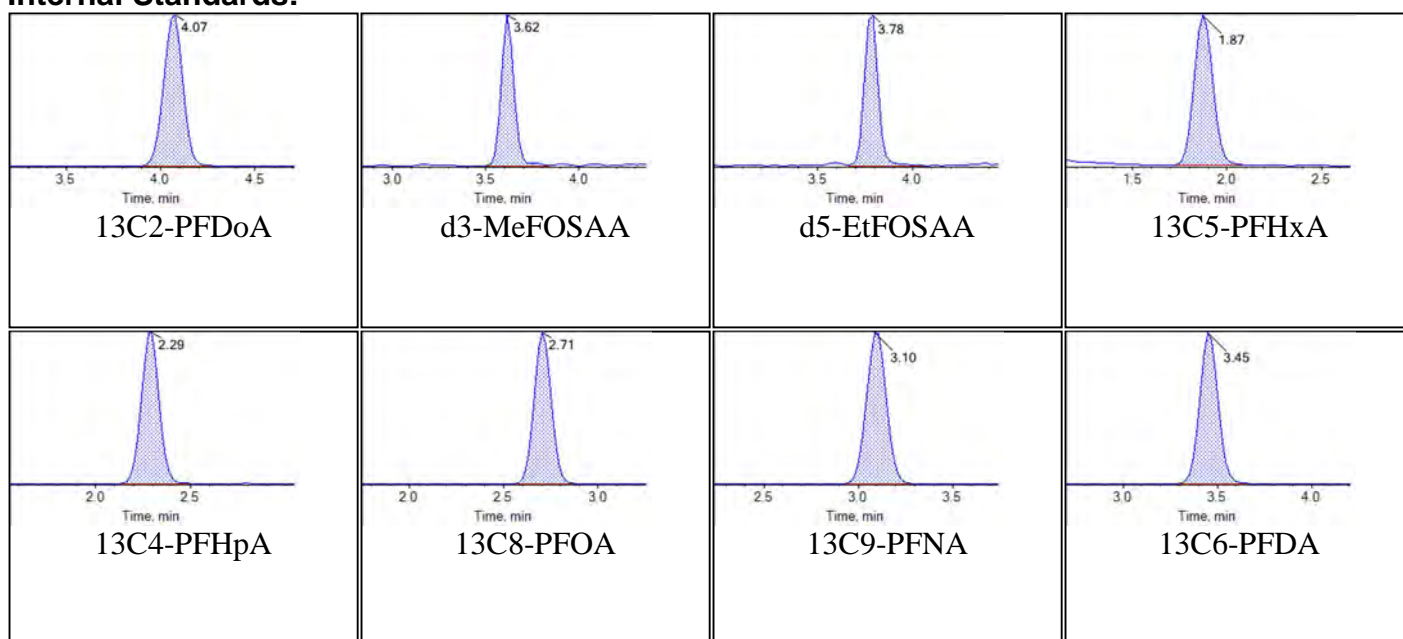


Sample Name	J9417-FS-D(13)	Injection Vial	5
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:26:35	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

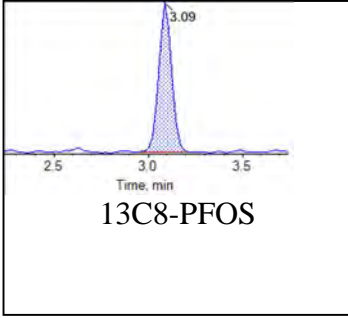
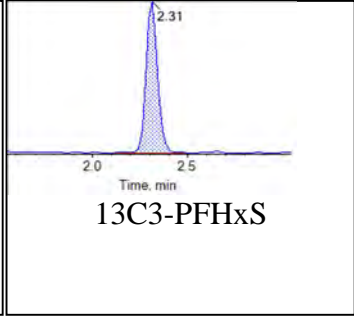
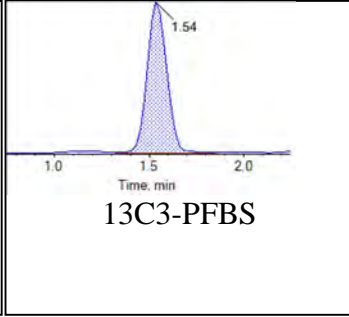
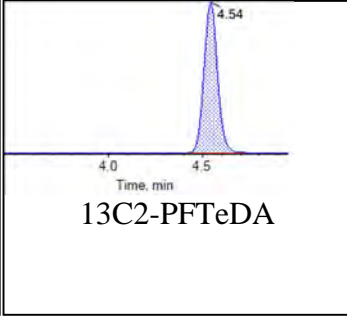
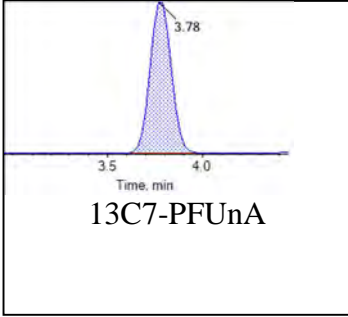


**Internal Standards:**



Chromatogram Report

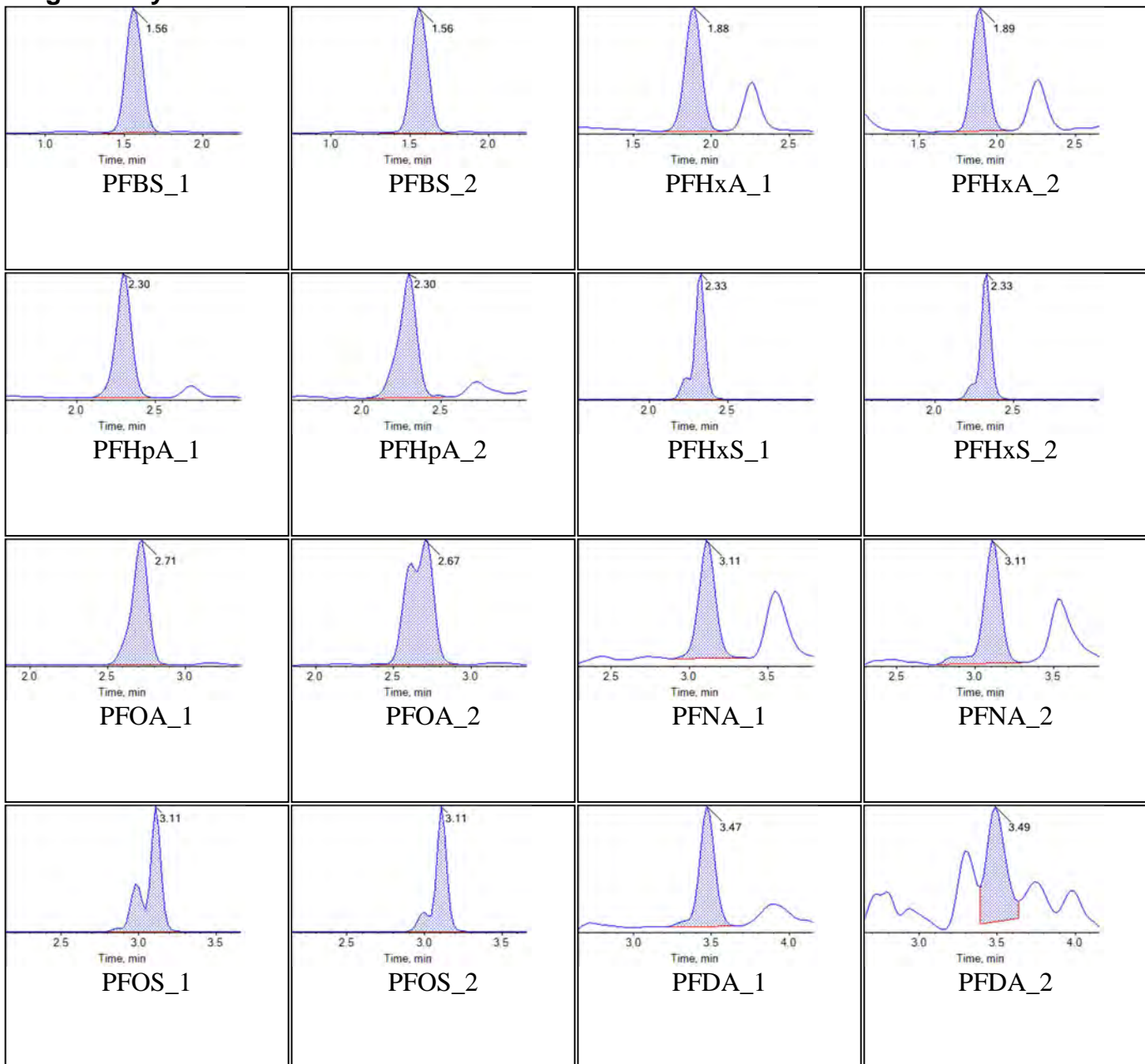
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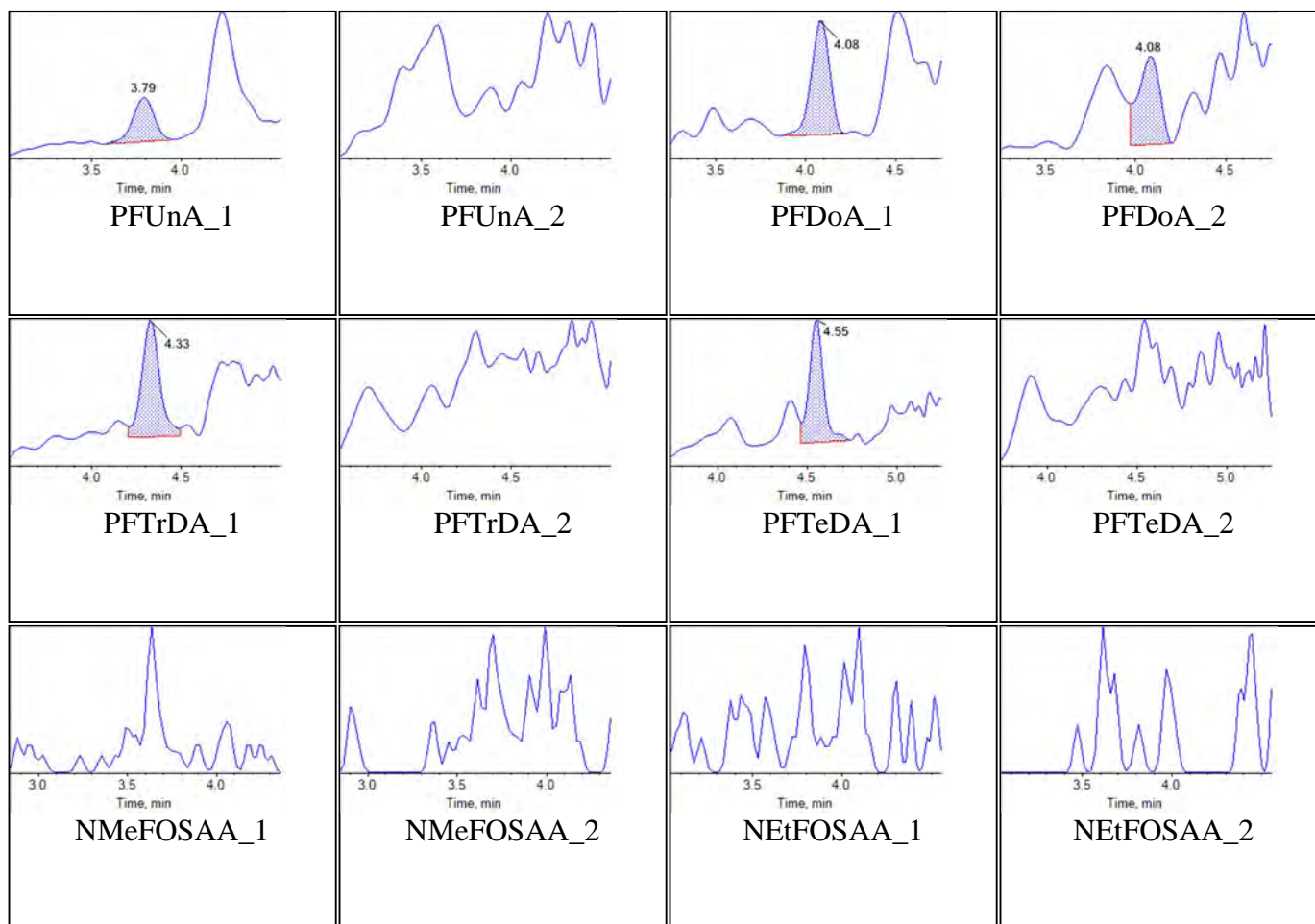
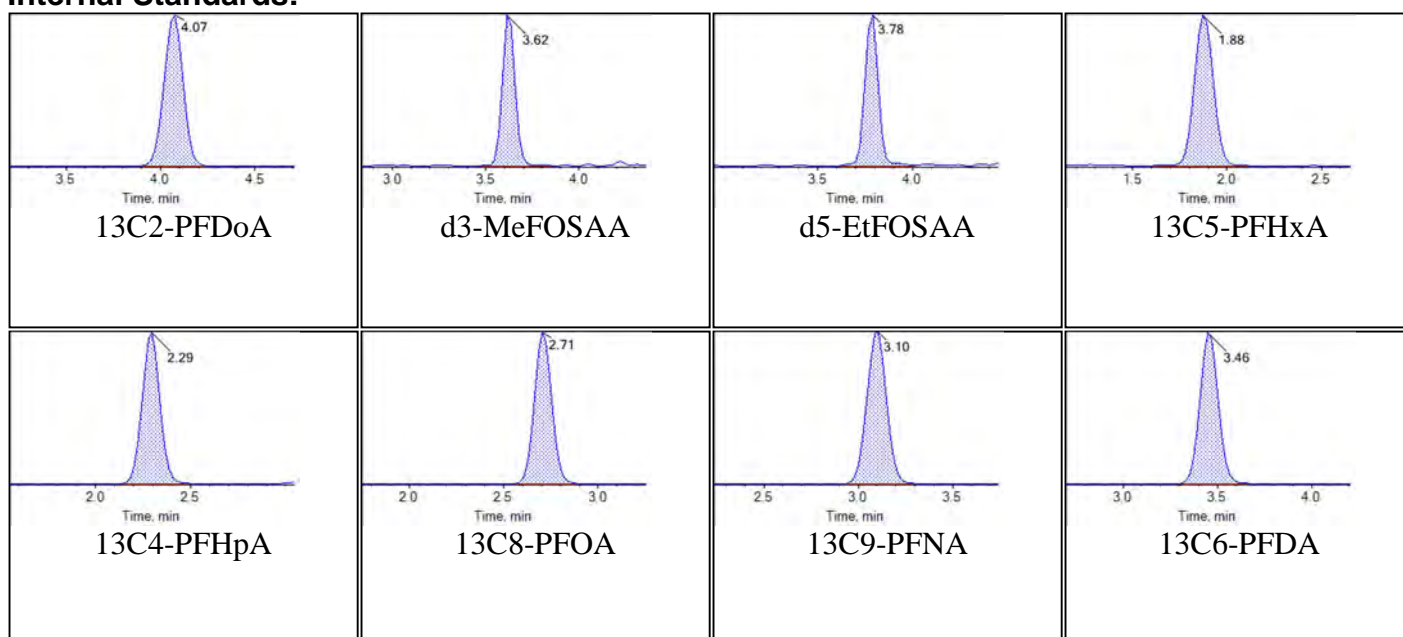


Sample Name	J9417-FS-D(15)	Injection Vial	6
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:37:28	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

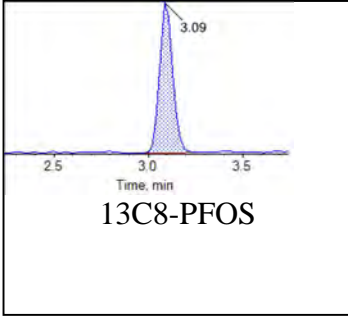
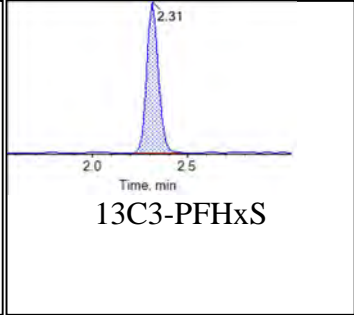
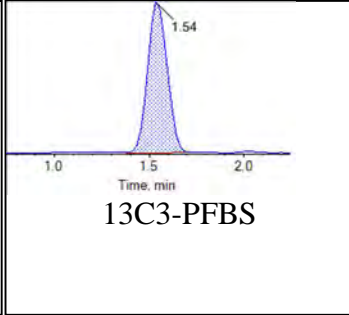
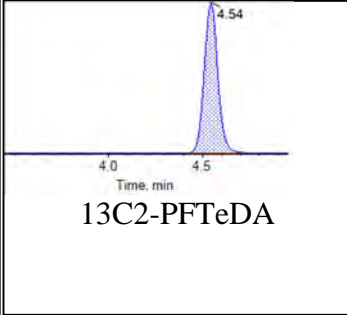
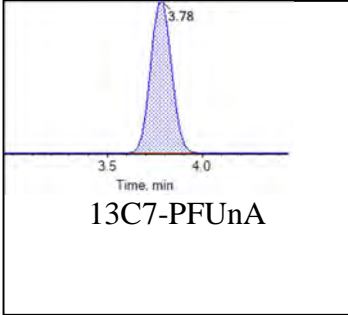


**Internal Standards:**



Chromatogram Report

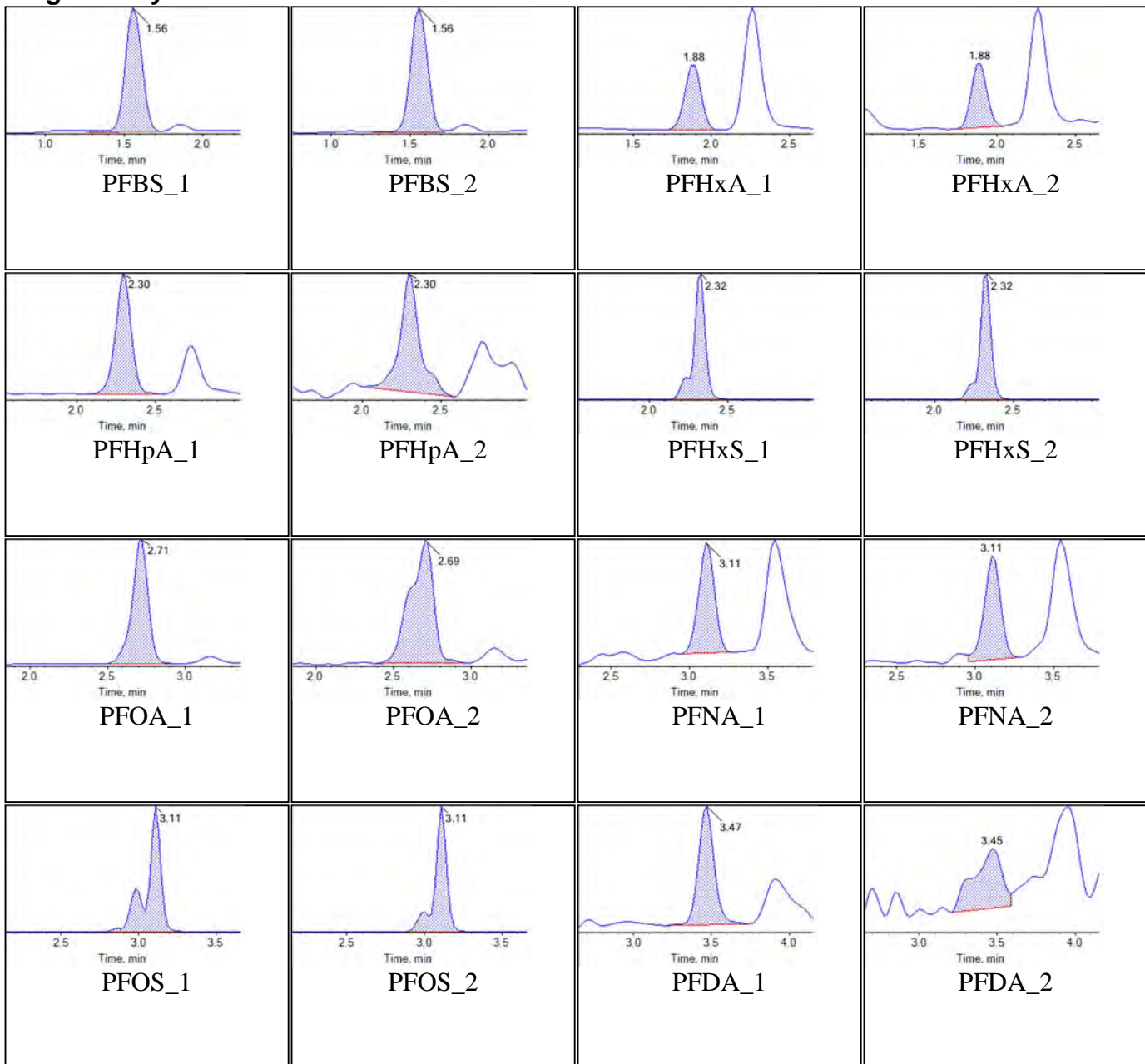
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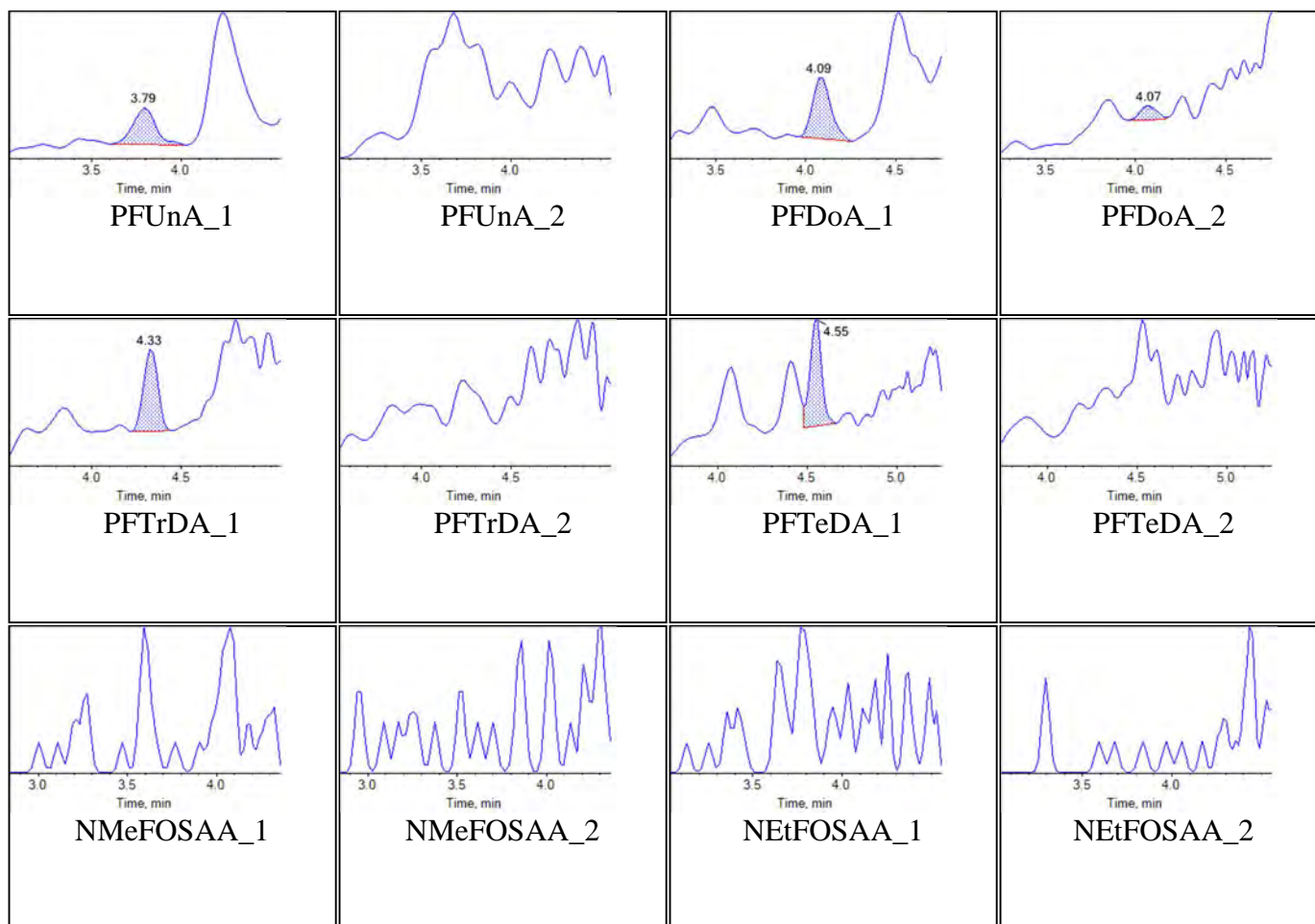
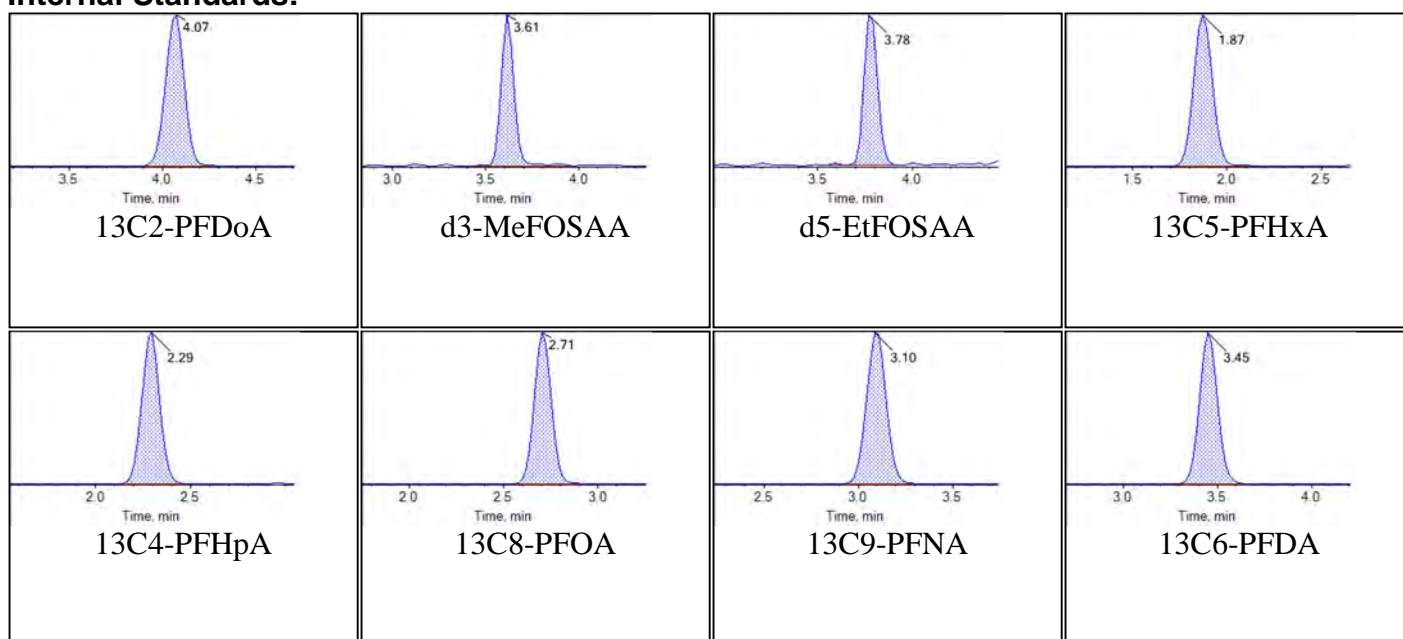


Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:48:21	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

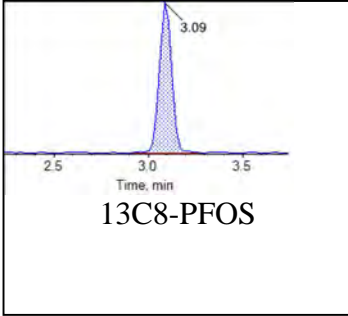
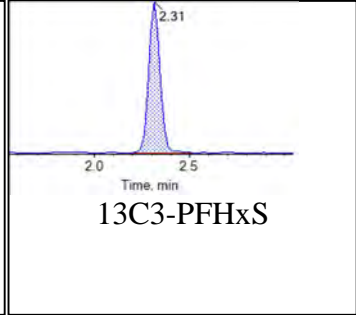
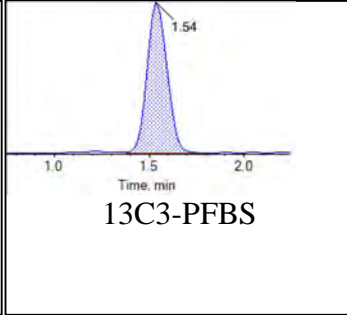
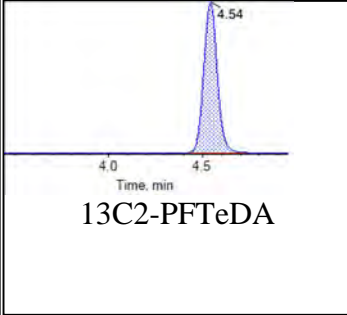
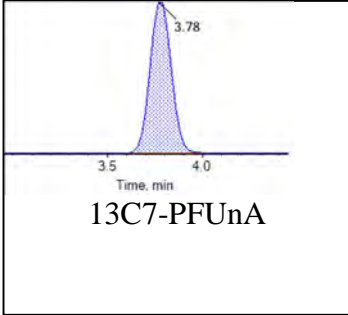
Target Analytes:



**Internal Standards:**

Chromatogram Report

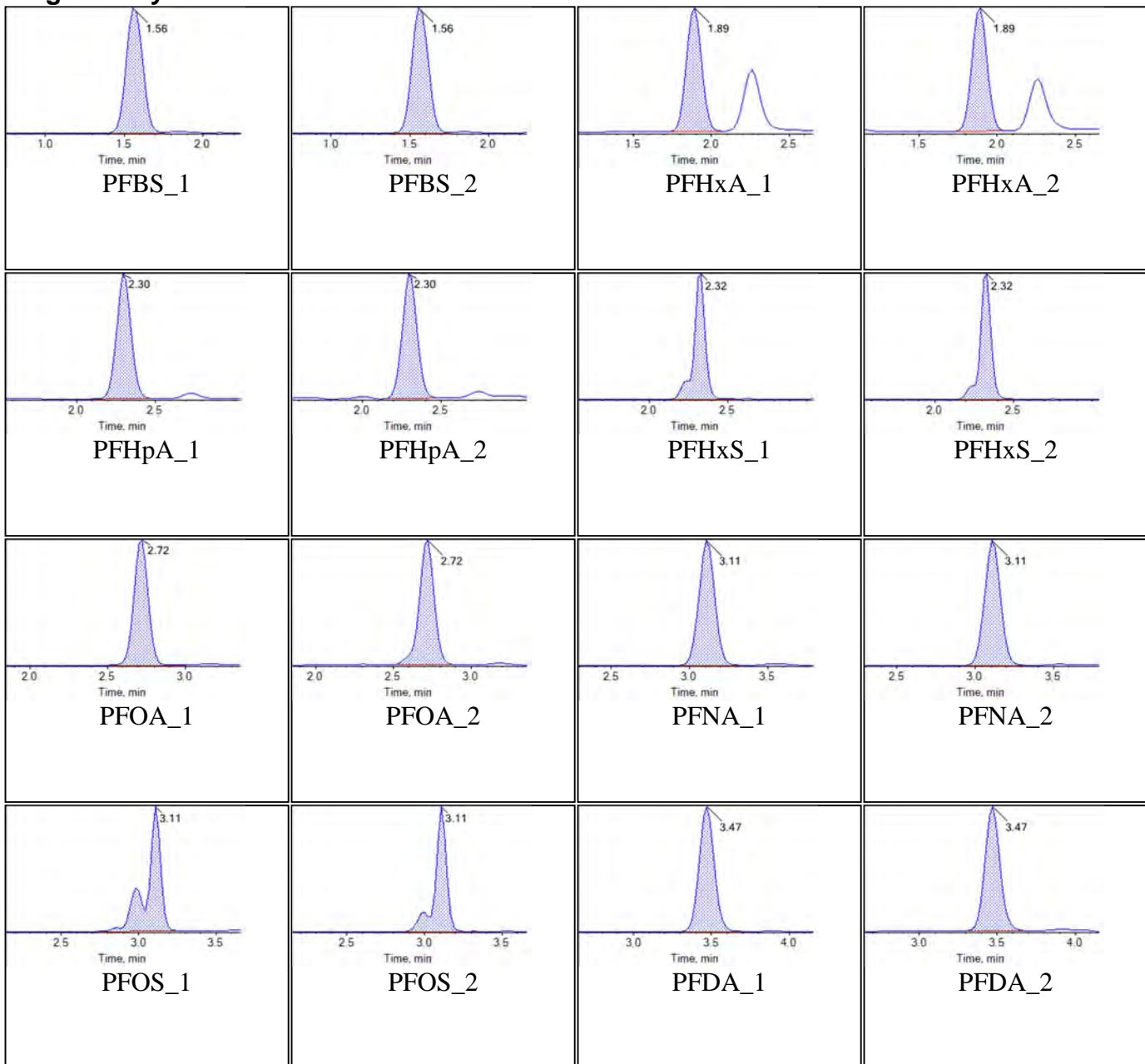
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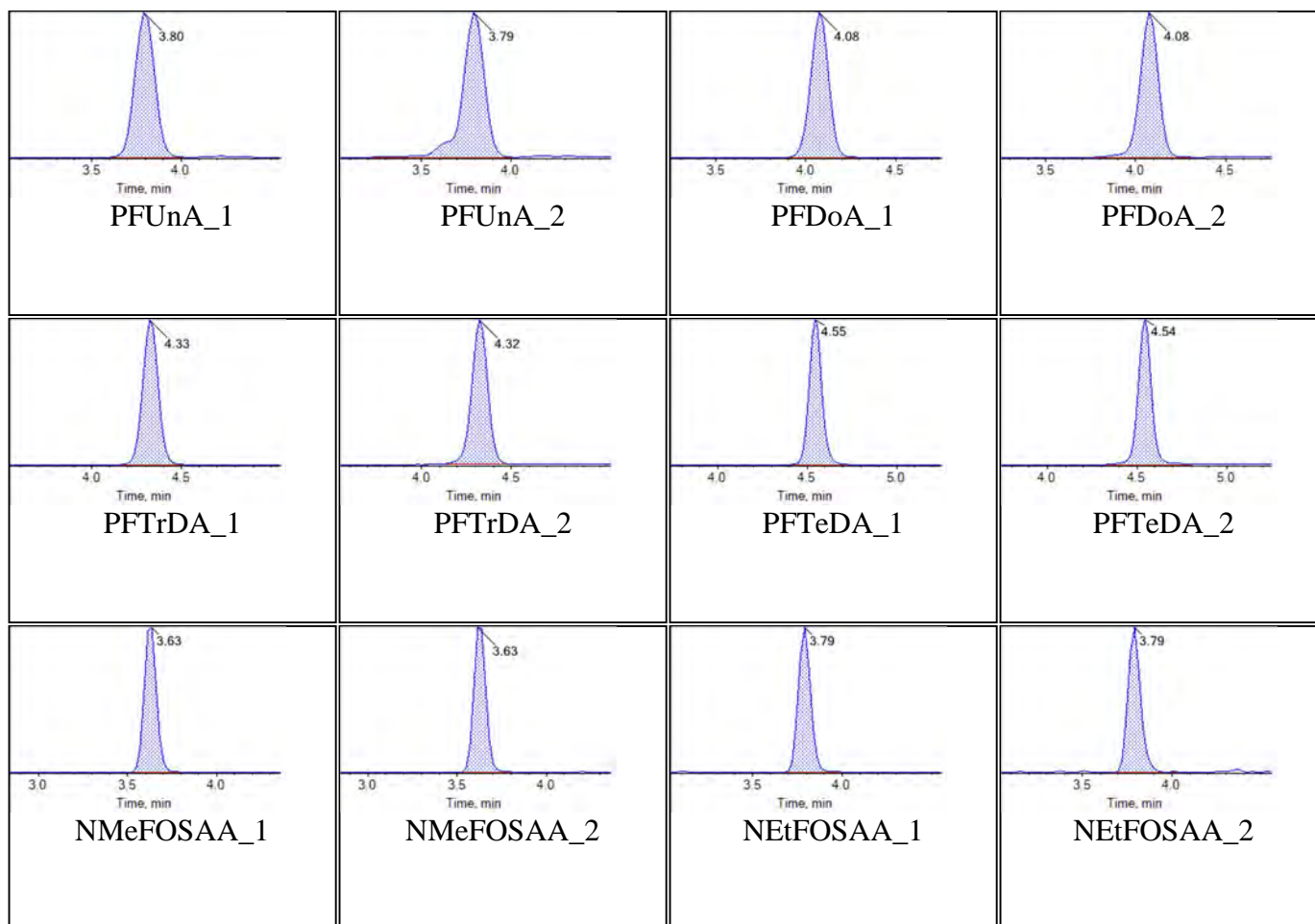
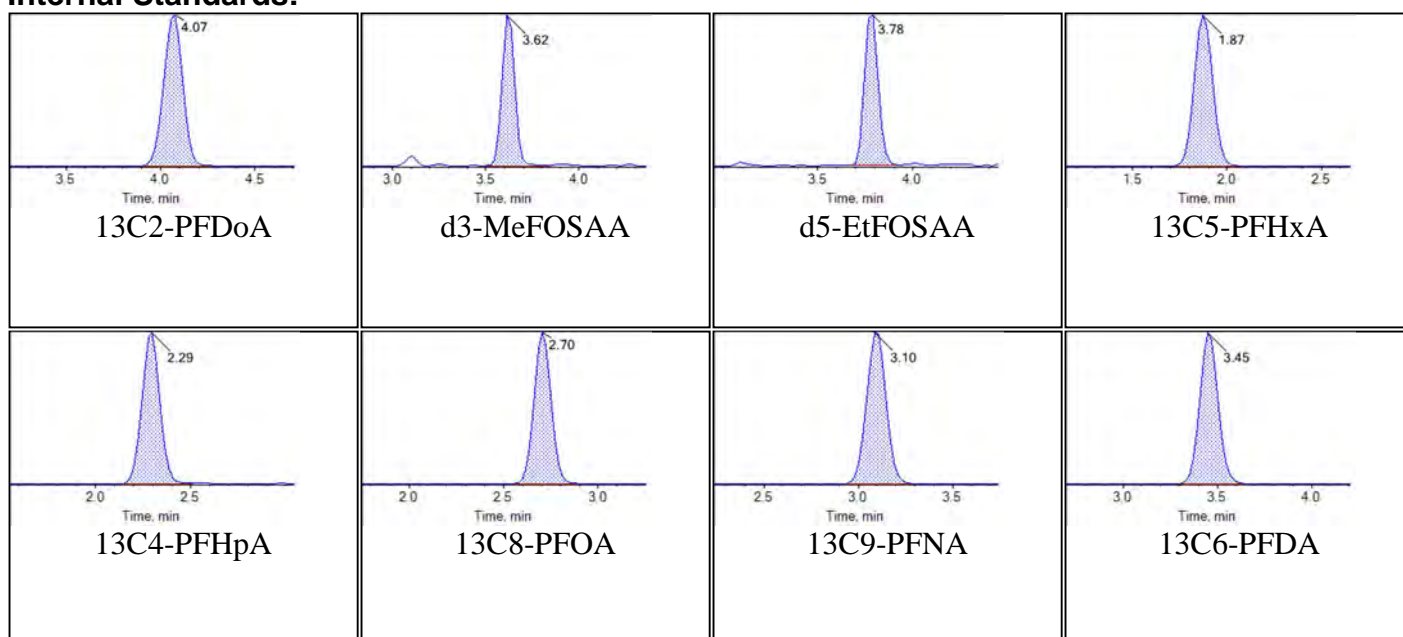


Sample Name	KC70	Injection Vial	8
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:59:11	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

Target Analytes:

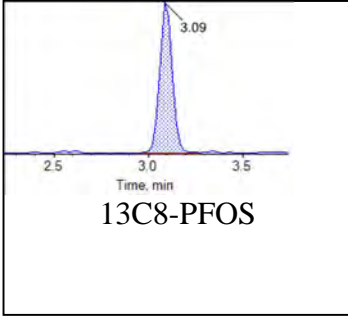
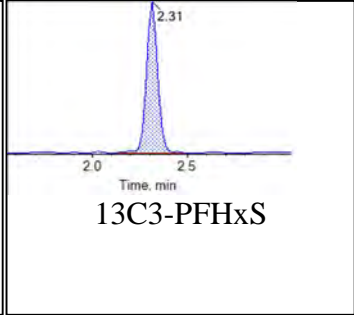
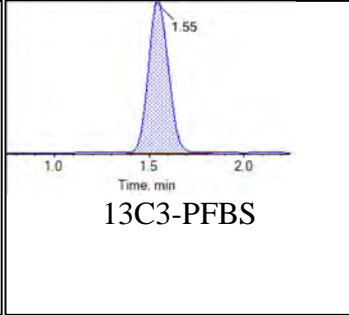
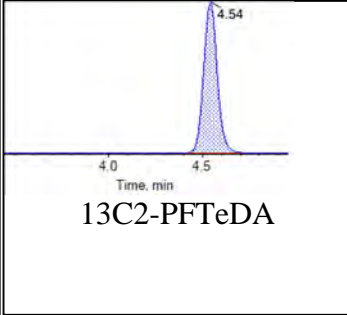
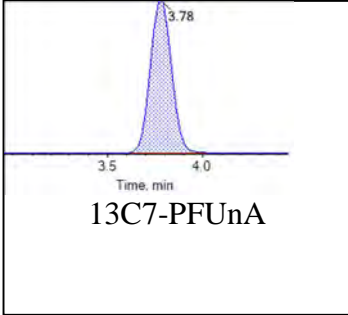


**Internal Standards:**



Chromatogram Report

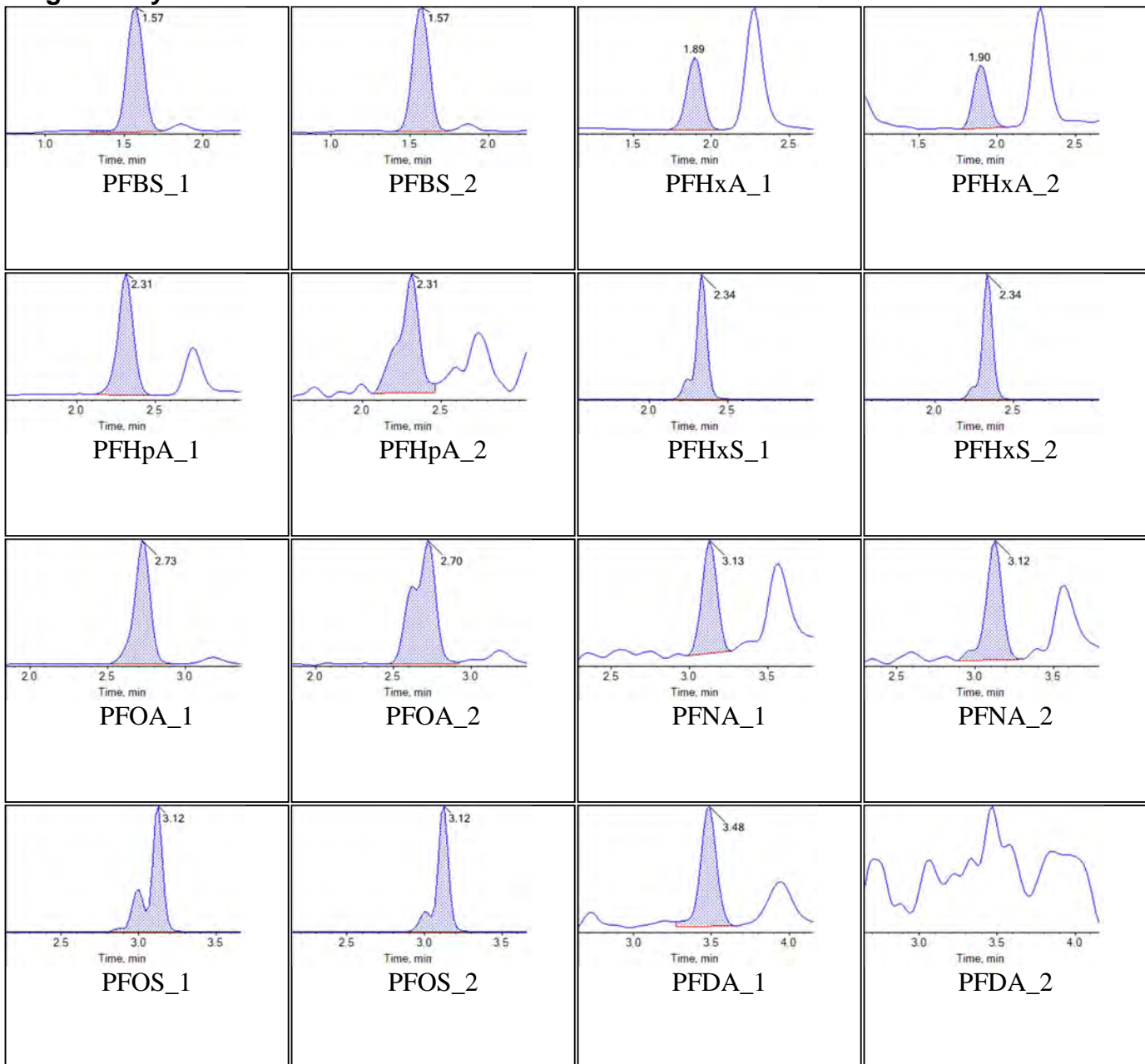
Created with Analyst Reporter
Printed: 28/11/2018 2:40:26 PM

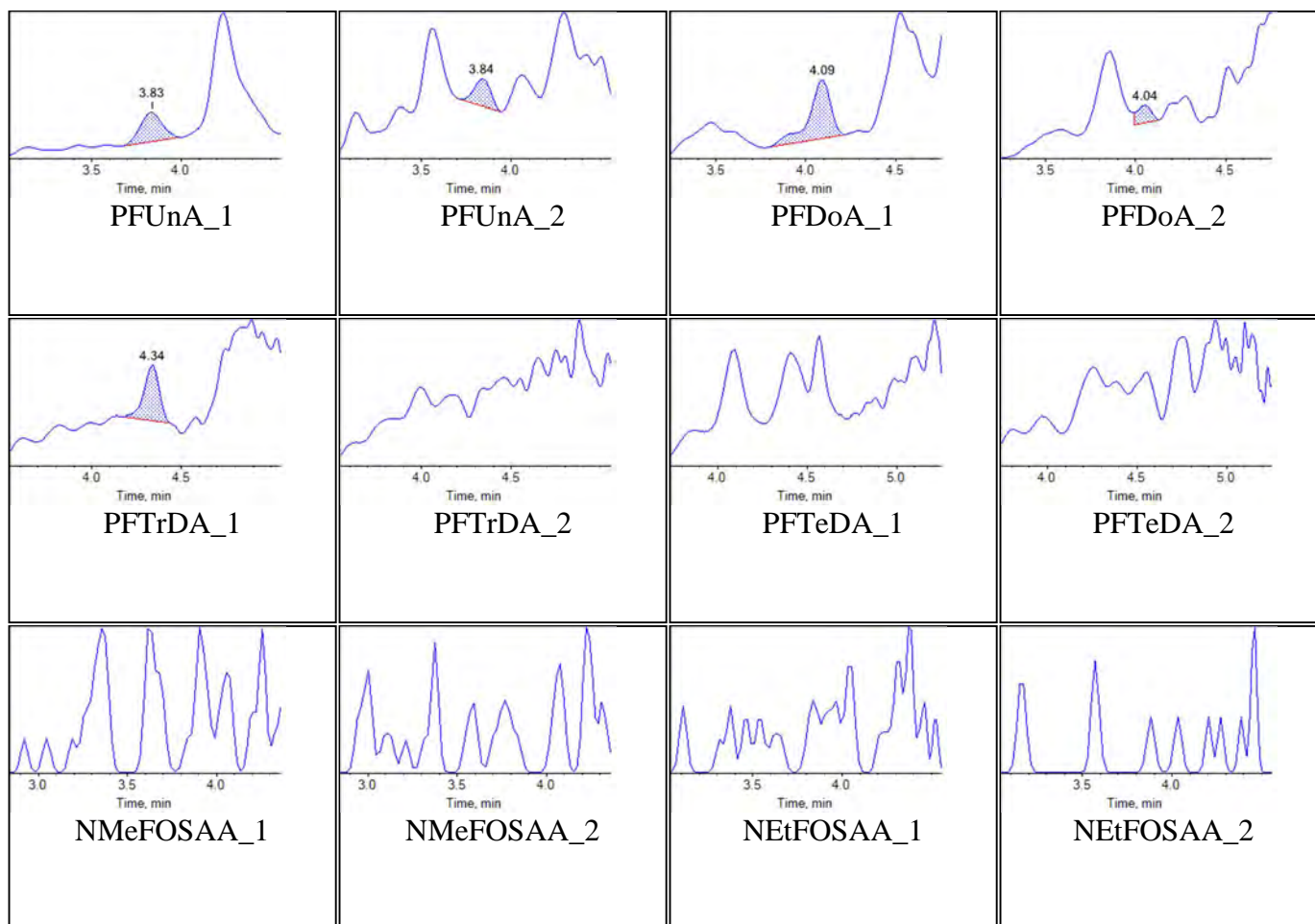
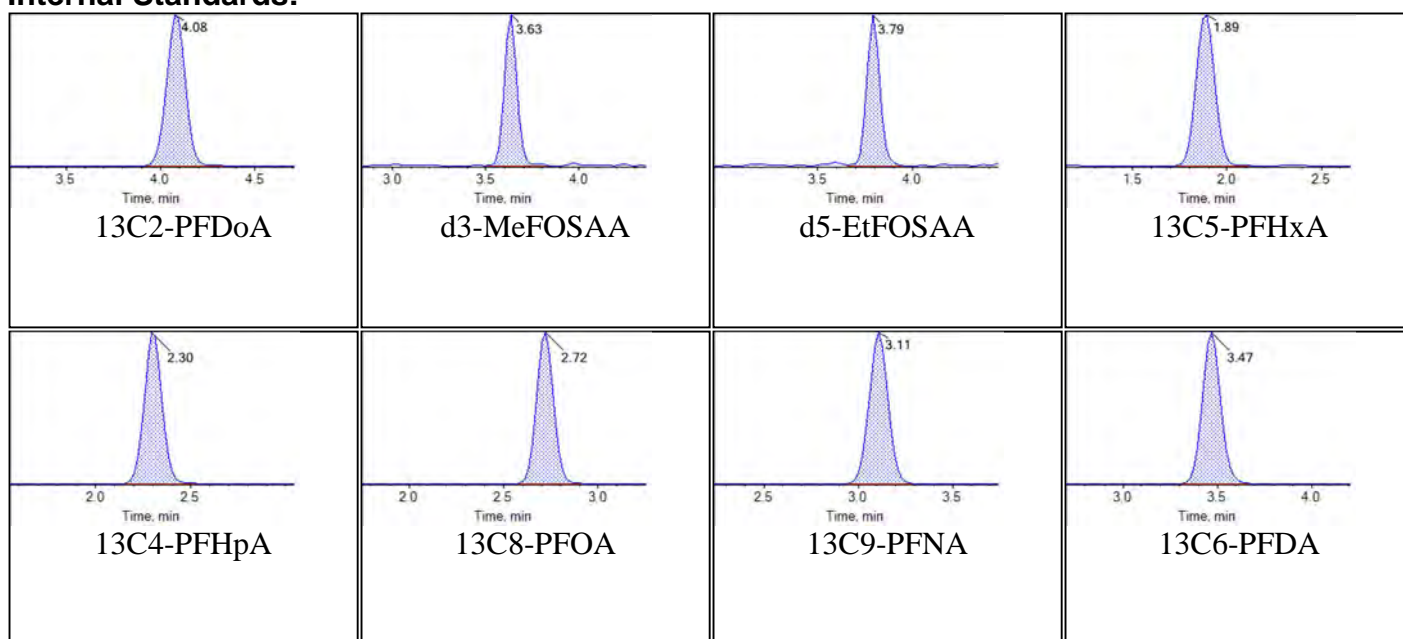


Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:13:10	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

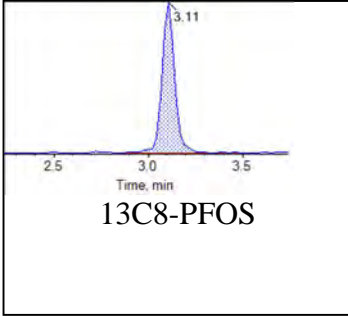
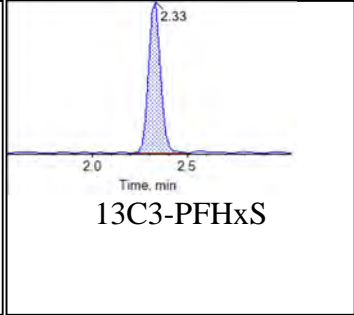
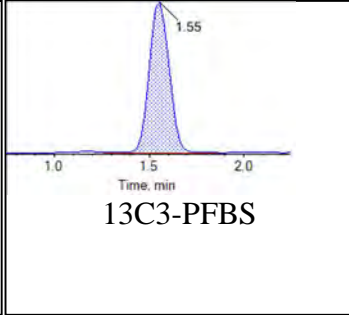
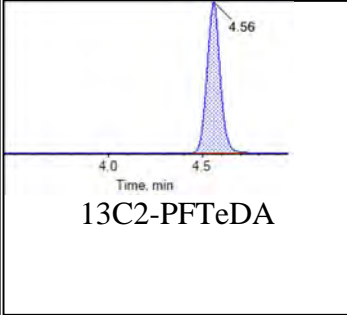
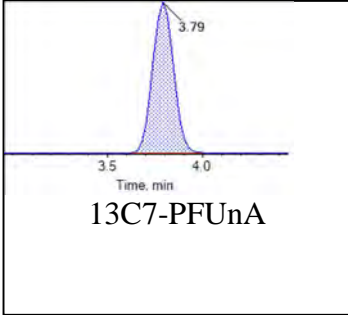
Target Analytes:



**Internal Standards:**

Chromatogram Report

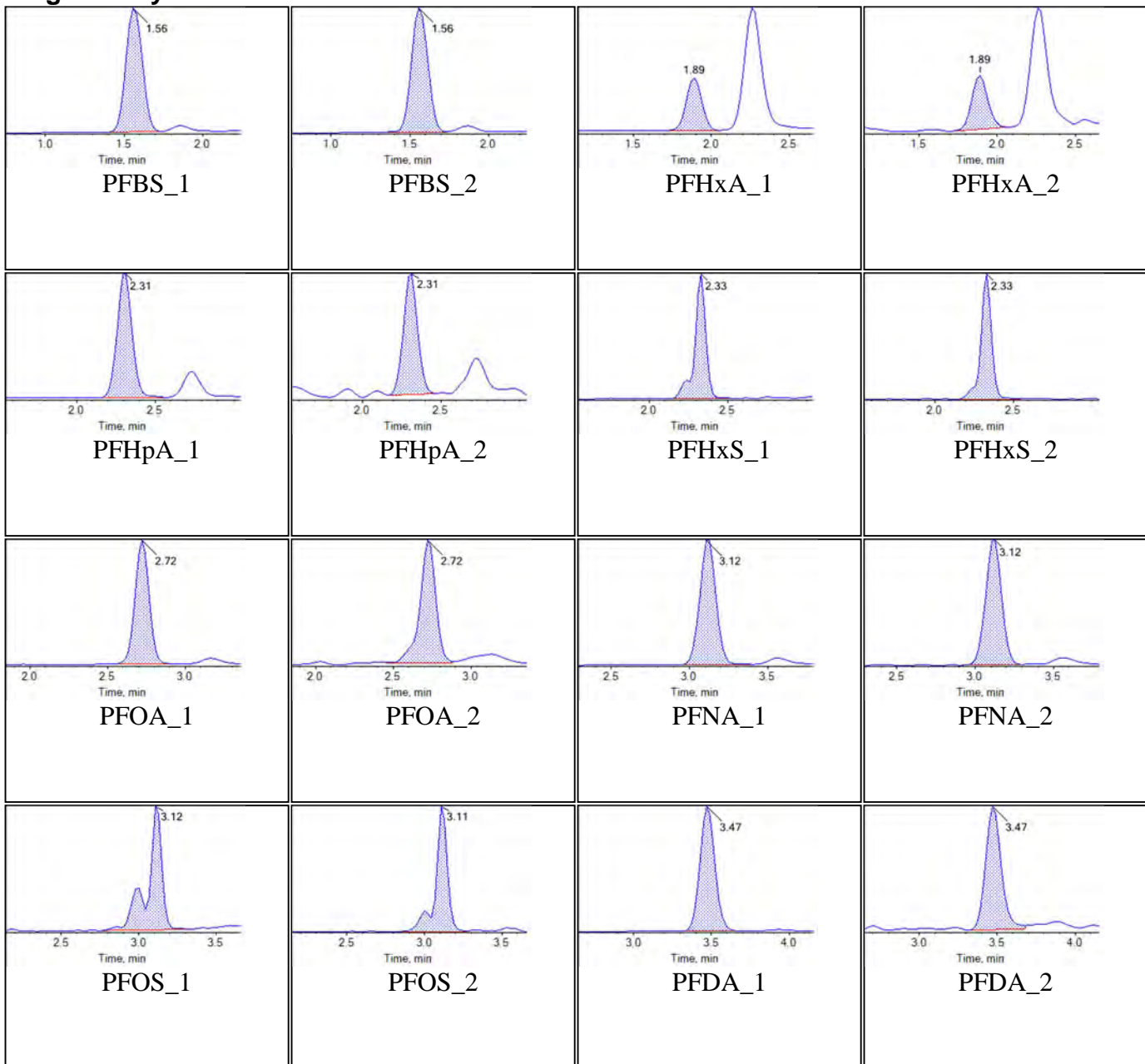
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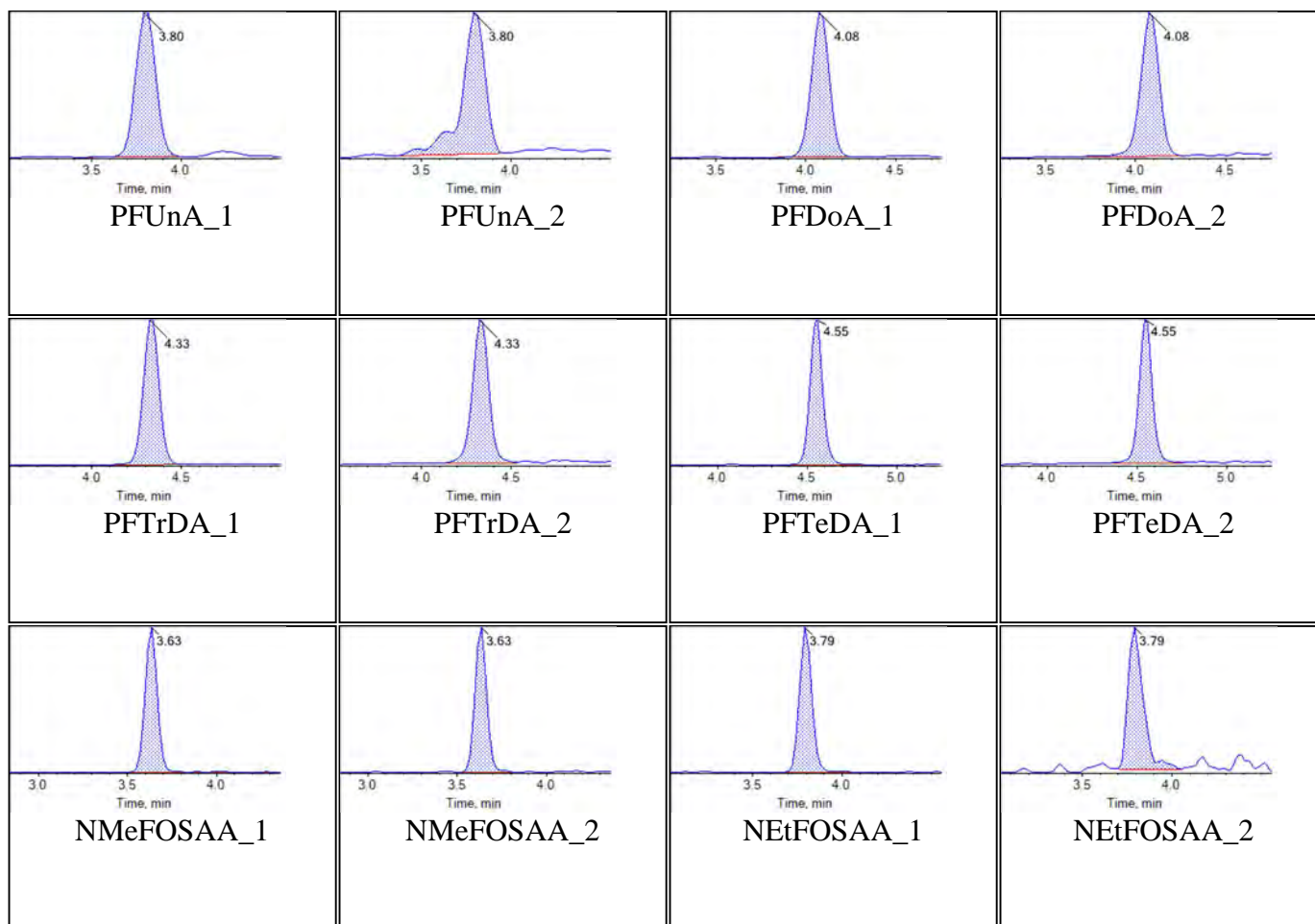
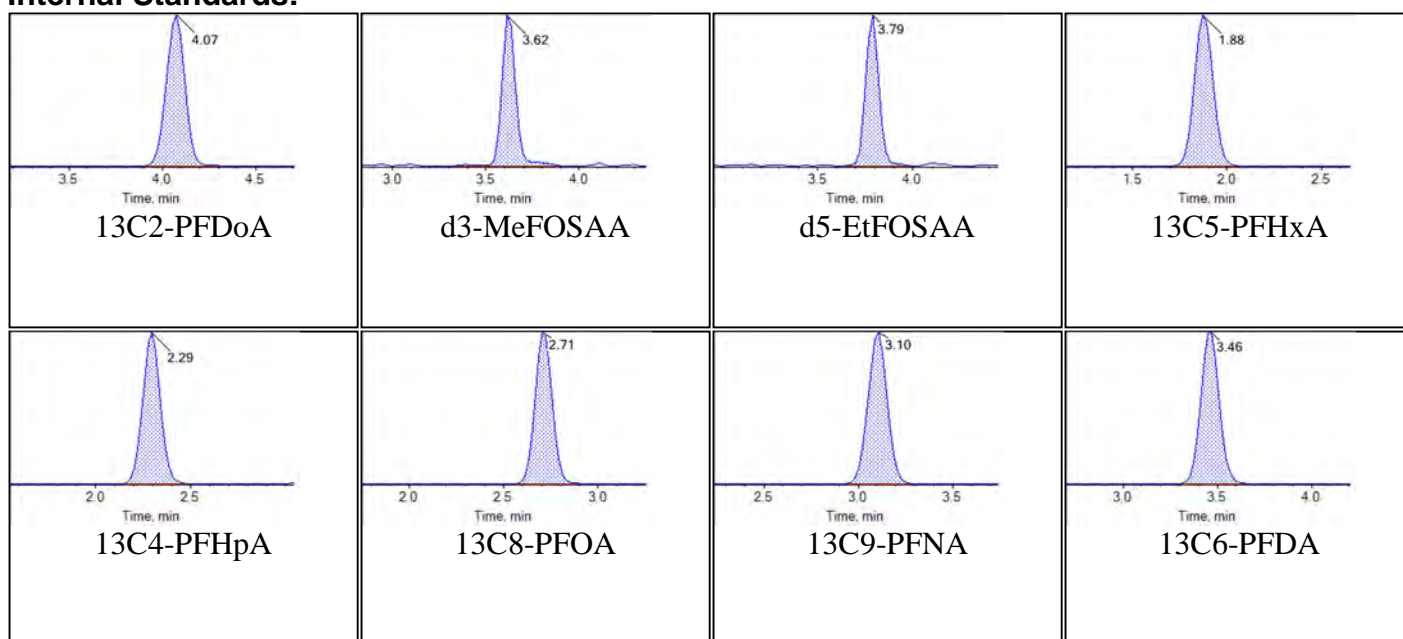


Sample Name	KC68	Injection Vial	9
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:24:05	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Chromatograms

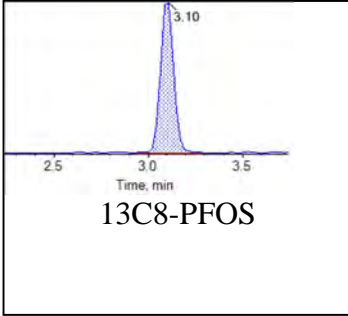
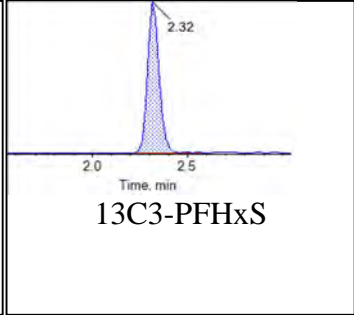
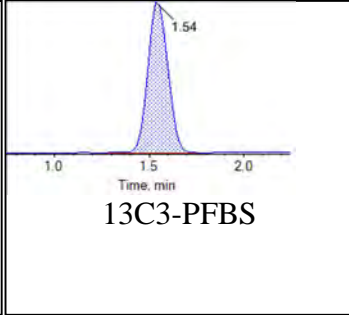
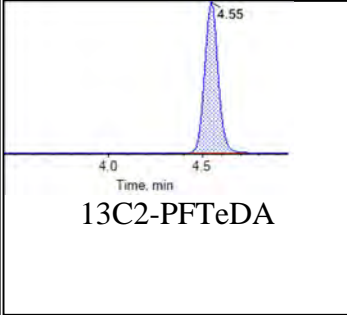
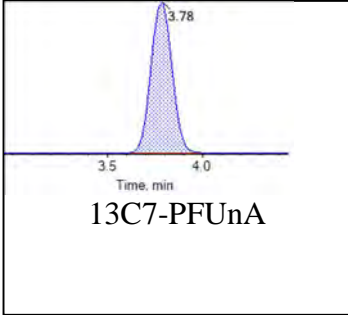
Target Analytes:



**Internal Standards:**

Chromatogram Report

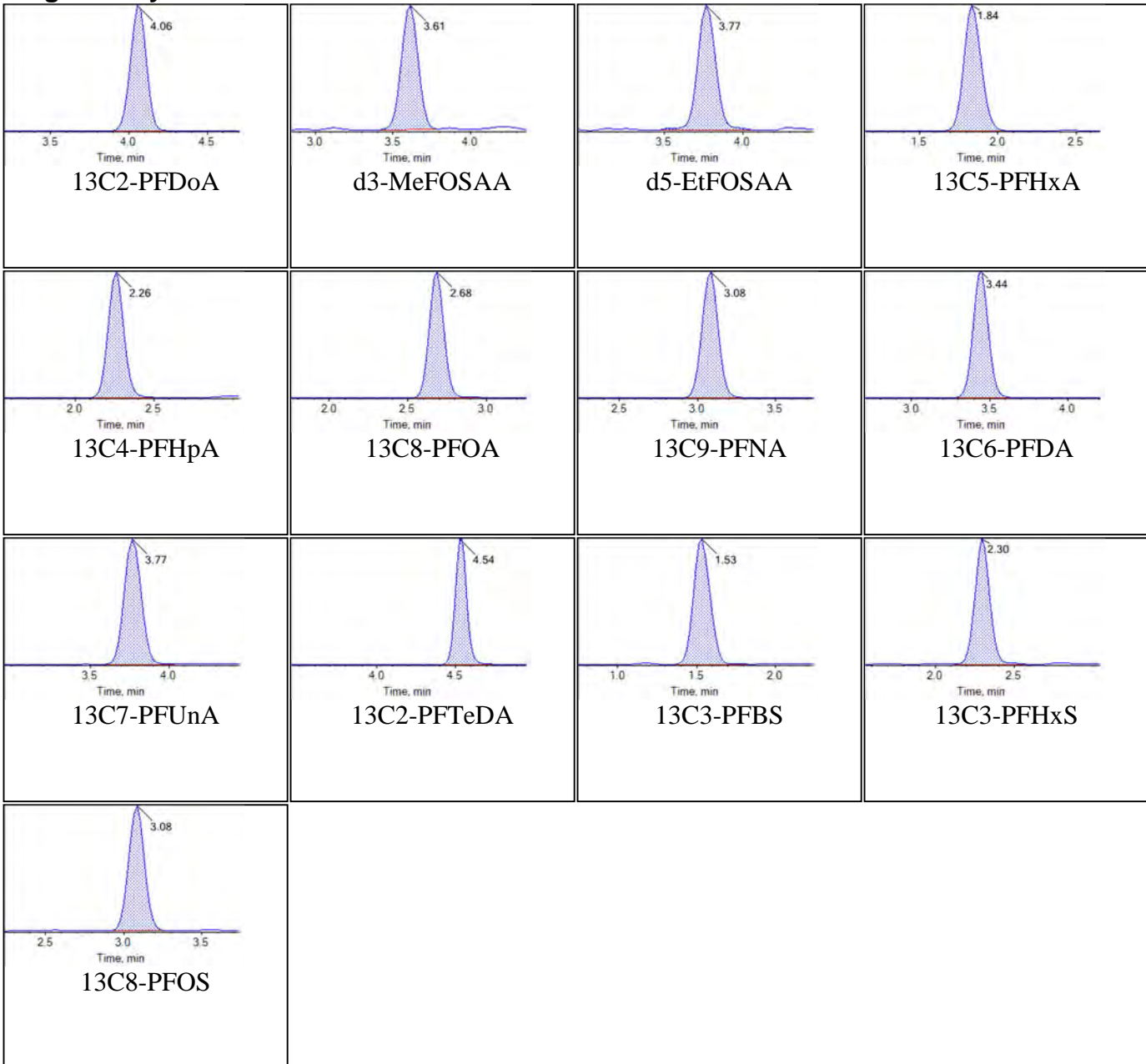
Created with Analyst Reporter
Printed: 28/11/2018 2:40:37 PM



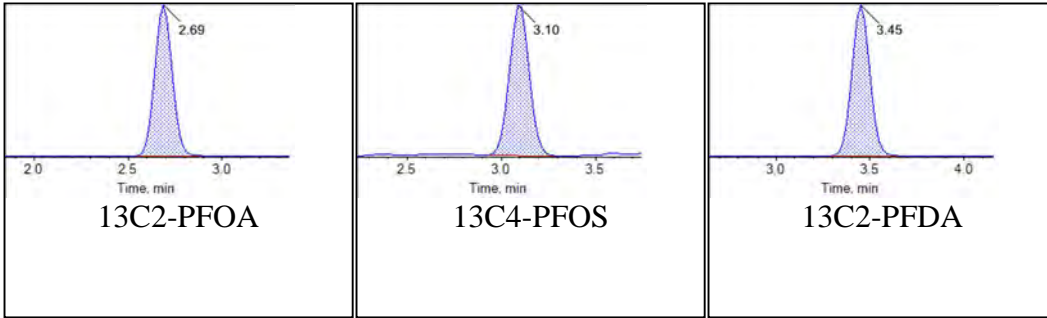
Sample Name	KC66	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:30:46	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



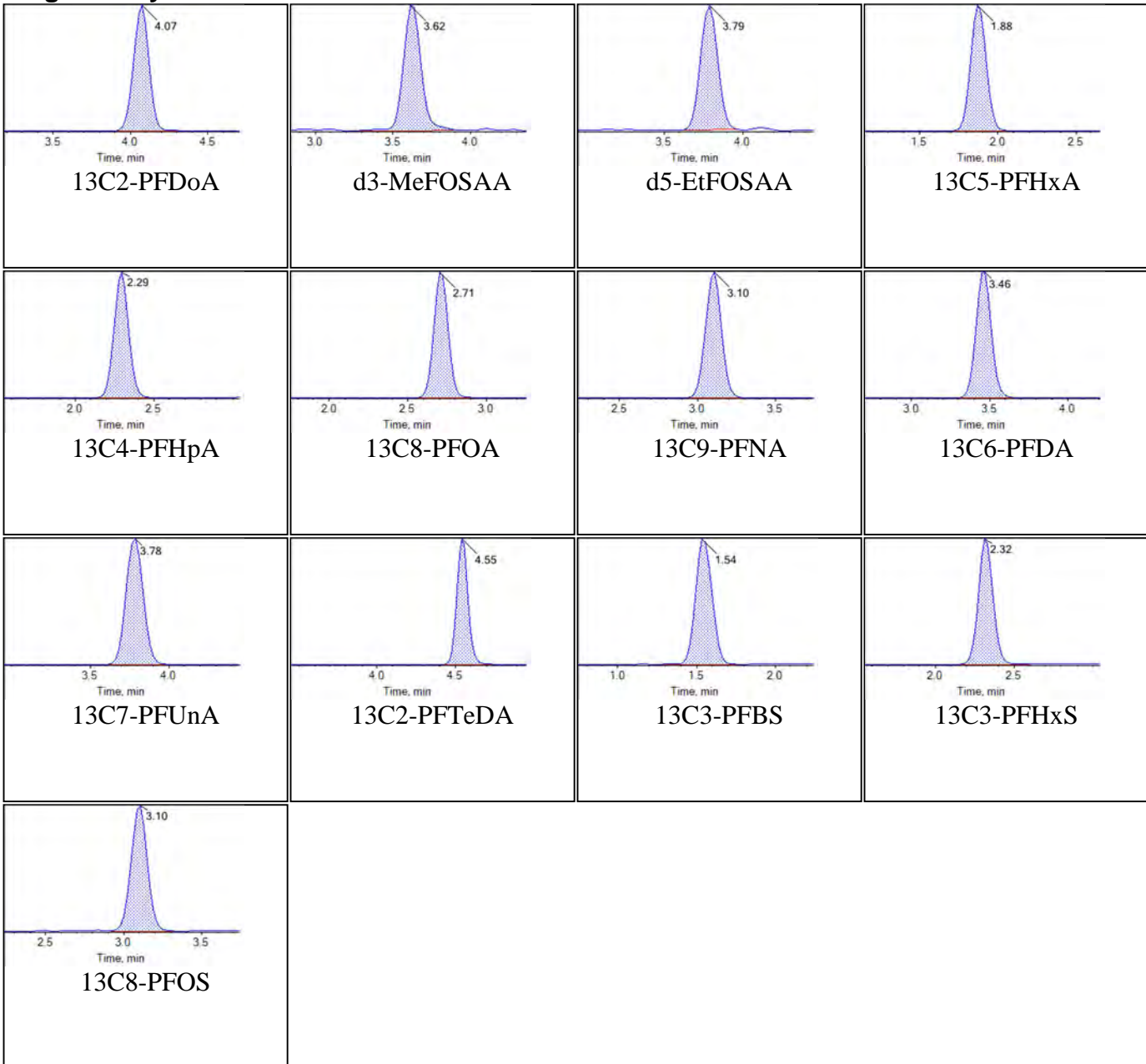
Internal Standards:



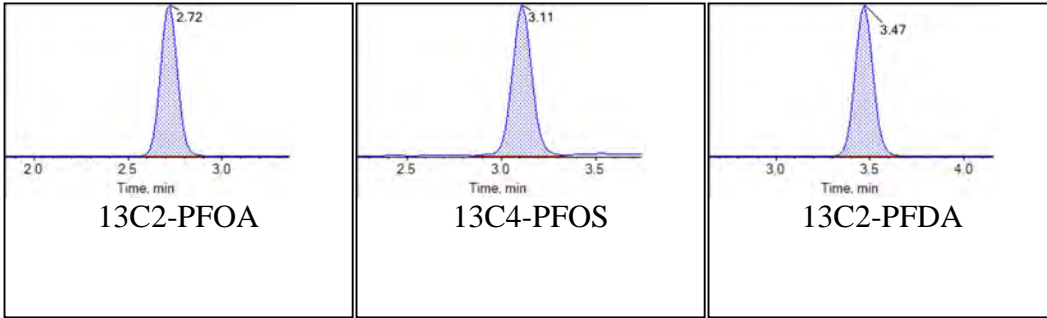
Sample Name	KC68	Injection Vial	9
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:24:05	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



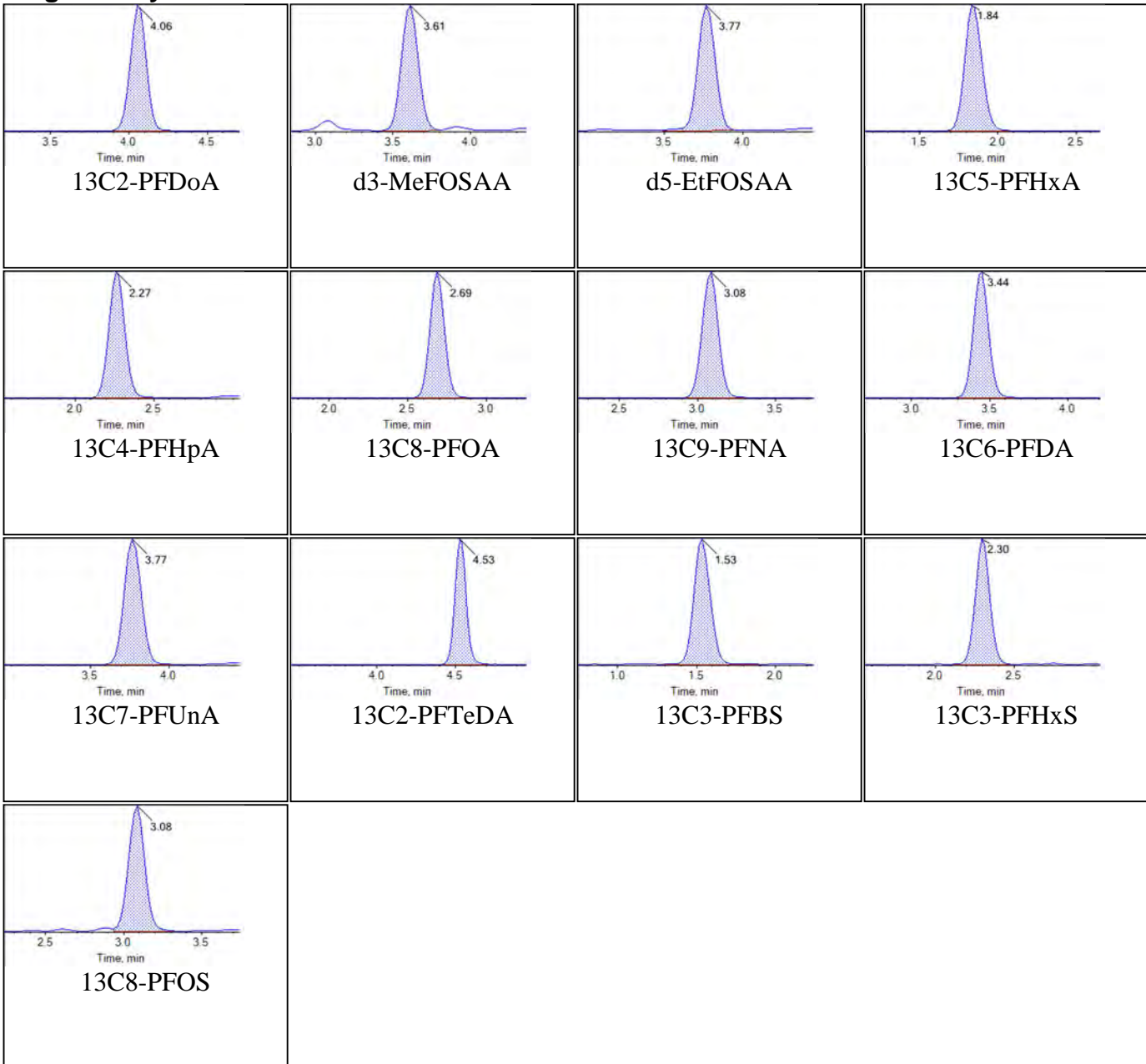
Internal Standards:



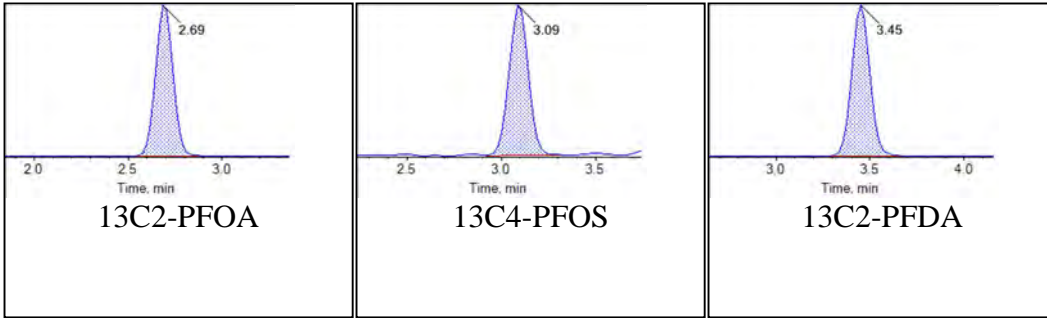
Sample Name	KC67	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:41:38	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



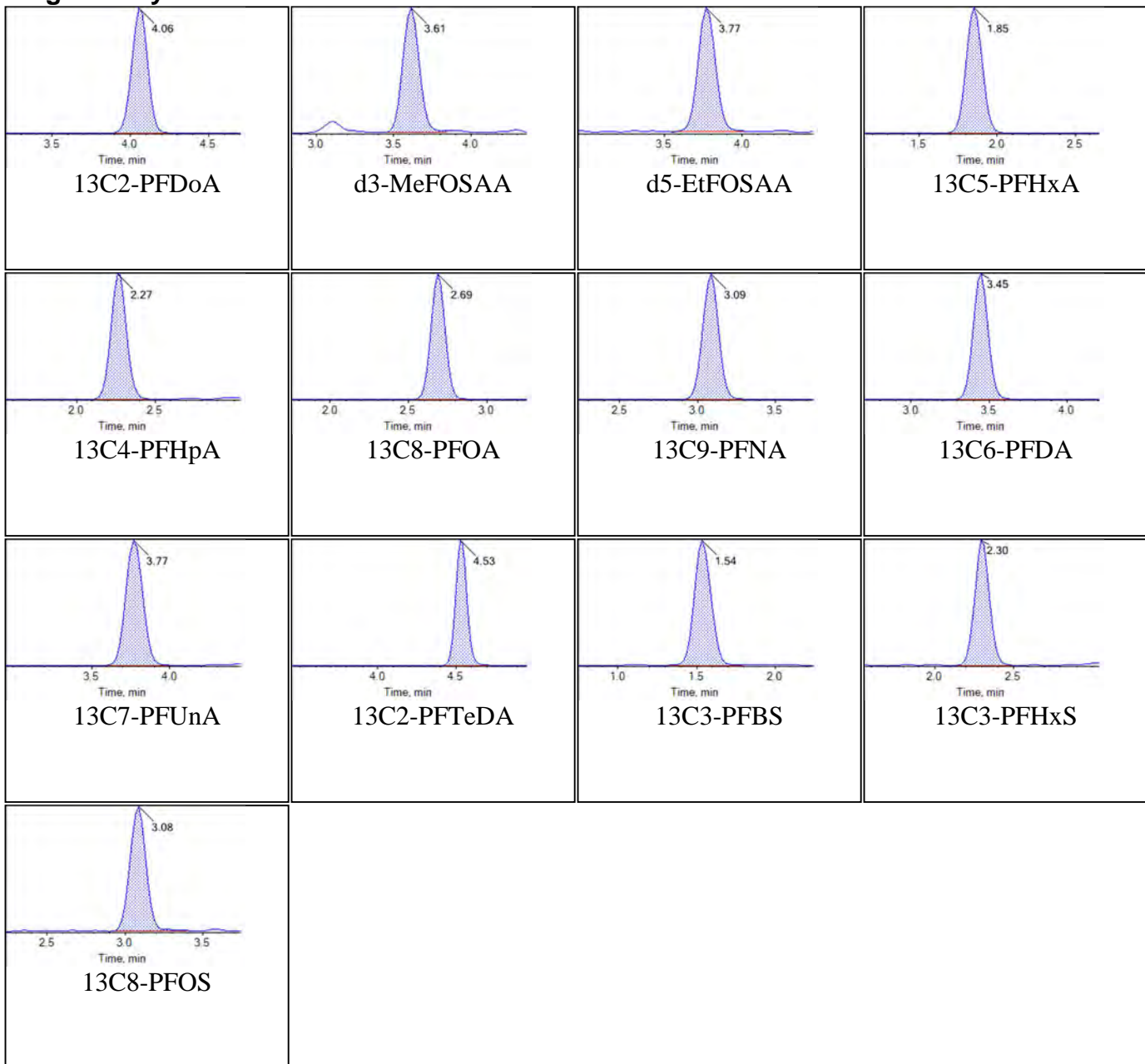
Internal Standards:



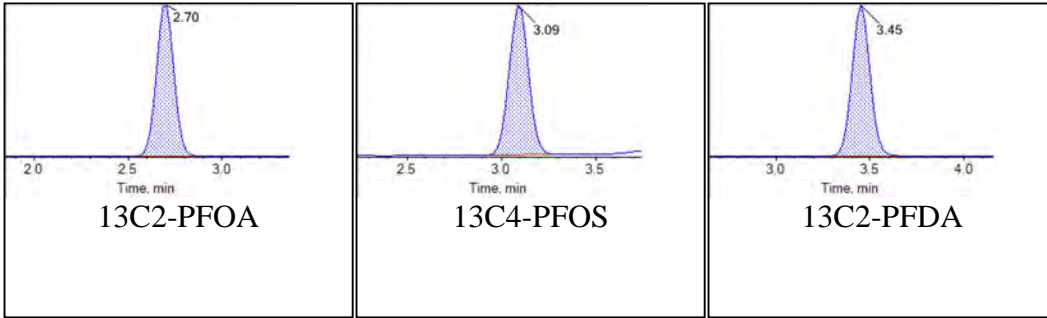
Sample Name	KC68	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T17:52:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



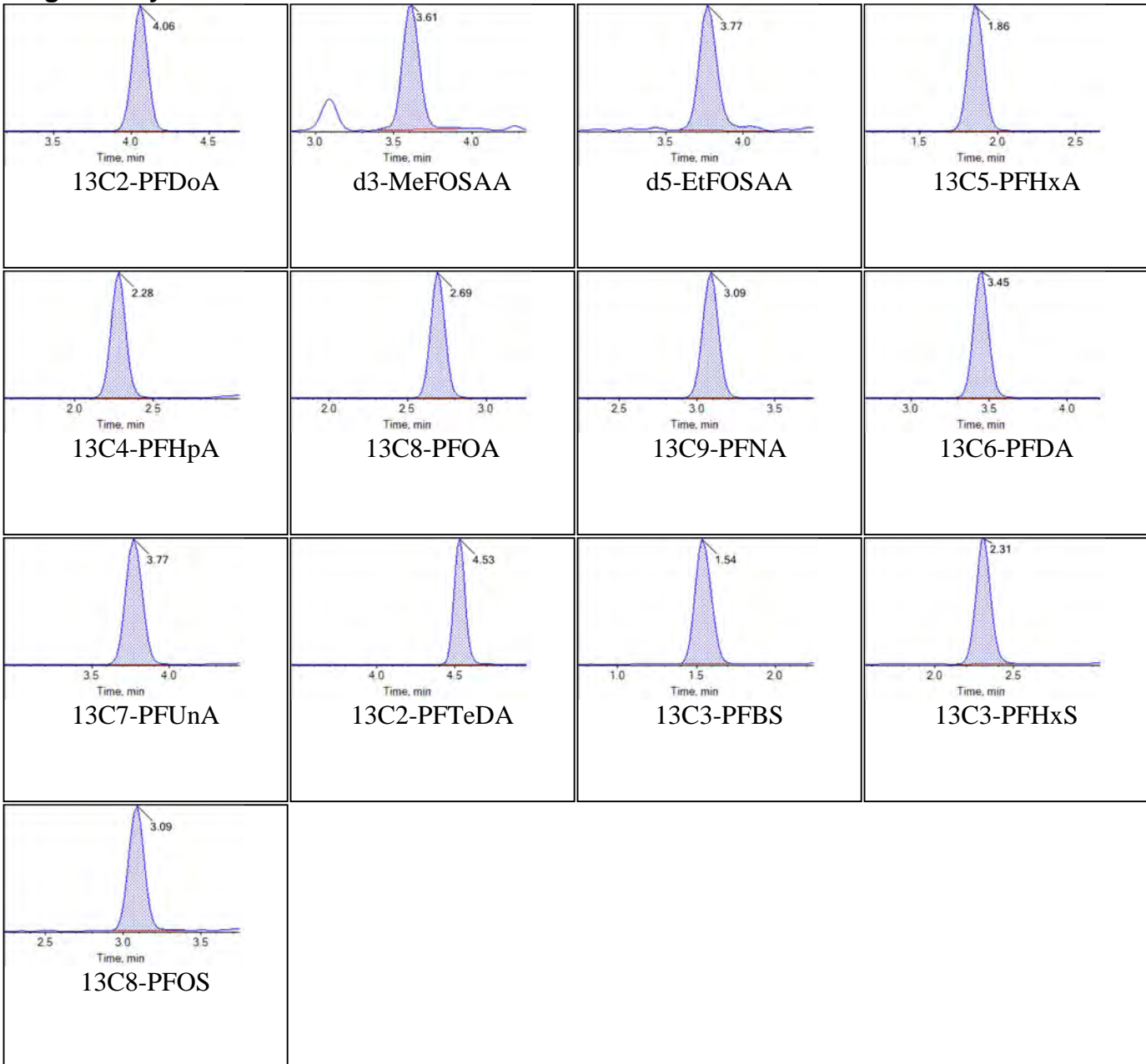
Internal Standards:



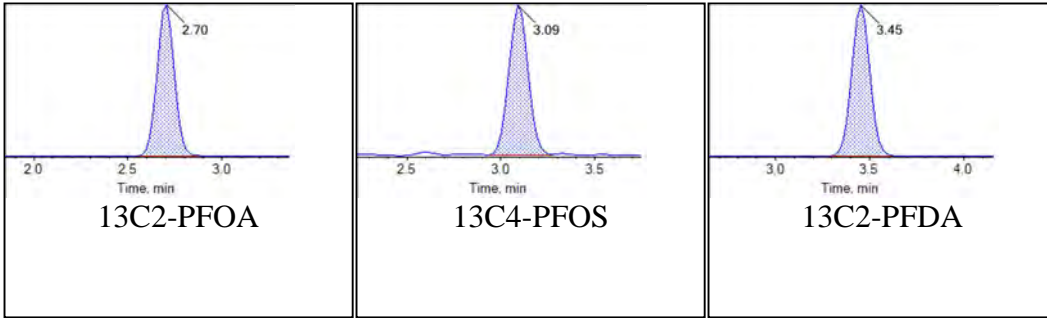
Sample Name	KC69	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:03:23	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



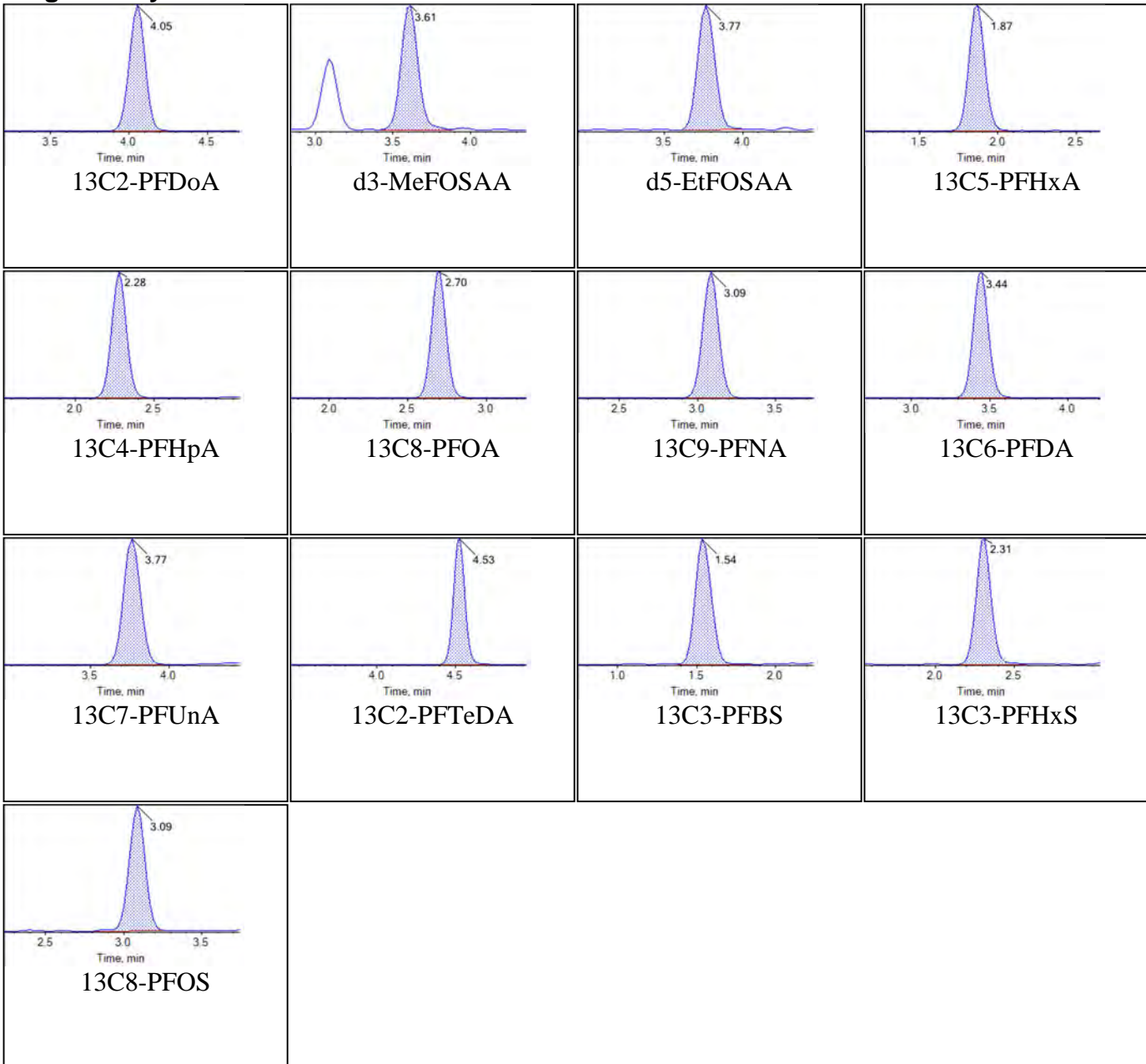
Internal Standards:



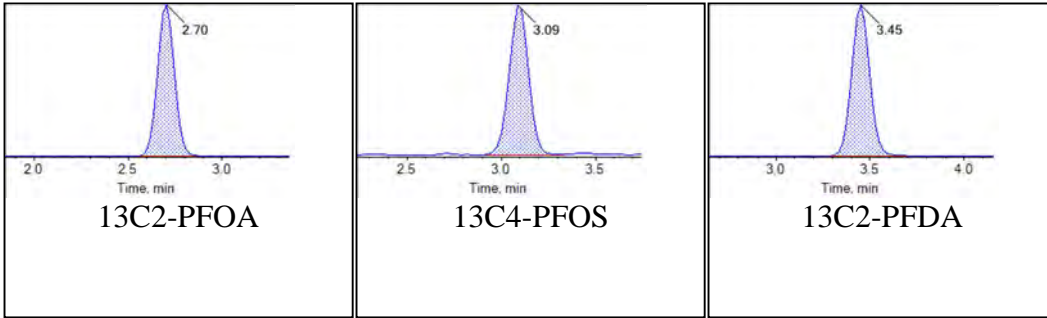
Sample Name	KC70	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:14:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



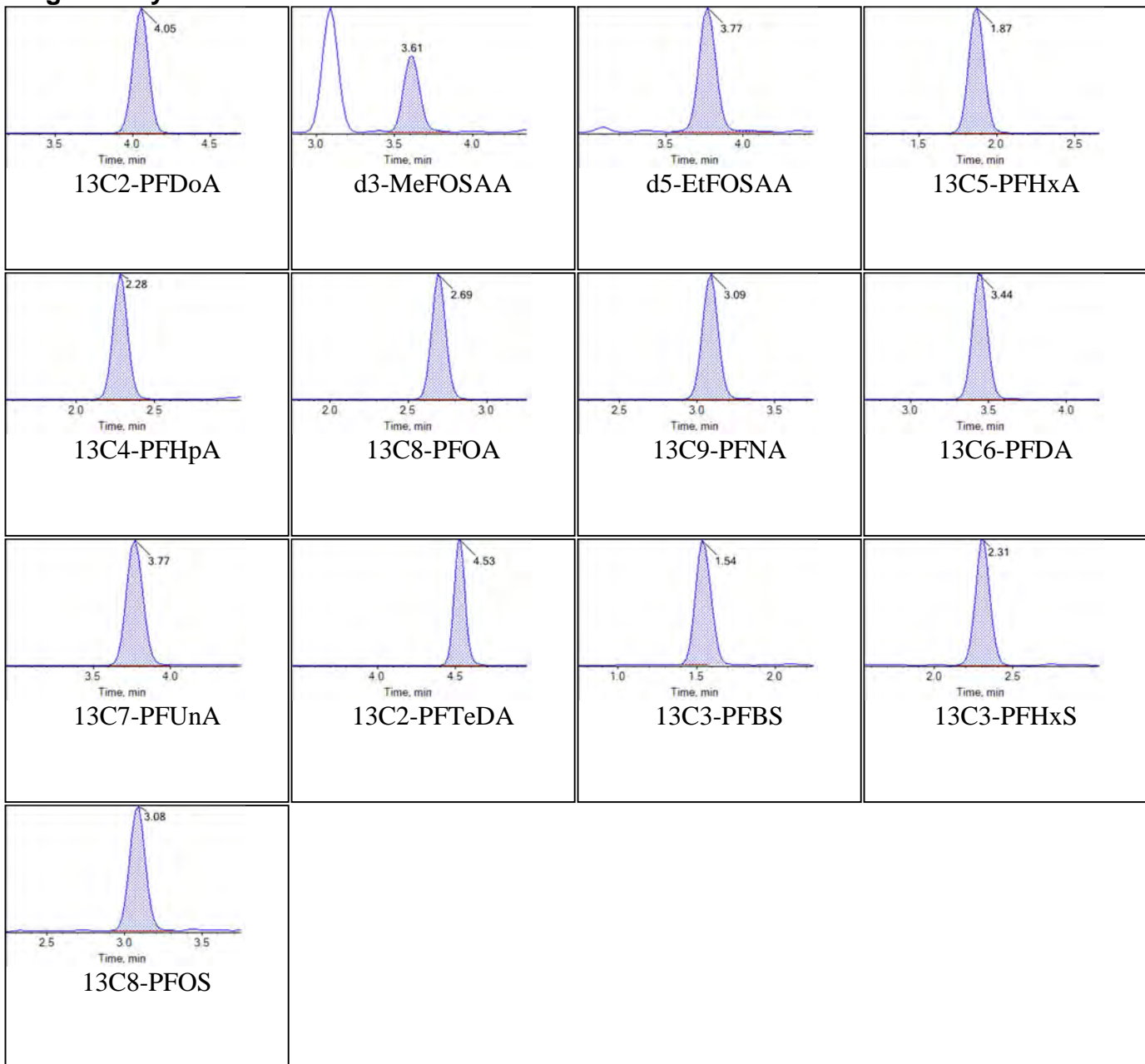
Internal Standards:



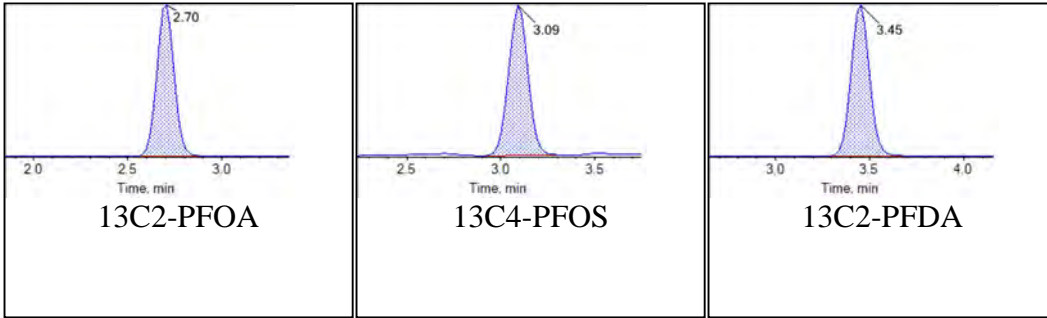
Sample Name	KC71	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:25:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



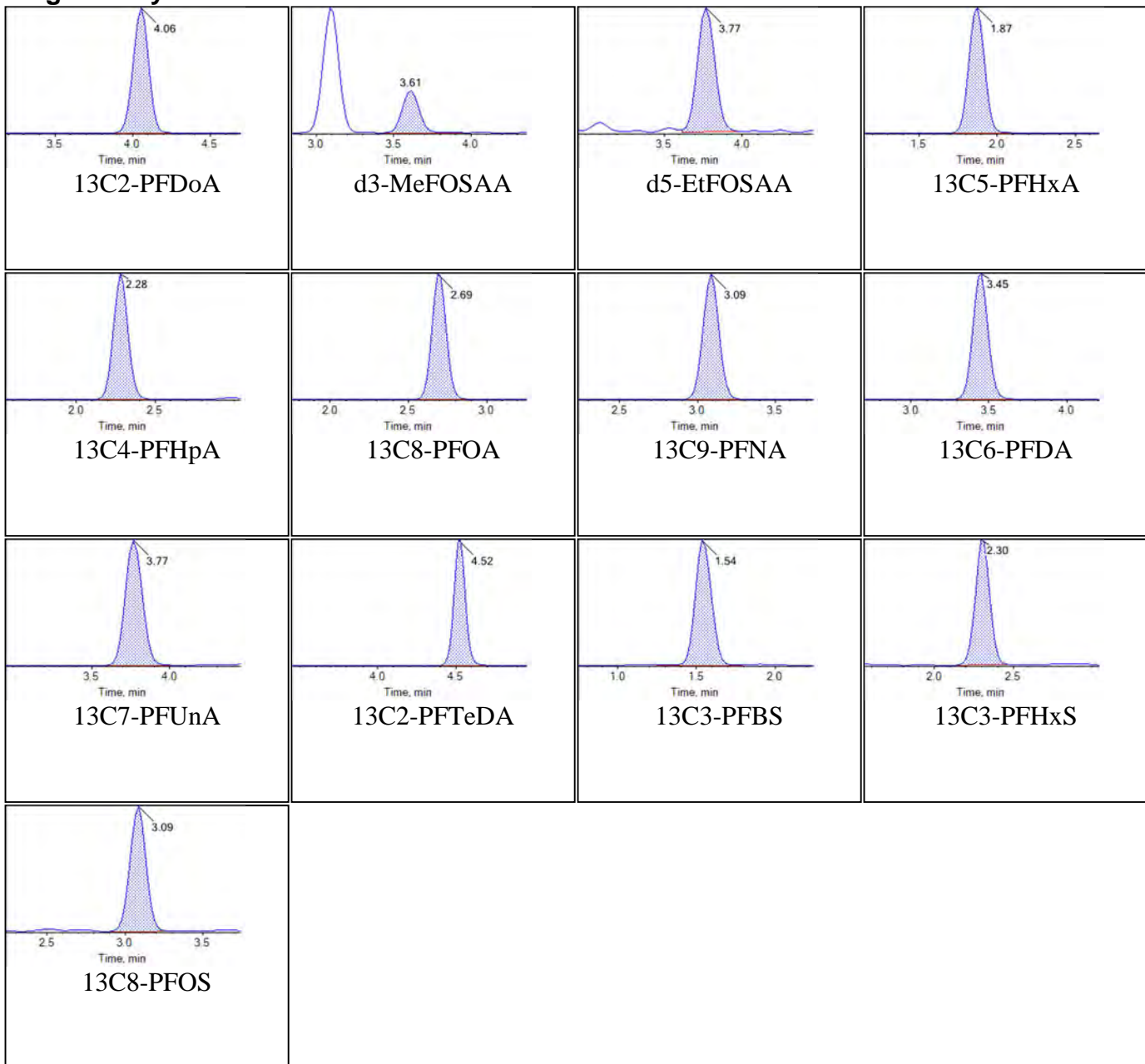
Internal Standards:



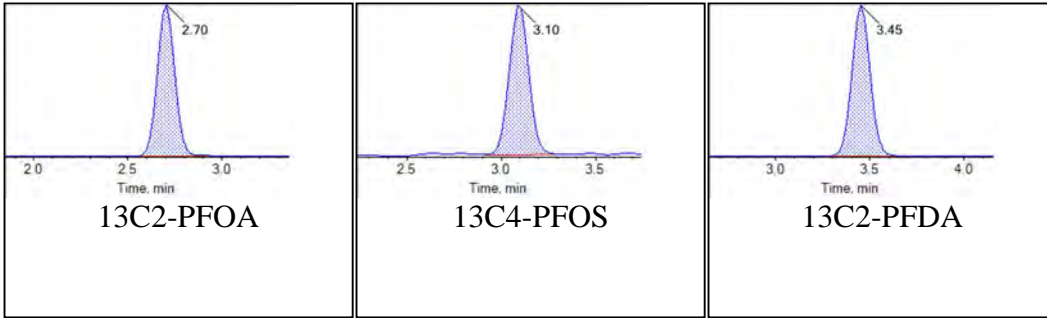
Sample Name	KC72	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:35:58	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



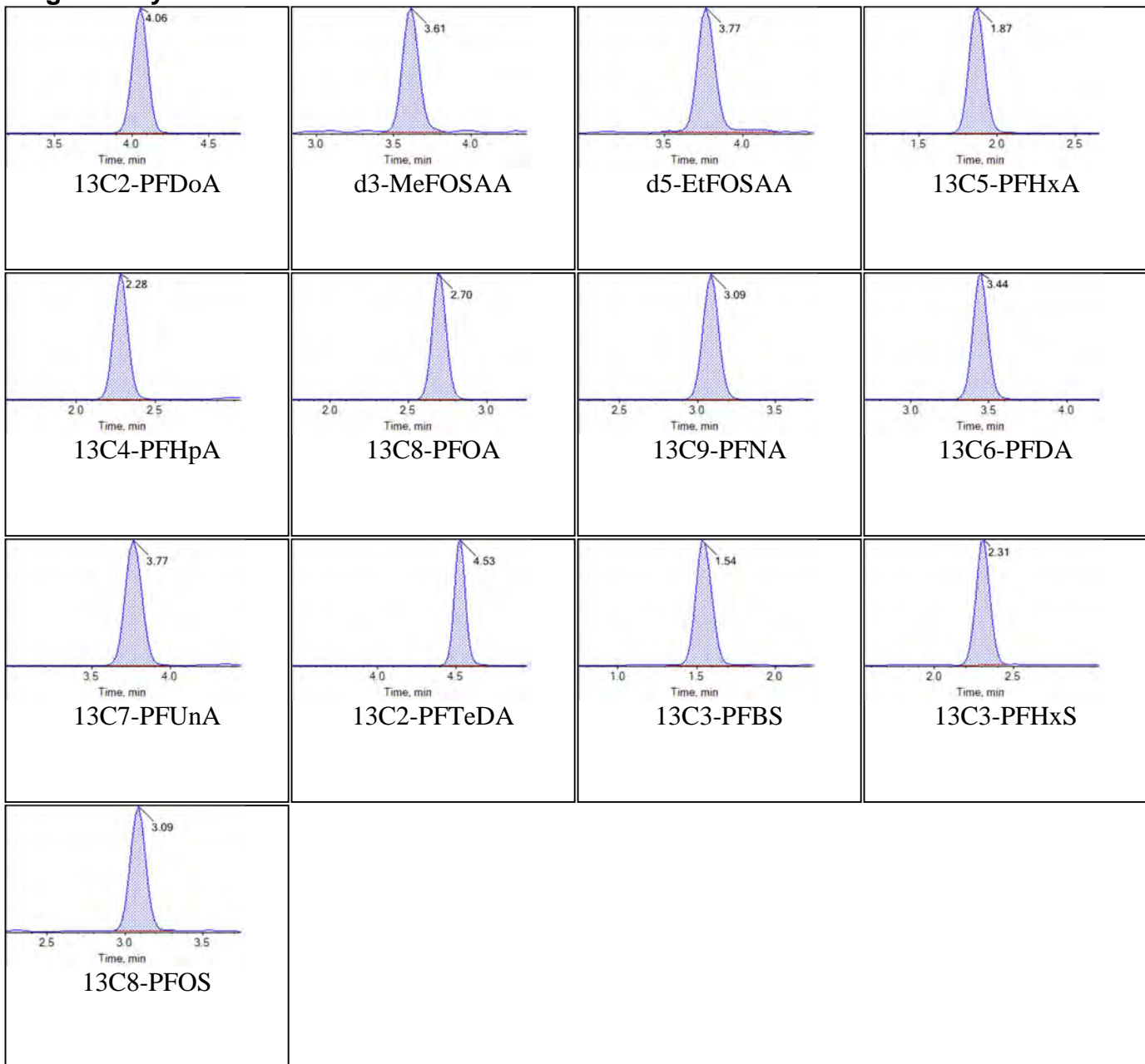
Internal Standards:



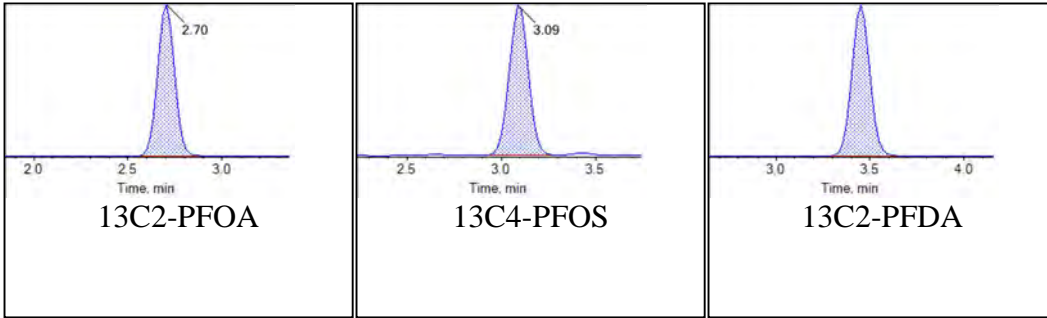
Sample Name	KC73 IB	Injection Vial	9
Sample ID	Instrument blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:46:49	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



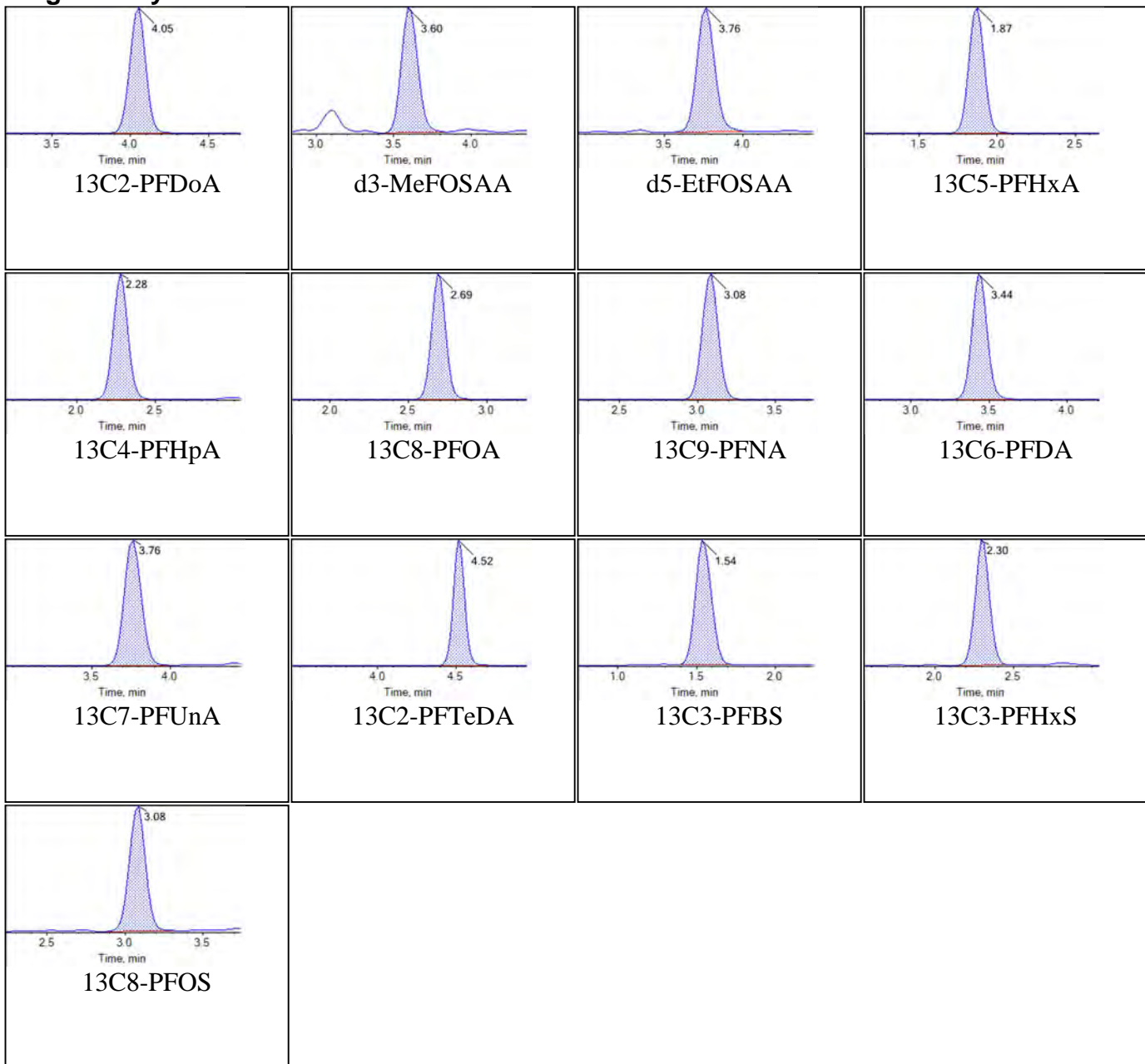
Internal Standards:



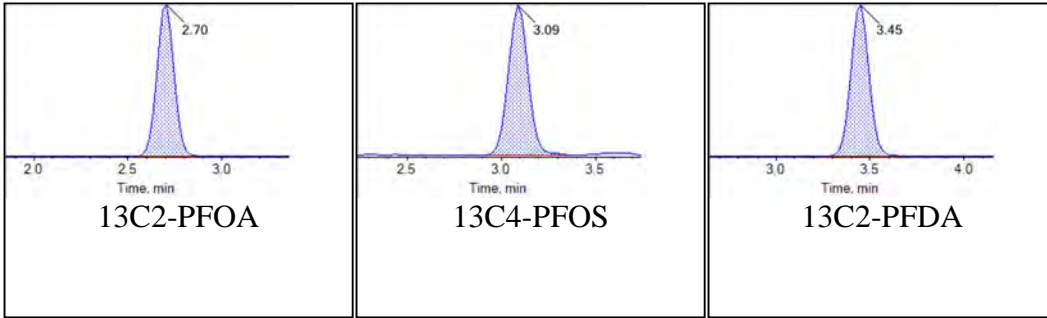
Sample Name	KC74 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T18:57:42	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



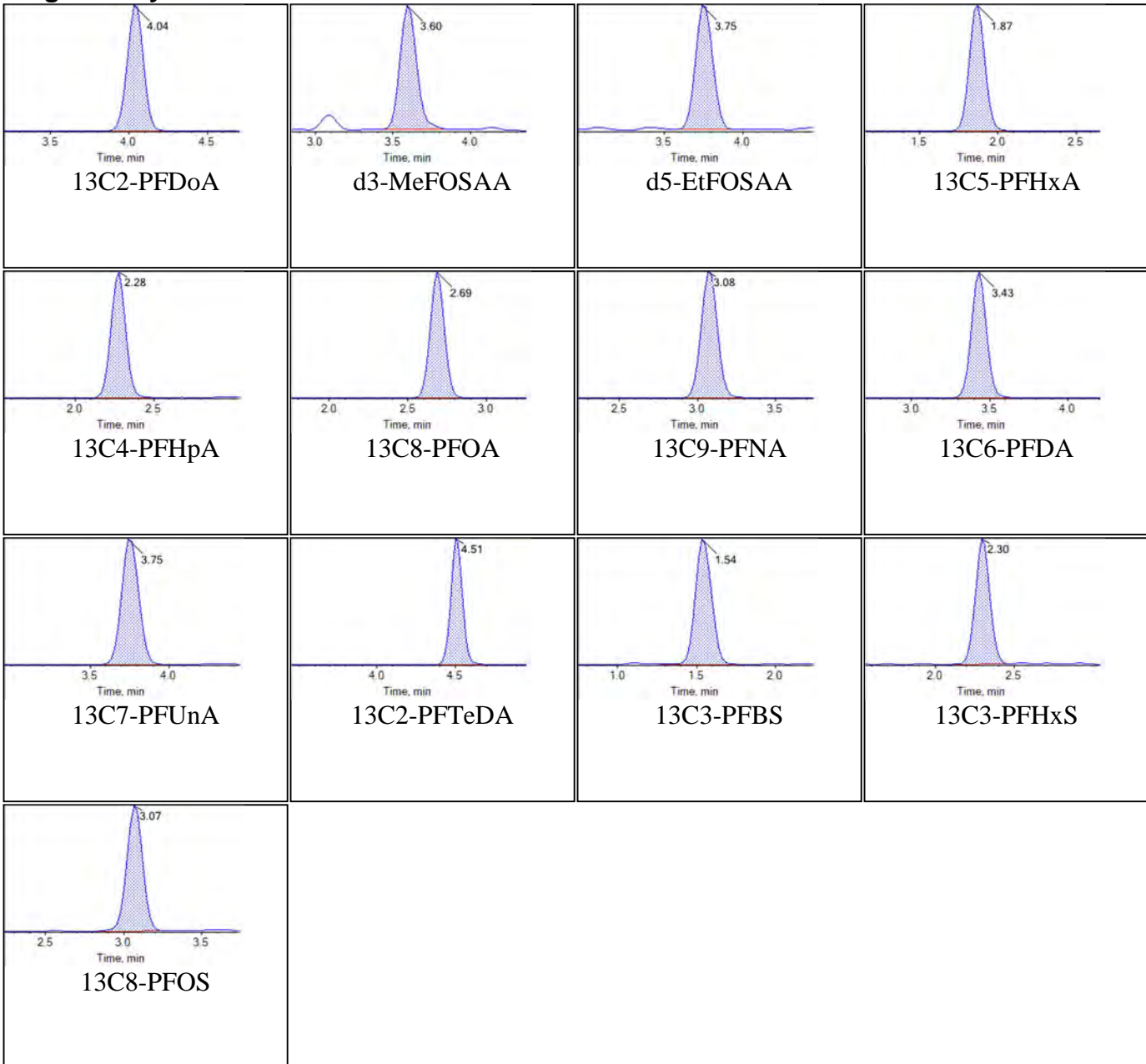
Internal Standards:



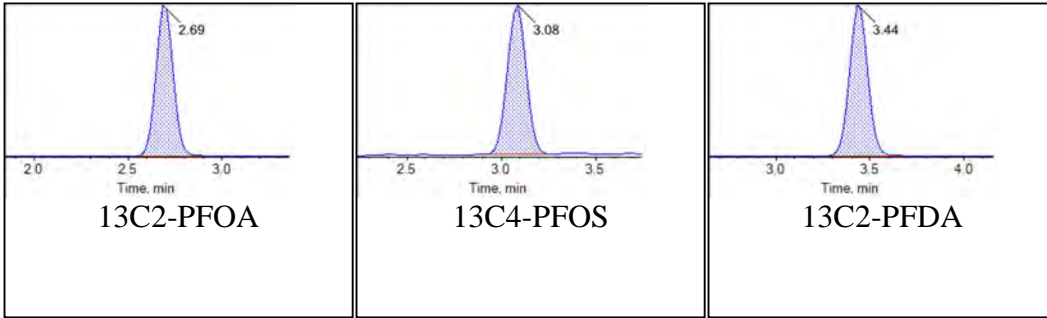
Sample Name	KC69 CCV	Injection Vial	26
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T21:51:32	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



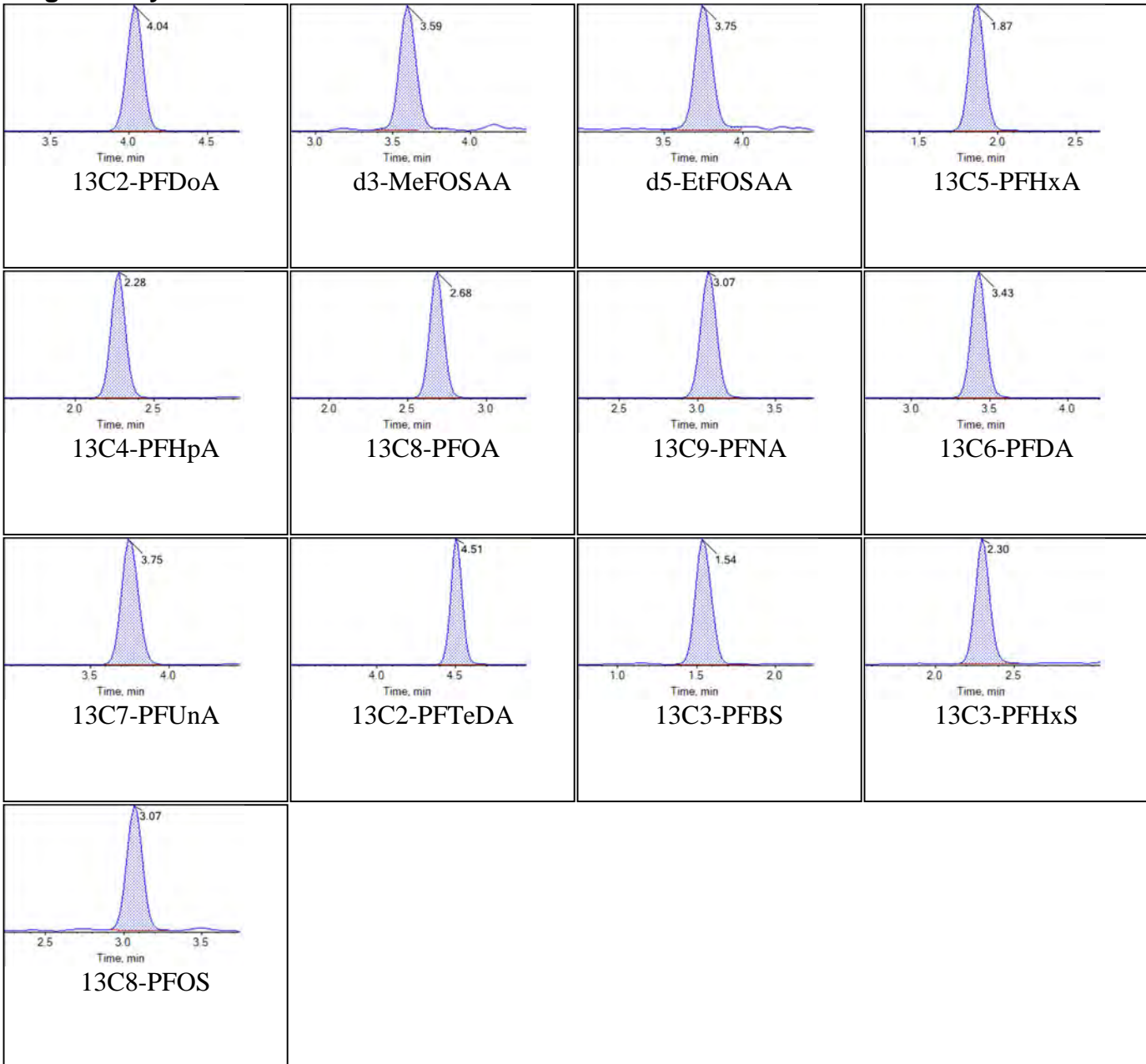
Internal Standards:



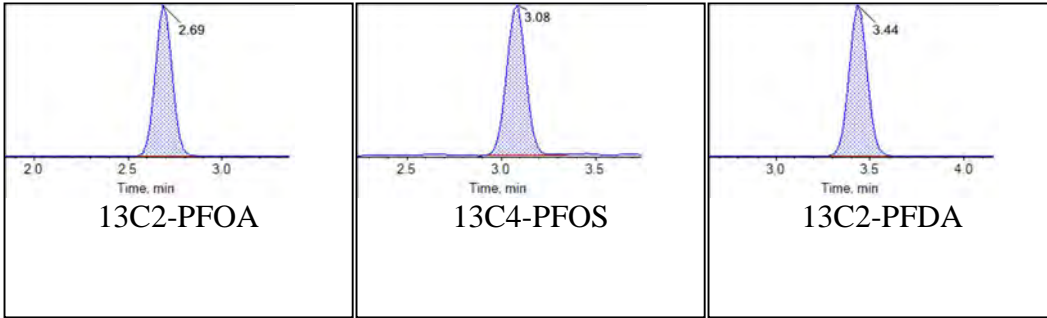
Sample Name	CS243PB-FS(0)	Injection Vial	28
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:13:14	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



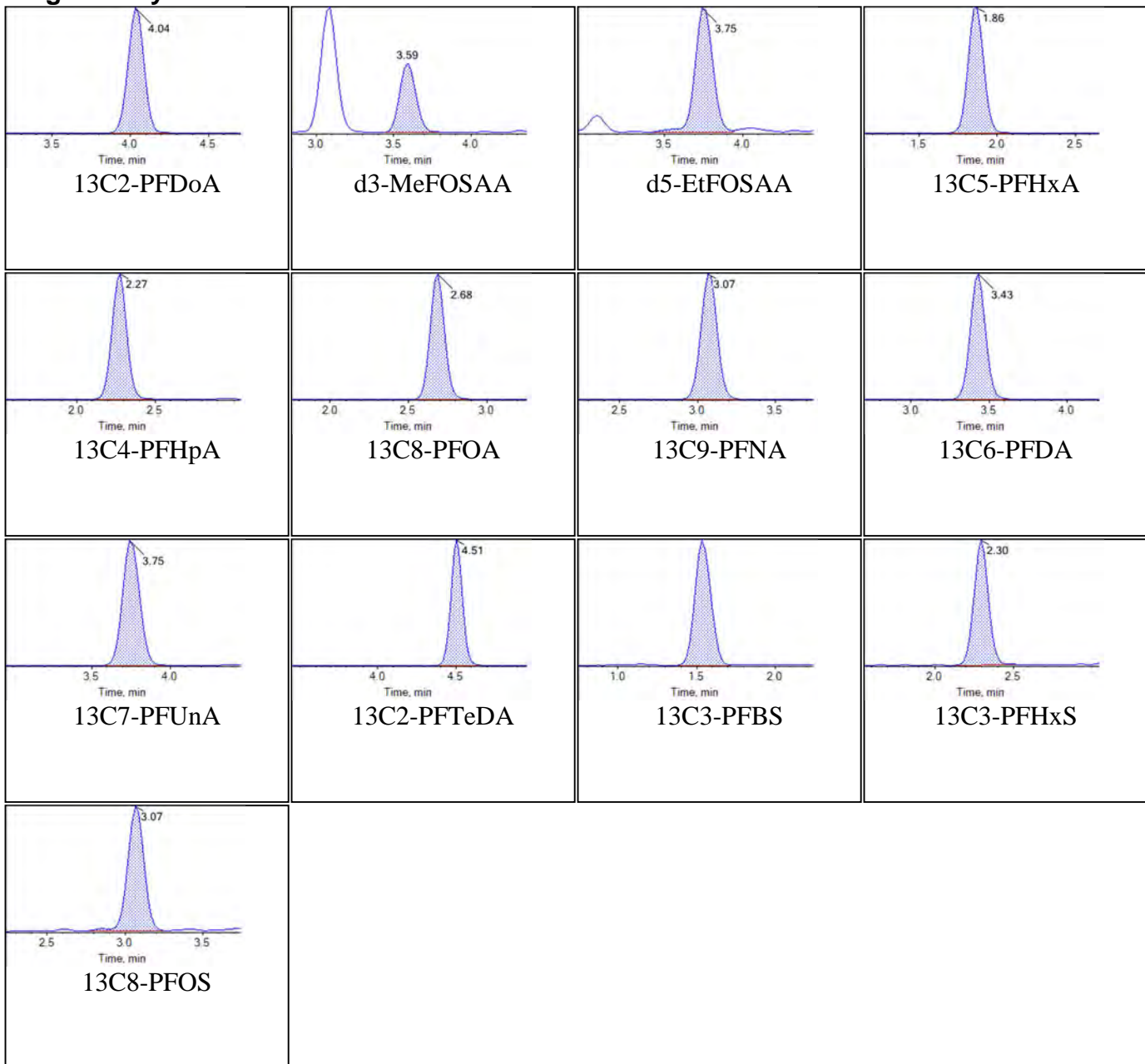
Internal Standards:



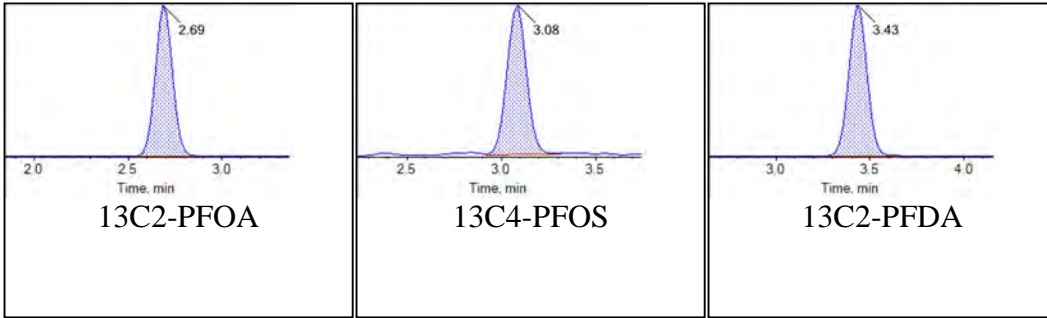
Sample Name	CS244LCS-FS(0)	Injection Vial	29
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:24:08	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



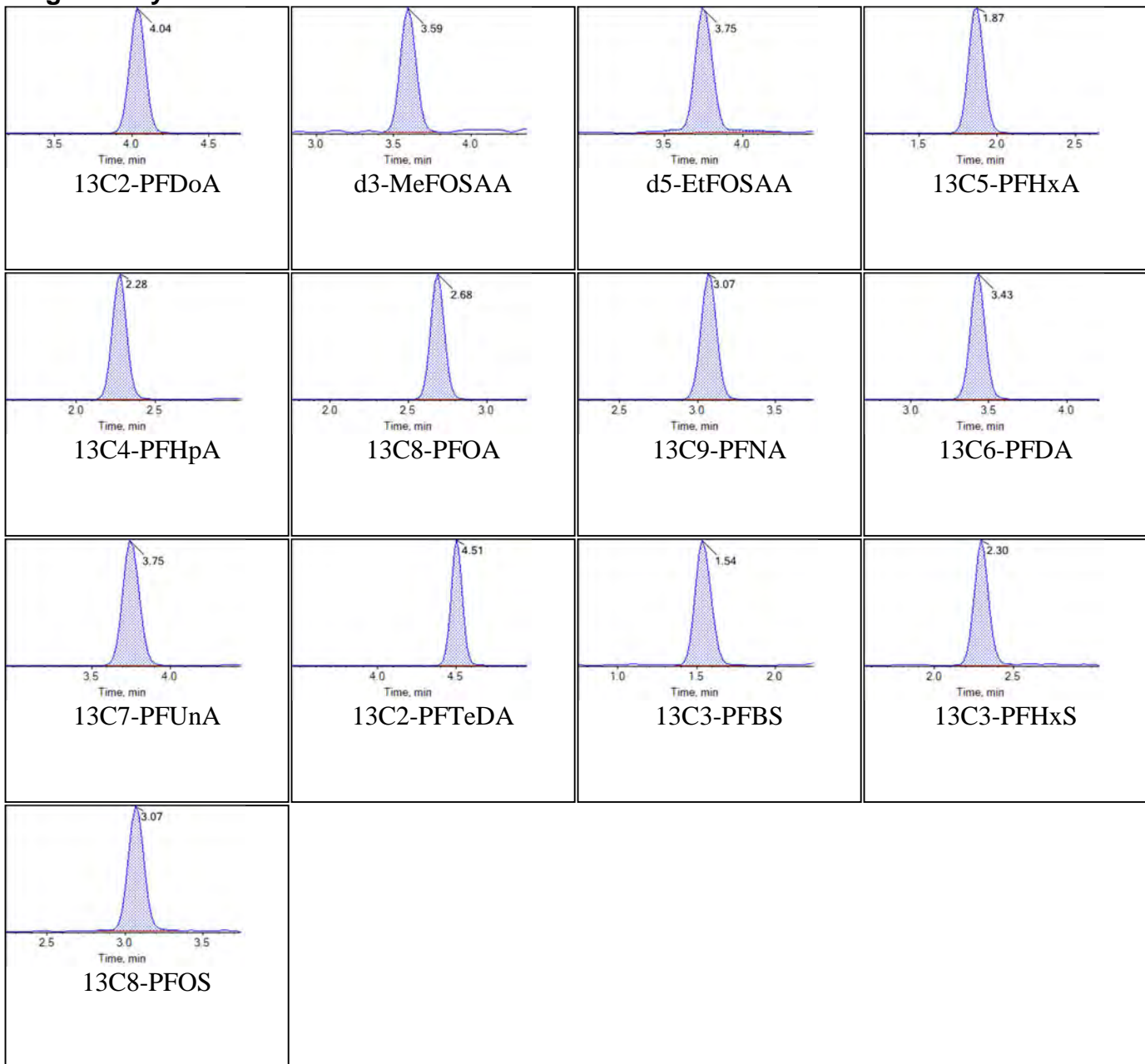
Internal Standards:



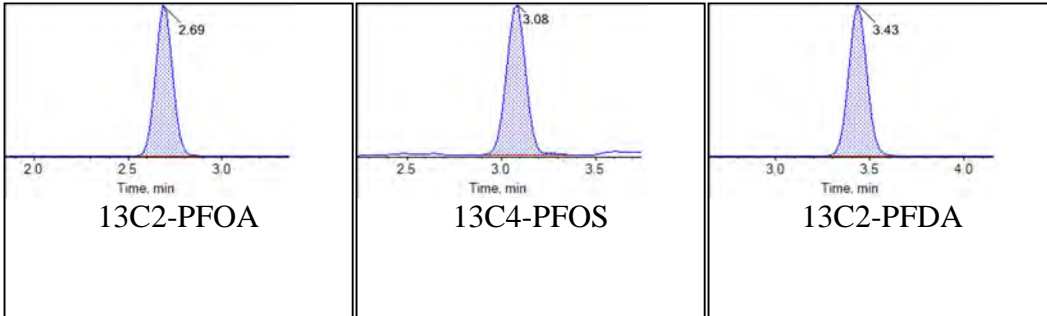
Sample Name	J9420-FS(0)	Injection Vial	30
Sample ID	AS4141-FB-111618	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:35:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



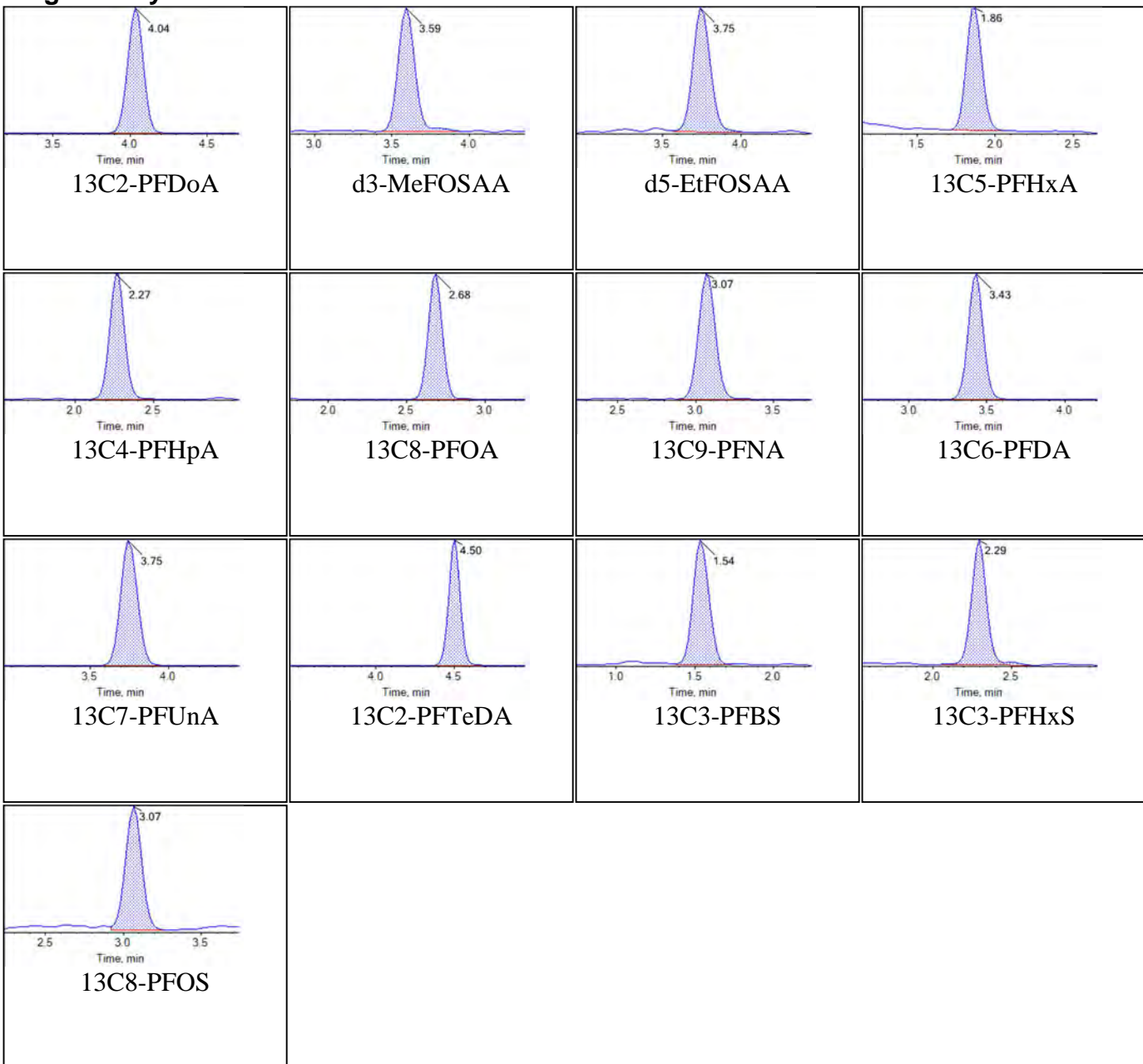
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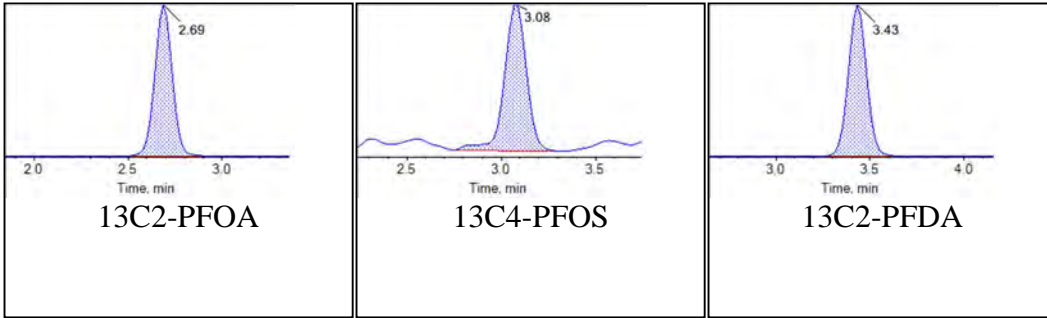
Sample Name	J9414-FS(0)	Injection Vial	31
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:45:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



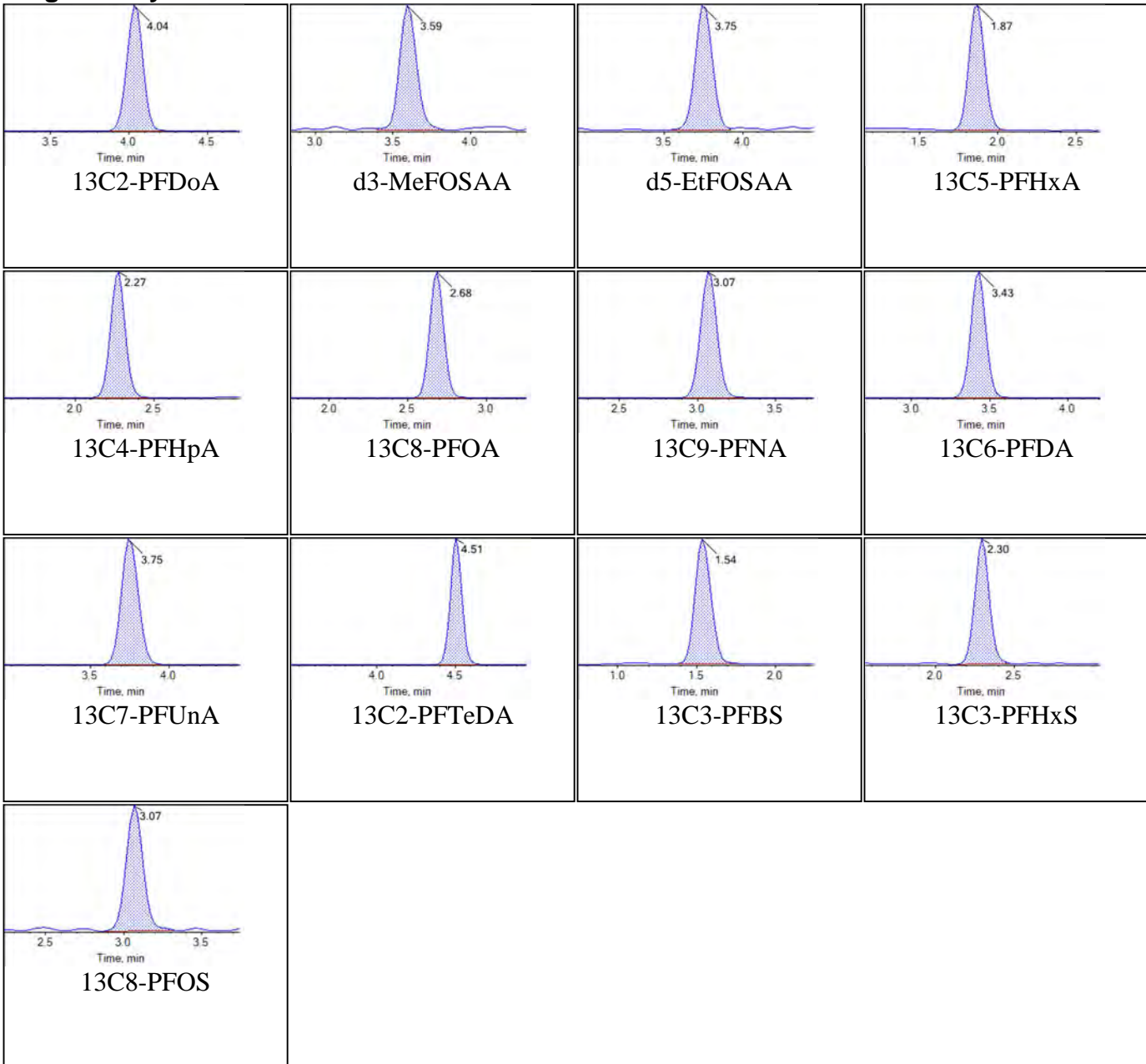
Internal Standards:



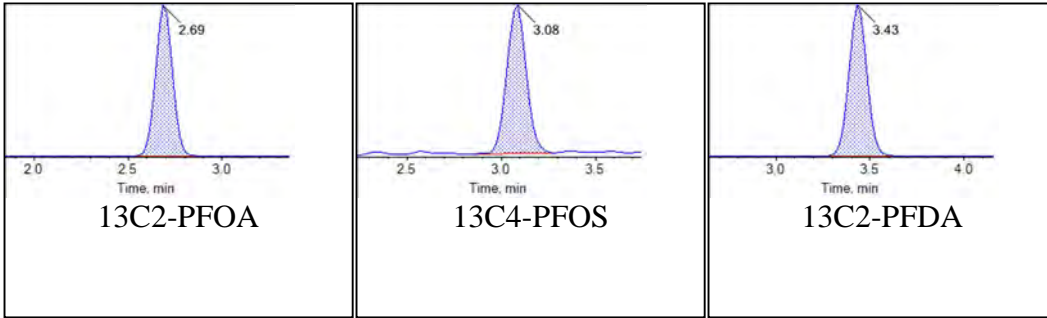
Sample Name	J9414-FS-D(3)	Injection Vial	32
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T22:56:43	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



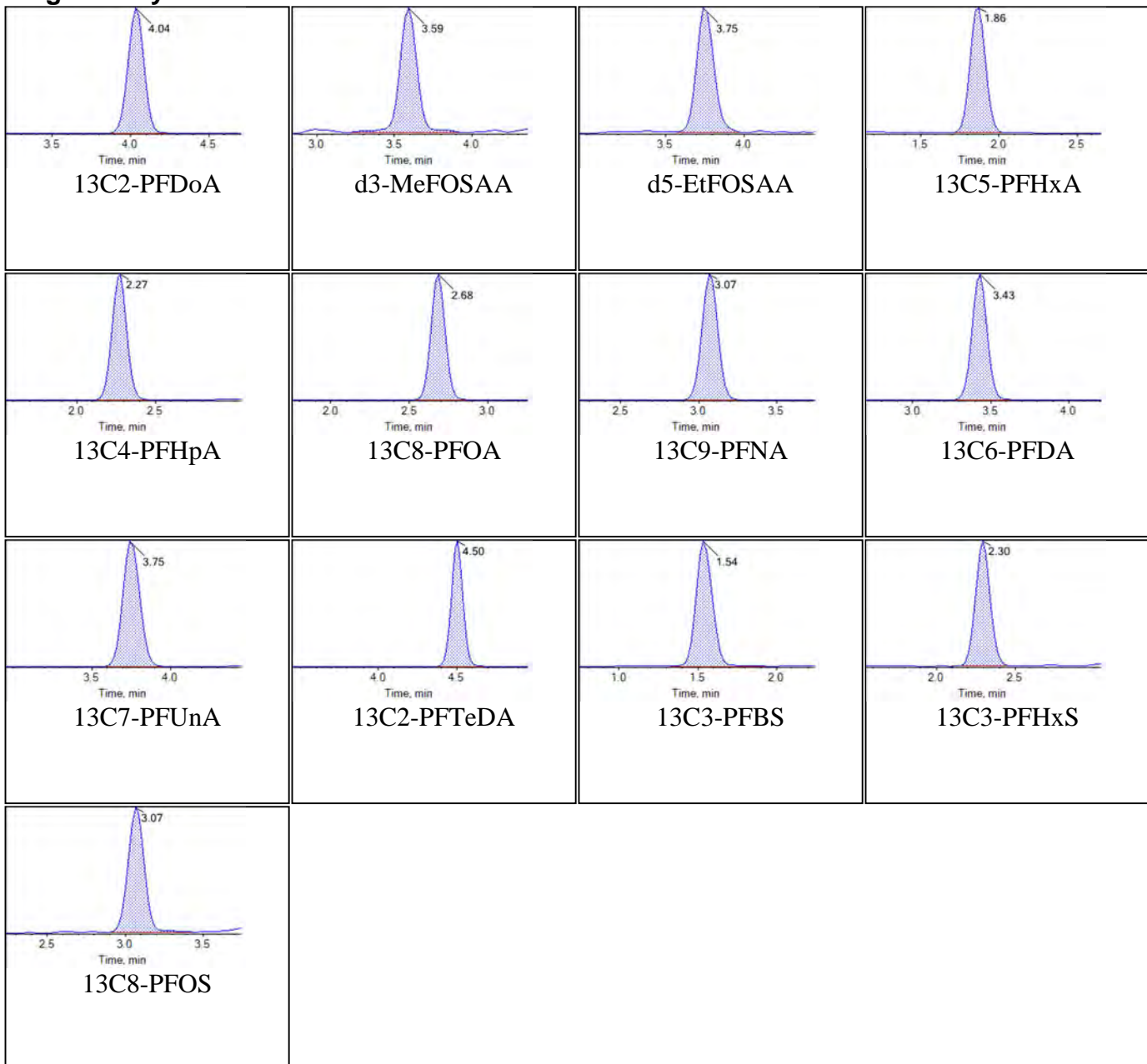
Internal Standards:



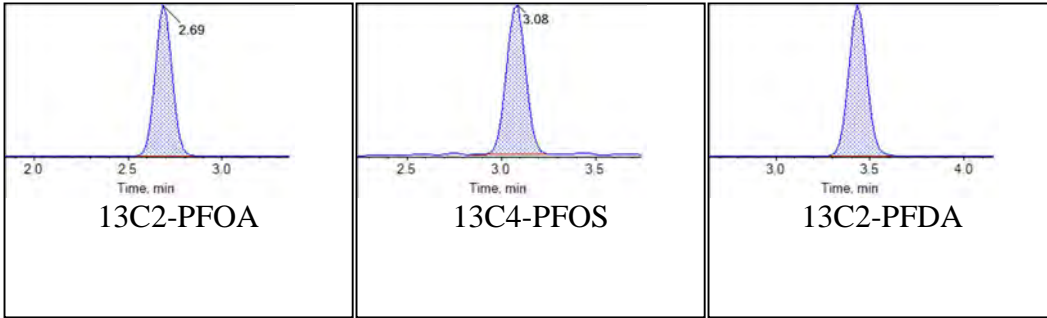
Sample Name	J9414-FS-D(5)	Injection Vial	33
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:07:35	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



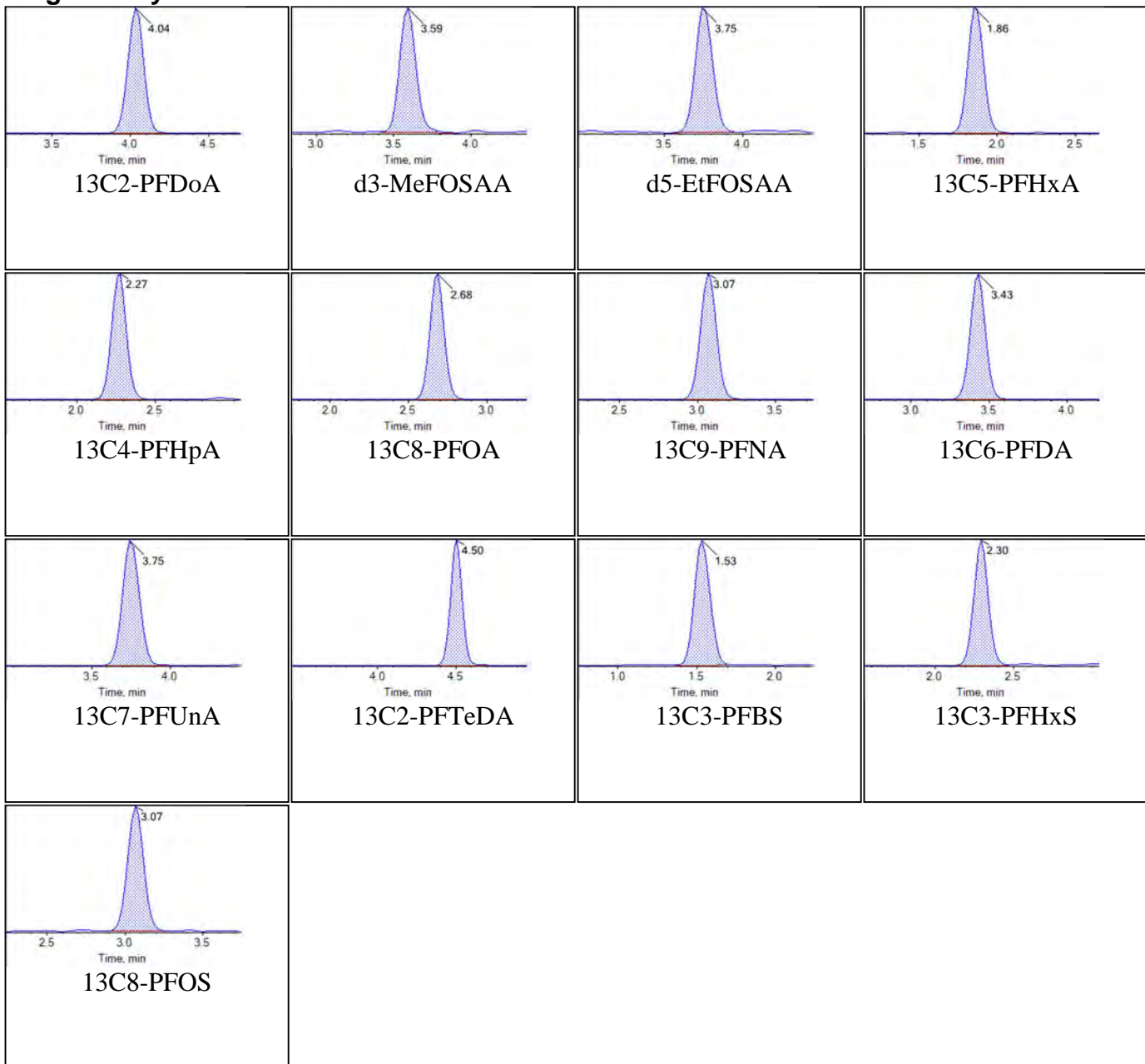
Internal Standards:



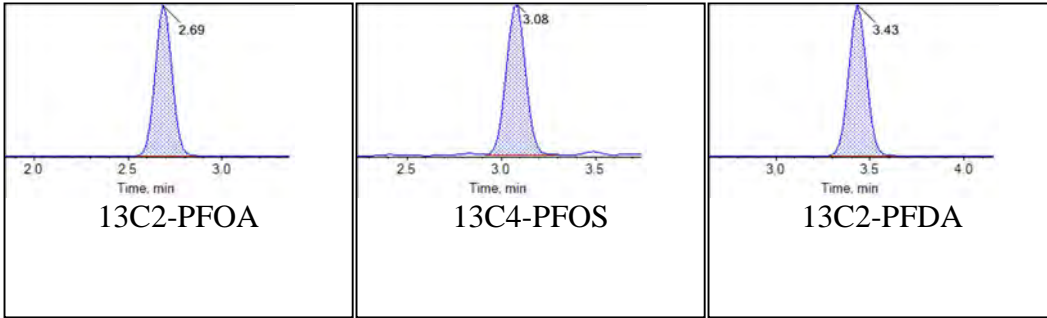
Sample Name	J9414-FS-D(7)	Injection Vial	34
Sample ID	AS4141-EFF1-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:18:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



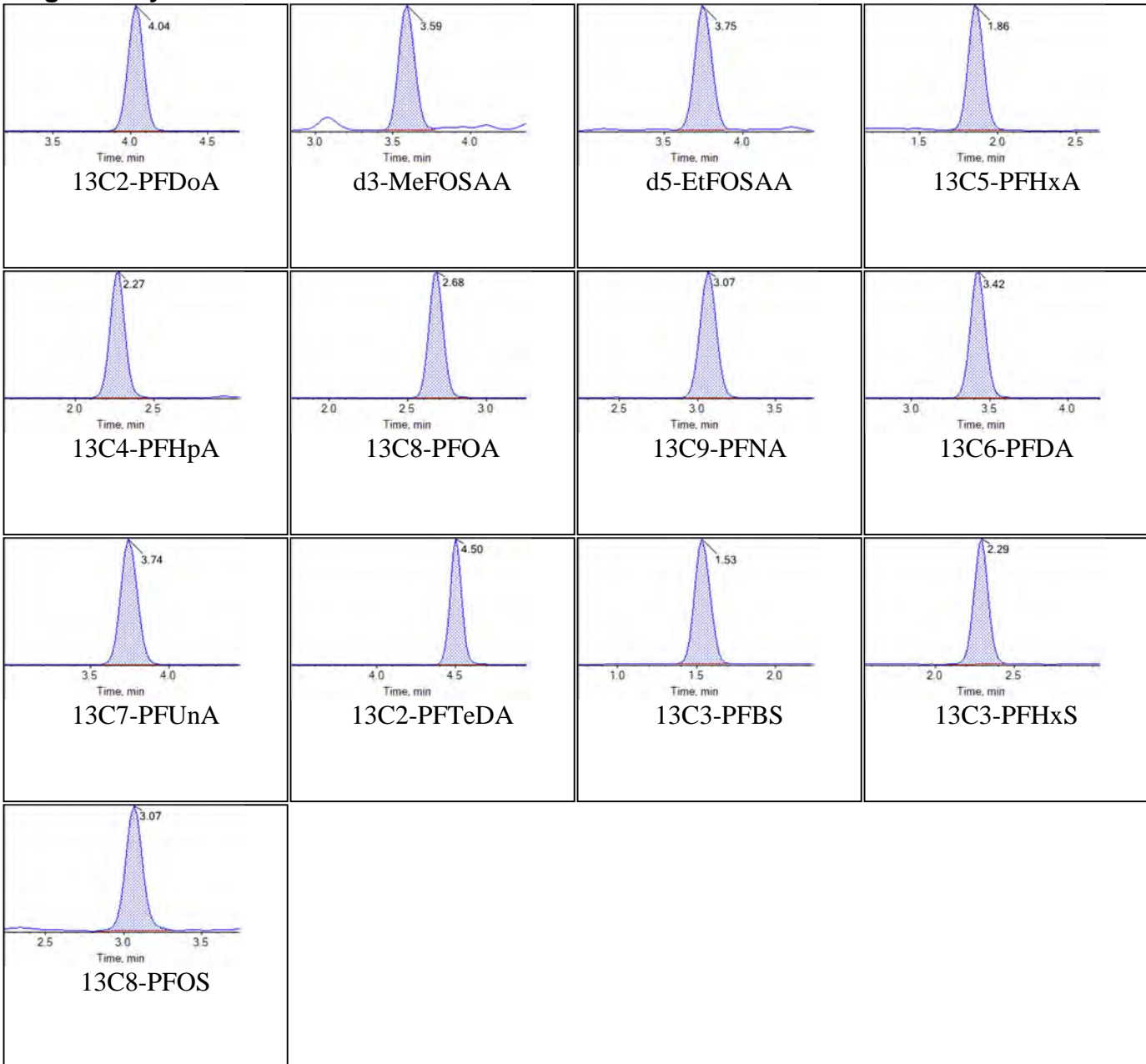
Internal Standards:



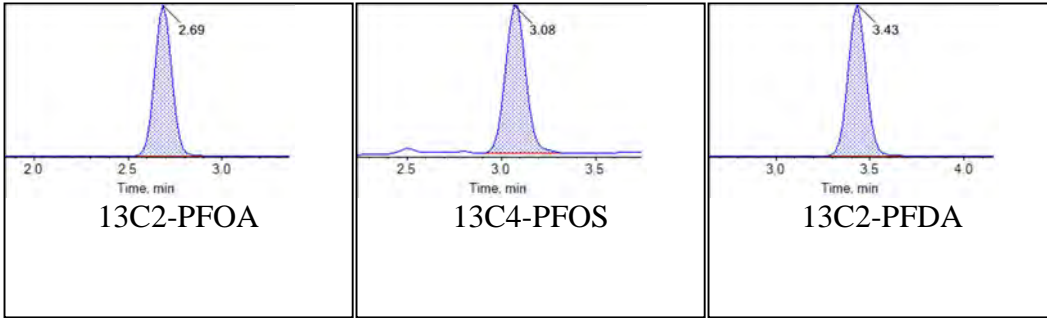
Sample Name	J9415MS-FS-D(3)	Injection Vial	36
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:40:09	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



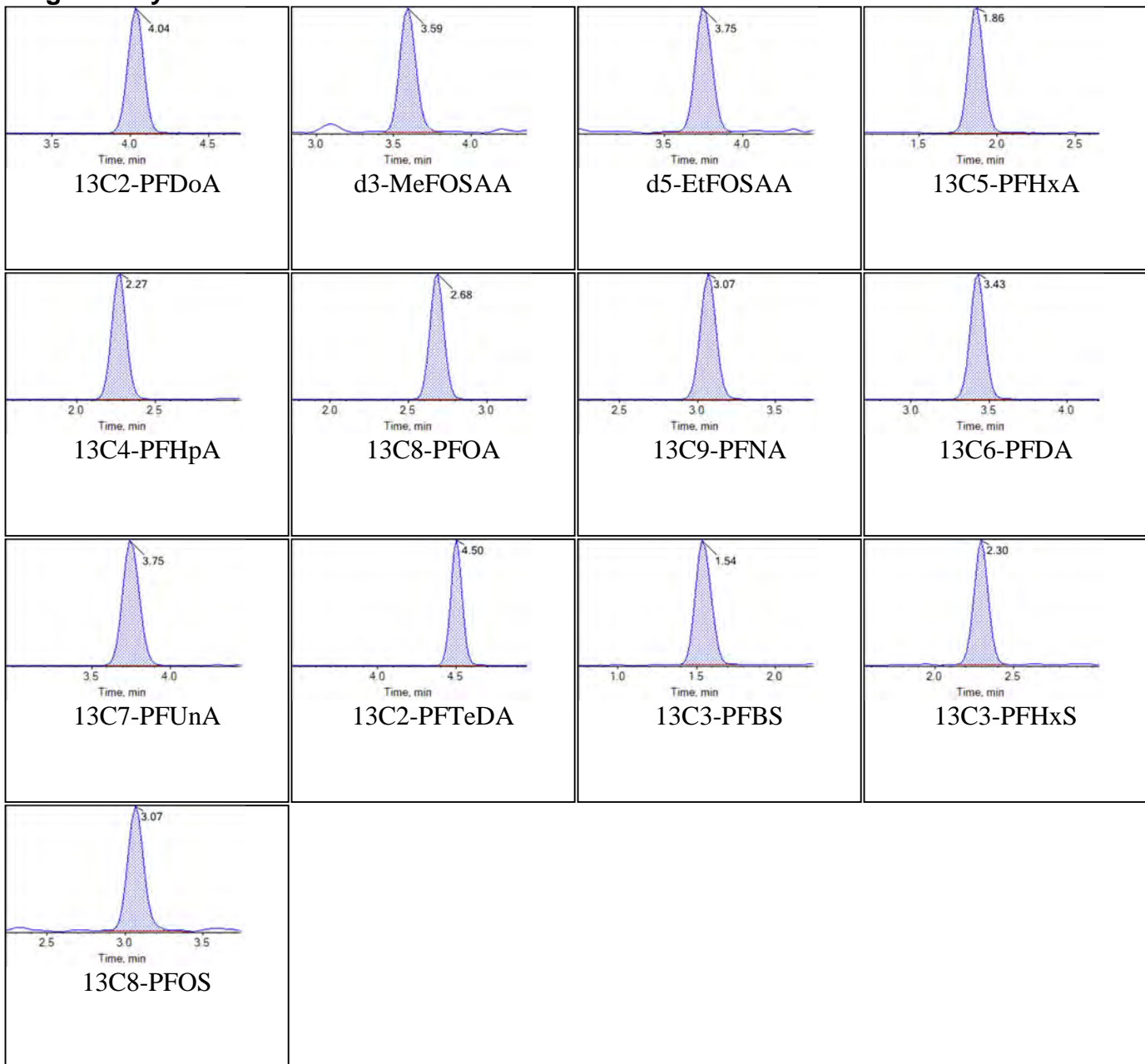
Internal Standards:



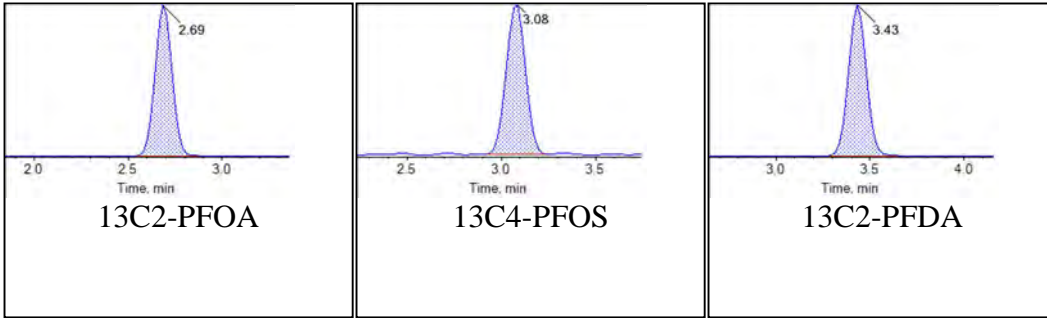
Sample Name	J9415MS-FS-D(5)	Injection Vial	37
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:51:01	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



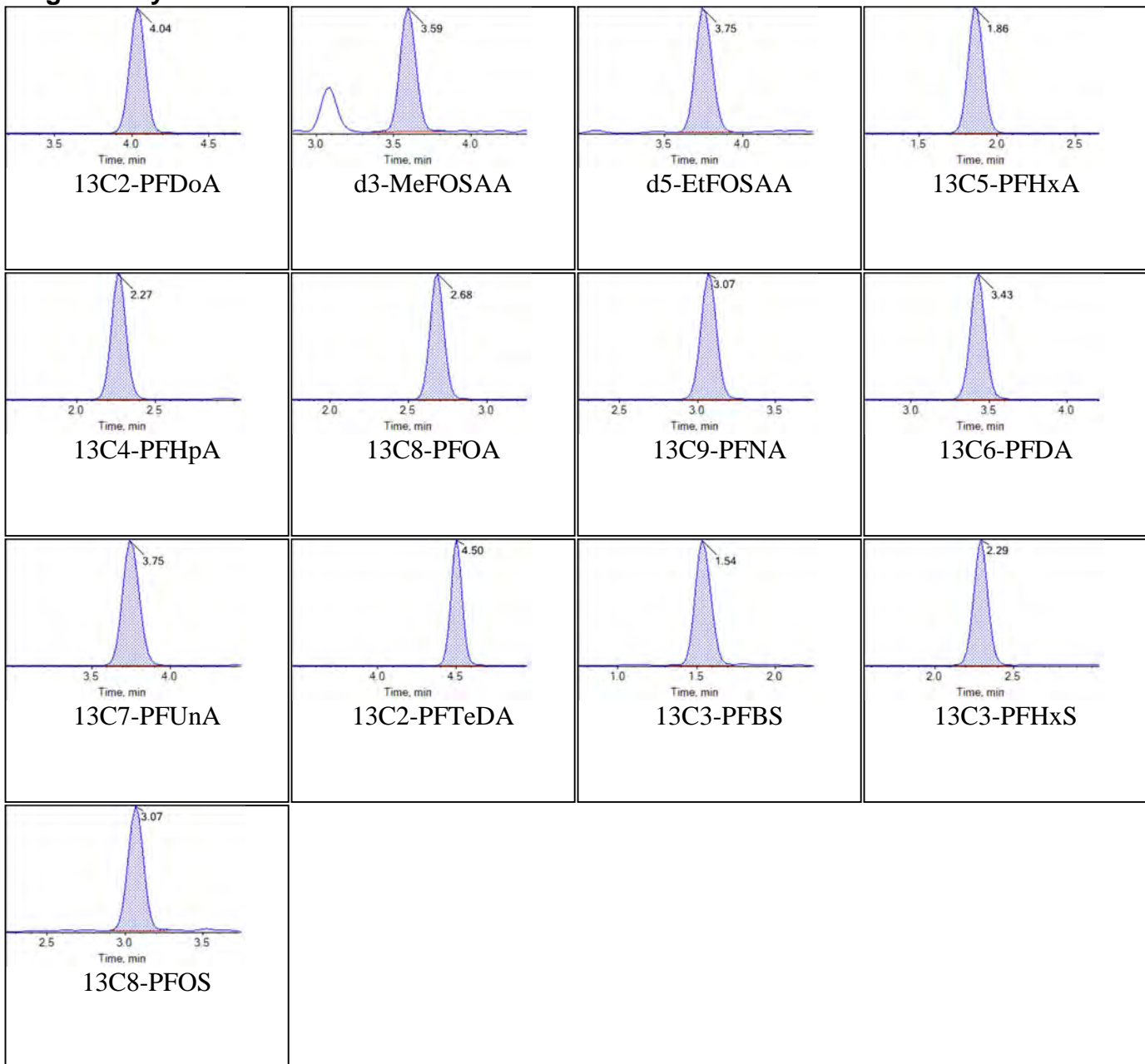
Internal Standards:



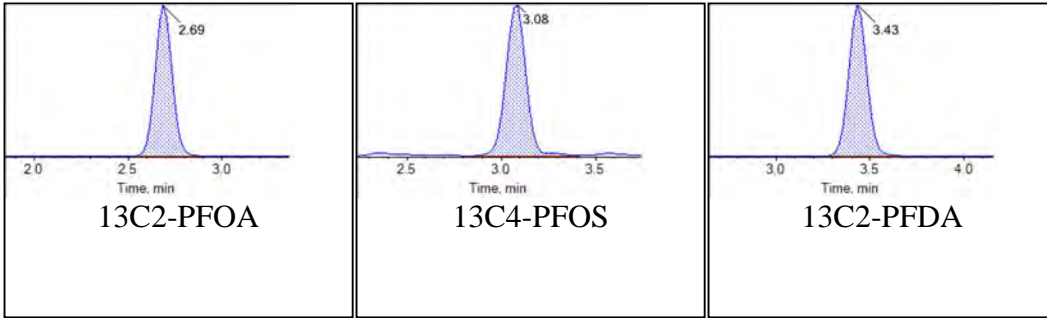
Sample Name	KC70 CCV	Injection Vial	38
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:01:53	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



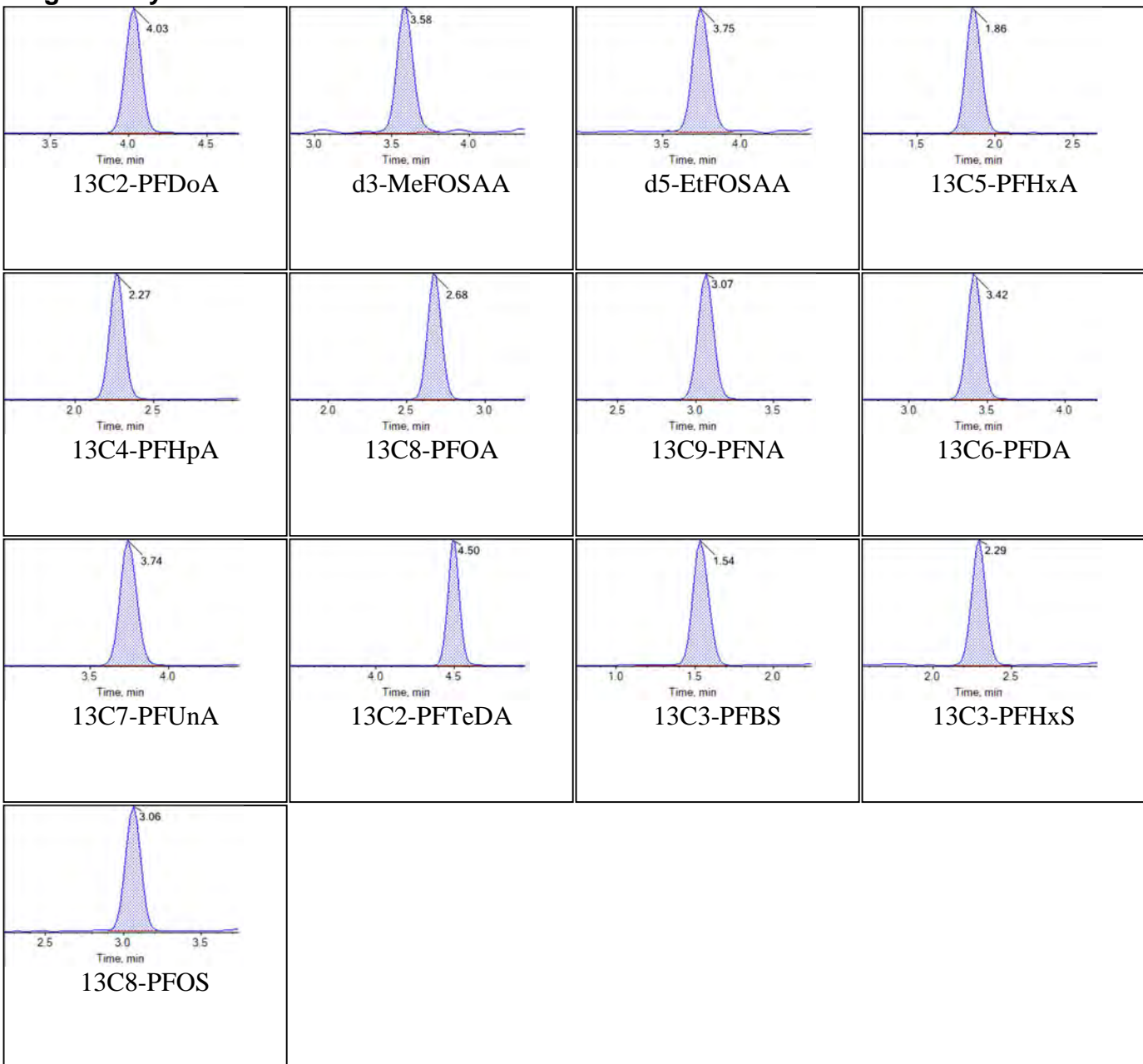
Internal Standards:



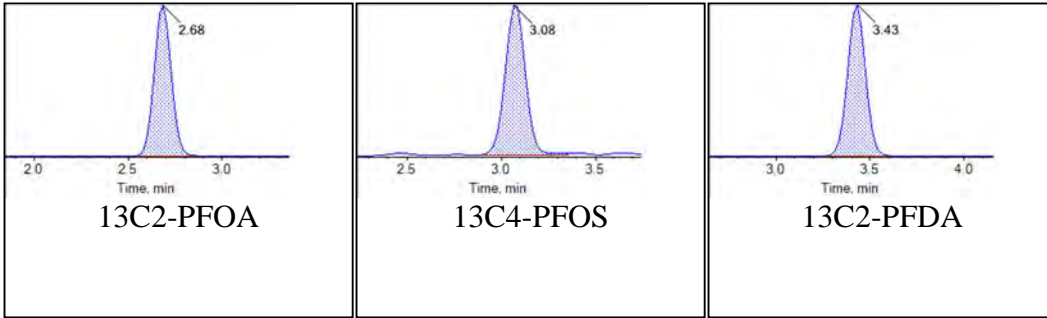
Sample Name	J9415MS-FS-D(7)	Injection Vial	40
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:23:39	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



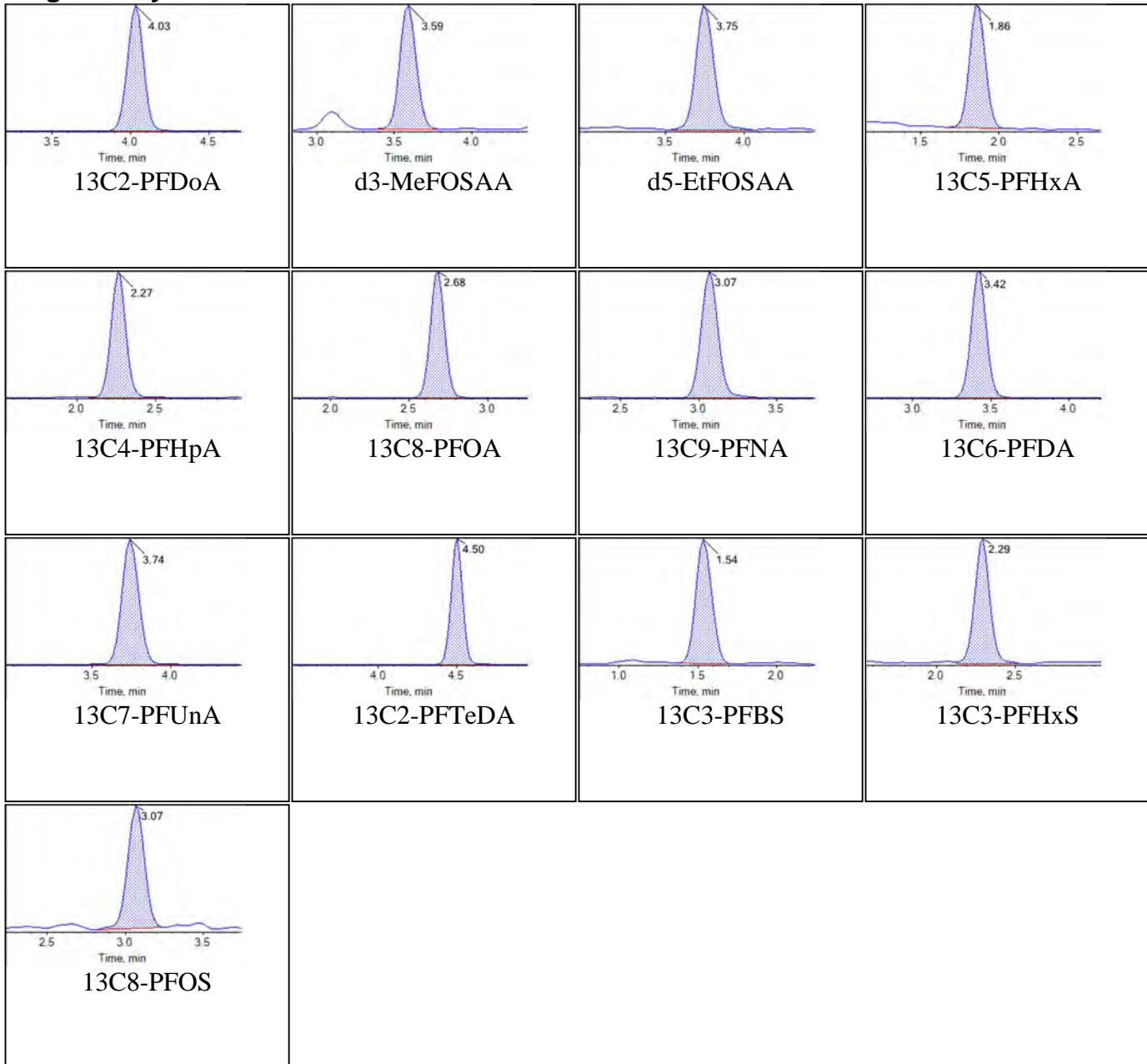
Internal Standards:



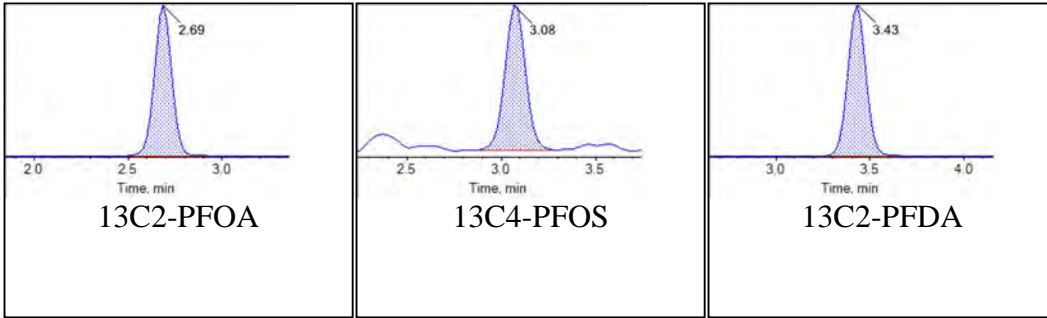
Sample Name	J9416-MSD-FS(0)	Injection Vial	41
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:34:31	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



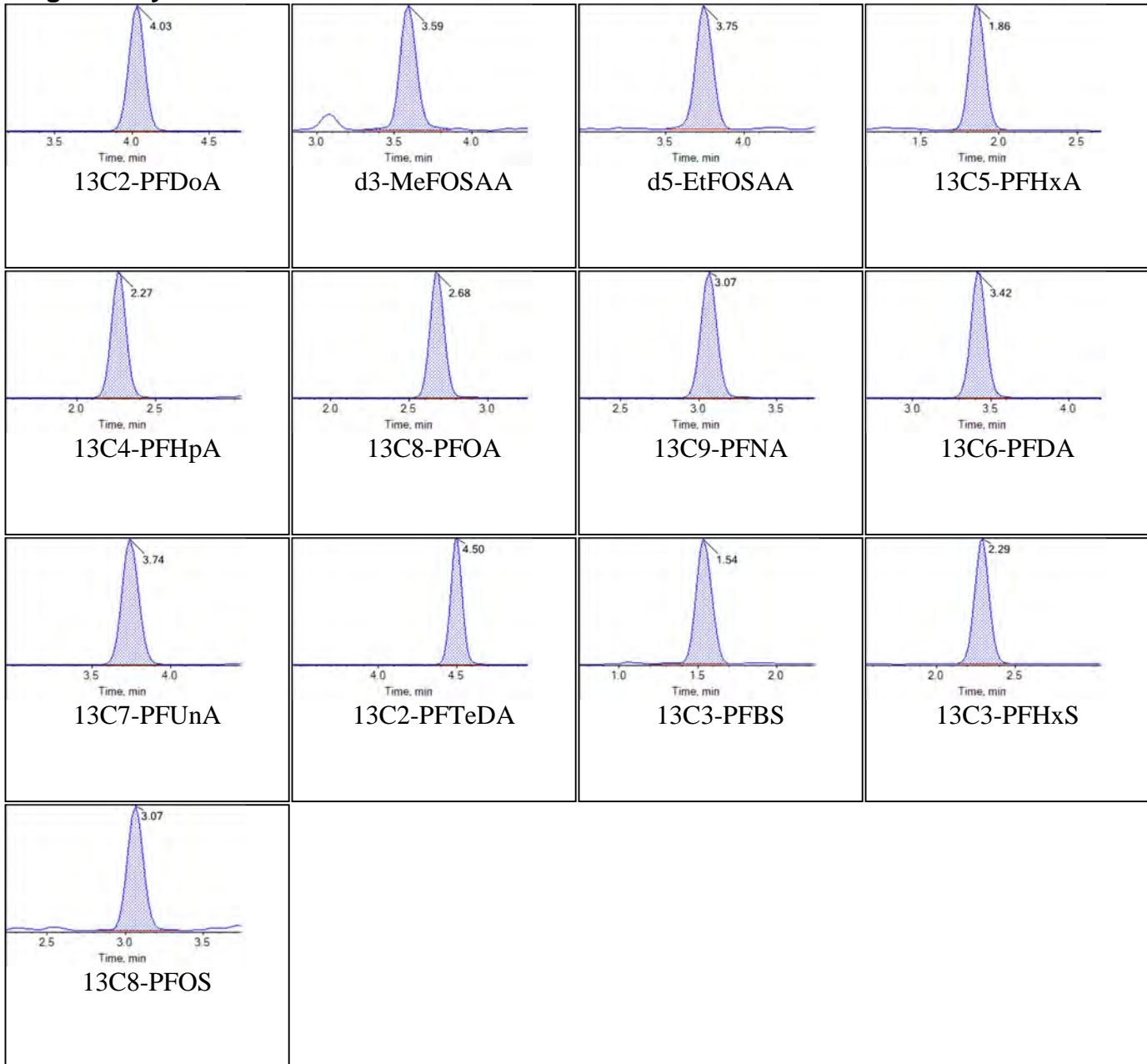
Internal Standards:



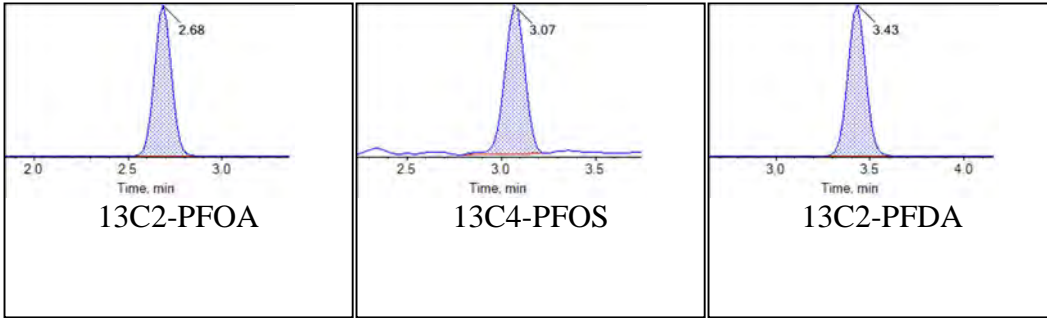
Sample Name	J9416MSD-FS-D(3)	Injection Vial	42
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:45:22	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



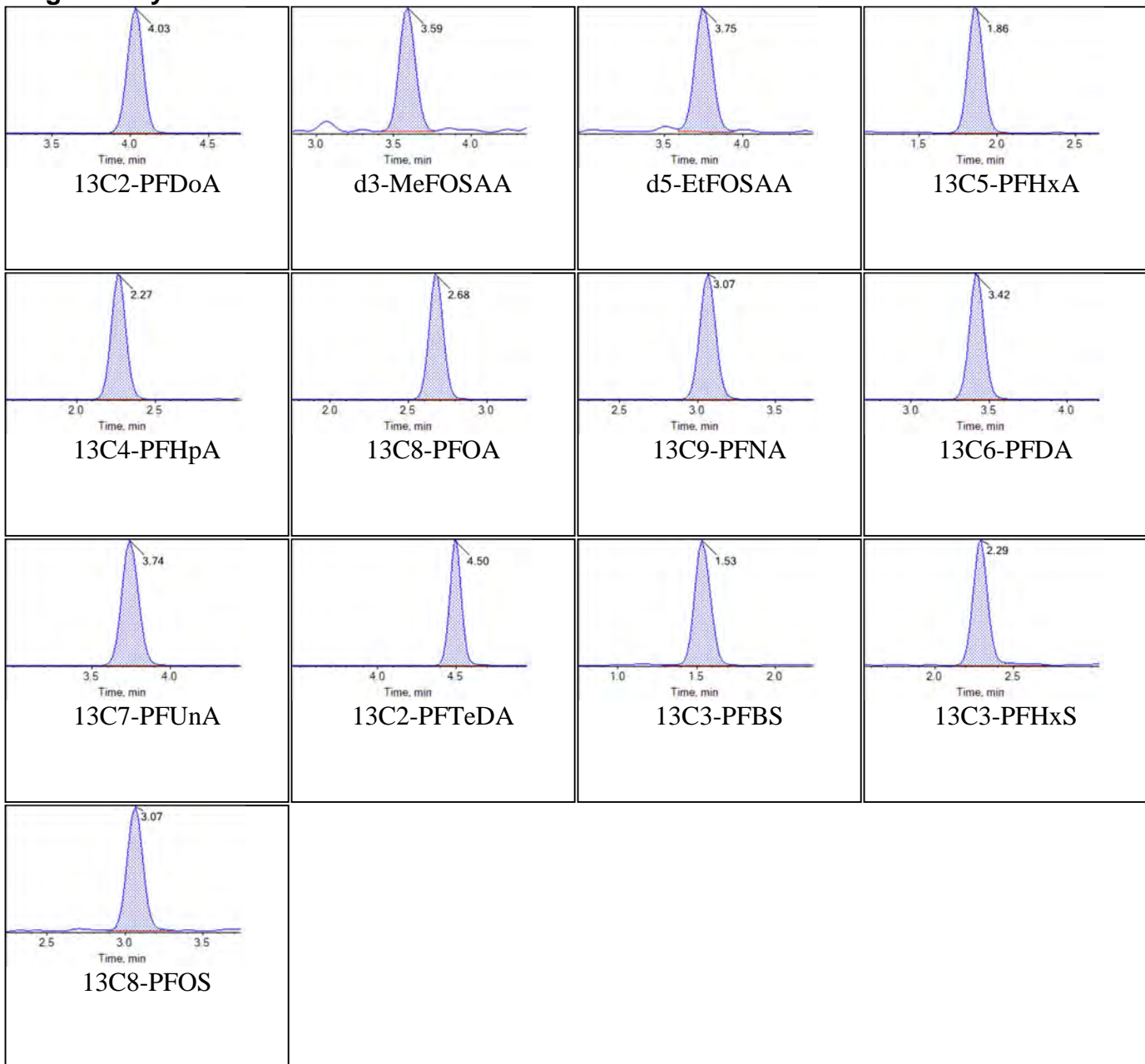
Internal Standards:



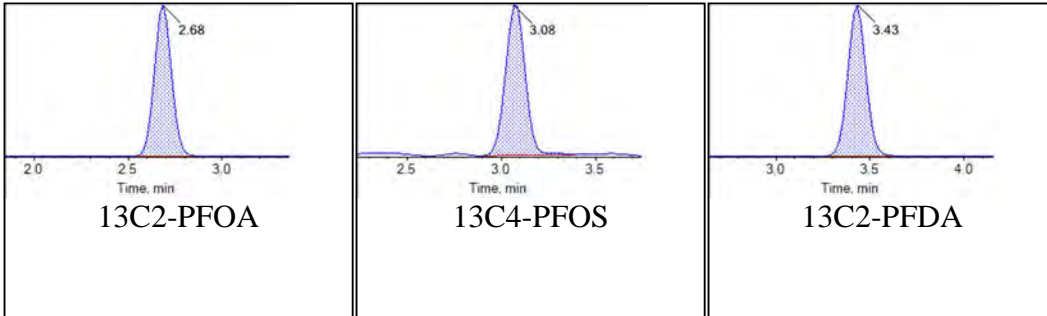
Sample Name	J9416MSD-FS-D(5)	Injection Vial	43
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T00:56:15	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



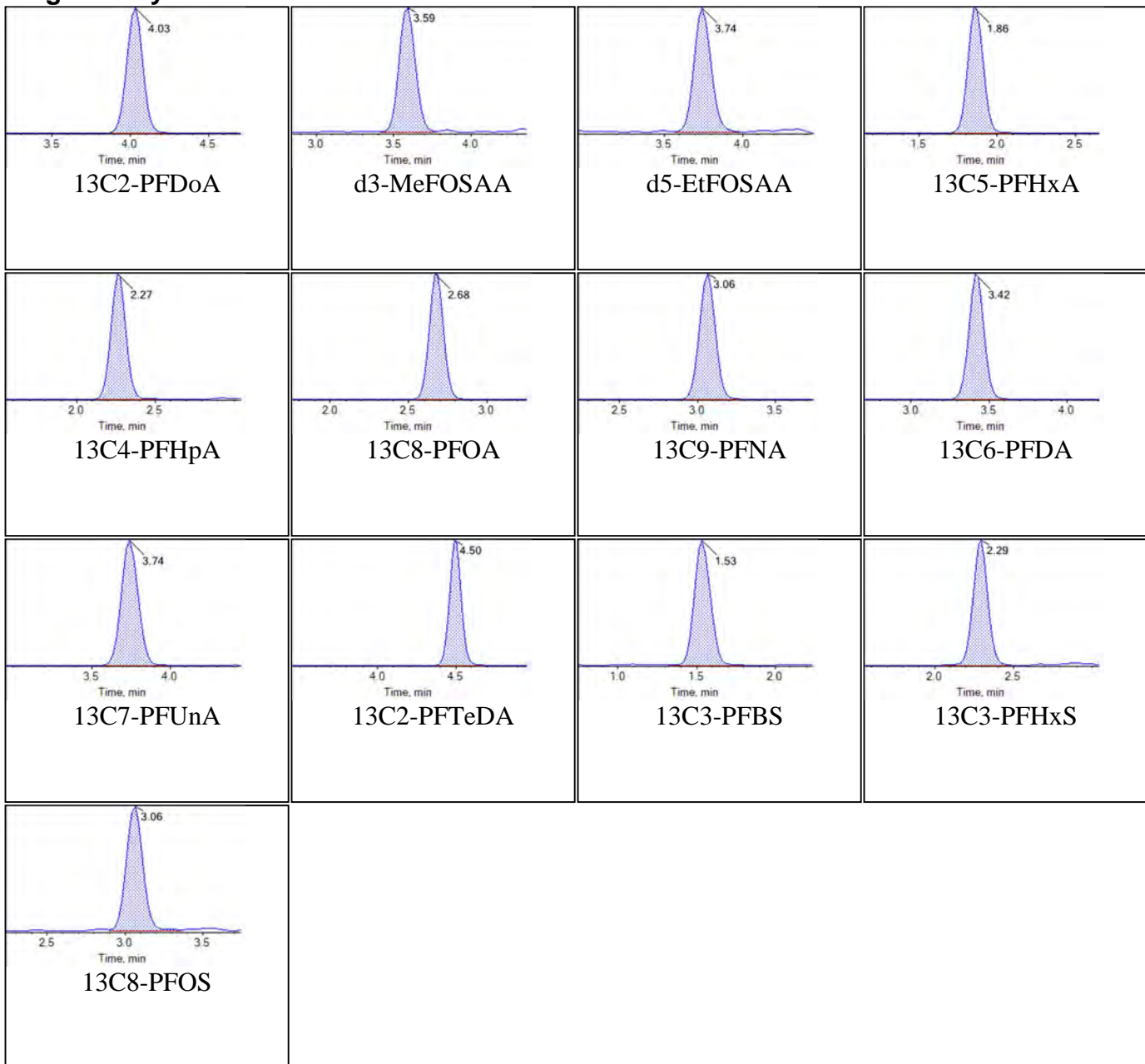
Internal Standards:



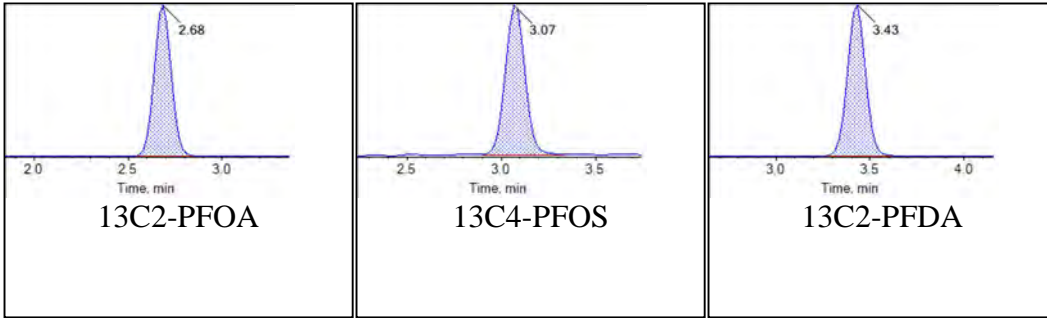
Sample Name	J9416MSD-FS-D(7)	Injection Vial	44
Sample ID	AS4141-EFF1-18D-SD	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:07:07	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



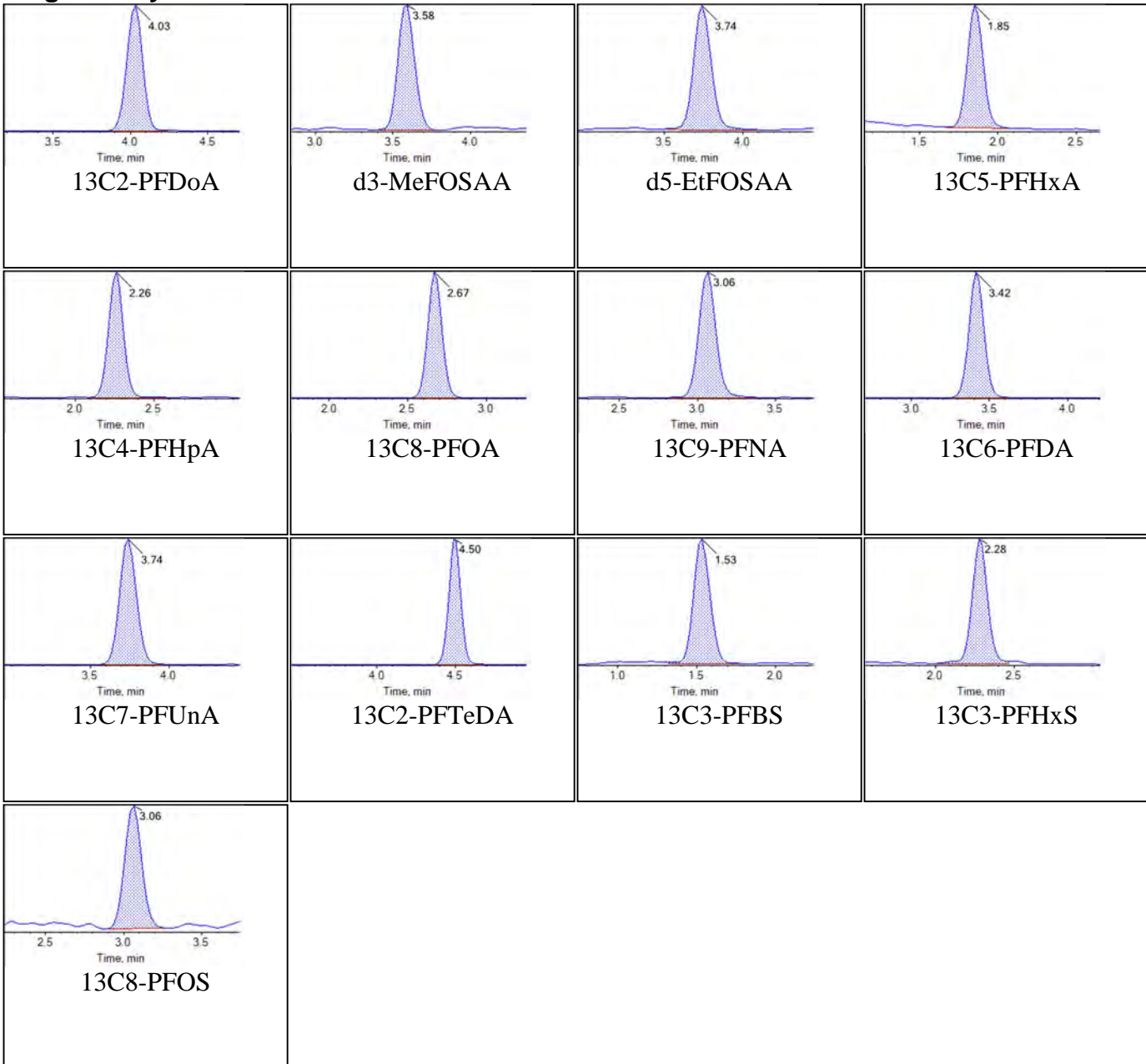
Internal Standards:



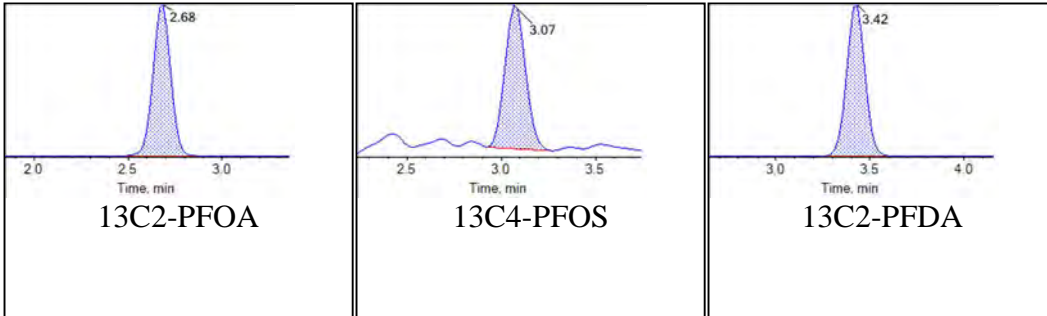
Sample Name	J9417-FS(0)	Injection Vial	45
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:17:59	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



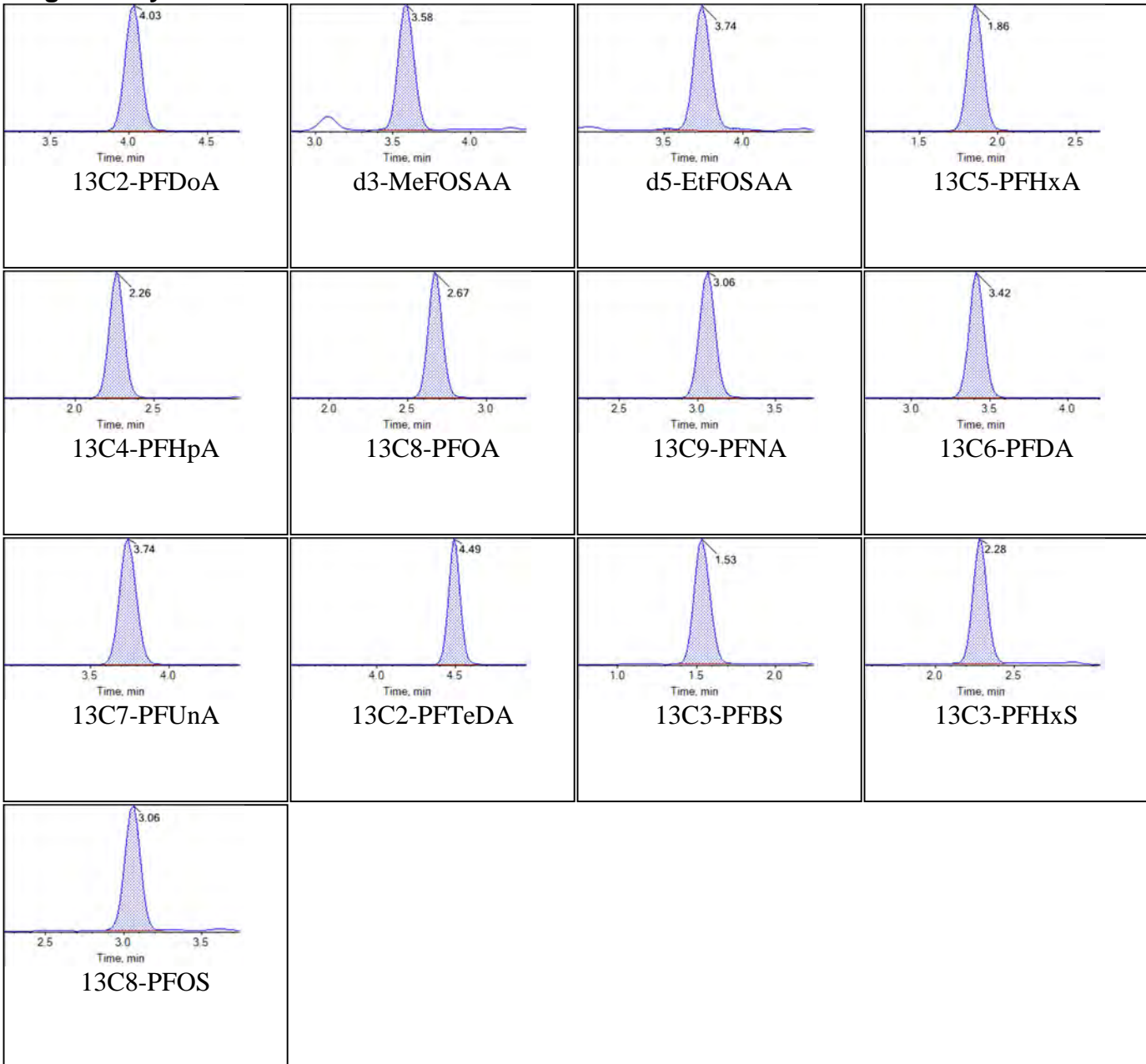
Internal Standards:



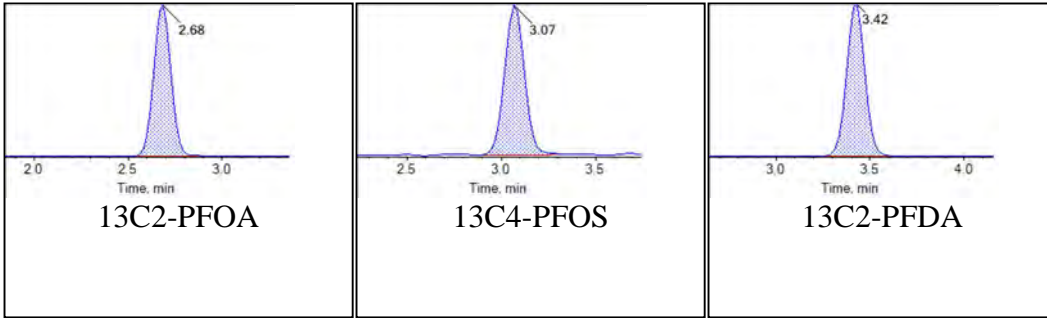
Sample Name	KC69 CCV	Injection Vial	49
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T02:01:26	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



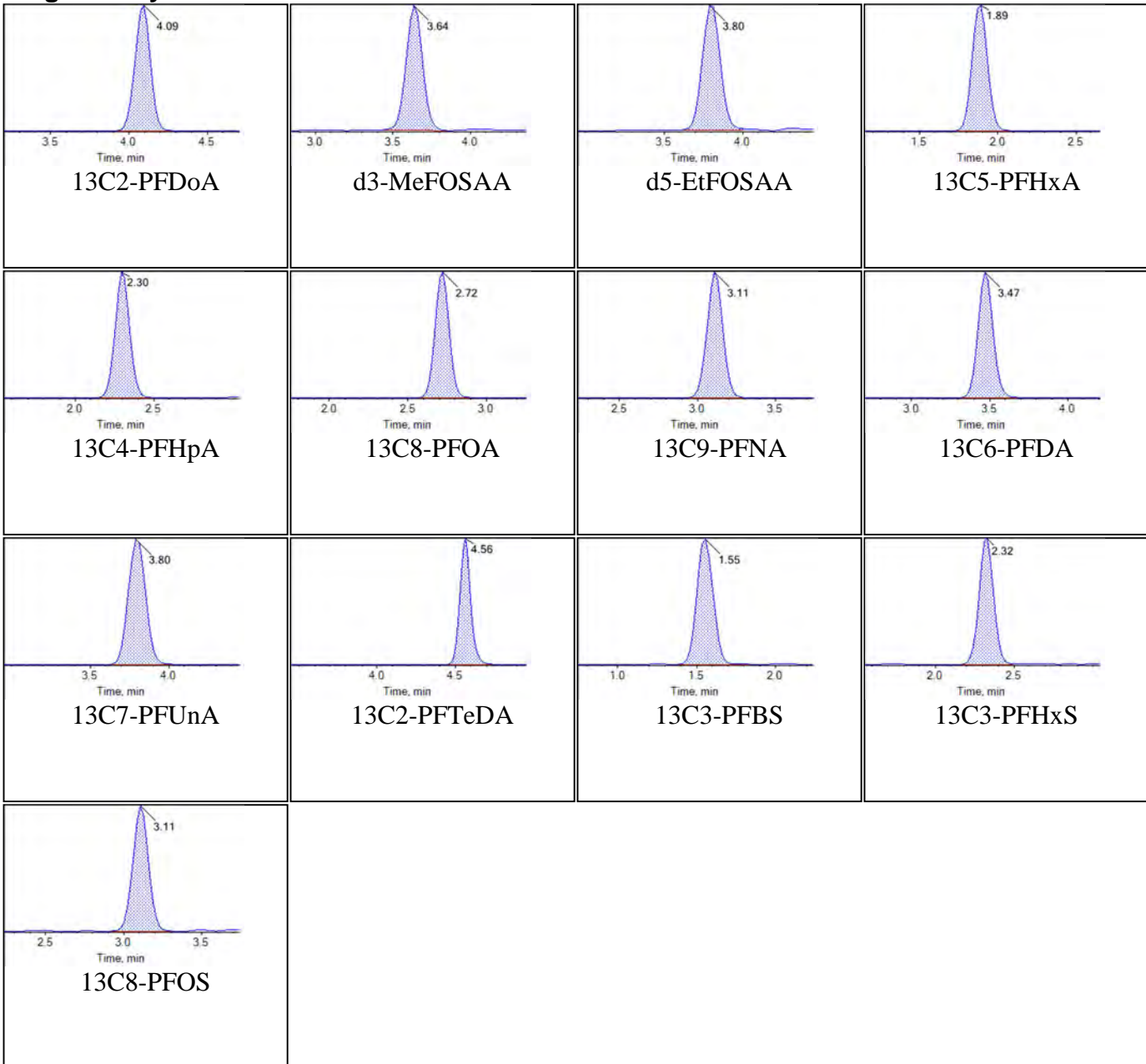
Internal Standards:



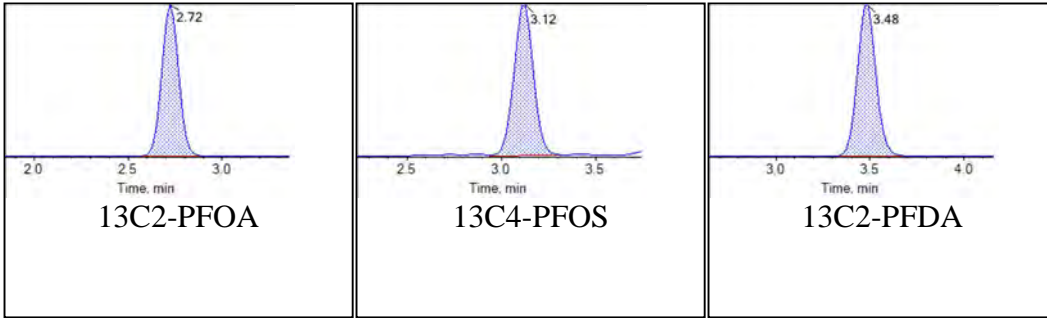
Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:47:20	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



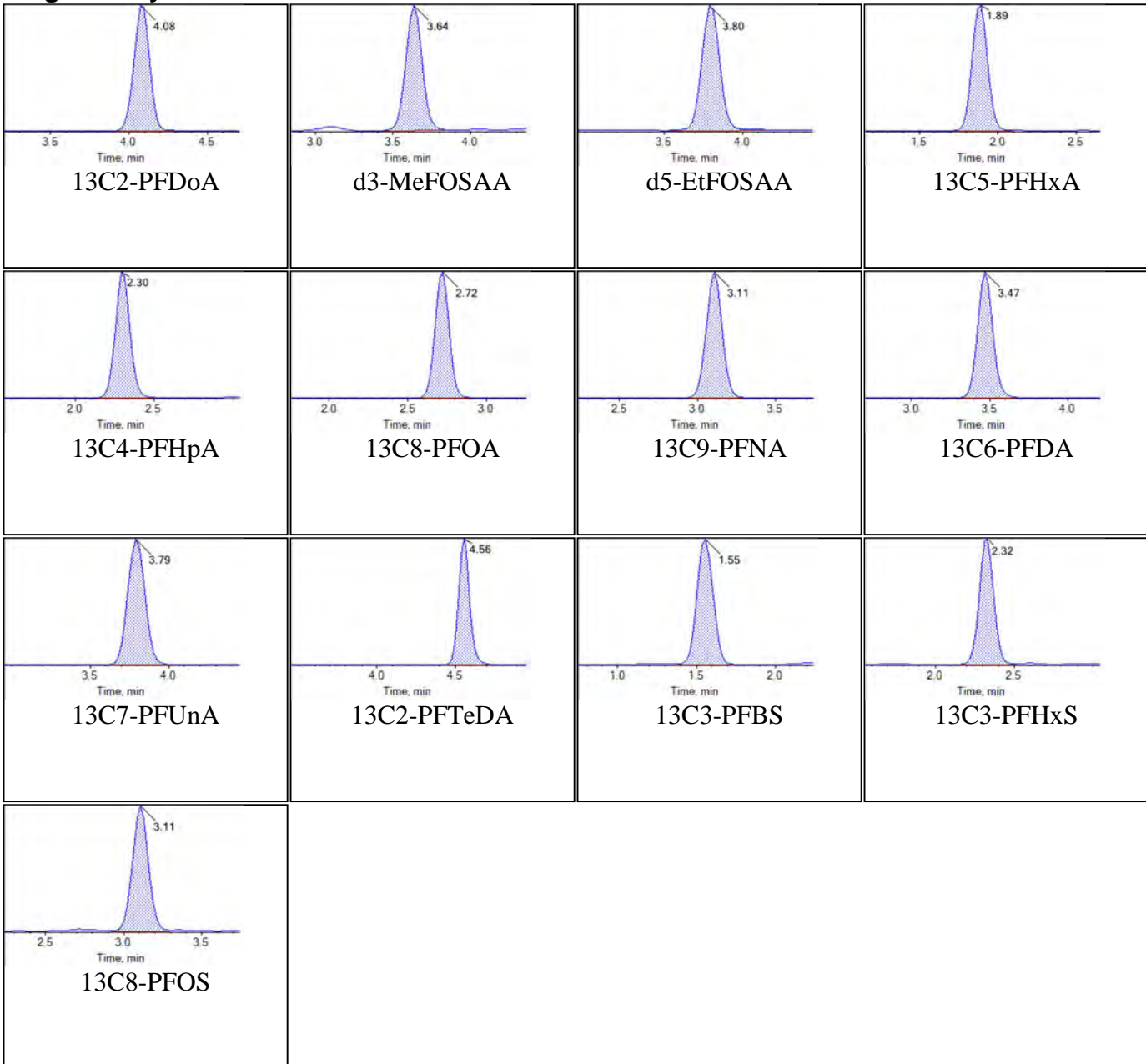
Internal Standards:



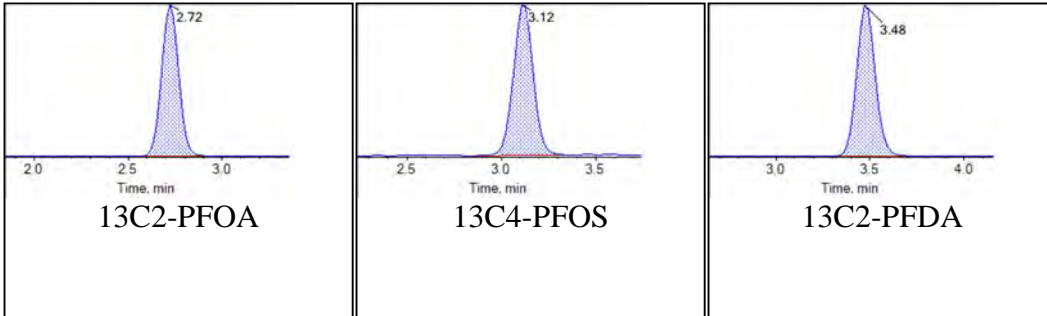
Sample Name	KC68 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T10:58:13	Data File	AC_11262018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



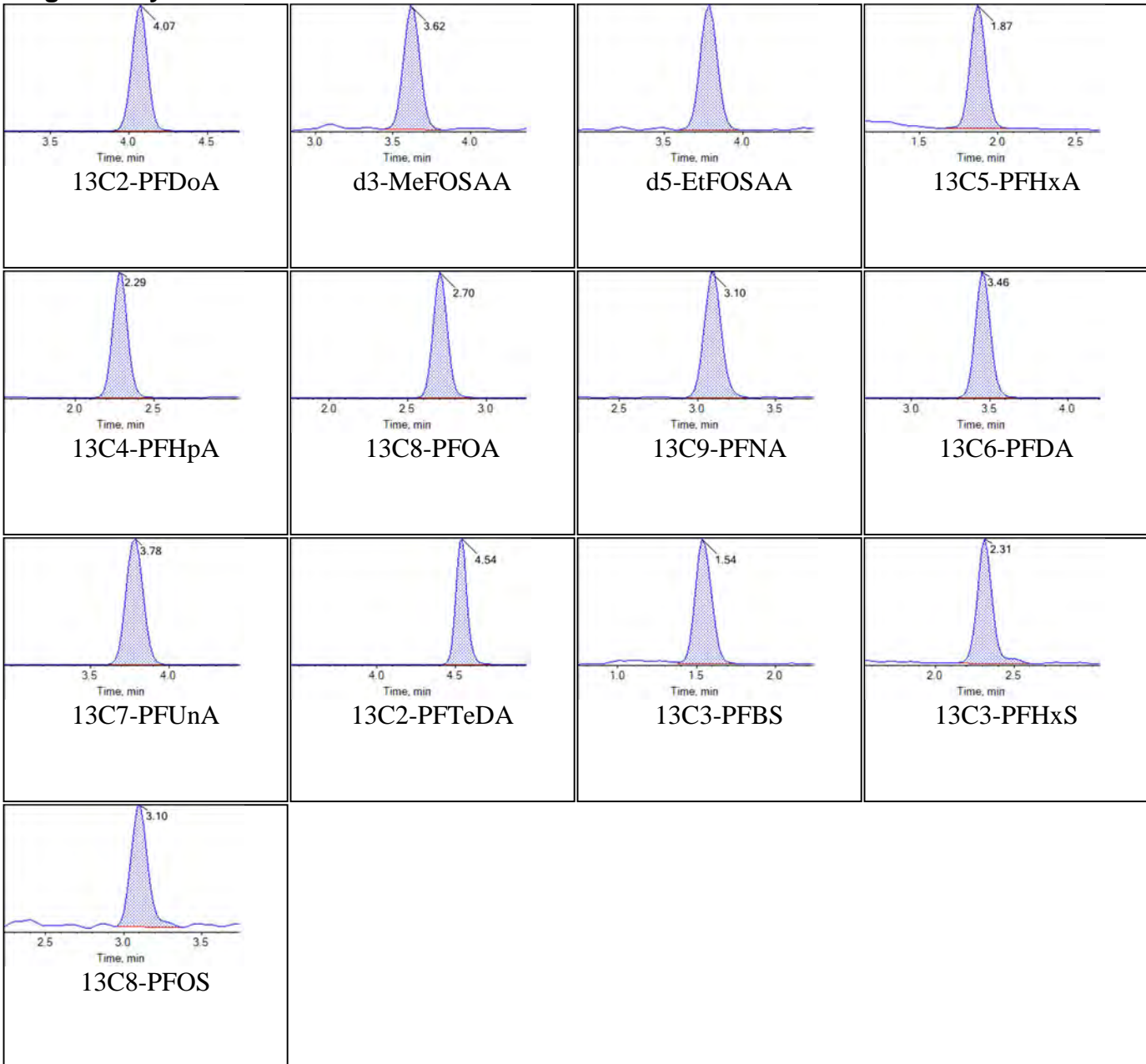
Internal Standards:



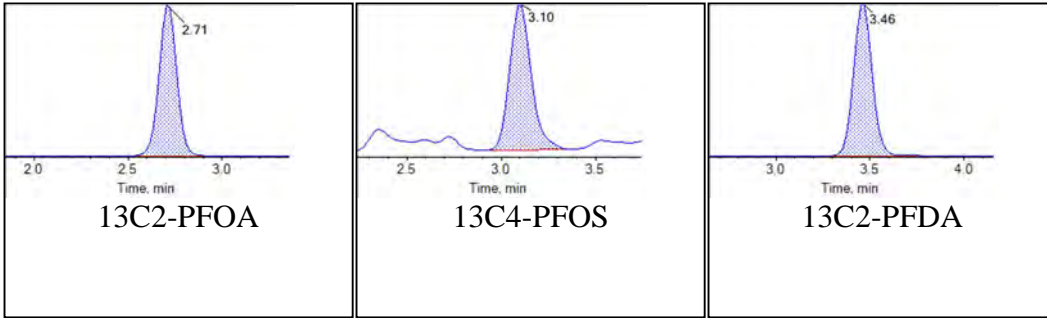
Sample Name	J9415MS-FS(0)	Injection Vial	9
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T11:52:28	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



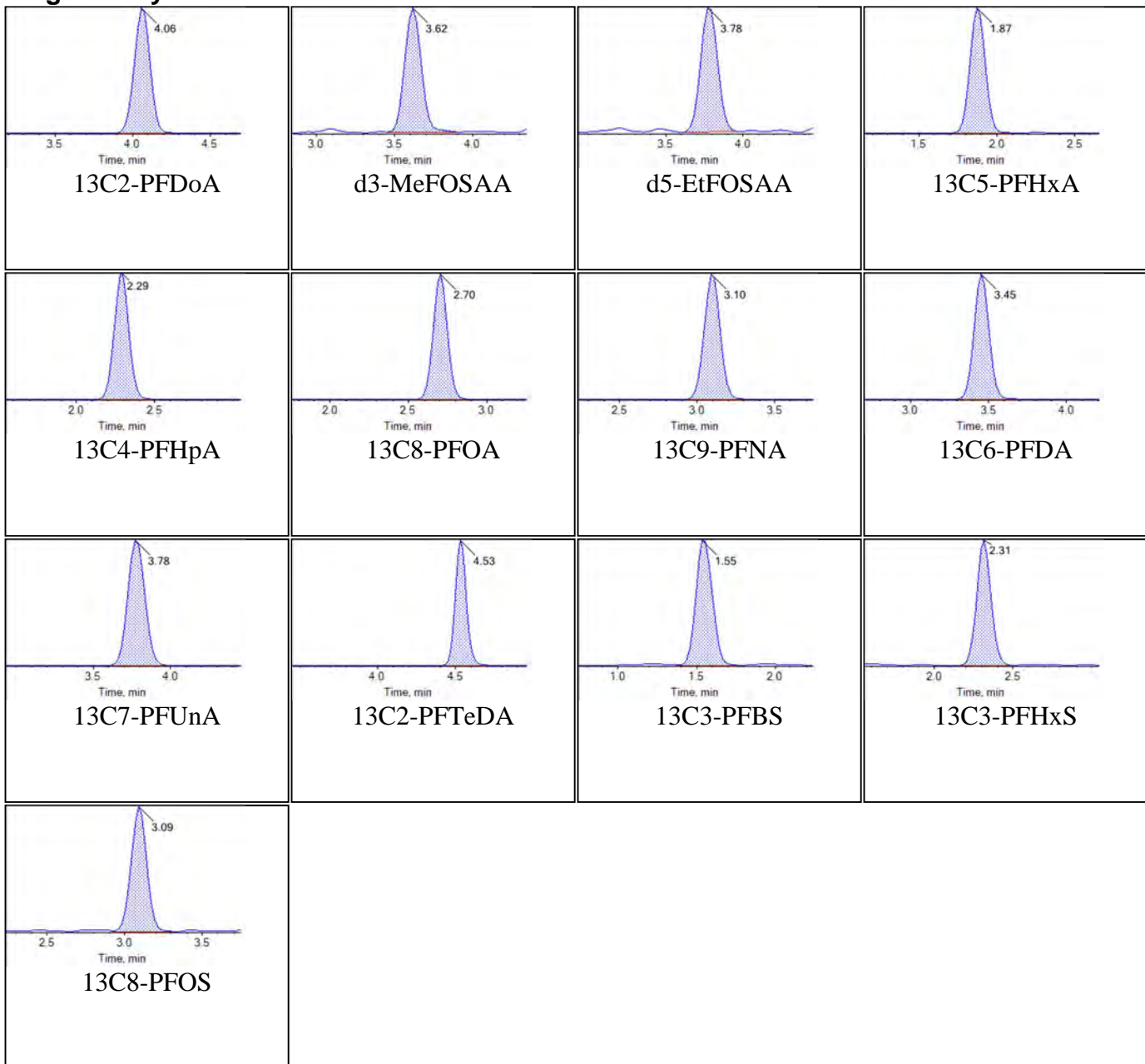
Internal Standards:



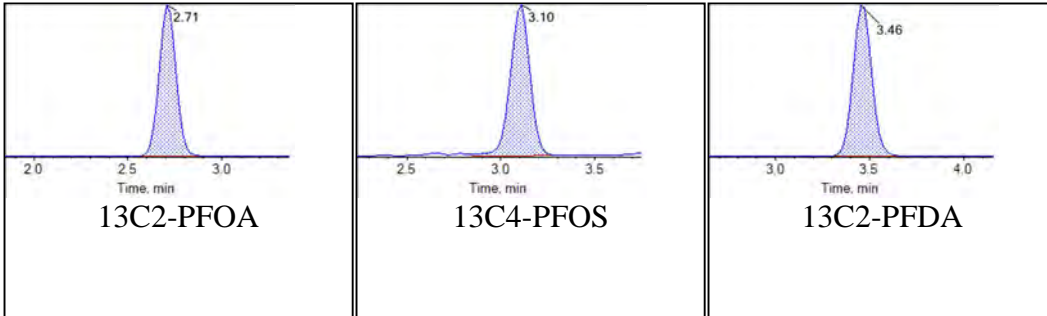
Sample Name	KC69	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T12:14:12	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



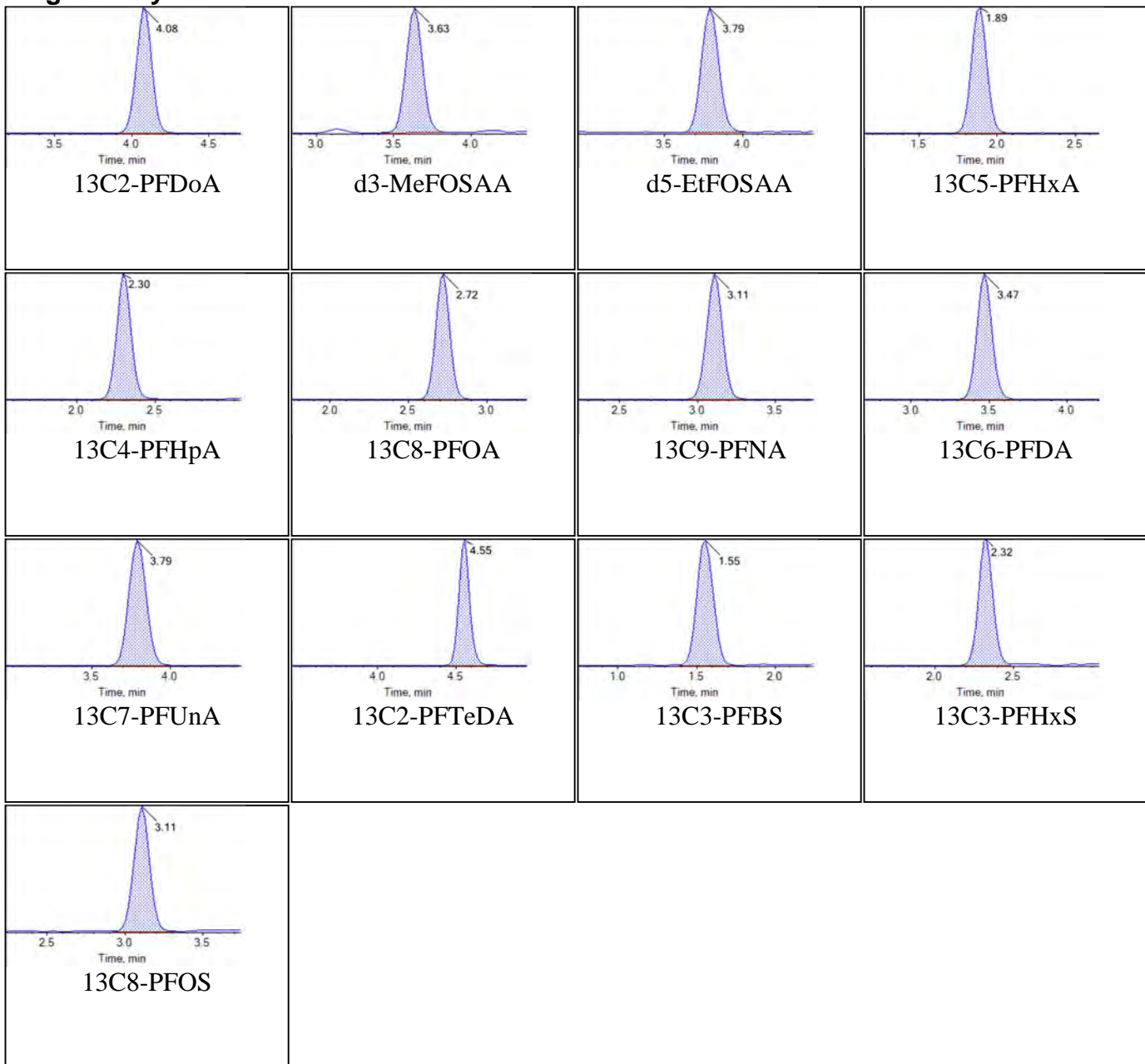
Internal Standards:



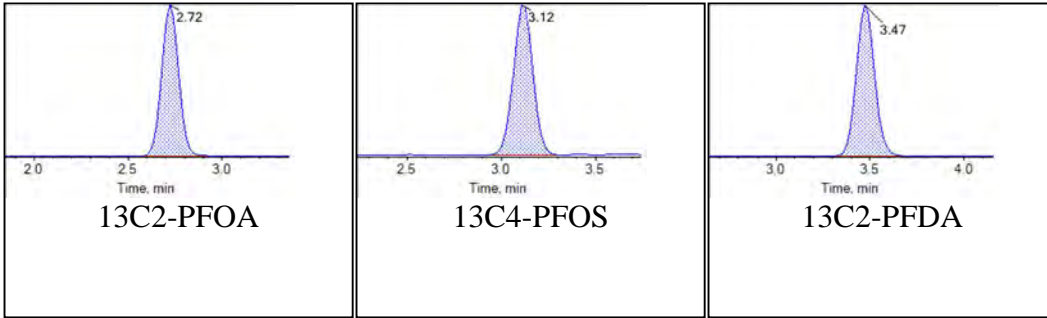
Sample Name	KC68	Injection Vial	4
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T14:11:09	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



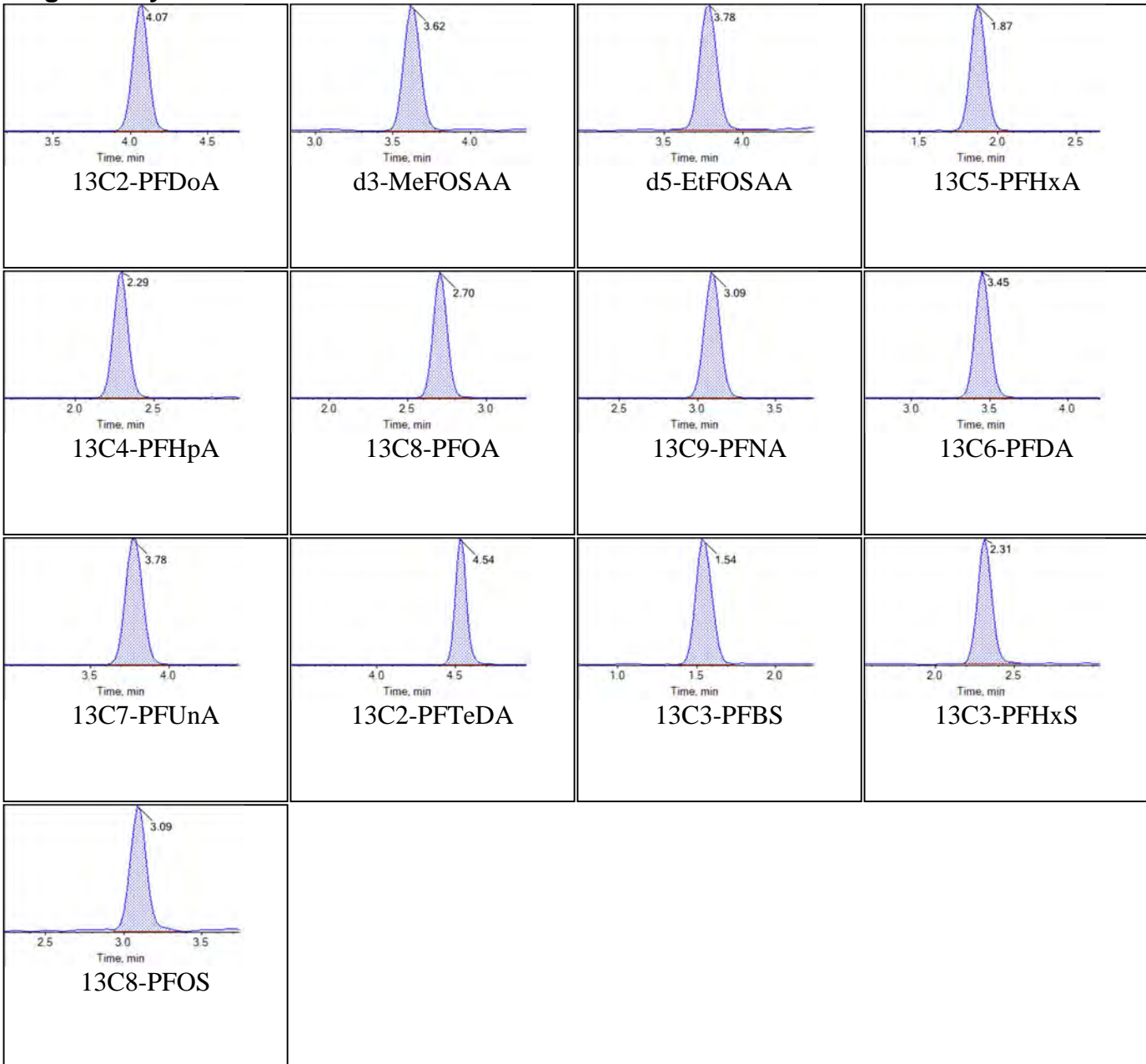
Internal Standards:



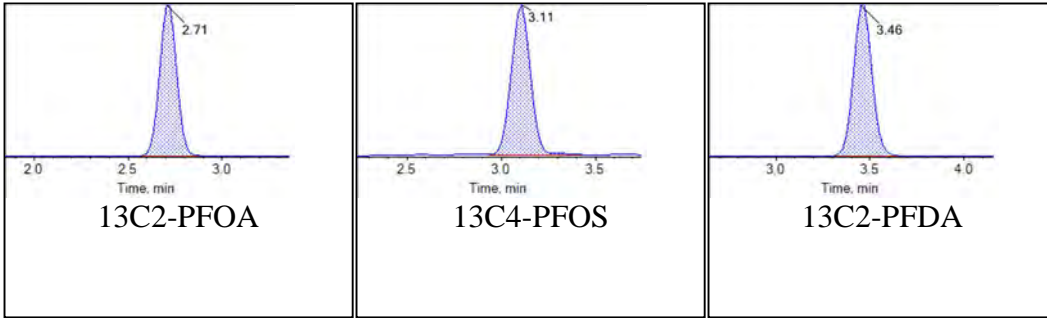
Sample Name	J9415MS-FS-D(9)	Injection Vial	15
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T15:50:29	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



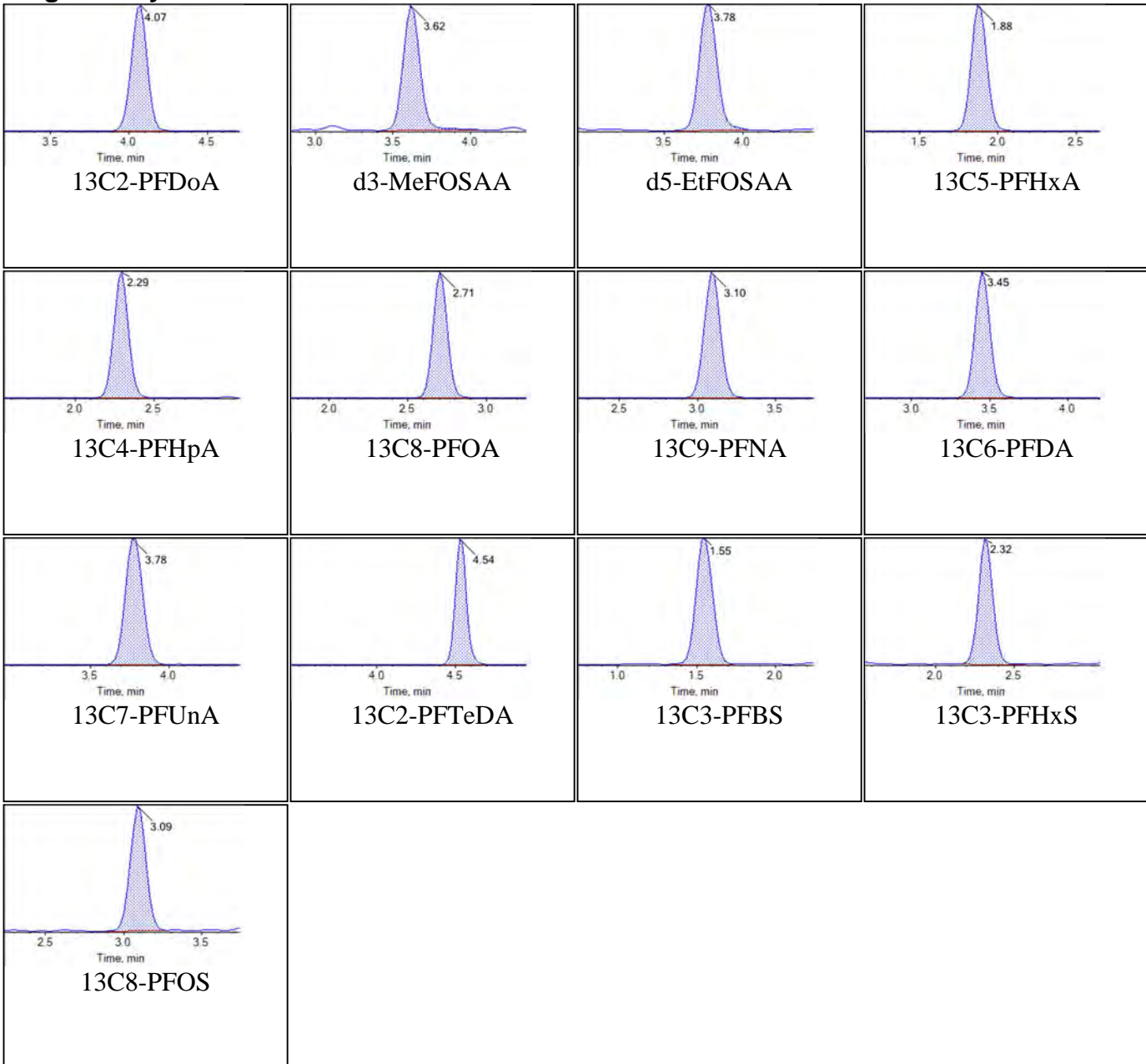
Internal Standards:



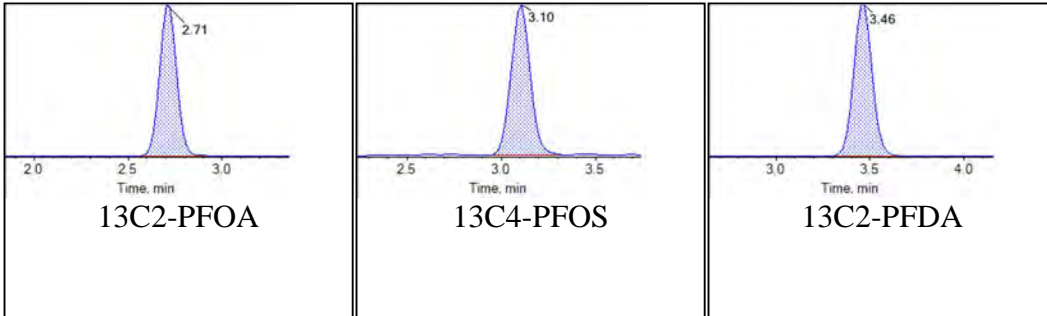
Sample Name	KC69	Injection Vial	16
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-27T16:01:22	Data File	AC_11272018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



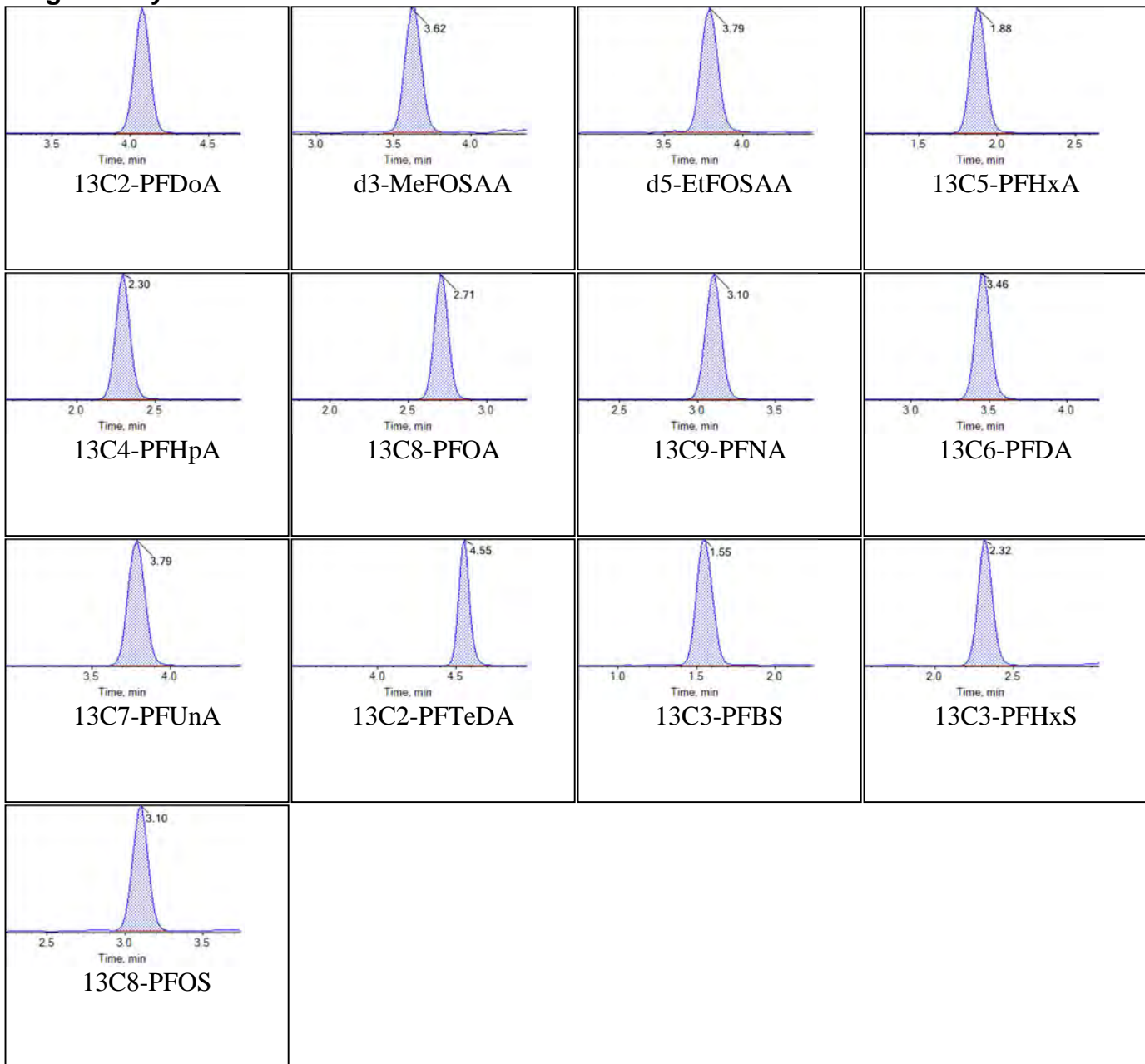
Internal Standards:



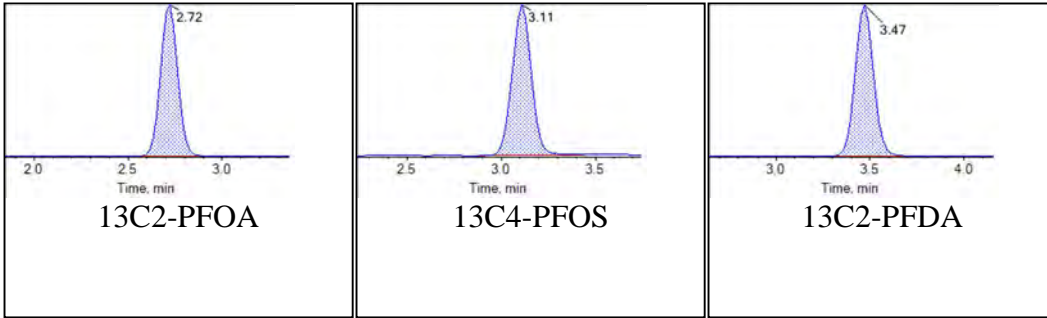
Sample Name	KC73 IB	Injection Vial	3
Sample ID	IB	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:04:50	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



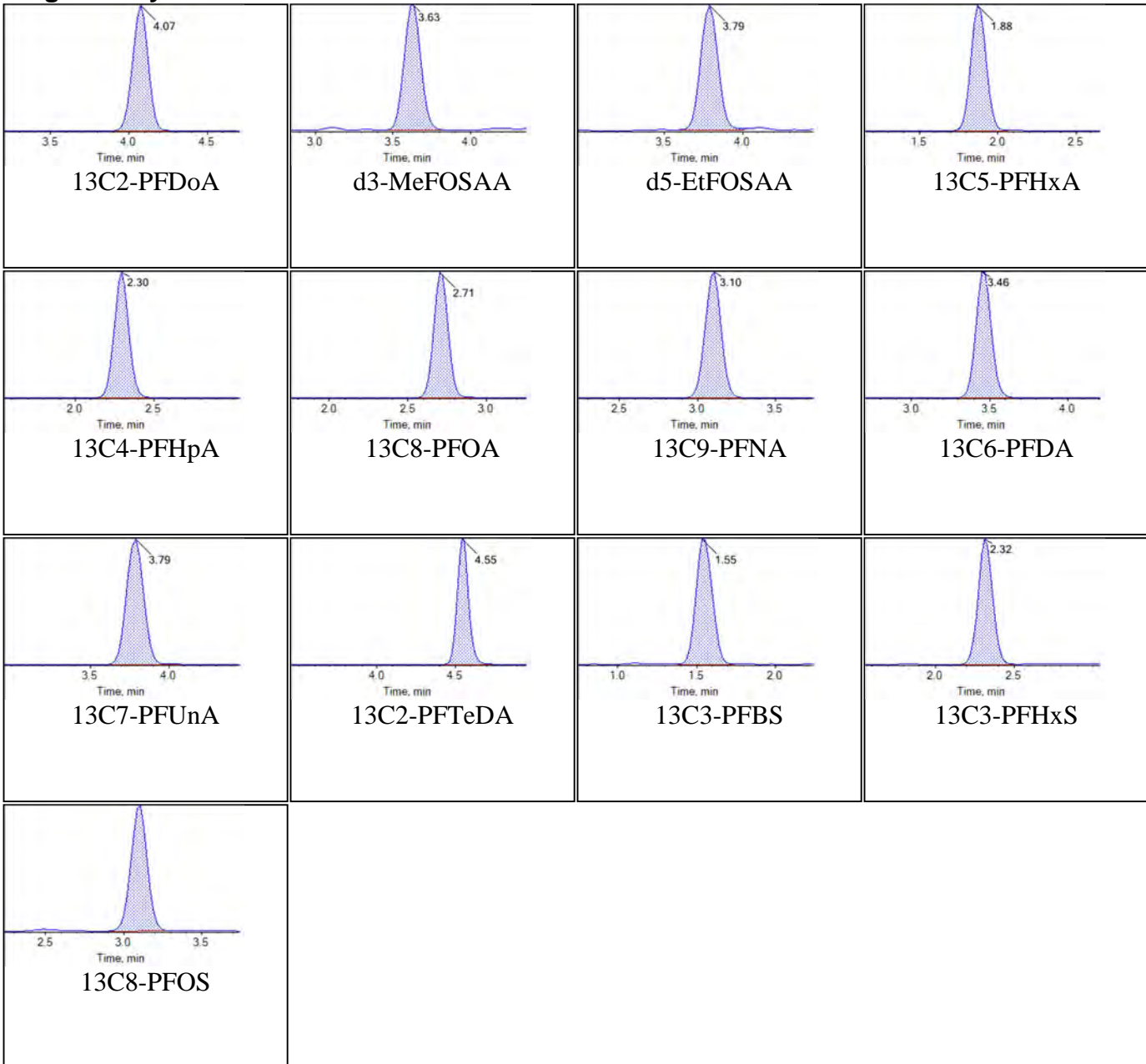
Internal Standards:



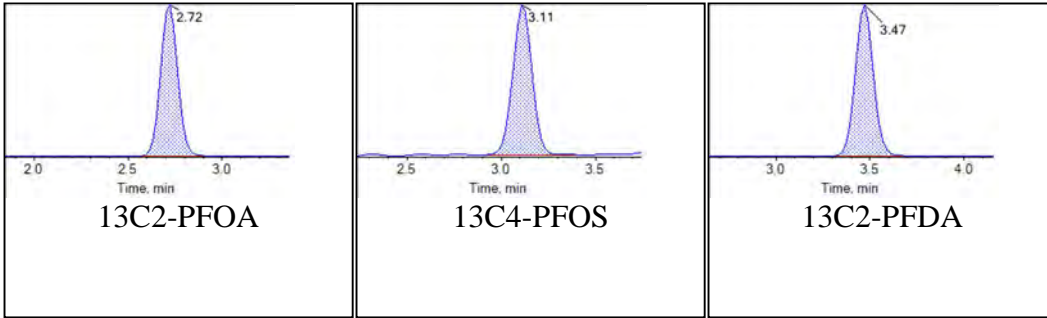
Sample Name	KC69 ISC	Injection Vial	4
Sample ID	ISC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:15:42	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



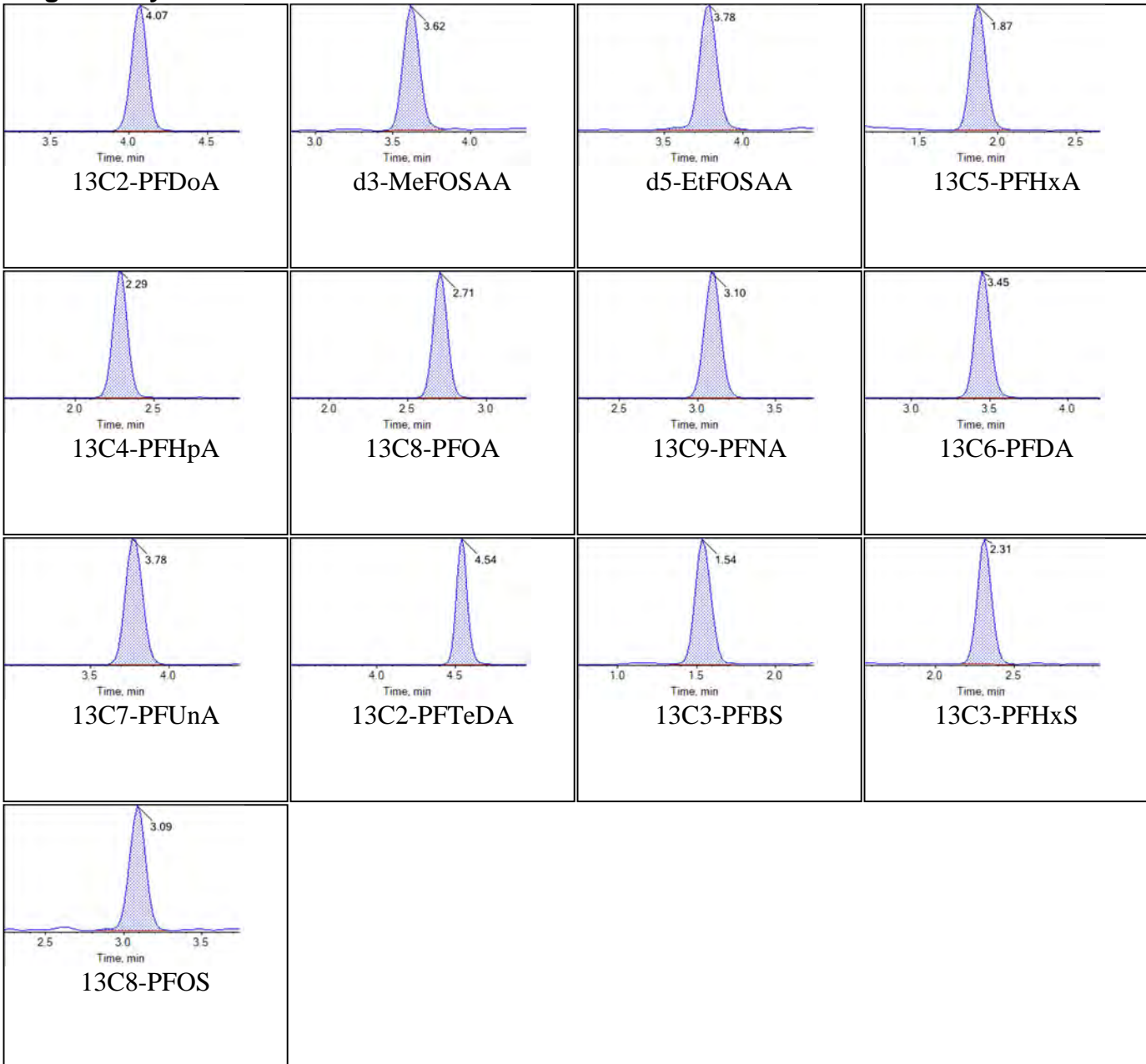
Internal Standards:



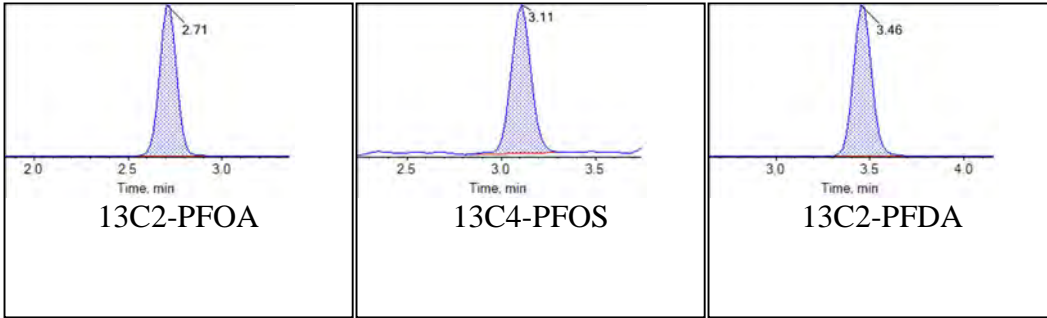
Sample Name	J9417-FS-D(13)	Injection Vial	5
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:26:35	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



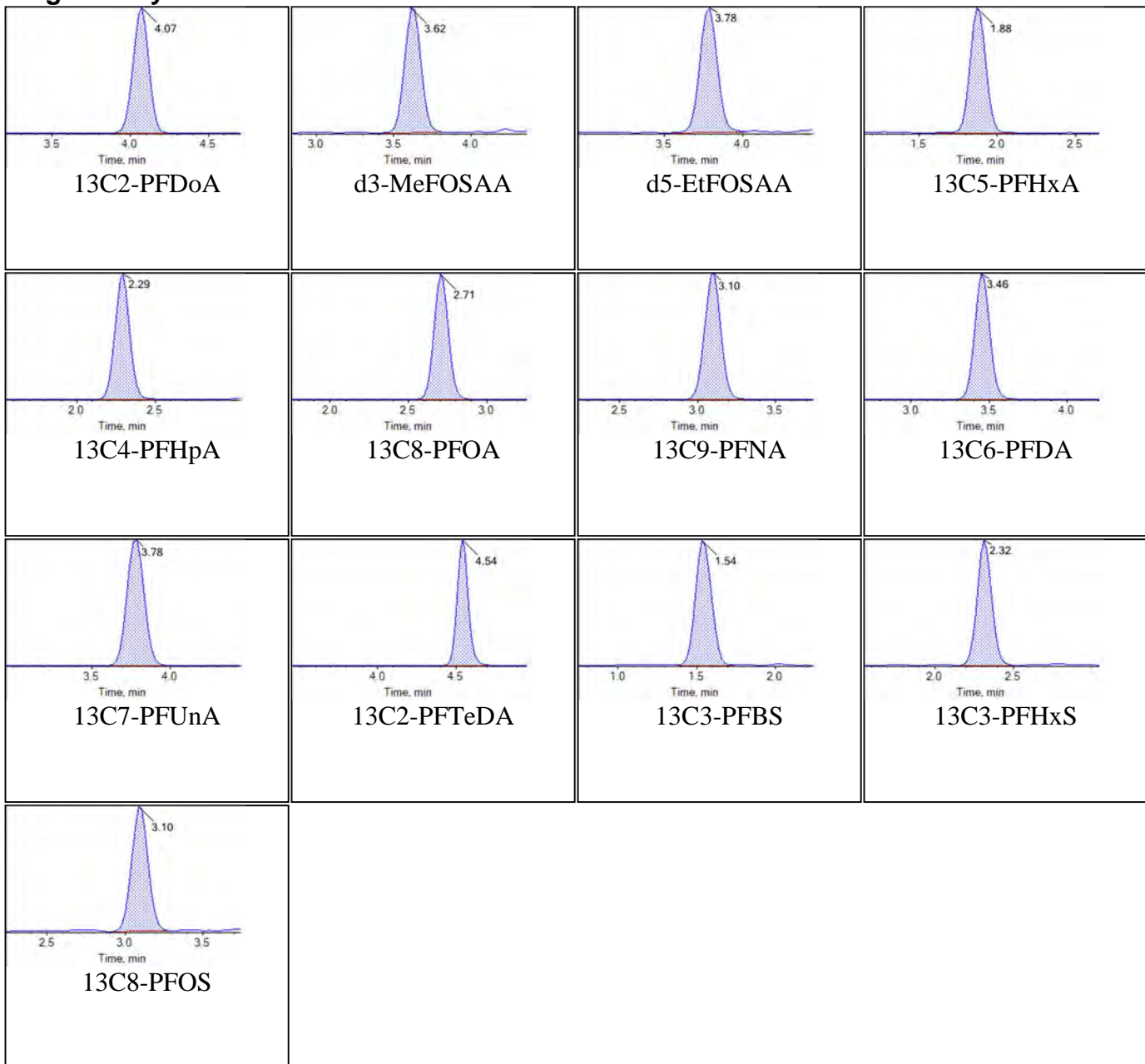
Internal Standards:



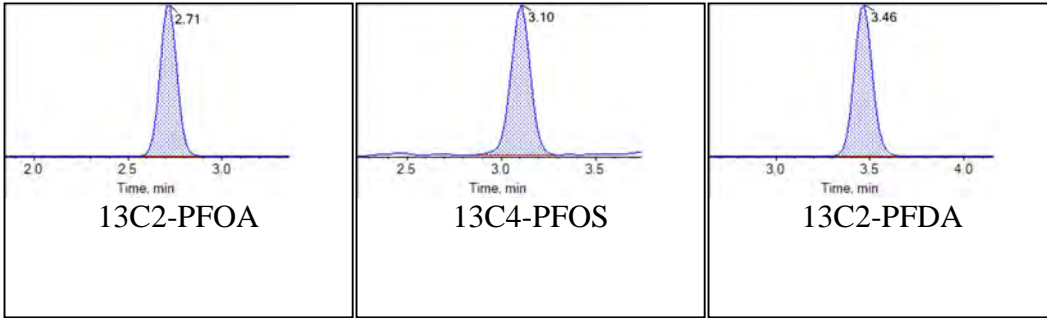
Sample Name	J9417-FS-D(15)	Injection Vial	6
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:37:28	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



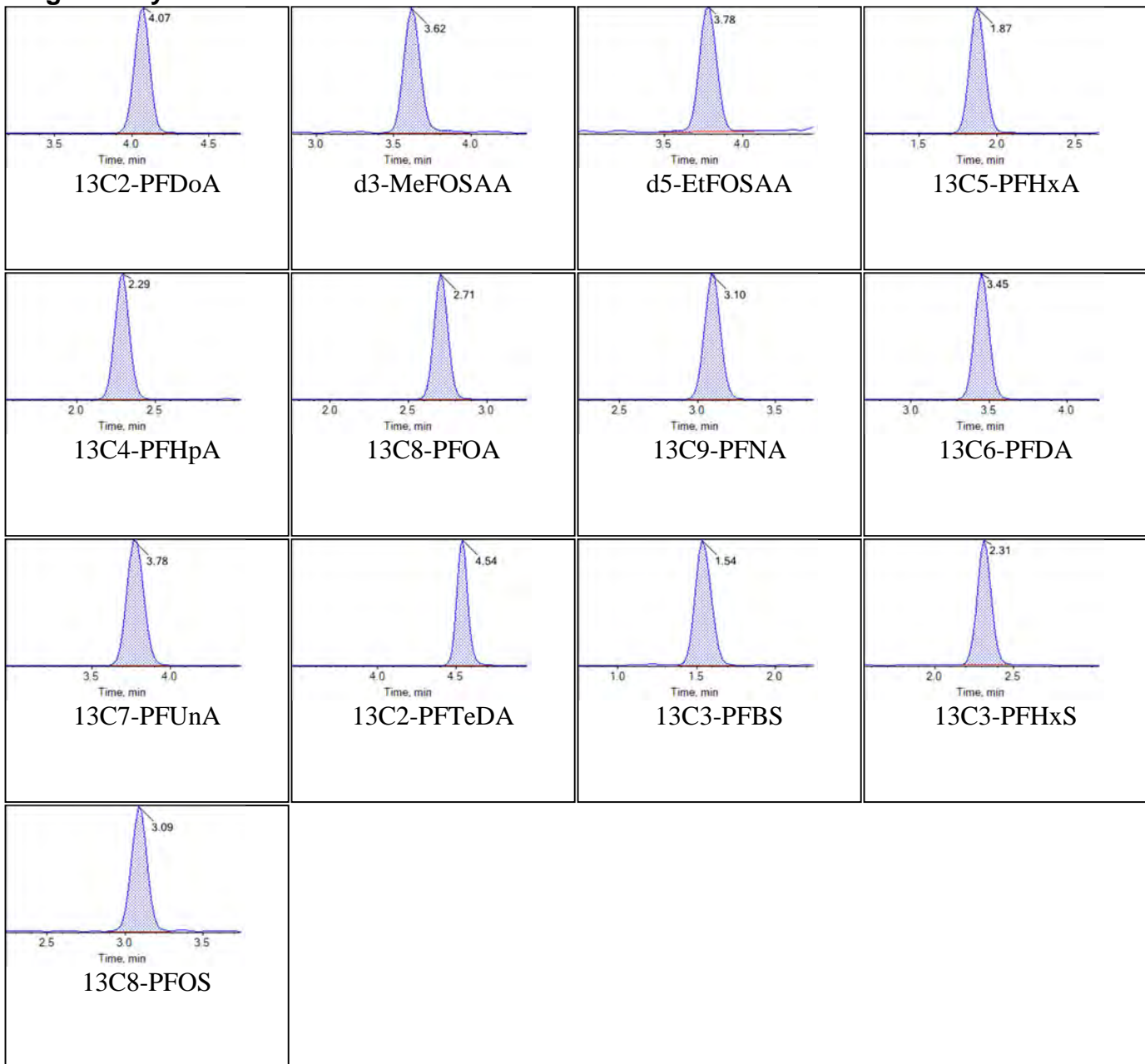
Internal Standards:



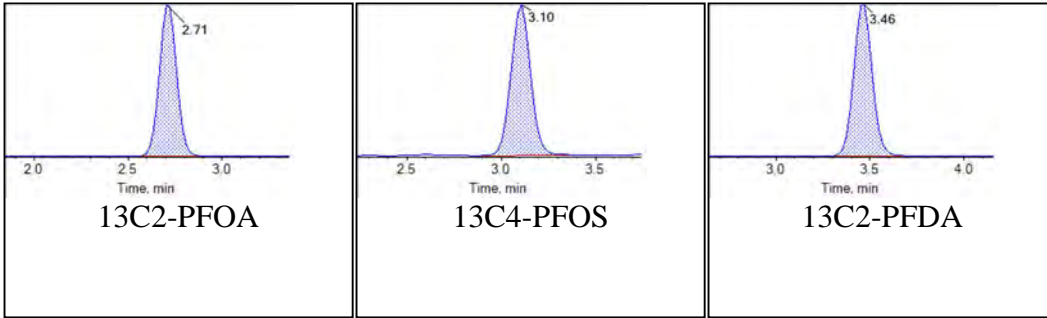
Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:48:21	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



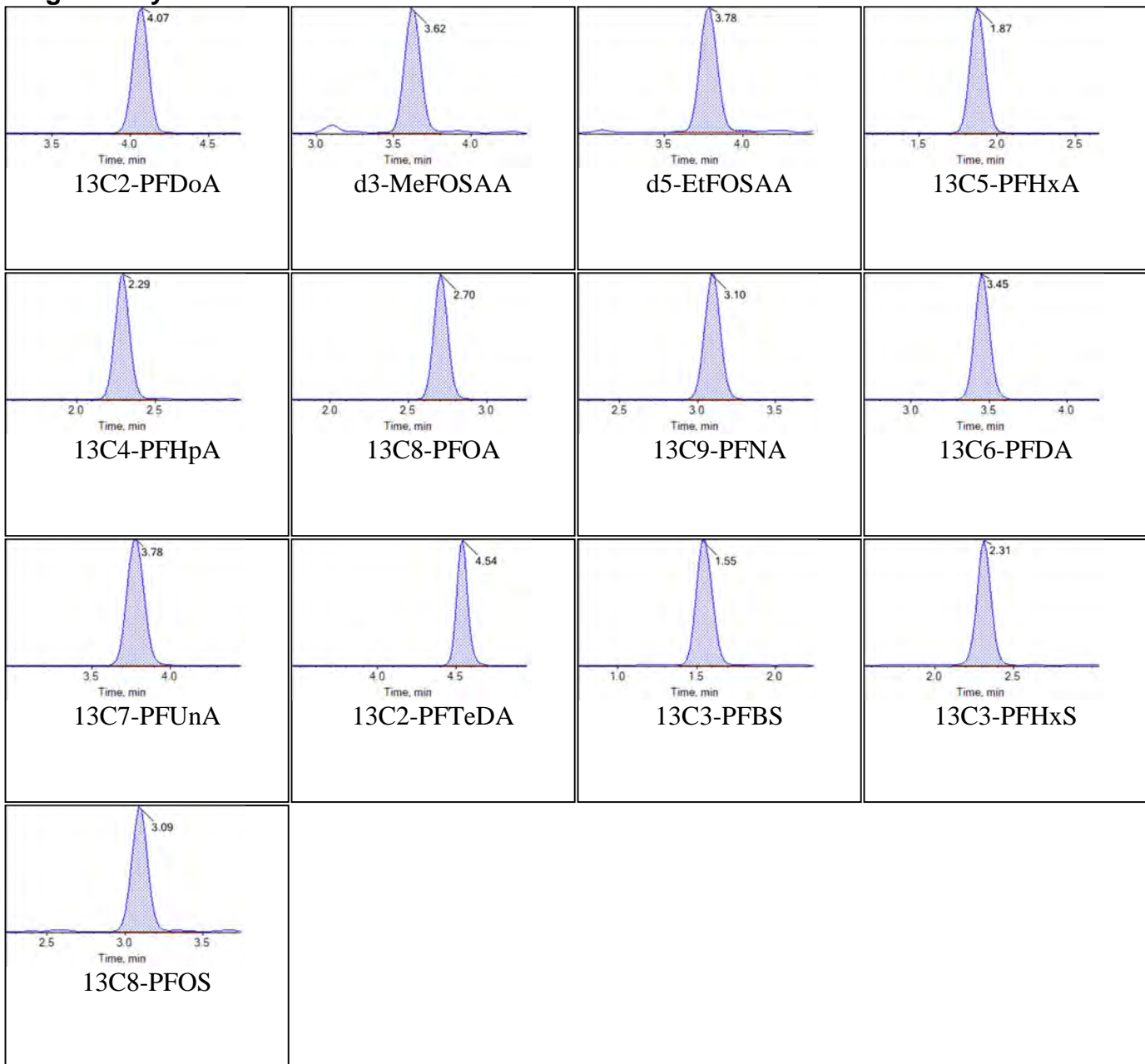
Internal Standards:



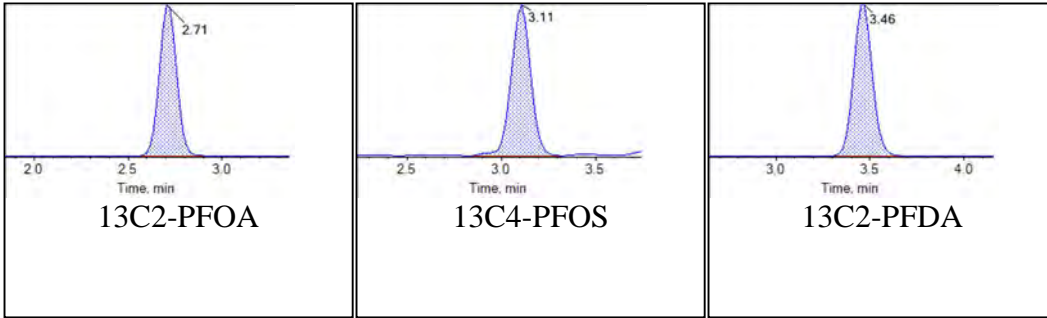
Sample Name	KC70	Injection Vial	8
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T10:59:11	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



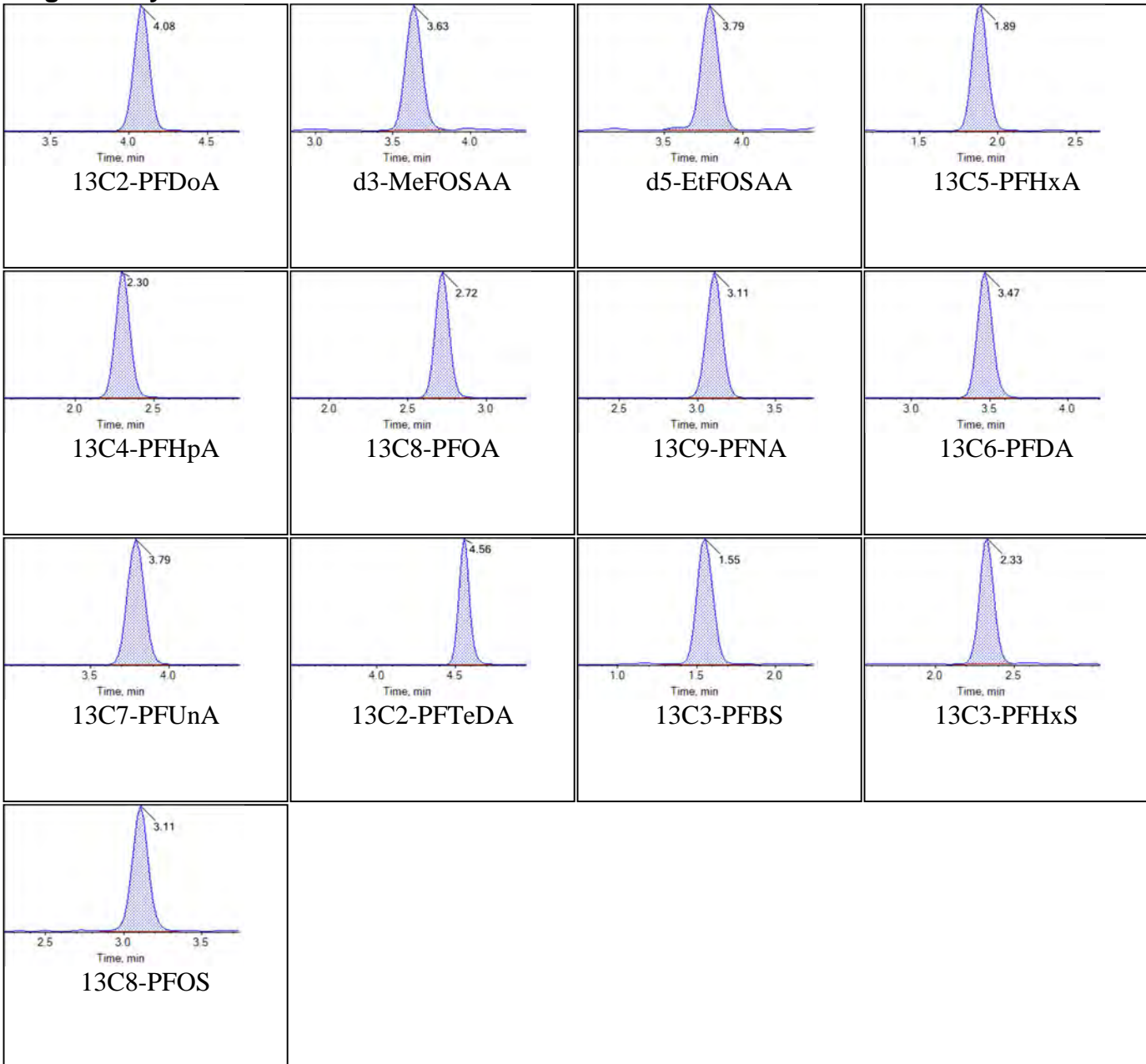
Internal Standards:



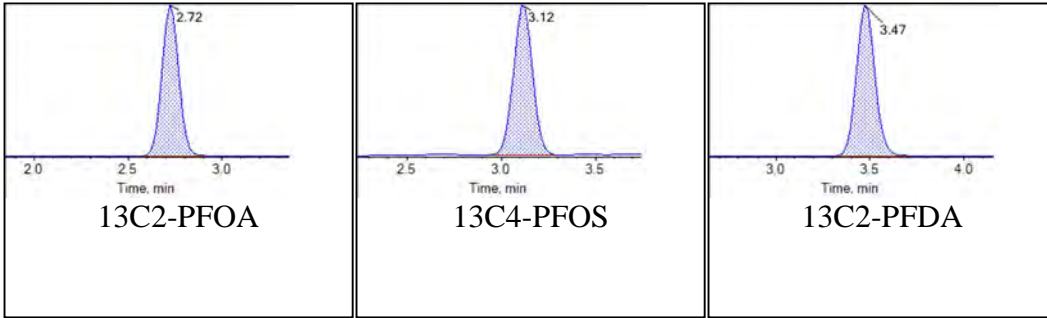
Sample Name	J9417-FS-D(17)	Injection Vial	7
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-28T12:13:10	Data File	AC_11282018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_SIS
Sample Comment			

Chromatograms

Target Analytes:



Internal Standards:



Unused Data

Sample Name	J9415MS-FS(0)	Injection Vial	35
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:29:18	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	22772166.85	74187.103	526.2	false
PFBS 2	298.9 / 99.0	1.55	6756506.69	74130.029	741.8	false
PFHxA 1	313.0 / 269.0	1.86	30389267.67	103358.435	278.7	false
PFHxA 2	313.0 / 119.0	1.87	2032047.35	92355.173	460.6	false
PFHpA 1	363.0 / 319.0	2.27	10718151.29	43046.369	339.3	false
PFHpA 2	363.0 / 169.0	2.27	208878.27	45349.318	456.4	false
PFHxS 1	399.0 / 80.0	2.30	99868314.36	326496.484	972.5	false
PFHxS 2	399.0 / 99.0	2.30	44034265.57	507607.172	1658.9	false
PFOA 1	413.0 / 369.0	2.68	17854588.36	61392.548	657.8	false
PFOA 2	413.0 / 169.0	2.67	891118.93	49123.988	621.6	true
PFNA 1	463.0 / 419.0	3.08	2349120.58	21902.983	391.2	false
PFNA 2	463.0 / 219.0	3.08	739022.92	22290.226	411.1	false
PFOS 1	499.0 / 80.0	3.00	192966910.90	963133.306	281.0	false
PFOS 2	499.0 / 99.0	3.08	103241652.88	3029427.674	3547.7	false
PFDA 1	513.0 / 469.0	3.43	6159830.88	18163.346	679.2	false
PFDA 2	513.0 / 219.0	3.43	259220.41	18860.242	517.1	false
PFUnA 1	563.0 / 519.0	3.76	5760876.29	18170.940	761.3	false
PFUnA 2	563.0 / 269.0	3.76	298298.22	19674.235	507.6	false
PFDoA 1	613.0 / 569.0	4.05	5672068.84	18014.546	1029.7	false
PFDoA 2	613.0 / 319.0	4.05	914319.86	17691.568	773.1	false
PFTrDA 1	663.0 / 619.0	4.29	6591497.85	21397.610	1508.0	false
PFTrDA 2	663.0 / 169.0	4.29	443733.74	22472.665	1155.4	false
PFTeDA 1	713.0 / 669.0	4.51	6238030.76	17822.834	2778.2	false
PFTeDA 2	713.0 / 169.0	4.50	306036.20	18124.899	1747.8	false
NMeFOSAA 1	570.0 / 419.0	3.59	845267.68	19268.295	942.5	false
NMeFOSAA 2	570.0 / 512.0	3.59	477669.87	20344.835	1106.0	false
NEtFOSAA 1	584.0 / 419.0	3.76	927257.11	19827.212	1284.2	false
NEtFOSAA 2	584.0 / 483.0	3.76	53552.87	18973.777	516.9	false

Sample Name	J9417-FS-D(3)	Injection Vial	46
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:28:51	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	5102778.95	11882.914	435.8	false
PFBS 2	298.9 / 99.0	1.55	1526760.91	11959.599	483.0	false
PFHxA 1	313.0 / 269.0	1.87	6315119.14	19929.837	205.8	false
PFHxA 2	313.0 / 119.0	1.87	409147.18	17234.747	247.7	false
PFHpA 1	363.0 / 319.0	2.28	1644694.01	5732.511	214.7	false
PFHpA 2	363.0 / 169.0	2.27	40134.24	7555.607	242.5	false
PFHxS 1	399.0 / 80.0	2.30	37483516.50	88444.465	1085.4	false
PFHxS 2	399.0 / 99.0	2.30	11334428.10	94296.215	1671.6	false
PFOA 1	413.0 / 369.0	2.68	2940286.33	8621.248	447.4	false
PFOA 2	413.0 / 169.0	2.67	157366.06	7360.016	395.2	true
PFNA 1	463.0 / 419.0	3.08	69406.47	293.926	110.0	false
PFNA 2	463.0 / 219.0	3.08	23773.38	325.267	141.3	false
PFOS 1	499.0 / 80.0	3.04	136438400.17	372619.485	1079.4	false
PFOS 2	499.0 / 99.0	3.08	33245636.50	533751.756	2938.3	false
PFDA 1	513.0 / 469.0	3.43	31060.30	46.242	80.7	false
PFDA 2	513.0 / 219.0	3.43	834.23	12.382	16.8	true
PFUnA 1	563.0 / 519.0	3.74	5447.85	< 0	24.4	true
PFUnA 2	563.0 / 269.0	3.78	511.25	< 0	14.8	true
PFDoA 1	613.0 / 569.0	4.04	2527.29	< 0	27.5	true
PFDoA 2	613.0 / 319.0	4.05	821.35	< 0	15.3	true
PFTrDA 1	663.0 / 619.0	4.27	2200.93	< 0	36.2	true
PFTrDA 2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA 1	713.0 / 669.0	4.50	895.66	< 0	26.1	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	3.75	1178.72	0.518	30.2	false
NEtFOSAA 2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J9417-FS-D(5)	Injection Vial	47
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:39:43	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	162691.29	420.568	171.7	false
PFBS 2	298.9 / 99.0	1.56	51217.91	430.273	198.0	false
PFHxA 1	313.0 / 269.0	1.87	197387.81	737.238	52.7	true
PFHxA 2	313.0 / 119.0	1.88	14282.76	692.792	38.9	true
PFHpA 1	363.0 / 319.0	2.28	61003.91	225.640	63.3	true
PFHpA 2	363.0 / 169.0	2.28	2270.99	464.734	46.7	false
PFHxS 1	399.0 / 80.0	2.30	1323073.64	3604.938	384.3	false
PFHxS 2	399.0 / 99.0	2.30	373313.90	3581.301	575.5	false
PFOA 1	413.0 / 369.0	2.69	153262.50	440.889	168.9	false
PFOA 2	413.0 / 169.0	2.68	8329.40	340.440	103.8	true
PFNA 1	463.0 / 419.0	3.09	9375.73	< 0	44.0	true
PFNA 2	463.0 / 219.0	3.07	3283.63	< 0	33.9	true
PFOS 1	499.0 / 80.0	3.08	9666152.12	18133.128	620.4	false
PFOS 2	499.0 / 99.0	3.08	1664118.20	18312.299	1013.4	false
PFDA 1	513.0 / 469.0	3.44	8964.29	< 0	50.9	false
PFDA 2	513.0 / 219.0	3.43	808.86	15.377	13.6	false
PFUnA 1	563.0 / 519.0	3.76	1224.34	< 0	10.5	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.04	787.48	< 0	14.4	true
PFDoA 2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA 1	663.0 / 619.0	4.28	328.52	< 0	16.7	true
PFTrDA 2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA 1	713.0 / 669.0	4.49	720.41	< 0	28.0	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

Sample Name	J9417-FS-D(7)	Injection Vial	48
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:50:35	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	803207.03	2321.100	310.9	false
PFBS 2	298.9 / 99.0	1.55	245656.28	2374.843	326.7	false
PFHxA 1	313.0 / 269.0	1.87	912276.90	3581.850	107.1	false
PFHxA 2	313.0 / 119.0	1.88	59190.58	3082.247	88.3	false
PFHpA 1	363.0 / 319.0	2.28	269794.99	1159.942	130.7	false
PFHpA 2	363.0 / 169.0	2.27	6399.72	1477.734	93.4	false
PFHxS 1	399.0 / 80.0	2.30	6237735.09	18954.093	786.8	false
PFHxS 2	399.0 / 99.0	2.30	1722666.56	18451.433	1145.8	false
PFOA 1	413.0 / 369.0	2.68	567048.54	1840.519	315.3	false
PFOA 2	413.0 / 169.0	2.67	28633.59	1446.418	185.5	true
PFNA 1	463.0 / 419.0	3.08	17470.94	31.270	60.4	false
PFNA 2	463.0 / 219.0	3.08	7515.98	53.198	81.8	false
PFOS 1	499.0 / 80.0	3.08	41422352.07	92655.922	923.6	false
PFOS 2	499.0 / 99.0	3.08	7233531.57	95083.659	2417.6	false
PFDA 1	513.0 / 469.0	3.43	14356.29	9.489	77.0	false
PFDA 2	513.0 / 219.0	3.47	1117.92	38.553	17.4	false
PFUnA 1	563.0 / 519.0	3.75	2885.04	< 0	19.2	true
PFUnA 2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA 1	613.0 / 569.0	4.05	1497.43	< 0	19.5	true
PFDoA 2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTTrDA 1	663.0 / 619.0	4.29	703.74	< 0	20.0	true
PFTTrDA 2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA 1	713.0 / 669.0	4.50	585.30	< 0	21.7	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

Sample Name	J9415MS-FS(0)	Injection Vial	35
Sample ID	AS4141-EFF1-18D-MS	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-21T23:29:18	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	98543.121	166.149	942.9	false
d3-MeFOSAA	573.0 / 419.0	3.59	12464.965	587.368	118.4	false
d5-EtFOSAA	589.0 / 419.0	3.75	12727.577	608.281	169.8	false
13C5-PFHxA	318.0 / 273.0	1.85	80293.905	218.045	154.6	false
13C4-PFHpA	367.0 / 322.0	2.26	82258.171	204.662	390.3	false
13C8-PFOA	421.0 / 376.0	2.68	77028.118	174.272	636.8	false
13C9-PFNA	472.0 / 427.0	3.07	32765.225	70.652	308.7	false
13C6-PFDA	519.0 / 474.0	3.42	94497.134	175.680	912.0	false
13C7-PFUnA	570.0 / 525.0	3.74	83629.408	167.549	507.7	false
13C2-PFTeDA	715.0 / 670.0	4.50	86663.229	165.631	1305.0	false
13C3-PFBS	302.0 / 99.0	1.53	27800.584	564.495	227.5	false
13C3-PFHxS	402.0 / 99.0	2.29	23235.045	528.784	225.2	false
13C8-PFOS	507.0 / 99.0	3.07	11004.906	251.751	113.4	false

Sample Name	J9417-FS-D(3)	Injection Vial	46
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:28:51	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	111283.545	201.507	1823.5	false
d3-MeFOSAA	573.0 / 419.0	3.59	14149.733	297.391	189.3	false
d5-EtFOSAA	589.0 / 419.0	3.74	19350.514	412.487	228.6	false
13C5-PFHxA	318.0 / 273.0	1.86	86400.412	254.065	268.2	false
13C4-PFHpA	367.0 / 322.0	2.27	94380.225	254.275	610.8	false
13C8-PFOA	421.0 / 376.0	2.68	90200.296	220.979	1255.4	false
13C9-PFNA	472.0 / 427.0	3.07	64423.522	150.425	669.0	false
13C6-PFDA	519.0 / 474.0	3.42	112748.610	225.114	1282.6	false
13C7-PFUnA	570.0 / 525.0	3.74	103079.172	221.789	637.1	false
13C2-PFTeDA	715.0 / 670.0	4.50	96213.951	197.483	1370.3	false
13C3-PFBS	302.0 / 99.0	1.53	38145.303	345.467	362.7	true
13C3-PFHxS	402.0 / 99.0	2.29	31793.736	322.727	252.7	false
13C8-PFOS	507.0 / 99.0	3.06	19619.159	200.182	145.1	false

Sample Name	J9417-FS-D(5)	Injection Vial	47
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:39:43	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	104206.306	200.870	1106.7	false
d3-MeFOSAA	573.0 / 419.0	3.59	14640.169	249.481	248.8	false
d5-EtFOSAA	589.0 / 419.0	3.75	15467.289	267.328	243.9	false
13C5-PFHxA	318.0 / 273.0	1.86	69545.738	203.250	643.0	false
13C4-PFHpA	367.0 / 322.0	2.27	79408.319	212.628	1586.7	false
13C8-PFOA	421.0 / 376.0	2.68	89163.076	217.100	1597.0	false
13C9-PFNA	472.0 / 427.0	3.07	93196.675	216.276	348855.4	false
13C6-PFDA	519.0 / 474.0	3.42	103252.192	219.458	1144.4	false
13C7-PFUnA	570.0 / 525.0	3.74	94773.824	217.079	1064.8	false
13C2-PFTeDA	715.0 / 670.0	4.50	93127.662	203.485	2328.3	false
13C3-PFBS	302.0 / 99.0	1.54	33037.083	242.593	343.5	false
13C3-PFHxS	402.0 / 99.0	2.29	27528.009	226.559	309.1	false
13C8-PFOS	507.0 / 99.0	3.07	29264.219	242.099	258.3	false

Sample Name	J9417-FS-D(7)	Injection Vial	48
Sample ID	AS4141-EFF1D-18D	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-11-22T01:50:35	Data File	AC_11212018_5-369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0686_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	101655.455	202.472	1580.6	false
d3-MeFOSAA	573.0 / 419.0	3.59	14258.510	256.825	229.8	false
d5-EtFOSAA	589.0 / 419.0	3.75	13398.526	244.771	175.3	false
13C5-PFHxA	318.0 / 273.0	1.86	68847.274	210.566	480.0	false
13C4-PFHpA	367.0 / 322.0	2.27	75058.734	210.327	1060.1	false
13C8-PFOA	421.0 / 376.0	2.68	80982.797	206.352	2446.6	false
13C9-PFNA	472.0 / 427.0	3.07	79780.069	193.751	524404.4	false
13C6-PFDA	519.0 / 474.0	3.42	99833.641	219.252	1912.5	false
13C7-PFUnA	570.0 / 525.0	3.74	90841.284	214.994	633.6	false
13C2-PFTeDA	715.0 / 670.0	4.50	86716.575	195.781	1550.2	false
13C3-PFBS	302.0 / 99.0	1.54	31009.822	240.685	272.4	false
13C3-PFHxS	402.0 / 99.0	2.29	24741.387	215.230	259.3	false
13C8-PFOS	507.0 / 99.0	3.07	24174.668	211.392	216.2	false

**DATA VALIDATION SUMMARY REPORT
MCB CAMP LEJEUNE RAPID REFUELER, NORTH CAROLINA**

Client: CH2M HILL, Inc., Herndon, Virginia
 SDG: 18-0686
 Laboratory: Battelle Norwell Operations, Norwell, Massachusetts
 Site: MCB Camp Lejeune Rapid Refueler, CTO-5655, North Carolina
 Date: December 2, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	AS4141-EFF1-18D	J9414-FS	Water
1MS	AS4141-EFF1-18DMS	J9415-FSMS	Water
1MSD	AS4141-EFF1-18DMSD	J9416-FSMSD	Water
2	AS4141-EFF1D-18D	J9417-FS	Water
3	AS4141-FB-111618	J9420-FS	Water

A Stage 3 data validation was performed on the analytical data for two water samples and one aqueous field blank sample collected on November 15-16, 2018 by CH2M HILL at the MCB Camp Lejeune Rapid Refueler site in North Carolina. 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
PFCs

Method References
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 DoD Final General Data Validation Guidelines, February 2018, the Final Sampling and Analysis Plan Underground Storage Tank Sites Rapid Refueler and AS-4141 Treatment Systems Per- and Polyfluoroalkyl Substances Investigation, October 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 Stage 3 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. There were no qualifications.

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) and RRF criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- Field QC samples were free of contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
AS4141-FB-111618	PFOA	1.21	None	All Associated >10X

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable %R and RPD values except for the following.

EDS Sample ID	Compound	MS %R/MSD %R/RPD	Qualifier
1	PFHxA	0%/27%/200	None - 4X Rule Applies
	PFBS	9%/OK/165.0	
	PFHxS	0%/0%/NC	
	PFOS	4458%/1284%/110.6	
	2 Compounds	OK/OK/High	None for RPD alone

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

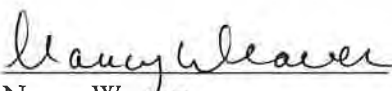
- Several samples were analyzed at various dilutions due to high concentrations of target compounds. The reporting limits were adjusted accordingly. No action was required.

Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision was acceptable.

Compound	AS4141-EFF1-18D ng/L	AS4141-EFF1D-18D ng/L	RPD	Qualifier
PFHxA	380.50	342.54	11%	None
PFHpA	108.28	107.87	0%	
PFOA	163.95	154.06	6%	
PFNA	5.45	6.02	10%	
PFDA	0.64	0.96	40%	None - <5X LOQ
PFBS	219.28	216.49	1%	None
PFHxS	1731.41	1795.05	4%	
PFOS	7178.57	7318.07	2%	

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: 
Nancy Weaver
Senior Chemist

Dated: 12/31/18

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

Client ID		AS4141-EFF1-18D			
Battelle ID		J9414-FS			
Sample Type		SA			
Collection Date		11/15/2018			
Extraction Date		11/20/2018			
Analysis Date		11/21/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		W			
Sample Size		0.270			
Size Unit-Basis		L			
Units		ng/L	MDL	LOD	LOQ
PFHxA	307-24-4	380.50 D	4.40	11.57	115.74
PFHpA	375-85-9	108.28 D	0.74	2.31	23.15
PFOA	335-67-1	163.95 D	0.83	2.31	23.15
PFNA	375-95-1	5.45	0.24	0.93	4.63
PFDA	335-76-2	0.64 J	0.15	0.46	4.63
PFUnA	2058-94-8	0.93 U	0.27	0.93	4.63
PFDaA	307-55-1	0.46 U	0.17	0.46	4.63
PFTeDA	72629-94-8	0.46 U	0.14	0.46	4.63
PFTeDA	376-06-7	0.93 U	0.23	0.93	4.63
NMeFOSAA	2355-31-9	1.85 U	0.52	1.85	4.63
NEtFOSAA	2991-50-6	0.93 U	0.45	0.93	4.63
PFBS	375-73-5	219.28 D	3.01	11.57	115.74
PFHxS	355-46-4	1731.41 D	2.55	9.26	115.74
PFOS	1763-23-1	7178.57 D	21.99	57.87	578.70

Surrogate Recoveries (%)

13C5-PFHxA	80 D
13C4-PFHpA	96 D
13C8-PFOA	78 D
13C9-PFNA	79 D
13C6-PFDA	86
13C7-PFUnA	85
13C2-PFDaA	73
13C2-PFTeDA	75
d3-MeFOSAA	77 D
d5-EtFOSAA	96 D
13C3-PFBS	111 D
13C3-PFHxS	97 D
13C8-PFOS	81 D



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

2

Client ID	AS4141-EFF1D-18D				
Battelle ID	J9417-FS				
Sample Type	SA				
Collection Date	11/15/2018				
Extraction Date	11/20/2018				
Analysis Date	11/22/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	NA				
Matrix	W				
Sample Size	0.280				
Size Unit-Basis	L				
Units	ng/L	MDL	LOD	LOQ	
PFHxA	307-24-4	342.54 D	4.24	11.16	111.61
PFHpA	375-85-9	107.87 D	0.71	2.23	22.32
PFOA	335-67-1	154.06 D	0.80	2.23	22.32
PFNA	375-95-1	6.02	0.23	0.89	4.46
PFDA	335-76-2	0.96 J	0.14	0.45	4.46
PFUnA	2058-94-8	0.89 U	0.26	0.89	4.46
PFDoA	307-55-1	0.45 U	0.16	0.45	4.46
PFTeDA	72629-94-8	0.45 U	0.13	0.45	4.46
PFTeDA	376-06-7	0.89 U	0.22	0.89	4.46
NMeFOSAA	2355-31-9	1.79 U	0.50	1.79	4.46
NEtFOSAA	2991-50-6	0.89 U	0.44	0.89	4.46
PFBS	375-73-5	216.49 D	0.58	2.23	22.32
PFHxS	355-46-4	1795.05 D	2.46	8.93	111.61
PFOS	1763-23-1	7318.07 D	21.21	55.80	558.04

Surrogate Recoveries (%)

13C5-PFHxA	90 D
13C4-PFHpA	100 D
13C8-PFOA	88 D
13C9-PFNA	87 D
13C6-PFDA	89
13C7-PFUnA	88
13C2-PFDoA	79
13C2-PFTeDA	77
d3-MeFOSAA	111 D
d5-EtFOSAA	117 D
13C3-PFBS	147 D
13C3-PFHxS	92 D
13C8-PFOS	102 D



Project Client: CH2M
 Project Name: CTO-5655: Marine Corps Base Camp Lejeune PFAS Analysis
 Project No.: 100120725-CTO5655

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Client ID	AS4141-FB-111618				
Battelle ID	J9420-FS				
Sample Type	SA				
Collection Date	11/16/2018				
Extraction Date	11/20/2018				
Analysis Date	11/21/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	NA				
Matrix	W				
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	1.21 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
PFOxA	2058-94-8	0.91 U	0.26	0.91	4.55
PFOA	307-55-1	0.45 U	0.16	0.45	4.55
PFTeDA	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	0.45 U	0.17	0.45	4.55

Surrogate Recoveries (%)

13C5-PFHxA	86
13C4-PFHpA	91
13C8-PFOA	97
13C9-PFNA	91
13C6-PFDA	90
13C7-PFOxA	98
13C2-PFOA	82
13C2-PFTeDA	81
d3-MeFOSAA	82
d5-EtFOSAA	91
13C3-PFBS	81
13C3-PFHxS	83
13C8-PFOS	86